

The Determinants of Equity

Identifying Indicators to Establish a Baseline of Equity in
King County



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Executive Summary

King County has a vibrant history of working to improve equity and social justice (ESJ). Leadership commitment to ESJ began during the 1990s and gained momentum in the mid 2000's when the County was renamed after Martin Luther King, Jr. In 2008, County Executive Ron Sims launched the Equity and Social Justice (ESJ) Initiative. Executive Dow Constantine and the Metropolitan King County Council further promoted the initiative in 2010 with an ordinance that codified the "fair and just" principle and named 14 Determinants of Equity.¹

It is becoming more widely recognized that King County residents do not enjoy the same health, resources, and opportunities because of their race and where they live. Inequity threatens the region's ability to remain globally competitive. From this recognition of inequity, a critical question has emerged for the County: *how do we know if we are progressing towards a fair and just community?* Identifying key indicators, aligning with community partners, and incorporating statistical approaches to develop a community-scale equity baseline are vital to understanding regional progress. This Determinants of Equity report describes preliminary indicators as a starting point for creating a baseline of equity conditions in King County. With agreed-upon indicator data, this type of baseline effort will help guide the allocation of limited resources, inform the degree to which ESJ efforts are having the intended effect, and support course correction so efforts can achieve positive change.

As an initial first step toward the creation of a community-scale equity baseline, the Determinants of Equity Baseline Project commenced in July 2014 with the intent of using measurement to deepen the understanding of equity across King County. The project identified existing data sources to measure the status of 13 of the 14 Determinants of Equity in the County. Research on the determinant "*Equity in County Practices*" was omitted from this project because the steering committee agreed this determinant was outside the project scope. There are several other parts of the organization already working to advance internal ESJ, including a group specifically focused on addressing equity in workforce and workplace issues.

Each of the 13 determinants was analyzed by identifying key words and phrases in the definition included in King County Ordinance 16948. Once the key words and phrases were selected, the research team found data sources that could provide potential measures. In conjunction with gathering data from common sources like the U.S. Census, currently utilized equity measures were identified through conducting 31 semi-structured interviews with individuals internal and external to King County government. In addition, peer jurisdictions and practitioners in the field were consulted to learn more about the use of equity measures nationally and internationally. Finally, the team convened a steering committee of performance management professionals within King County government for their expert input and advice on indicator selection.

As a result of this process, 67 community-level indicators were identified. Nearly all of the measures identified reinforce previous research findings that race, place, and income impact quality of life for residents of King County. People of color, those who have limited English proficiency and who are low-income persistently face inequities in key educational, economic, and health outcomes.

¹ See table of contents or figure 1 for determinants list.

This research highlights that work to reduce disparities in the county need to be strengthened by additional strategies and coordination across all parts of the community. Further defining the ESJ strategic priorities through internal and community engagement will help identify priority issues, and should result in a dashboard of indicators to be used for communication and tracking progress over time. Community-level ESJ indicators identified in this report are an initial step at capturing the landscape of equity across King County. The goal of this work is to begin driving future policy, products, and services using data to inform strategies and decision making. Although there is still more work to be done to advance performance measurement in ESJ work, this report provides an initial framework for equity measurement in King County.

Figure 1: Determinants of Equity Poster²



² Determinants of Equity Poster

Introduction

Dedication to Equity and Social Justice (ESJ) has a vibrant history in King County. Examples of this commitment began surfacing in King County government during the 1990s and gained momentum in the mid 2000's when the County was renamed after Martin Luther King, Jr. In the wake of the 2006 [Dellums Commission Report](#) which identified six domains of public policy that disproportionately impact men of color, and the [Place Matters](#) initiative that supported local multi-disciplinary teams to impact the social determinants of health, County Executive Ron Sims launched the Equity and Social Justice (ESJ) Initiative in 2008. Executive Dow Constantine and the Metropolitan King County Council further promoted the initiative in 2010 when they codified the “fair and just” principal in Ordinance 16948.³ This ordinance added “fair and just” to the King County strategic plan principals and named 14 Determinants of Equity. In a government that values performance management, a critical question has emerged: *how do we know if we are progressing towards a fair and just community?* The 2014 [ESJ Impact Analysis](#), an internal report, was developed to describe how well an ESJ lens was incorporated into the County's budget process.⁴ This report echoed the call from the King County Equity and Social Justice Inter-Branch Team (IBT) for establishing a measurement framework to evaluate ESJ outcomes, specifically recommending the development of ESJ performance measures and an ESJ strategic plan. In response, Executive Dow Constantine issued an [Executive Order](#) (ACO 9-2 (AEO)) that went into effect October 4, 2014. This document advances equity in several ways; one specific example is the call for the development of a countywide ESJ Strategic Innovation Plan (SIP). In addition, a similar ESJ motion is under consideration by the King County Council.

In light of this history, and building on previous work to measure ESJ, the Determinants of Equity Baseline Project commenced in July 2014 with the intent of using measurement to deepen the understanding of equity across King County. Originally the research team sought to establish a baseline of community equity conditions across King County by which future performance could be measured. However, the research team realized that first a compendium of indicators and data sources that could measure the determinants of equity was needed. Therefore, the project centered on identifying potential measures and underlying data that could be used to understand the landscape of 13 out of 14 determinants. Research on the determinant “*Equity in County Practices*” was omitted from this project. The steering committee agreed this determinant was outside the project scope because there are several other parts of the organization already working to advance internal ESJ, including a group specifically focused on addressing equity in workforce and workplace issues. The goal of this report is to share the catalog of community-level indicators and King County data to sketch the landscape of 13 Determinants of Equity.

Methodology

This project had two objectives: first, identify potential ESJ indicators that could be tracked over time and second, to use the identified indicators to provide a current baseline to describe the ESJ landscape in King County. The methods used to do this included: interviewing data informants (see [Appendix D](#)); researching peer jurisdictions & practitioners ([Appendix E](#)); gathering and analyzing data; convening a steering committee; and vetting the determinant indicators and data with county ESJ and measurement experts.

³ [Joint Center for Political and Economic Studies](#); Oleru, N.T. (2008) [King County Place Matters](#) presentation.

⁴ [Sambataro, A. \(2014\) *Equity and social justice impact analysis: Understanding and improving ESJ dialogue in the budget process.* King County.](#)

Interviews

The research team conducted 31 semi-structured interviews with individuals internal and external to King County government. The questions posed were intended to identify the types of socioeconomic and demographic data collected by various departments and organizations, the type of equity work that is occurring in the organization, and where staff saw the greatest opportunity for their organization to improve equity conditions. [Appendix F](#) contains the list of questions used to guide the conversation.

Data Gathering

Each determinant was analyzed by first identifying words or phrases in the ordinance definition that were descriptors of conditions that were critical for measurement. For example, the determinant of housing is defined as: “housing for all people that is safe, affordable, high quality and healthy.” In this determinant, the words safe/high quality, affordable, and healthy were selected for measurement. Once the measurable words and phrases were selected, the research team sought data to represent a valid measure. The overall goal was to find data that were valid measures of the key attribute, readily available and regularly reported. Furthermore an implicit assumption in this process was to locate existing data rather than request new data. When appropriate new data was requested, but the focus of showing the landscape of ESJ across the county also included showing the current status of ESJ related data. Additional data collection criteria included:

- Data reported by income, race/ethnicity and limited English proficiency (LEP)
 - Ordinance 16948 is specifically directed at improving fair and just practices for residents based on these categories.
- Geographic data
 - Ability to depict more detailed geographic detail by census tract, health reporting area or other geographic subunits smaller than “countywide.” This is useful for showing distributional equity.⁵
- Rigorous design and data collection
 - Much of the information in this report is from scientifically rigorous social science surveys such as the [U.S. Census’ American Community Survey \(ACS\)](#), the U.S. Center for Disease Control and Prevention’s [Behavioral Risk Factor Surveillance System \(BRFSS\)](#) survey or [Communities Count](#). Understanding the origin and validity of data was an important consideration for selecting robust measures.
- Regular data collection
 - Ability to show change over time with data that are reported at regular intervals such as yearly, every three years or every five years.

Steering Committee

Four steering committee meetings were convened over the course of this project (July 2014-Sept 2014). Steering committee members provided critical feedback into the selection of measures. In nearly all cases, both the measures selected and the measures considered, but not selected (see [Appendix B](#)), are results of group consensus. Guiding questions were provided during the meetings to solicit specific feedback. The questions provided a framework for comments that revolved around confirming measure validity, verifying that the measure was community facing and that the measure captured the determinant at the highest level possible. [Appendix F](#) contains the full list of steering committee questions.

⁵ Health Reporting Areas are geographies that more closely coincide with city boundaries. For more information please visit: [Public Health Seattle & King County Health Reporting Areas Definition](#).

Research Limitations

Throughout this report data limitations for each indicator analyzed are highlighted. Many demonstrate the need for a more comprehensive approach to outcome metrics and data disaggregation. Furthermore, due to time limitations and complexity, the Determinants of Equity language was analyzed determinant-by-determinant seeking to measure each individual definition. The fundamental challenge with this approach is that ESJ issues do not occur in silos. Although this method provided a reasonable starting point for indicator development, the next logical step is to develop indicators that intersect with multiple determinant areas. This approach will serve to advance a deeper and more integrated understanding of equity across King County.

Overview of Key Findings

Nearly all of the measures identified echo previous research findings that race, place, and income impact quality of life in King County. People of color, those with LEP, and who are low-income persistently face inequities in key educational, economic, and health outcomes. Below is an overview of findings by determinant, the full list of indicators is located in the [Preliminary Equity Measures](#) section of this report and a detailed description of each indicator is found in the determinant chapters.

Figure 2: Quality of Life Indicators⁶



Early Childhood Development

- American Indian, Native Hawaiian, and Hispanic students lag the farthest behind in demonstrating kindergarten readiness; the most significant disparity is in math.
- Infant childcare at licensed childcare centers in 2012 cost Black/African American families more than 40 percent of their annual median income compared to White and Asian families who spent just over 20 percent of their median income on infant childcare.

⁶ The Quality of Life Indicators map is an aggregate reflection of education, unemployment, income, obesity prevalence, uninsured adults prior to ACA enrollment and life expectancy in King County. For further details see [2014 King County ESJ Annual Report](#) pp.7-10.

Education

- The King County average for all third-grade reading proficiency in 2012 was 74 percent. During 2012, 84 percent of White students and 80 percent of Asian students reached proficiency in reading by the end of third-grade. In comparison only 56 percent of Hispanic students, 51 percent of Black/African American students, 46 percent of Pacific Islander students, and 42 percent of American Indian students reached proficiency in reading by the end of third-grade.
- During the 2011-12 school year, American Indian/Alaskan Native students had an on-time graduation rate of 55 percent, which is 25 percent below the county average (80 percent); students with LEP were 27 percent below the average (53 percent) and low-income students were 15 percent below the average (65 percent) for on time graduation.

Jobs and Job Training

- The unemployment rate for Black/African American residents was close to 16 percent between 2010 and 2012, which was nearly double that of the unemployment rate for White and Asian residents.
- Between 2007 and 2011, Black/African American, American Indian/Alaska Native, and Hispanic/Latino residents experienced poverty at nearly three times the rate of White residents in King County.

Health and Human Services

- Expansion of the Affordable Care Act brought insurance coverage to nearly 200,000 additional people in King County.⁷
- There is approximately a 10 year gap in life expectancy between areas of South King County where a higher concentration of people of color, LEP, and low-income households reside and North and East King County.⁸

Food Systems

- Nearly half of Hispanic households with at least one child report running out of food at least once within the last 12 months in King County.
- On average, there are two and half times more fast food restaurants and convenience stores available than grocery stores and produce vendors across King County. Parts of South King County have five to seven times more fast food restaurants and convenience stores available than grocery stores and produce vendors.

Parks and Natural Resources

- The 2009 and 2012 King County Resident Survey reports that 71 percent of King County residents report satisfaction with regional parks and trails.
- A park access study using 2010 data shows that affluent neighborhoods have almost twice the amount of robust park access (variety in park size and travel distance) than areas with a higher concentration of people of color, LEP, and low-income households.

Built Environment & Natural Environment

- The air release of toxic chemicals grew by 24 percent in the South Region of King County between the years 2000 and 2006. During this same time period, air release of toxic chemicals declined in the East Region of King County by 19 percent and in Seattle by 5 percent.

Transportation

- Minority and low-income residents have better than average proximity to Metro Transit - 76 percent of households in low-income census tracts, and 67 percent of households in minority census tracts are within a quarter mile of a transit stop, compared with 65 percent of all households in the County.

⁷ Cover King County

⁸ King County ESJ Annual Report, 2013. pp 3-4.

- Residents in rural King County face a higher transportation cost burden than urban residents.

Community Economic Development

- In 2009, White and Asian residents were almost two times more likely to own a home than Black/African American or Hispanic/Latino residents.
- Only 13 percent of all business enterprises are minority owned in King County, 7 percent below the U.S. average among other counties.

Neighborhoods

- Almost three quarters (74 percent) of people who responded to the King County Resident Survey report being very satisfied/satisfied with their quality of life in King County.
- Residents earning less than \$20,000/year report having the least amount of trust among neighbors.

Housing

- Households that pay over 30 percent of income for housing are considered cost burdened by the U.S. Department of Housing and Urban Development. On average, 47 percent of households that rent in King County report spending over 30 percent of their annual household income on housing costs.
- Lack of access to stable housing remains an acute problem. On any given night an estimated 3,000 people sleep without shelter in King County.⁹

Community and Public Safety

- Residents in South King County continue to report feeling a higher concern for safety than residents in other regions throughout the county.
- Residents who are low-income, people of color, and LEP report feeling a higher concern for safety.

Law and Justice

- Although the overall incarceration rate has declined between 2005 and 2011, Black/African American adults remain significantly overrepresented in the jail population relative to their percentage in the general population.
- In 2013 Black/African American youth were five times more likely to be referred to the Juvenile Justice System than White youth.

While there is a very strong foundation and many valuable activities focused on ESJ currently occurring, there is not a clear theory of change framework guiding the overall ESJ work of the County. Using this initial work to advance measurement of the Determinants of Equity is a vital next step to achieve regional progress. In addition, throughout the course of this research, gaps in the ordinance language and opportunities for increased coordination of ESJ efforts were identified. Finally, ways to further institutionalize ESJ were identified by including ESJ outcomes and indicators into ongoing business performance management processes.

Recommendations

Advance Measurement of the Determinants of Equity

The immediate next step for advancing actions to improve equity in the community should begin with engaging King County employees and external organizations. This process will help round out the understanding of current community conditions and is useful for refining the list of indicators to a smaller set of key measures that are reflective of the county's

⁹ King County One Night Count (2014). Because the one night count does not count everywhere in King County and many people live in places not visible or accessible, this number is considered an undercount.

condition across determinants. Having a smaller list of key indicators lends to creating a dashboard that will help the County identify and communicate the priority ESJ issues and allow us to track progress over time.

A dashboard of priority indicators will help incorporate performance management into ESJ efforts and allows leaders to know if the county is progressing toward a fair and just community. In the long term, advancing equity measurement should involve incorporating more rigorous analytical and statistical methods to help quantify disparities and their impacts over time. This will in turn further strengthen the County's practices in combating inequities, help identify priority areas, and understand if programs are reaching their intended goals. This long-term vision also includes revisiting how existing management infrastructure, like the County's [AIMs High](#) website, can be utilized or revamped to meet stakeholder needs. Developing an online portal to allow organizations to share data, access findings, and conduct real-time analysis to guide pro-equity responses is critical to supporting regional progress.

Measuring inequity is an emerging field of analysis that will pose several challenges for developing a community-scale equity baseline and dashboard to track community conditions. One of the biggest challenges is that quantifying inequities is a new way of looking at community conditions; therefore, information such as distributional equity data is not standardized. In addition, there are wide ranges of community conditions to include in analysis. Navigating these challenges requires analytical expertise and broader engagement with an array of civic, public, and private organizations involved in ESJ efforts. This engagement is vital for refining the initial work on the determinants, sharing the vision for creating a community-scale equity baseline, providing ongoing analytical support, and incorporating community feedback.

Developing a community-scale equity baseline and dashboard in collaborations with other civic, public, and private organization involved in ESJ efforts is vital to regional success and will create an ability to track community conditions over time. This is important because it can help strengthen decisions in resource allocation, provides information about which ESJ efforts are having the intended effect, and guide course corrections so efforts can achieve positive change. The ideas outlined in this recommendation are just one way to proceed with advancing measurement of the Determinants of Equity. The complexity of this undertaking requires thoughtful consideration from leadership and key stakeholders on how to orchestrate activities to create a methodically sound and community supported tool.

Revise ESJ Ordinance Language

Throughout the course of this project, gaps were found in the definitional language of several determinants. The ordinance could be strengthened if language revisions are made to fill these gaps. Recommended revisions are included in the explanation of measures by determinant and are cataloged in [Appendix C](#). **At a minimum, adding language in the determinants to include equity in voting participation and civic vitality should be considered, as this language is entirely absent from all determinant definitions.** Including this language is important because participation in elections is the cornerstone of a strong democracy and a fundamental civil right. In a country where access to voting has a long and tumultuous history of exclusion, it is important to continue understanding who is participating in local decision-making. Adding civic vitality (as potentially measured by voter registration, voter turnout, and other factors that demonstrate engaged citizenry) is a way to monitor access to voting in King County, ensuring that underrepresented communities have a voice in the civic process.

Establish a Theory of Change

King County uses a visual “stream” metaphor to frame its work on ESJ. The stream is a visual reminder that inequities in outcomes have their start in “upstream” policies and practices that influence people’s access to power and resources. The stream can be used to help illustrate a theory of change (TOC) with measurable indicators. The basic premise of a TOC is established in the stream by defining the flow of outcomes, from upstream societal level, to mid-stream community-level and down to the individual/ family level. The TOC implicit to this model is that working on ESJ at the uppermost part of the stream (societal level) impacts downstream outcomes (individual and family level).

The reason a TOC is suggested over a logic model at this phase is that a TOC better captures the broad work of ESJ across King County. Whereas a logic model should be included at the program level, a TOC can represent the fluidity and complexity of this work at a high-level while maintaining the integrity of measurement; making it a useful visual for talking about ESJ work occurring in the County. Adding indicators to measure items in each category (societal level, community-level and Individual/family level) will help strengthen this TOC. Below is an example of how this stream might be converted into a measurable TOC.

Figure 3: Example of a TOC using the visual “stream” metaphor of ESJ¹⁰



One example of pro-equity policies might be:

- Percent of hiring managers that participate in anti-bias training

- Percent of cost burden home owners
- Medium household income
- Graduation rate
- Food security
- Incarceration rate
- Pollution by region
- Perceived neighborhood safety
- Home ownership rate
- Transportation cost burden
- Uninsured adults
- Park access

- Life expectancy
- Incarceration rate
- Obesity prevalence
- Homelessness
- Infant mortality
- Frequent mental distress

The list of indicators below each section of the stream corresponds with outcomes listed inside the stream. Data for each indicator listed in this example, with the exception of *Equity in County Practices*, is included in this report. Reworking the

¹⁰ Original version available at: [King County Equity and Social Justice Homepage](#).

stream visual to represent priority outcomes and incorporating measures for each outcome will make this a concise and valuable visual for communicating the ESJ TOC across King County.

Integrate Measures into Strategic Innovation Plans

The Executive Order that went into effect October 4, 2014, calls for the development of a countywide ESJ Strategic Innovation Plan (SIP) in close collaboration with the ESJ IBT. This report is a natural stepping-stone for the development of an ESJ SIP because it has been conducted in collaboration with the ESJ IBT Data Workgroup and the larger ESJ IBT group. The set of measures help equip the ESJ SIP planning team to conduct meaningful community engagement and hone in on priority areas. Additional SIPs conducted by the County to further its strategic planning should also incorporate an equity analysis and ESJ measurement elements.

Consolidate ESJ Efforts by Bringing People and Projects Together

The challenge that emerged during the course of interviewing departments is that many people are excited about ESJ work, but are largely unaware of how other departments are involved in advancing this priority. This is a problem because not seeing the vast amount of cross-sector progress the County is making can stifle employee engagement. Although the County has taken steps to communicate ESJ efforts through venues such as “lunch and learns” and the “ESJ Fair”, this still remains an area for growth. Throughout the course of this project the research team identified several ESJ efforts within the County that many employees were not aware of. Examples of equity-related efforts that do not have widespread awareness include the [Health and Human Services Transformation Plan](#), [STAR Communities](#) and [Puget Sound Equity Network](#). One idea to capitalize on the existing energy and commitment to ESJ that will satisfy the ESJ SIP requirements outlined in the Executive Order (ACO 9-2 (AEO)) 1B and 1C bullet point one is to develop an ESJ Blog or use an online engagement tool (such as Mind Mixer or Yammer) to share information and promote dialogue about ESJ projects.¹¹ Using social media allows leadership, staff and the community to engage in the ESJ conversation and creates space for innovative ideas to surface. Facilitating this type of interaction and awareness can capitalize on the existing energy and increase the momentum around ESJ.

Line of Business Planning & Base Budget Analysis

As departments work to define Line of Business (LoB) products and outcomes, they should also consider community-level ESJ indicators that can strengthen the overall delivery of government products. In the context of Quality, Cost, Delivery, Safety and Morale (QCDSM), community-level ESJ indicators reflect the ultimate outcomes that the LoB is meant to achieve. Two important things happen when departments incorporate community-level ESJ measures into LoB planning. First, ESJ outcomes are integrated into government products and outcomes. Second, the department has the opportunity to consider, deliberately and explicitly, their potential influence and impact on the community. Furthermore, this awareness can be sustained by including ESJ indicators on department-level and division-level visual management “tier boards.” Although King County LoBs are by no means the sole contributor to impacting community outcomes, their products can likely make important contributions. Monitoring these outcomes allows departments to see their products influence on community-level indicators, which can in turn help behavior change. The list of 67 community indicators included in this report provides a starting point for departments to consider what type of ESJ outcome and product metrics are most appropriate for their LoB.

¹¹Executive Order (ACO 9-2 (AEO)) 1B “Establish systems to engage and empower all county employees to advance equity through their daily work” & 1C bullet point one “Raising the visibility of ESJ efforts among county employees and in the community.”

The call to include community-level ESJ indicators into LoB planning is certainly no small task. King County currently has more than 40 LoBs that provide a wide array of services; some services, like those in the domain of public health, lend themselves to a natural fit with incorporating community-level ESJ indicators while others are more challenging. The benefit of this initial work is that it provides a diverse menu of indicators that departments can use as a starting place to consider how best to incorporate ESJ in LoB planning for alignment purposes. This is possible even in LoBs that seem somewhat removed from impacting community-level ESJ outcomes. For example, the intersection between the Airport LoB and ESJ community indicators is not particularly obvious. This LoB has an outcome to “create opportunities to enhance economic development in and around the King County International Airport (KCIA).” Selecting a corresponding ESJ measure from the Community Economic Development determinant is one way the Airport LoB can start to think about incorporating ESJ indicators. Monitoring this outcome with community-level ESJ indicators helps bring understanding for *whom* KCIA is creating economic opportunity.

In addition, this initial work can help further the identification of shared outcome metrics between departments. One example of an existing shared outcome is increasing regional mobility. This outcome involves several co-actors, but LoB products that contribute to this outcome (e.g. development of regional trails and public transportation) have an ESJ lens embedded in the work, allowing for shared ESJ outcomes within the broader goal of regional mobility. The purpose of calling out this many-to-many relationship is to say that it is important for departments to continue to identify, measure, and track shared ESJ outcomes across sectors. This initial work on determinant indicators is one source that can prompt ideas for spotting shared ESJ outcomes and cross-sector products that can contribute to these outcomes.

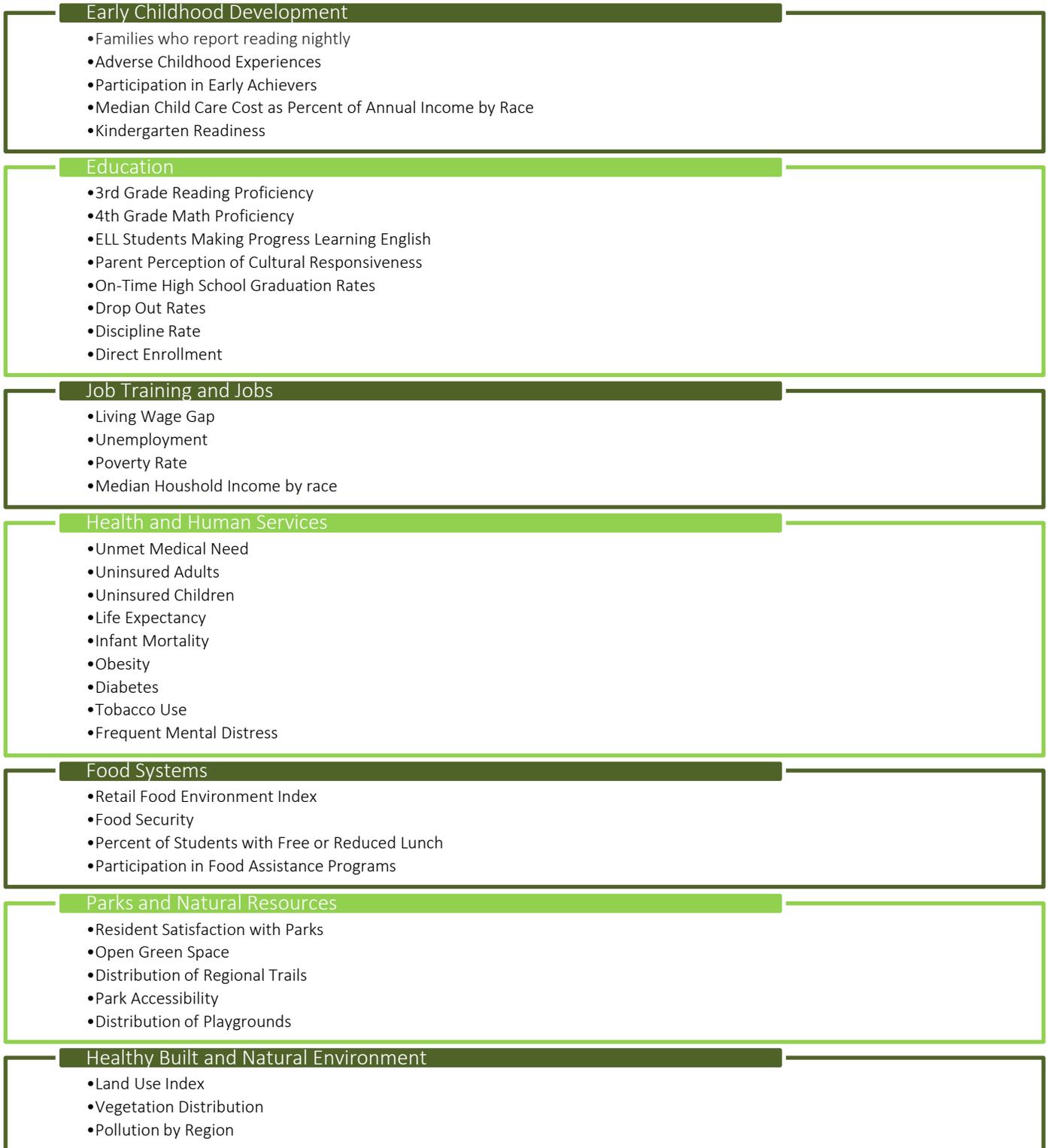
Similarly, community-level ESJ measures compliments the work to integrate an ESJ lens into budget decisions that is already underway at the County and can be used as a resource for base budget analysis and planning. The budget has a relationship with each of the 14 Determinants of Equity. This initial work provides data organized by determinant making it a readily available resource for understanding the landscape of community conditions. This is important because it gives context to the services and programs provided by departments. In addition to context, this report begins to show the broader strategic relationship, collective impacts, or domino effects, between determinants. For example, programs that help people afford food (food security) can also impact school readiness and healthy years lived. Having an explicit awareness of this domino effect and the landscape of equity prepares budget analysts to highlight ESJ considerations with departments, the Executive, and the Council. Continuing to develop measurement of the Determinants of Equity could be an important tool for informing resource allocation and creating a strong foundation for integrating ESJ into LoB planning and base budget analysis.

The 67 community-level ESJ indicators identified in this report are an initial step at capturing the landscape of equity across King County. Despite active commitment to ESJ, a baseline of community conditions across the county has not existed, making it difficult to track regional progress over time. ESJ measurement is a new field that poses several challenges, but working toward a community-scale equity baseline and dashboard are promising methods for promoting regional progress, tracking change over time, and informing resource allocation. Immediate next steps for advancing measurement of the Determinants of Equity should begin with engagement to round out the County’s understanding of current community conditions. These activities will promote awareness and provide learning about the concerns of various stakeholders, especially priority populations that include low income, people of color, and those with LEP. Working through the process of identifying key indicators, aligning with other civic, public and private sector partners and incorporating statistical approaches to develop a community-scale equity baseline and dashboard are vital to regional progress. This effort also supports the institutionalization of ESJ in ongoing government business and performance management practices.

Preliminary Measures of Equity

Below is the list of the 67 preliminary indicators identified in this project.

Figure 4



Transportation

- Metro Transit Rider Satisfaction with Safety
- Metro Transit Passenger Crowding & Schedule Reliability
- Reliance on Metro Transit
- Proximity to Metro Transit
- Metro Transit On-Time Performance
- Walk Score
- Bike Score
- Transit Score
- Metro Transit Reduced Fare Utilization
- Metro Transit Low-Income Fare Utilization
- Transportation Cost-Burden

Community Economic Development

- Home Ownership
- Foreclosure Risk Score
- Change in Residential Assessed Value
- People of Color Owned Businesses

Neighborhoods

- Residential Mobility
- Social Support
- Social Cohesion
- Resident Satisfaction with Quality of Life
- Voter Registration
- Voter Turnout

Housing

- Poor Housing Conditions
- Cost Burdened Households
- Weighted Road Density Values
- Homelessness

Community and Public Safety

- Perceived Neighborhood Safety
- Crime Rate

Law and Justice

- Incarceration Rate
- Juvenile Justice Change by Decision Point

In an attempt to pare down the list of 67 indicators, the research team sought to identify the most significant indicators (tier 1) that impact multiple determinant areas. The research team used the question below to select 21 top tier indicators. This is the first attempt at creating an equity scorecard. Through the review process, this list is anticipated to shrink to a more concise list of top tier indicators. Below is the guiding question used by the research team to generate this list of top tier indicators.

Figure 5: Top tier indicators

“Tier 1 has some relationship with another indicator in another determinant category. Through impacting tier 1 we can impact other indicators and therefore impact other determinants.”

Indicator	Primary Location	Other Determinants Impacted
Kindergarten Readiness		
Third Grade Reading Proficiency		
Graduation Rate		
Incarceration Rate		
Unemployment		
Median Household Income		
Food Security		
Retail Food Environment Index		
Home Ownership Rates		
Foreclosure Risk Score		
Cost Burdened Owners		
Perceived Neighborhood Safety		
Social Cohesion		
Park Access		
Open Green Space		
Tree and Forest Canopy		
Pollution by Region		
Proximity to Metro Transit		
Transit Cost Burden		
Uninsured Adults		
Life Expectancy		

- ACCESS TO AFFORDABLE, HEALTHY, LOCAL FOOD
- COMMUNITY AND PUBLIC SAFETY
- FAMILY WAGE JOBS AND JOB TRAINING
- ACCESS TO HEALTH AND HUMAN SERVICES
- EARLY CHILDHOOD DEVELOPMENT
- HEALTHY BUILT AND NATURAL ENVIRONMENTS
- ACCESS TO PARKS AND NATURAL RESOURCES
- ECONOMIC DEVELOPMENT
- QUALITY EDUCATION
- ACCESS TO SAFE AND EFFICIENT TRANSPORTATION
- EQUITABLE LAW AND JUSTICE SYSTEM
- STRONG, VIBRANT NEIGHBORHOODS
- AFFORDABLE, SAFE, QUALITY HOUSING
- EQUITY IN COUNTY PRACTICES

Early Childhood Development





Early Childhood Development

Ordinance Definition: Early Childhood development that supports nurturing relationships, high quality, affordable childcare, and early learning opportunities that promote optimal early childhood development and school readiness for all children.

Early Childhood Development is an essential part of healthy cognitive, linguistic and social development. During the first three years of life a child's brain experiences dramatic development and growth. Children who have access to quality early development are more likely to achieve later success as adults. [Research](#) has shown that children with lower socioeconomic status may begin to lag behind their peers from higher income families as early as 18 months of age.¹²

The recommended indicators below were selected for their ability to measure early childhood development. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. What makes this measure essential is its ability to capture the spirit of the determinant at the highest level and that it can impact other determinant areas.

Preliminary Measures

Nurturing Relationships

- Families who report reading nightly
- Adverse Childhood Experiences

High Quality

- Participation in Early Achievers

Affordable

- Childcare Cost Burden: Median Child Care Cost as Percent of Annual Income by Race

School Readiness

- *Kindergarten Readiness*

Key Findings

- American Indian, Native Hawaiian and Hispanic students lag the farthest behind in demonstrating kindergarten readiness; the most significant disparity is in math.
- Infant childcare at licensed childcare centers in 2012 cost Black/African American families more than 40 percent of their annual median income compared to White and Asian families who spent just over 20 percent of their median income on infant childcare.
- Participation in Early Achievers has increased by 15 percent in King County between 2013 and 2014.

¹² Carey, Bjorn. (2013). Language Gap between Rich and Poor Kids Begins in Infancy. Stanford News.

Limitation of Ordinance Definition

The early childhood development determinant does not include a component for culturally competent or culturally responsive education. Any revisions to ordinance language ought to include adding culturally responsive education. No data that correspond with culturally competent early childhood education were identified at this stage of research. Further research is needed in this area to identify appropriate measures for culturally competent/culturally responsive early childhood education.

Families Who Report Reading Nightly to Children Birth to 5

Measure Definition: Percent of parents who report reading nightly to children under five years old, reported by race/ethnicity, income and primary language status

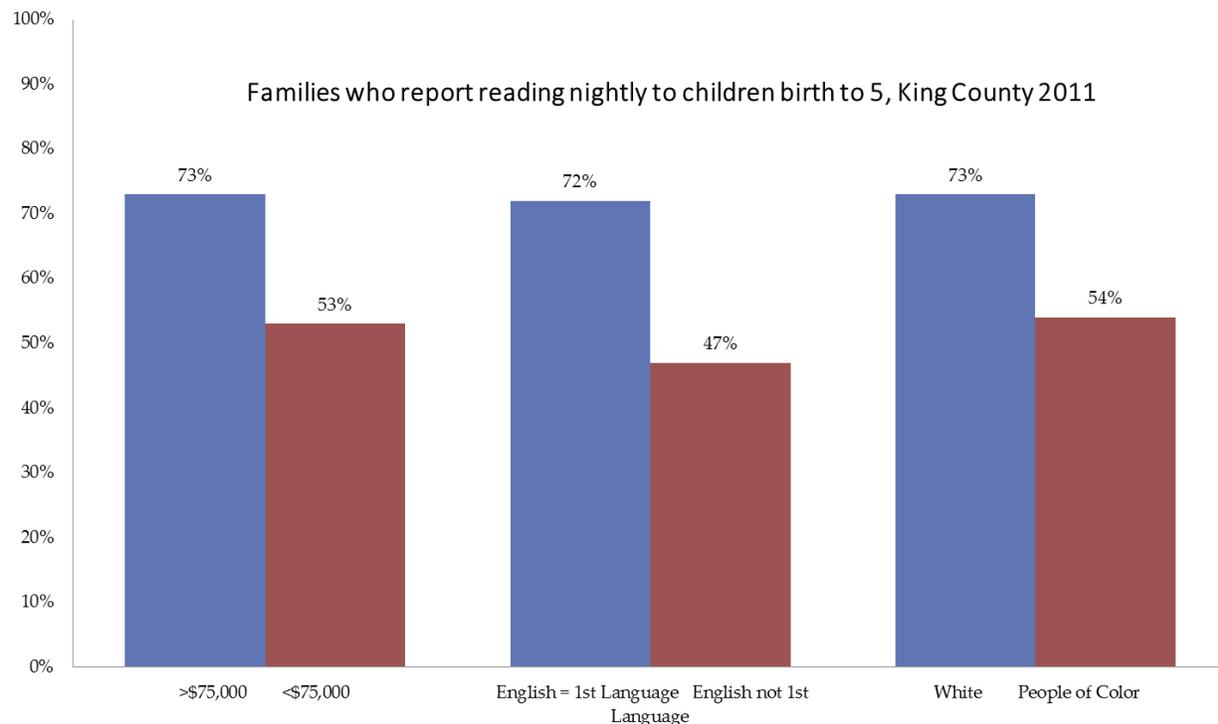
What is the Significance?

When caregivers read to their children they help support not only the child’s vocabulary development, but also their social/emotional development. Listening to stories can help children build confidence and deal with their feelings. Reading and storytelling encourages language development, reading comprehension, and school success. Research shows that by the age of three, children from high-income families had heard 30 million more words than three-year olds from low-income families.¹³ Through bolstering early exposure to reading it is possible to increase school readiness for young children.

What is the Measure Status?

Data from the Communities Count 2011 survey informs that the percentage of parents who report reading to young children varies dramatically among high-earning families. Daily reading was more common among families who are high-earning, white (non-Hispanic) and who spoke English as a first language.¹⁴ This information is important because early reading corresponds with literacy and often times children from families that are low-income families, people of color and where English is not their first language, perform lower on third-grade reading proficiency exams.

Figure 6



What is the Measure Availability?

¹³ Hart, B. & Risley, T.R. “The Early Catastrophe” (2004). *Education Review*, 77 (1), 100-118.

¹⁴ [Communities Count - Reading & Telling Stories to Children](#)

Data from the Communities Count Survey is collected every three years. Communities Count reports this data on their website making it readily available for use.

Data Limitations

The current reporting structure does not differentiate between the multiple race/ethnic identities that make up “People of Color”, a larger sampling of people of color in the survey would enable a more detailed reporting structure. A similar trend is true for income and languages spoken. These data are dependent upon continuous funding for the Communities Count Survey. Further, assuming the survey is continued, variation in the survey administration or question structure may prevent the analysis of trend data.

Adverse Childhood Experiences (ACE)

Measure Definition: Experiencing sexual abuse, verbal abuse, physical abuse, witnessing domestic violence, having divorced/separated parents, a household member with substance abuse issues, a household member in prison or a mentally ill household member.

What is the Significance?

Adverse Childhood Experiences (ACE) include experiencing sexual abuse, verbal abuse, physical abuse, witnessing domestic violence, having divorced/separated parents, a household member with substance abuse issues, a household member in prison or a mentally ill household member. Reporting four or more of these experiences constitutes a high ACE score and is commonly understood to have a harmful effect on adult health outcomes.¹⁵ The Washington State Family Policy Council states “the cumulative stresses of ACEs are the most powerful determinant of the public’s health and the strongest common driver of mental, physical and behavioral health costs.”¹⁶ Through tracking the populations with the highest exposure to ACE we can understand who may be at an increased risk of poor health outcomes.

What is the Measure Status?

The red shading in figure 7 shows that the highest concentrations of ACE scores are found in South Seattle and South King County. Additionally, figure 8 highlights the difference in ACE scores by age, race and gender. For example, 31 percent of American Indian/Alaskan Native respondents reported high exposure to adverse childhood experiences, while only 6 percent of Asian respondents reported exposure to four or more experiences.

¹⁵ [Communities Count - Adult Health Outcomes](#)

¹⁶ King County Health and Human Services Transformation Plan: Maps of King County by Census Tract

Figure 7

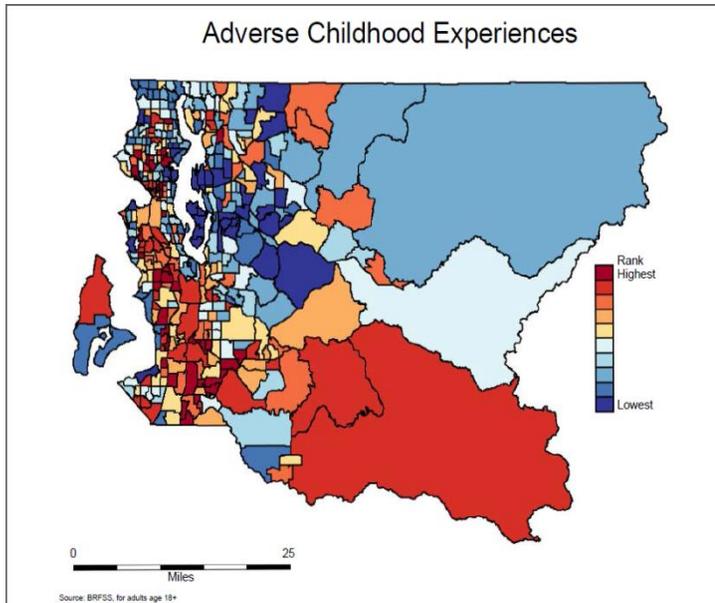
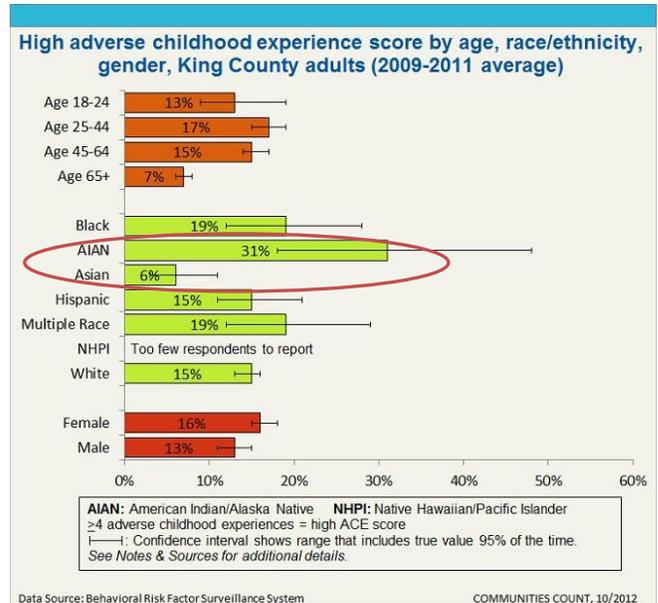


Figure 8



What is the Measure Availability?

Although data on ACEs are collected by the Behavioral Risk Factor Surveillance System (BRFSS), it is not a regular question. This question is not slated to be asked on the BRFSS survey again until 2017.

Data Limitations

The map above is from the Health and Human Services Transformation Plan. The evaluation plan for Communities of Opportunity is not finalized at this time and it is unclear if the map shown above will be recreated again for King County or only for the selected Communities of Opportunity sites.

Participation in Early Achievers

Measure Definition: Percent of licensed eligible childcare centers participating in Early Achievers (WA QRIS program). Participation in Early Achievers signifies the intent of a childcare program to participate in the state Quality Rating and Improvement System (QRIS). Early Achievers is a new program and many centers that have enrolled to participate have not yet been rated.

What is the Significance?

High-quality childcare prepares children for success in early education and throughout life. Research has shown that children who have access to high quality educational opportunities in child care settings obtain more years of education and are more likely to graduate from college than children without the same access to quality care.¹⁷ Early Achievers is Washington’s Quality Rating and Improvement System (QRIS) that provides training, coaching and incentives to child care providers to promote early learning and development. Through ensuring that all childcare facilities are high quality the County can support healthy development and school readiness.

¹⁷ Frances A. Campbell, Elizabeth P. Pungello, Margaret Burchinal, Kirsten Kainz, Yi Pan, Barbara H. Wasik, Oscar A. Barbarin, Joseph J. Sparling, Craig T. Ramey. Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up.. *Developmental Psychology*, 2012.

What is the Measure Status?

Participation in Early Achievers is continuing to steadily increase in King County since its launch in 2012. Figures 9 and 10 show a 15 percent enrollment increase from 2013 to 2014. Increasing provider participation in the Early Achievers network increases opportunities for families looking for quality care. The statewide expansion of Early Achievers is currently funded by a grant from Race to the Top, which makes it possible for providers to enroll at no cost.

Figure 9

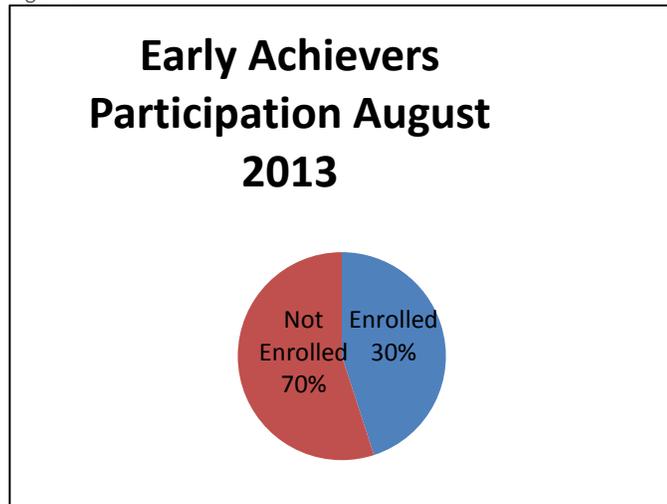
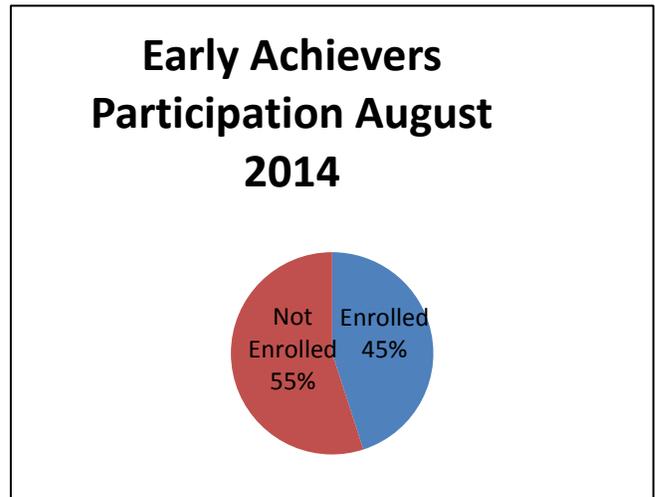


Figure 10



What is the Measure Availability?

This information is available through the annual report published by Child Care Resources and is also available through special request to the Early Achievers Community Outreach Lead at Child Care Resources.

Data Limitations

Early Achievers is a new rating program launched in 2012, and participation in Early Achievers does not signify a facility has received a quality rating. As more providers are enrolled in the Early Achievers, there is potential to move to measuring the percent of providers receiving a quality rating, as well as their location. At time of publication the number of providers achieving a quality rating was private information and it is uncertain when this information will become public. Further, it is unclear whether data collection for providers achieving quality-rating status will be a more costly/time-consuming effort than capturing the percentage of providers enrolled.

Childcare Cost Burden: Median Child Care Cost as Percent of Annual Income by Race/Ethnicity

Measure Definition: Median child care cost as percent of annual income by race/ethnicity.

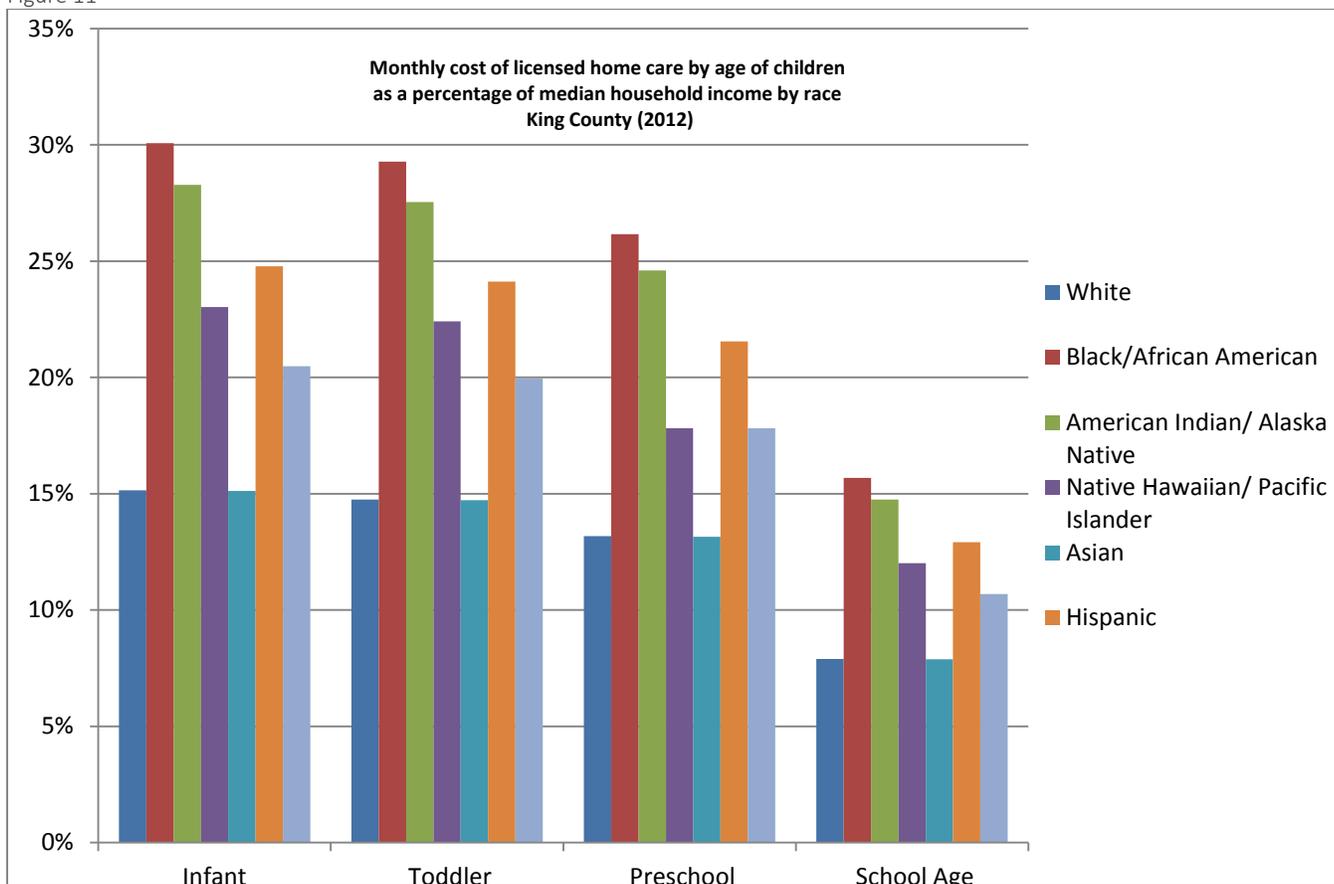
What is the Significance?

Childcare is often a necessary expense for working families. Many families pay a significant portion of their earnings for childcare and cost can be a burden or barrier for some families seeking care for their children. In Washington, the average annual cost of full-time childcare in a center is more than the cost of the average tuition and fees at a public college.¹⁸

What is the Measure Status?

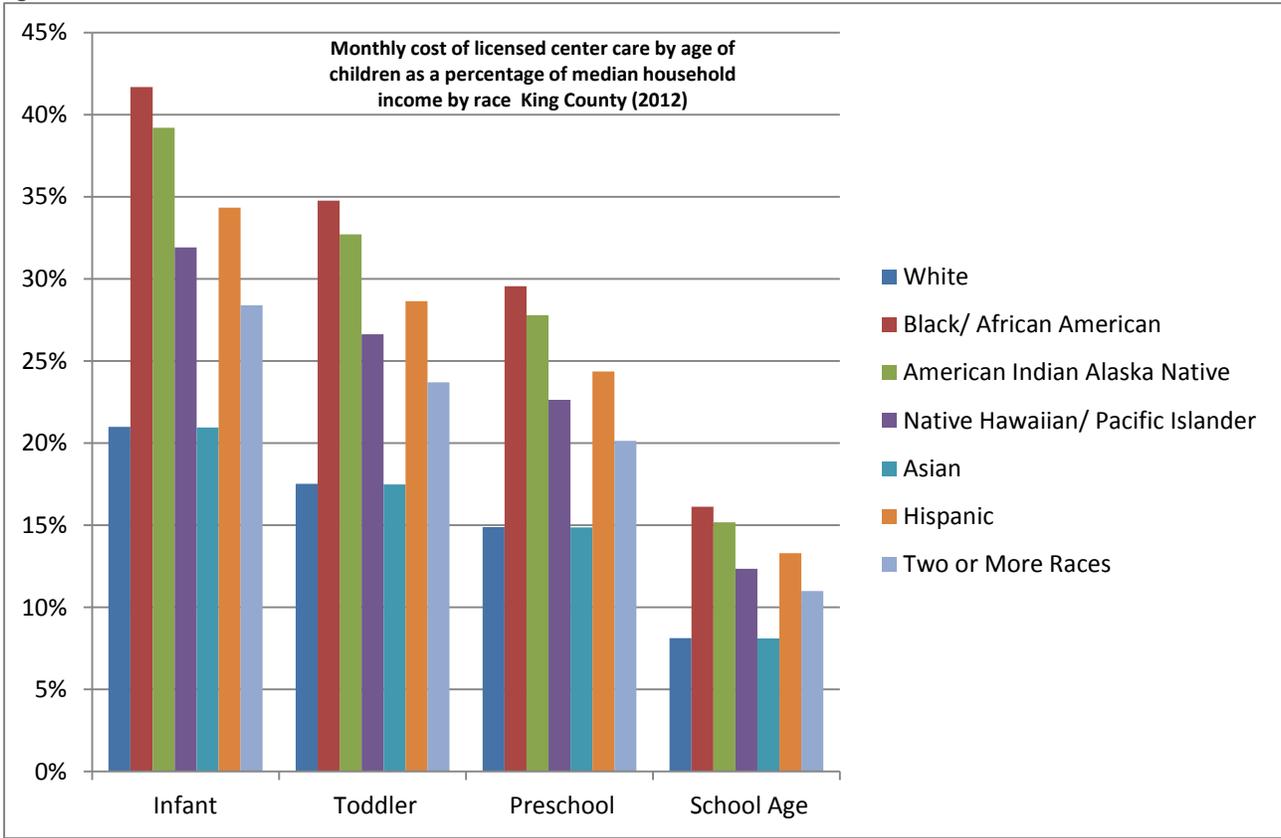
The average median household income varies drastically by race/ethnicity in King County. As a result of the difference in annual income, the burden of child-care cost impacts households differently depending on race. The percent of income spent on child-care also depends on whether a child is in care at a home care site or in a child-care center. Although there are more home care sites than child-care centers, child-care centers have a larger capacity and thus care for more children than home sites. Figure 11 shows childcare cost by age as percent of median household income; this is broken down by race/ethnicity for licensed home care. This graph shows that by percent of median income, in 2012 Black/African American families spent 30 percent of their income to pay for infant childcare and over 25 percent of their income for childcare through preschool; American Indian/Alaskan Native families spent nearly 30 percent of their income to pay for infant and toddler childcare, compared to White families who incurred nearly half this cost. Figure 12 makes the same comparison for licensed child-care centers. In 2012, Black/African American families spent 40 percent of their income to pay for infant childcare; American Indian/Alaska Native spent nearly 40 percent of their income to pay for childcare. Both graphs highlight the disproportionate cost burden of childcare cost facing families that are Black/African American and American Indian/Alaska Native.

Figure 11



¹⁸ Child Care Aware of America. Parents and the High Cost of Child Care 2013 Report.

Figure 12



What is the Measure Availability?

Data on median child care cost for King County are available by request from Child Care Resources and the data on household income by race/ethnicity is available through the American Community Survey.

Data Limitations

Producing this analysis would require County staff time as it is not a measure that is currently reported. Additionally, the method by which Child Care Resources determines the median cost of child-care is unknown. Finally, data received by Child Care Resources was provided from two different dates in two different calendar years; although the data appear reliable, the true stability of this dataset is not known.

Kindergarten Readiness

Measure Definition: Percent of students who demonstrate the skills of a kindergartener in the domains of social emotional, physical, language, cognitive, literacy, and math at the beginning of kindergarten.

What is the Measure Significance?

Transitioning into kindergarten is an important part of a child’s early education. Children who enter school behind others in their age group often struggle and must do more work to catch up with their peers.¹⁹ Early assessment is a tool that can cue early intervention for children who do not yet have skills typical of their age group to receive tailored instruction.

What is the Measure Status?

Focusing efforts on increasing school readiness helps ensure that all children arrive at school prepared to learn and succeed and are not spending precious hours of learning time attempting to catch up to their peers. Figure 13 captures school readiness in six different assessment categories by student income status (income is determined by student eligibility for Free or Reduced Lunch). This graph highlights inequities in all of the six assessment categories; however, the most significant category for intervention exists in math readiness.

Figure 13

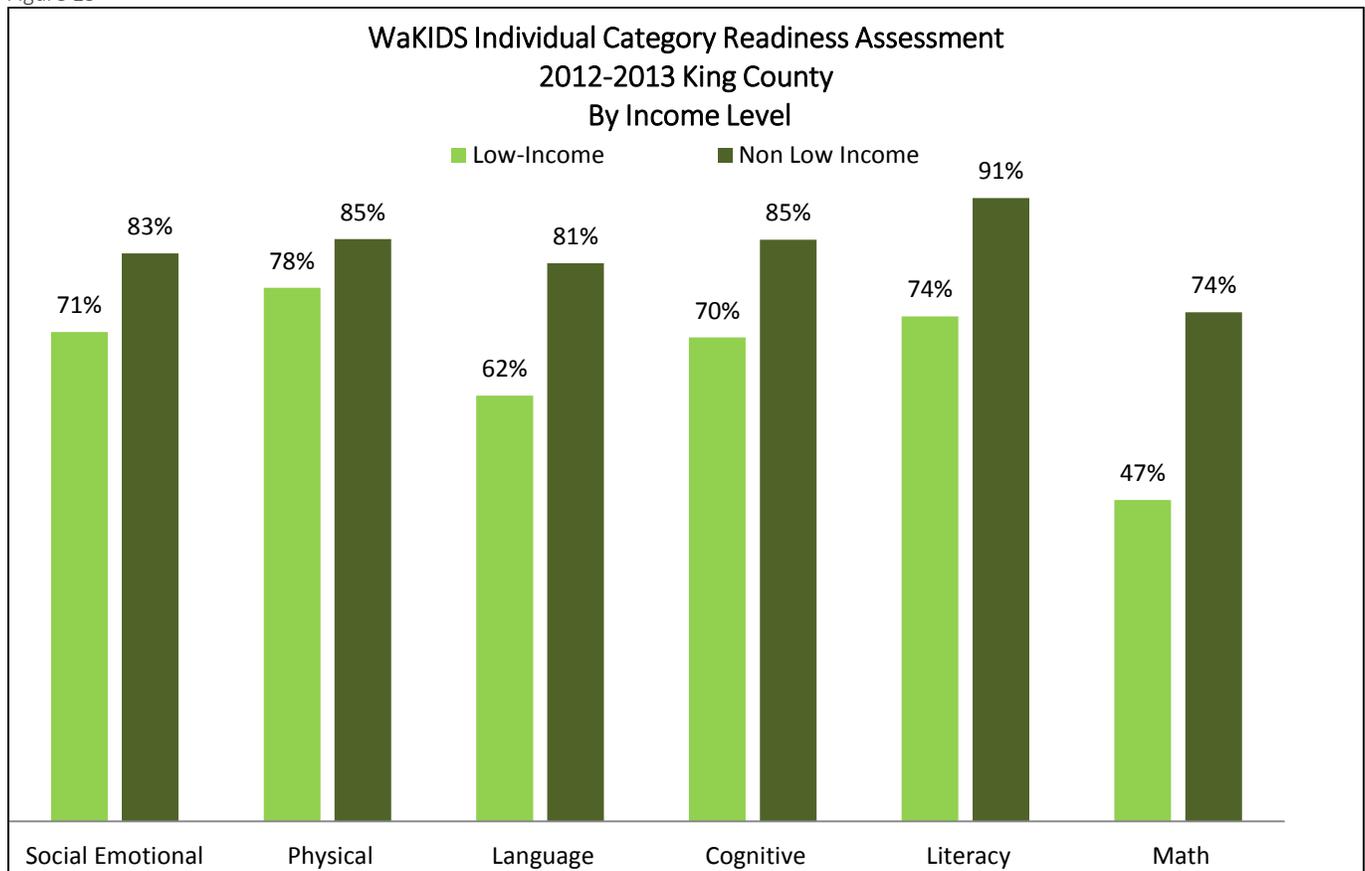


Figure 14 and figure 15 show the number of students who were assessed to be ready in all six categories as a percentage of all students who completed the assessment. Low-income students were less than half as ready compared to their non-low income counterparts. Additionally, these data are reported by race/ethnicity, which shows that in general, roughly 50 percent of children are not ready for kindergarten and that American Indian, Native Hawaiian and Hispanic students lag the furthest behind.

¹⁹ <http://aspe.hhs.gov/hsp/10/SchoolReadiness/apd.shtml>

Figure 14

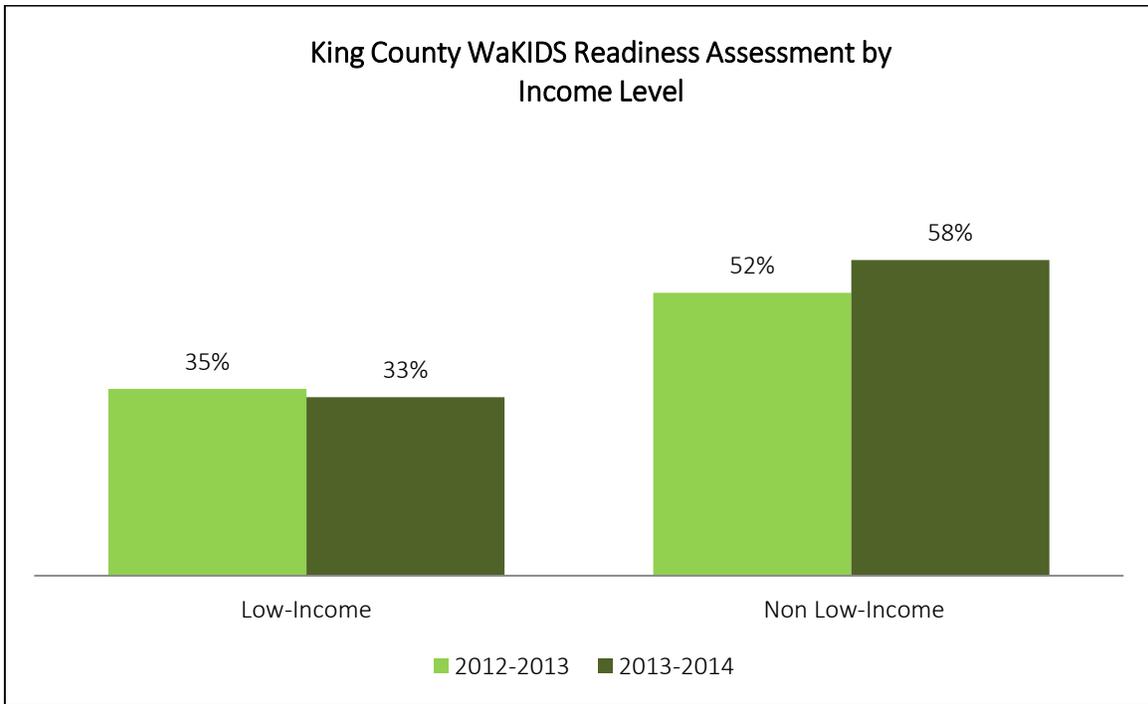


Figure 15

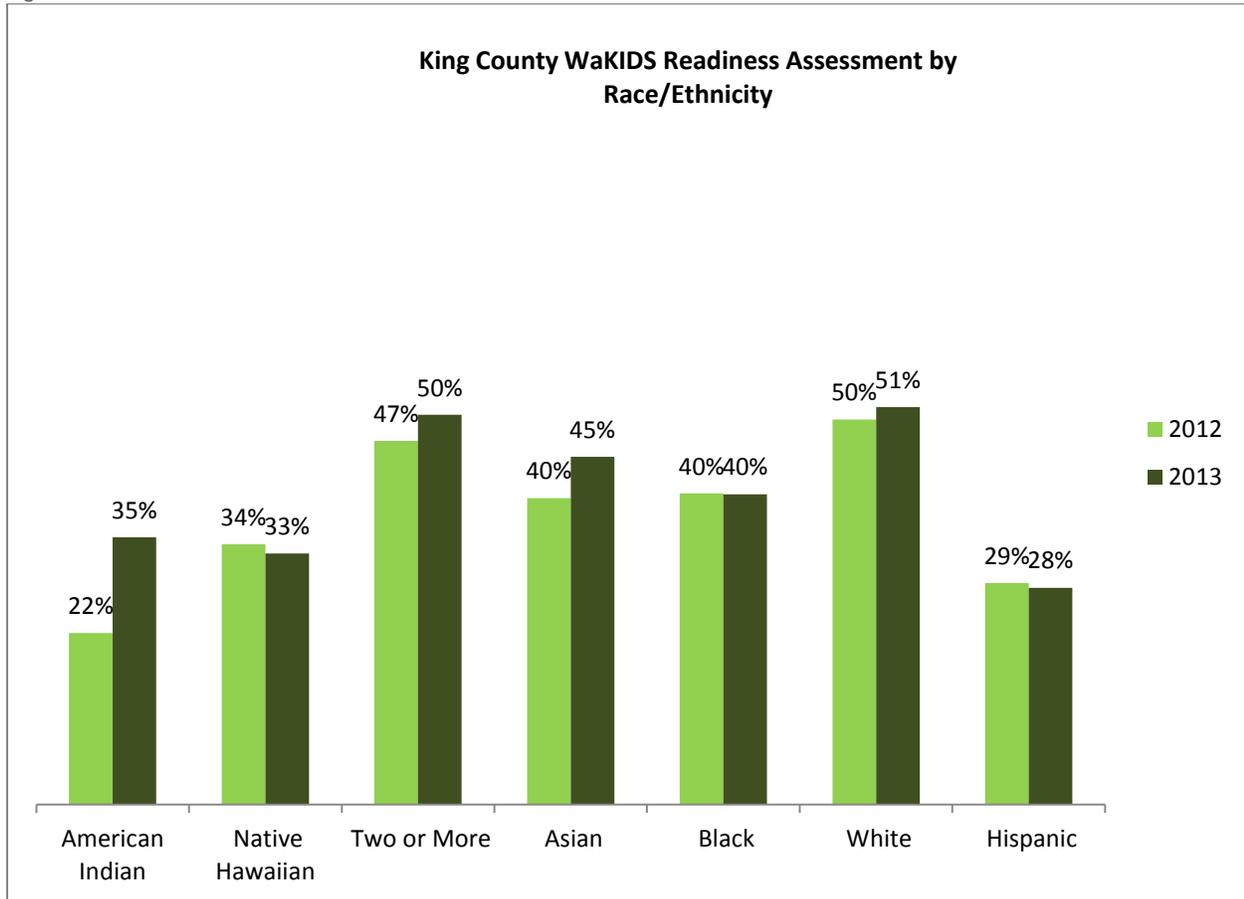
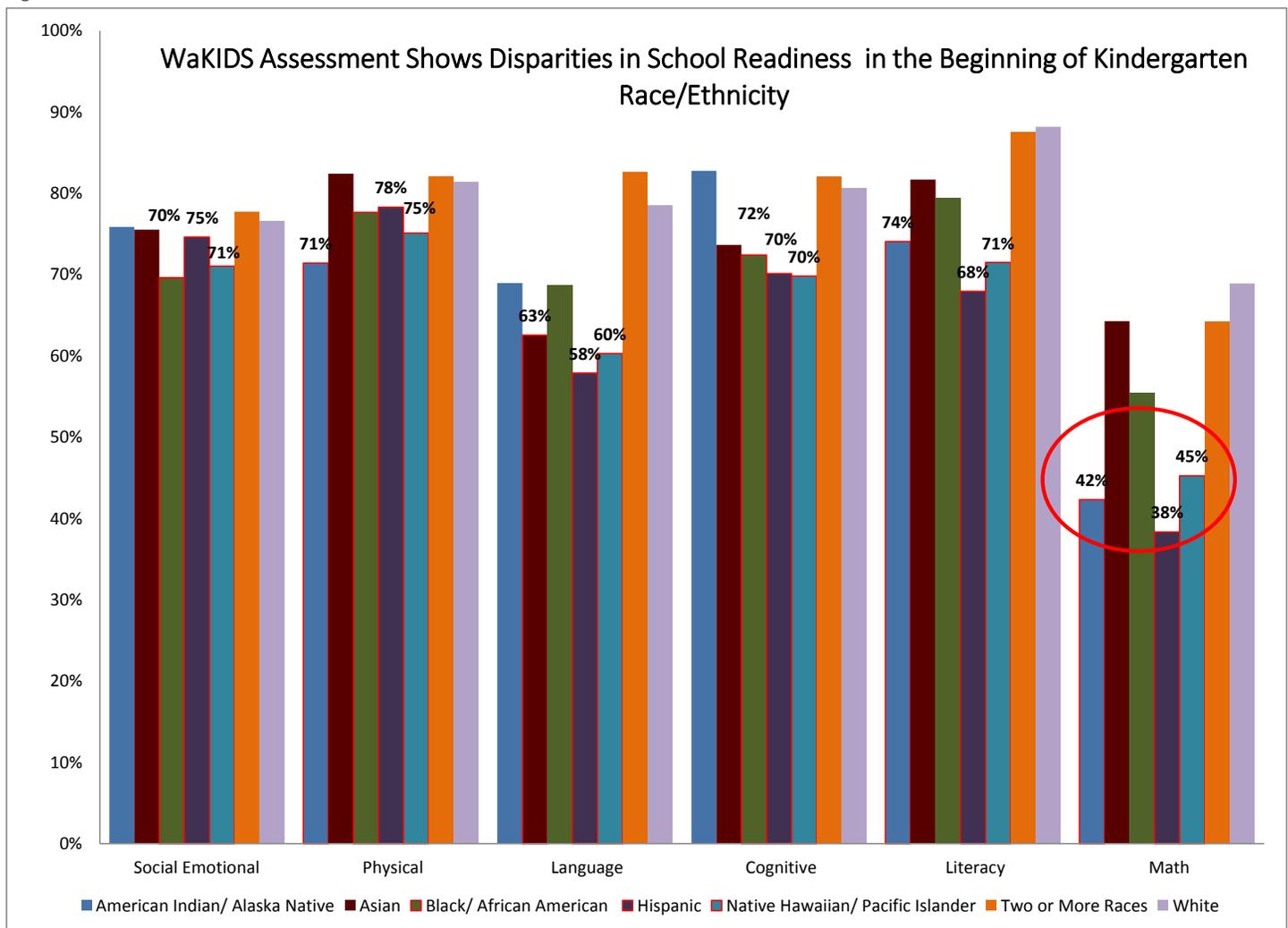


Figure 16 highlights this same group of students requiring the most significant intervention in the area of math. The multiple dimensions by which this data set is available make it a strong indicator to understand the Determinants of Equity as they are outlined in the Fair and Just Ordinance.

Figure 16



What is the Measure Availability?

These data are available by request from OSPI with King County information by race/ethnicity, LEP and Free/Reduced Lunch subgroup status. WaKIDS is a new system implemented in 2011-2012 school year and all kindergartens are not yet participating. Full participation is expected in the 2014-2015 year and it may take several years for the data to stabilize. However, this is currently the best standardized measure for kindergarten readiness. Finally, the coordination between WaKIDS and Early Achievers is something to monitor because over time it will provide a vivid picture of school readiness.

Data Limitations

Because WaKIDS is a new program with growing participation rates, data suppression is currently an issue with school district data. This problem is anticipated to resolve as the program reaches full participation. Data by county is not currently available via the OSPI website; however, it can be obtained through a request to the OSPI Student Information Coordinator by county. When the data is obtained at the county level data suppression is mitigated.

Education



Education

Ordinance Definition: Education that is high quality and culturally appropriate and allows each student to reach his or her full learning and career potential

Equal access to education has troubled our nation for centuries. Education is a platform for future career success; however many students, including low-income and students of color, face barriers to obtaining educational success. Low educational attainment correlates in many cases with decreased job opportunities, unemployment and higher rates of poverty. Education access is necessary to sustain employment and improve economic opportunities that allow people to reach their full career potential.

The recommended indicators below were selected for their ability to measure education. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measures for this determinant are identified below in italics. Essential measures are the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

High Quality

- *Third-grade reading proficiency*
- Fourth-grade math proficiency

Culturally Appropriate

- English Language Learner (ELL) Students making progress learning English
- Parent perception of cultural responsiveness

Learning Potential

- *On Time Graduation Rates*
- Drop Out Rates
- Discipline Rates

Career Potential

- Direct Enrollment

Key Findings

- The King County average for all third-grade reading proficiency in 2012 was 74 percent. During 2012, 84 percent of White students and 80 percent of Asian students reached proficiency in reading by the end of third-grade. In comparison only 56 percent of Hispanic students, 51 percent of Black/African American students, 46 percent of Pacific Islander students, and 42 percent of American Indian students reached proficiency in reading by the end of third-grade.
- During the 2011-2012 school year, American Indian/Alaskan Native students had an on-time graduation rate of 55 percent, which is 25 percent below the county average (80 percent); students with LEP were 27 percent below

the average (53 percent) and low-income students were 15 percent below the average (65 percent) for on time graduation.

- American Indian students & students reporting LEP have a dropout rate more than two times the county average.

Limitation of ordinance definition

This determinant is interpreted as emphasizing K-12 education and not specifically accounting for adult learners. Either explicitly limiting this determinant to K-12 or expanding the definition to include adult learners would be helpful in defining the scope of this determinant. Accounting for adult learners who return to a traditional four-year university or community and technical college to achieve a degree or change career paths could make this measure more representative of the education system as a whole.

Third-grade Reading Proficiency

Measure Definition: Percent of students proficient in third-grade reading on the Measurement of Student Progress (MSP) test by race, LEP, and income from 2010-2012.

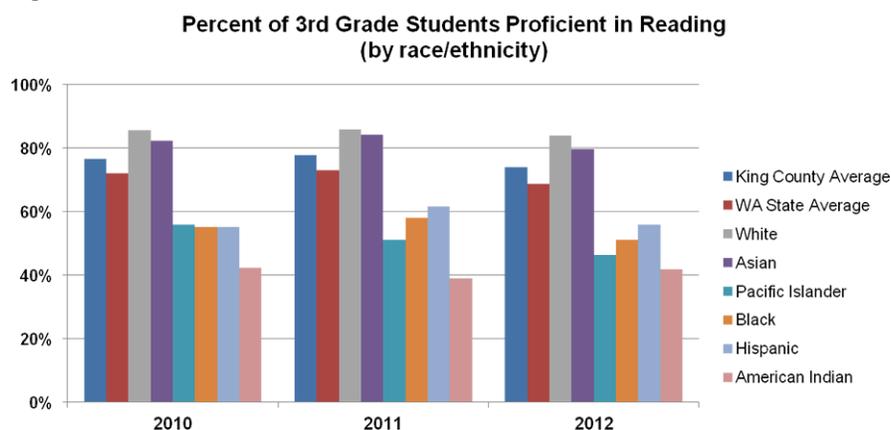
What is the Measure Significance?

Third grade is a significant time in education. Up until third-grade children are learning to read, after third-grade children are reading to learn. Third-grade reading is a significant predictor of eighth-grade reading proficiency.²⁰ In a recent study, students who could not read at grade level by third grade were four times less likely to graduate high school by the time they turned 19 than those who read proficiently in third-grade.²¹ The struggle to attain new information while also improving reading comprehension contributes to the existence of the readiness gap. Through supporting early learning the County can work upstream to get ahead of poor educational outcomes.

What is the Measure Status?

Trends in reading proficiency were relatively constant from 2010-2012 with less than 80 percent of all students achieving proficiency in reading by the end of third grade. American Indian students score lowest in proficiency with near 40 percent of American Indian students reaching proficiency by the end of third-grade. Figure 17 shows third-grade reading proficiency by race/ethnicity. These data are also available for income (determined by eligibility for free/reduced lunch), Limited English Proficiency, Migrant and Special Education status.

Figure 17



Percent of 3rd Grade Students Proficient in Reading (by race/ethnicity)			
	2010	2011	2012
King County Average	77%	78%	74%
WA State Average	72%	73%	69%
White	86%	86%	84%
Asian	82%	84%	80%
Pacific Islander	56%	51%	46%
Black	55%	58%	51%
Hispanic	55%	62%	56%
American Indian	42%	39%	42%

Data Source: Washington State Office of the Superintendent of Public Instruction

²⁰ Lesnick, J., George, R., Smithgall, C., Gwynne, J. (2010). Reading on Grade Level in Third-grade: How is it related to high school performance and college enrollment? Retrieved from: <http://www.chapinhall.org/research/report/reading-grade-level-third-grade-how-it-related-high-school-performance-and-college-e>

²¹ Hernandez, D. (2012). How third-grade reading skills and poverty influence high school graduation. The Annie E. Casey Foundation. New York, NY.

What is the Measure Availability?

These data are reported by OSPI and are available to download in an excel file from their website. The King County AIMS High website reports OSPI data as shown in figure 17.

Data Limitations

OSPI's Measurement of Student Progress is changing in spring of 2015 to an assessment called Smarter Balanced.²² This change in assessment will impact the ability to look at change over time in this indicator.

Fourth-grade Math Proficiency

Measure Definition: Percent of students proficient in fourth-grade math on the Measurement of Student Progress (MSP) test by race, LEP, and income from 2010-2012.

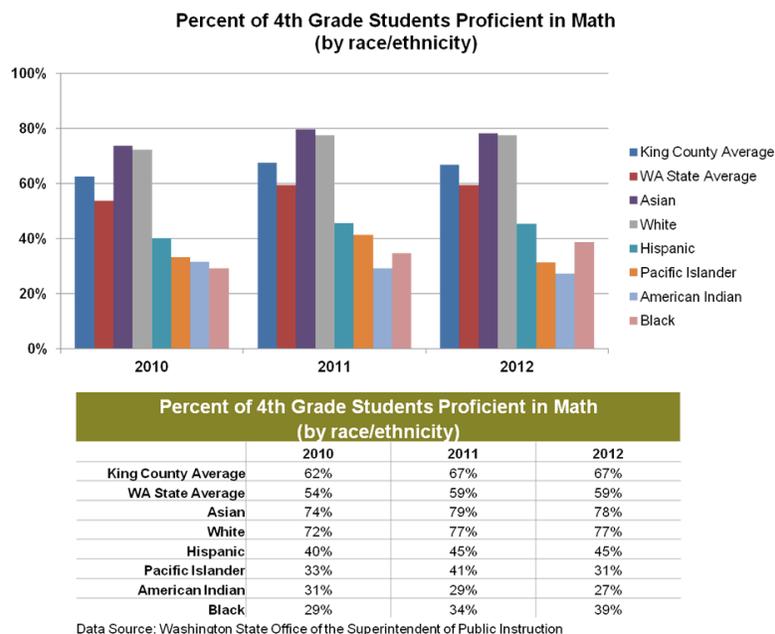
What is the Measure Significance?

Research from the Brookings Institution found more than a quarter of jobs in the Seattle-Tacoma-Bellevue area are Science, Technology, Engineering, and Math (STEM) jobs.²³ Early learning and competency in mathematics is an important preparation for King County youth to successfully learn STEM skills and compete in the marketplace.

What is the Measure Status?

The performance gap between students by race/ethnicity is striking. Fourth grade math proficiency rates for Asian and White students are consistently near 75-80 percent while Hispanic, Pacific Islander, American Indian and Black/African American students score in the range of 25-45 percent proficiency. The average math proficiency rate in King County is 62 percent. Students who do not succeed in math may have difficulty completing grade level requirements on time.

Figure 18



²² [Measurements of Student Progress \(Grades 3-8\)](#)

²³ Rothwell, J. (2013). The hidden STEM Economy. The Brookings Institute.

What is the Measure Availability?

These data are reported by OSPI and is available to download in an excel file from their website. The King County AIMS High website reports OSPI data as shown in figure 18.

Data Limitations

OSPI's Measurement of Student Progress is changing in spring of 2015 to an assessment called Smarter Balanced.²⁴ This change in assessment will impact the ability to look at change over in this indicator.

English Language Learners Making Progress Learning English

Measure Definition: Annual Measurable Achievement Objectives - 1 (AMAO-1).

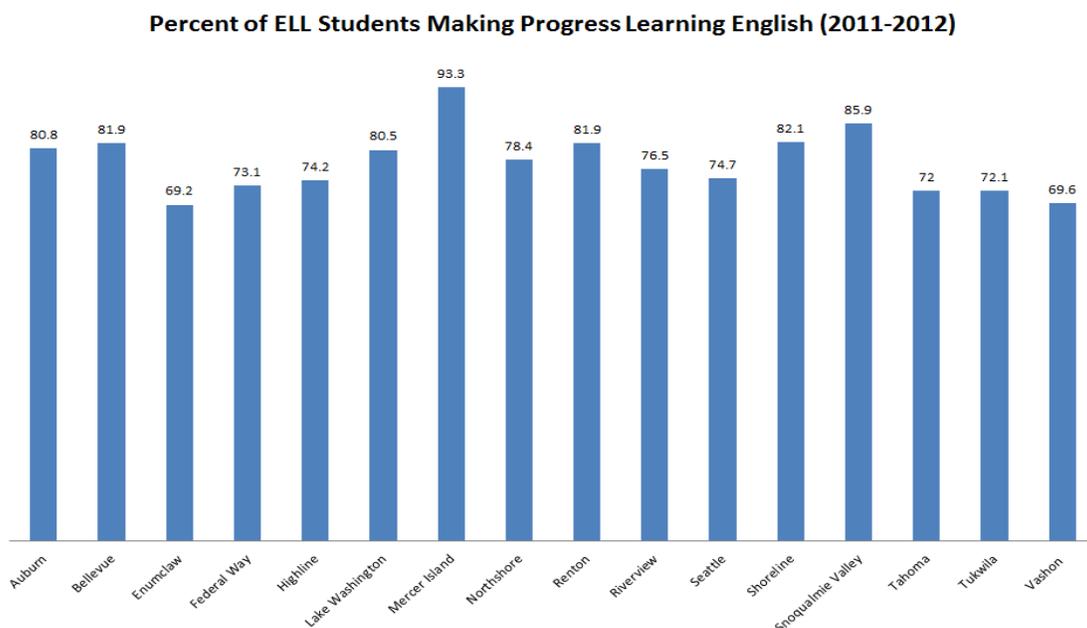
What is the Measure Significance?

Making progress learning English is an important contributor to student success. In King County, 53 percent of Limited English Proficiency students graduate in 4 years. Figure 19 is the OSPI Annual Measurable Achievement Objectives Summary (AMAO-1), and represents the number of students making satisfactory progress learning English every year. Through improving student success in learning English, the County can increase the likelihood that English Language Learner students will be able to learn and succeed in all their courses.

What is the Measure Status?

These data provide a way to understand the differences amongst school districts in supporting English Language Learners to achieve proficiency. These data are tracked by the Road Map project as a component of educational success for schools in South Seattle and South King County.

Figure 19



²⁴ [Measurements of Student Progress \(Grades 3-8\)](#)

What is the Measure Availability?

These data are reported annually by OSPI and are available to download in an excel file from its website.

Data Limitations

It is important to note this dataset is fairly young. The 2010-2011 school year was the first year this information was reported on. Although this dataset appears stable, it may take one to two more school years to show a constant trend or change over time.

Parent Perception of Cultural Responsiveness

Measure Definition: Composite score of 7 questions that revolve around a school's willingness to illicit parent feedback and overcome cultural barriers. See metadata for complete list of questions.

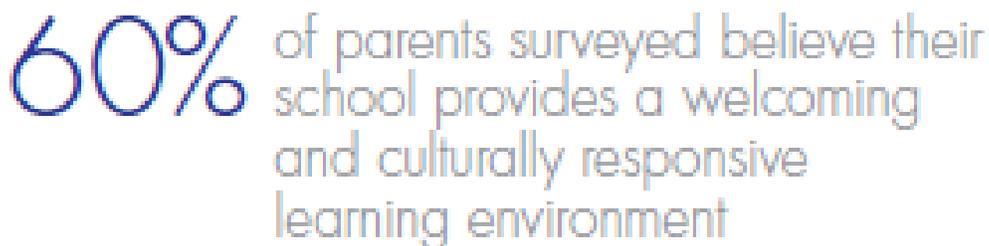
What is the Measure Significance?

Parent engagement is an important piece of student success. Engaging parents who come from non-dominant communities and identities in a way that is culturally responsive can boost critical relationships and help support student success.²⁵ Lack of cultural relevance can be a barrier for parents who seek to engage and support their children's education.²⁶

What is the Measure Status?

The data in figure 20 was collected for the first time in 2013 as part of the Road Map Project Regional Parent Poll and included a pool of 2,051 parents from the Road Map Region.²⁷

Figure 20



60% of parents surveyed believe their school provides a welcoming and culturally responsive learning environment

What is the Measure Availability?

It is unclear at this time how frequently this information will be updated. Data from the 2012 survey cannot be disaggregated at the school level. This indicator is part of a set of common parent engagement indicators developed in collaboration between the University of Washington college of Education, Road Map Project Community Network and Data Advisors Group. It is possible, cost permitting, to employ the questions used here in the Communities Count or King County Residential Survey to obtain these data for the county at large.

²⁵ Ishimaru, A. M., Lott, J., Fajardo, I., & Salvador, J. (2014). Towards Equitable Parent-School Collaboration: Developing Common Parent Engagement Indicators (White Paper). Equitable Parent-School Collaboration Research Project, Seattle, WA: University of Washington.

²⁶ OneAmerica. (2012). Breaking Down Education Barriers: Lessons From Immigrant Youth and Families in South King County.

²⁷ Data Source: Road Map Project 2013 Results Report

Data Limitations

These data include only Road Map Region Schools (Auburn, Federal Way, Highline, Kent, Renton, Tukwila and South Seattle Public Schools). As this is a survey measure, collecting this information for the entire county would come at a cost. At the time of this publication the questions that contribute to this measure were unidentified.

On-Time High School Graduation Rates

Measure Definition: Adjusted four-year cohort graduation rates by race, LEP and income.

What is the Measure Significance?

Most living-wage jobs require a minimum of a high school diploma or equivalent. High school completion prepares students to go on to college, into the job market or to apprenticeship training programs. On average, high school graduates earn more than peers who did not complete high school or obtain an equivalent.

What is the Measure Status?

The data displayed in figure 21 and 22 show four-year adjusted cohort (students who graduated in four-years). While the average King County graduation rate is almost 80 percent, major differences exist between race/ethnicity. During the 2011-2012 school year, 55 percent of American Indian Alaska Native students graduated on time. Further, Limited English Proficiency students have a graduation rate of 53 percent and 65 percent of low-income students finish high school on time. Figure 23 shows the graduation rate by school district, noting that school districts with lower on-time graduation are often the schools that teach a higher concentration of students of color, low-income and those with LEP.

Figure 21

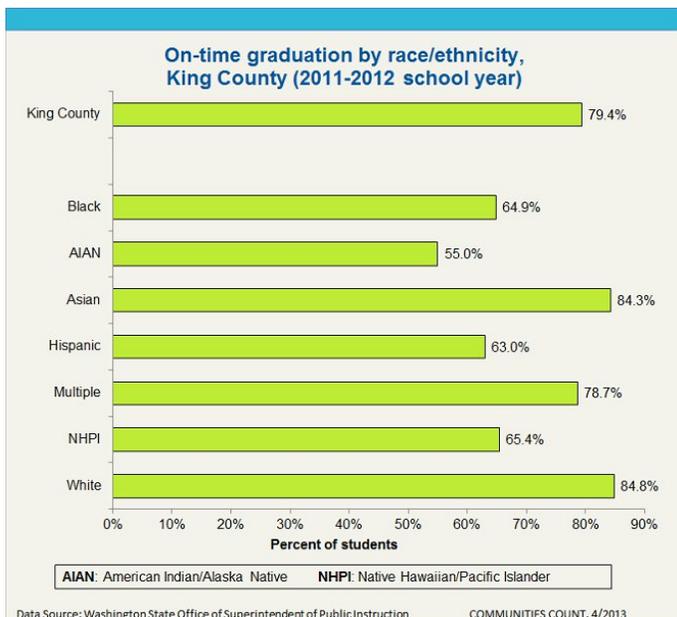


Figure 22

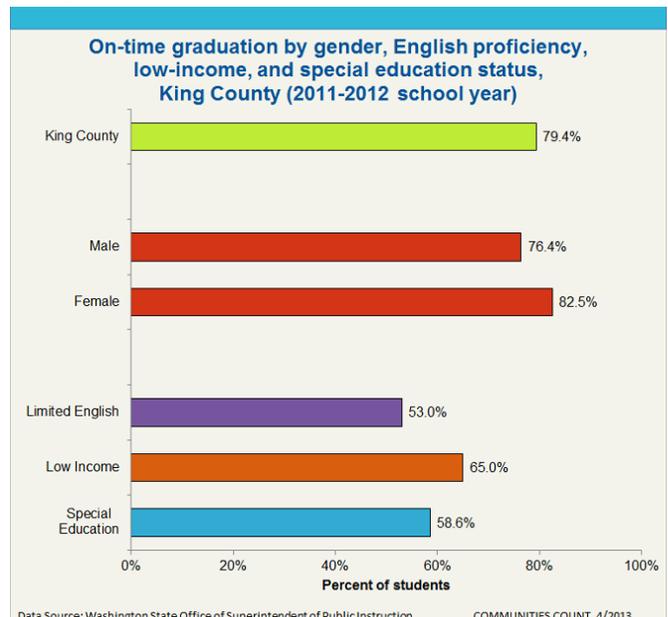
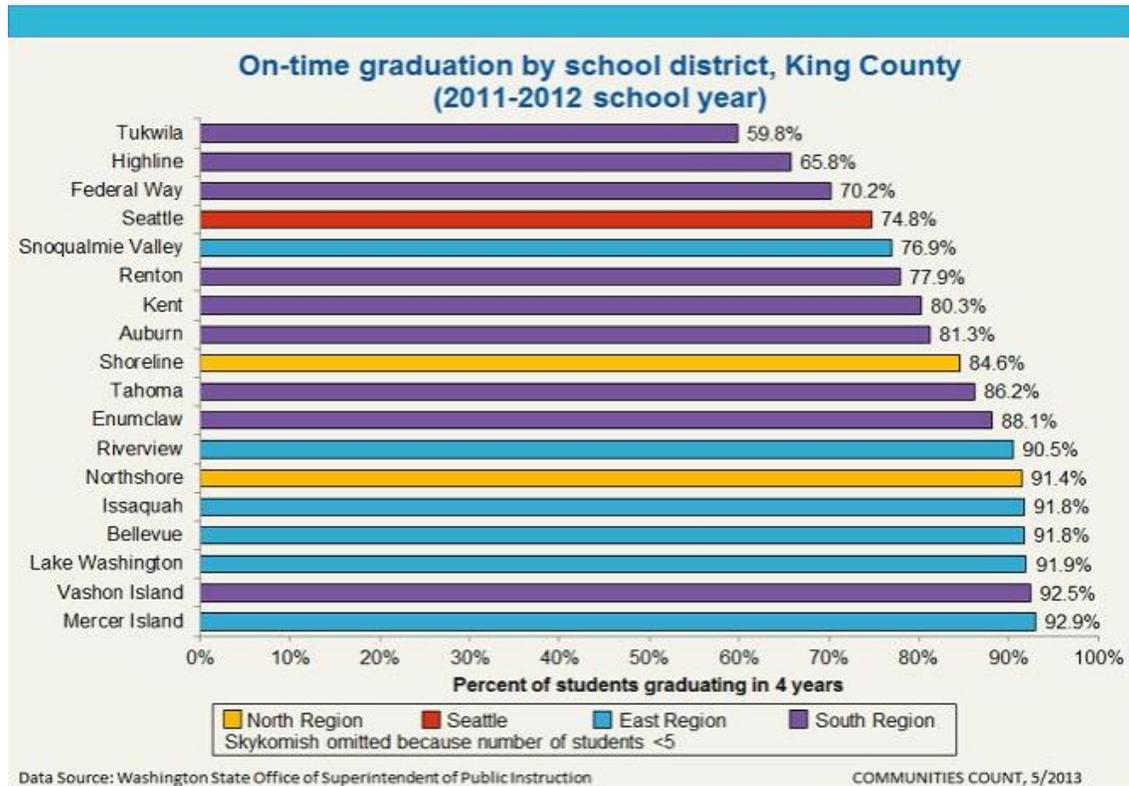


Figure 23



What is the Measure Availability?

These data are reported by OSPI and are available to download in an excel file from its website. Data are reported annually and are available for both four-year and five-year adjusted graduation cohorts. Five-year cohorts represent the number of students who complete a high school five years after beginning. Data are collected and analyzed by Communities Count.

Data Limitations

Communities Count produces analysis of this OSPI dataset; however, the frequency with which Communities Count will continue this analysis is unknown.

Dropout Rates

Measure Definition: Total number of students who have dropped out of high school divided by the net total number of students, by race, LEP and income.

What is the Measure Significance?

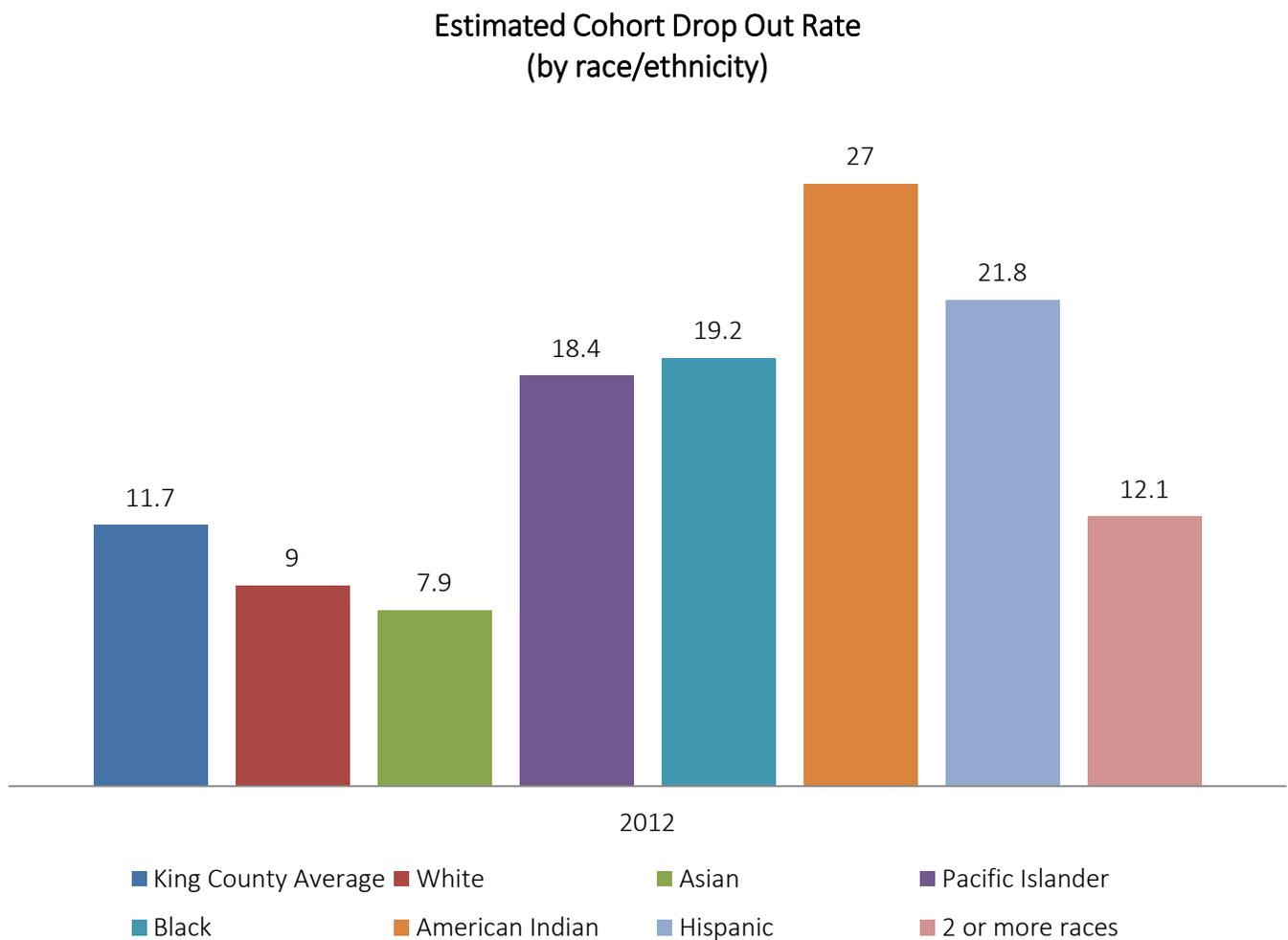
A high-school diploma is increasingly a basic standard for employment; students who do not obtain a high-school degree have significantly different lifetime earnings than those who complete further education. Almost 11 percent of youth

between the ages of 16-24 are not in school and are unemployed.²⁸ Students who drop out of high school are at a greater risk of being both unemployed and not connected to education, setting them on a course where it is difficult to achieve success. By reducing the number of students who drop out of high school, the County can impact graduation rates and student success.

What is the Measure Status?

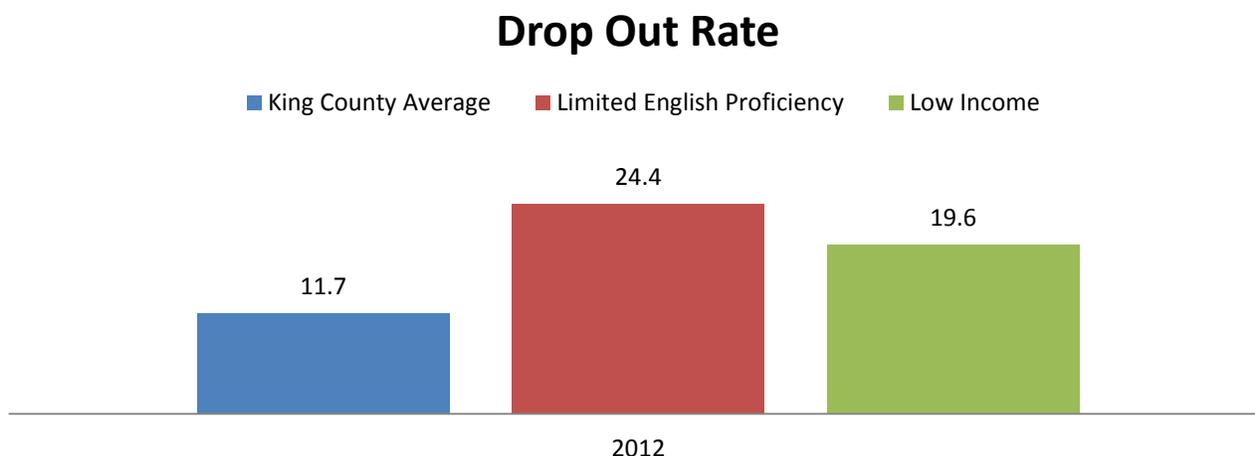
The estimated cohort dropout captures the percentage of students who dropped out of school between 9th and 12th grade as a percentage of all students in a particular subgroup (race/ethnic, LEP, income, etc.). American Indian students have a dropout rate more than two times the county average and more than three times the dropout rate for white students. Low-income students are at an elevated risk to drop out and students reporting limited English proficiency are more than twice as likely as the county average to drop out.

Figure 24



²⁸ 2013 Opportunity Index. Measure of America and Opportunity Nation. Retrieved from: <http://opportunityindex.org/#9.00/47.548/-121.983/King/Washington>

Figure 25



What is the Measure Availability?

These data are reported by OSPI and are available to download in an excel file from its website. Data are reported annually and are available for both four-year and five-year adjusted graduation cohorts. No identified source is annually producing reports including drop out data about students in King County by race/ethnicity, LEP and Low-Income status.

Data Limitations

Many students leave school without notifying the school of their intent to drop out, therefore, the dropout rate is not a precise measure. It is possible that the dropout rate also captures students who moved or transferred schools without providing proper notification to their school of origin. Producing these data would require staff time to access and analyze transfer data to understand if there is potentially a double count in the drop out dataset.

Discipline Rates

Measure Definition: Percent of total disciplinary actions, which include: short term suspension, long-term suspension, or expulsions.

What is the Measure Significance?

Research shows that schools with higher rates of suspension and expulsion are likely to have lower graduation rates when compared to those schools with lower suspension and expulsion rates. Following this logic, students who are not in school cannot learn and are at higher risk for drop out. It is noteworthy that these data are being reported on in the midst of a civil rights investigation launched March 2013 by the U.S. Department of Education on disciplinary action occurring in Seattle Public Schools.

What is the Measure Status?

Figure 26 and 27 provides information about the race/ethnicity of students in the Bellevue and Auburn school districts who were either suspended or expelled during the 2012-2013 school year. Creating this graph requires individual analysis of each school district. Due to the time constraints of this project, these data have not yet been analyzed for each school district. The graphs presented provides an example of how this data might be analyzed and reported by school district.

Discipline actions include short term suspension, long-term suspension, or expulsions. These data do not capture differences in the types of violations students committed to receive disciplinary action, nor does it capture the length of

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time of suspensions or expulsions. Both graph displayed below shows information by race/ethnicity, this data is also available by income (Free Reduced Lunch), Special Education, and Gender and Bilingual Status.

Figure 26

Disporportionality in School Discipline: Bellevue 2012-2013

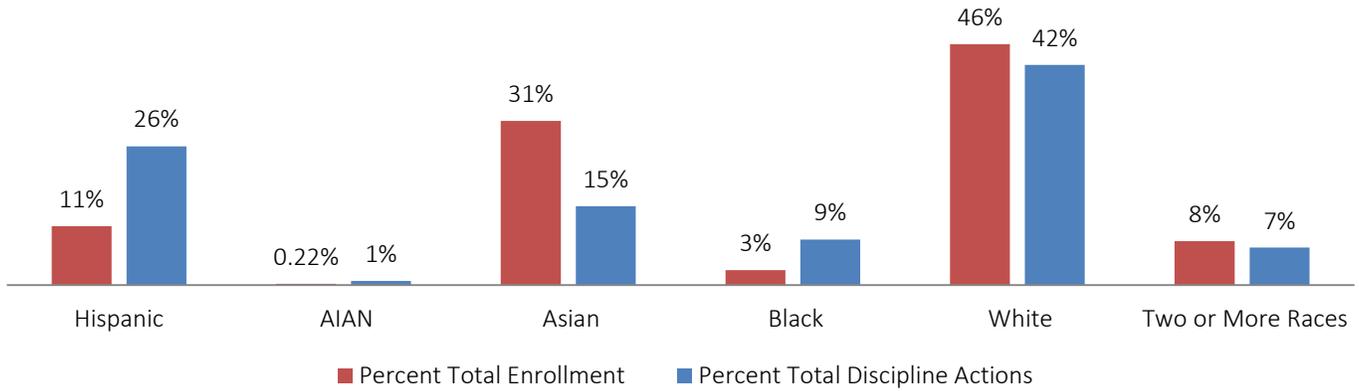
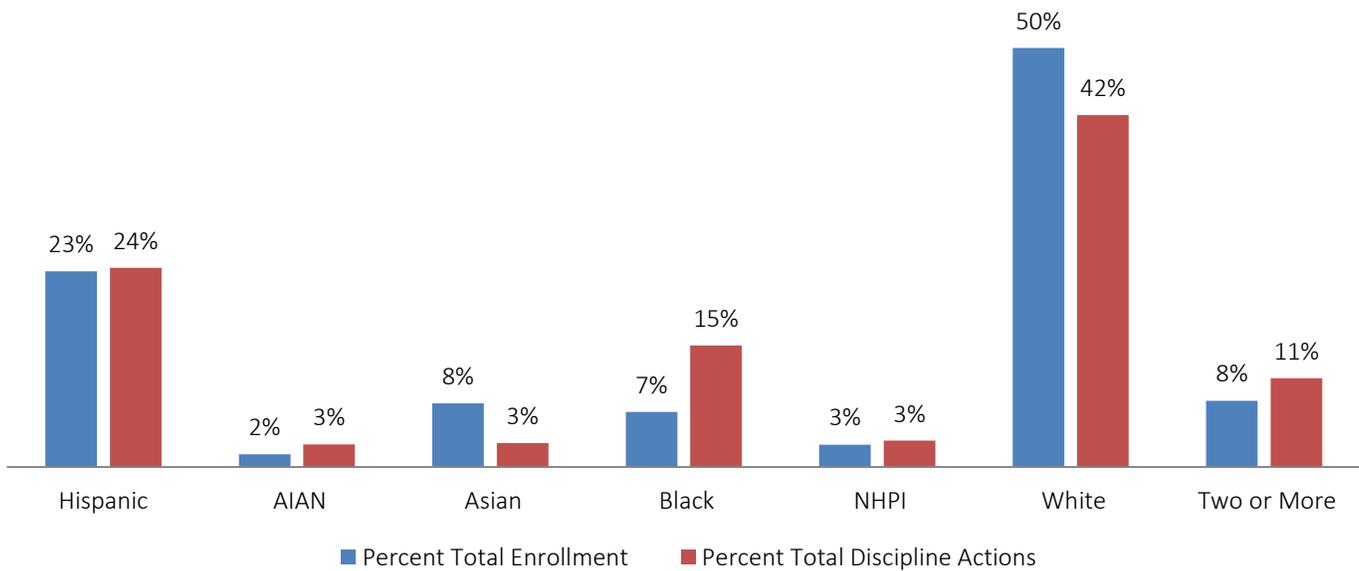


Figure 27

Disproportionality in School Discipline: Auburn 2012-2013



What is the Measure Availability?

The raw data associated with this indicator are reported by district via OSPI and are available to download in an excel file from its website. These data require staff time to analyze and create visual analysis.

Data Limitations

OSPI began reporting discipline information with detailed race/ethnicity information in 2012-2013 school year through the Comprehensive Education Data and Research System (CEDARS). Trend data is not available at this time. This data file is not readily available by county and requires analysis of school districts. As this is a relatively new reporting requirement the look and content of reports may change and become more refined over time. At the school district level data suppression and population size become an issue with some districts suppressing data for many students of color. If these data are selected as an indicator it is advisable to contact OSPI Coordinator of Student Information and inquire about a file for the entire county as receiving data aggregated at the county level may side-step the issue of suppression.

Direct Enrollment

Measure Definition: Direct enrollment into a two or four-year college after high school graduation.

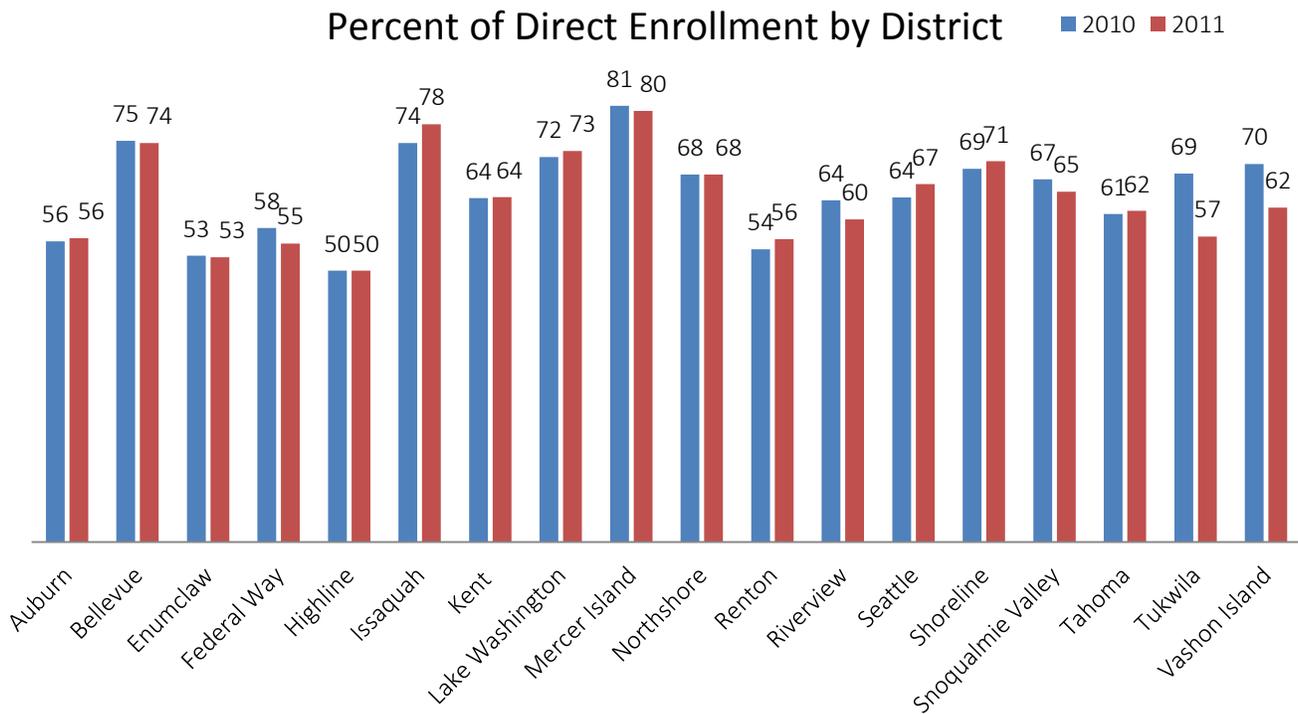
What is the Measure Significance?

Not all students who complete high school enroll directly in college. Direct enrollment is key part of the education to career pipeline. Those who complete college tend to have higher earnings and career success rates compared to those without a college degree.

What is the Measure Status?

Direct enrollment rates are the lowest in Highline and Auburn, while Mercer Island and Issaquah have the highest direct enrollment rates amongst school districts in King County. Tukwila and Vashon Island both experienced substantial decreases in direct enrollment rates between the 2010 and 2011 school years.

Figure 28



What is the Measure Availability?

Data are available by graduation year annually. While the data capture information annually, there is an approximate two year lag time in reporting, making the most recent data approximately two years old. This two year lag is common in much of the data presented in this report. Data can be disaggregated by gender, ethnicity, and income (free/reduced lunch status).

Data Limitations

These data are available via a free online web tool from the BERC Group. Data can be retrieved manually at the School district level with subgroup data available for race/ethnicity. Retrieving data manually at the sub-group level would require staff to retrieve data for each ethnicity group from the site as the data are not available as an excel download file. It is possible to request a custom report, at cost, from the BERC Group. Cost is undetermined but based on information from an interview with staff from the Road Map Project, cost is expected to be minimal.

Jobs and Job Training



Jobs and Job Training

Ordinance Definition: Jobs and job training that provide all residents with the knowledge and skills to compete in a diverse workforce and with the ability to make sufficient income for the purchase of basic necessities to support them and their families

Living wage jobs can help families living in poverty improve their circumstances. Access to good jobs is linked to education and other training opportunities.

The recommended indicators below were selected for their ability to measure jobs and job training. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measures for this determinant are identified below in italics. Essential measures are the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Availability of Living Wage Jobs

- Wage gap
- *Unemployment*

Poverty and Wealth

- Poverty Rate
- *Median Household Income*

Key Findings

- The unemployment rate for Black/African American residents was close to 16 percent between 2010 and 2012, which was nearly double that of the unemployment rate for White and Asian residents.
- Between 2007 and 2011, Black/African American, American Indian/Alaska Native, and Hispanic/Latino residents experienced poverty at nearly three times the rate of White residents in King County.
- In King County, it is estimated that families with one working adult that earns minimum wage are living roughly \$26,000 below the Federal Poverty Threshold and \$44,000 under the living wage necessary for the region.
- There is a \$37,200 wage gap between the highest earning households (Asian residents) and the lowest earning households (Black/African American residents) in King County.

Limitation of Ordinance Definition

The determinant definition does not explicitly account for adult learners who return to a traditional four year university or community and technical college to achieve a degree or change career paths. Explicitly expanding the definition beyond job training to include adults returning to school or changing careers will better capture the intent of this determinant.

Wage Gap

Measure Definition: Comparison between poverty level, current minimum wage, and living wage.

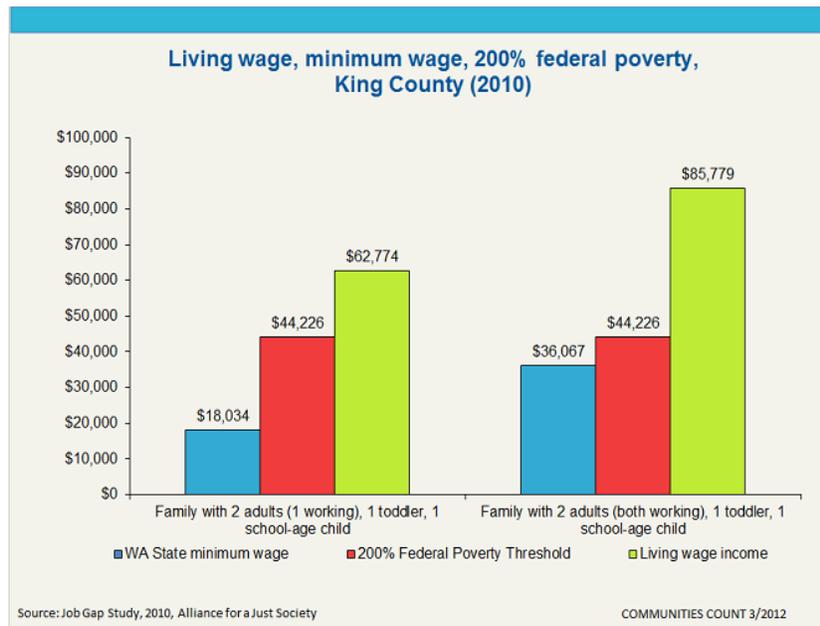
What is the Measure Significance?

The living wage is defined as the minimum income necessary to purchase basic necessities and save 10 percent of earnings without assistance from public programs.²⁹ Tracking the living wage is a means to understand gaps between the minimum wage and self-sufficiency. The living wage provides insight into self-sufficiency in a way that the Federal Poverty Threshold does not. The Federal Poverty Threshold is based on USDA food budgets for minimal nutritional standards and has only been updated for inflation since it was developed in the late 1950's. The measure does not take into account the regional variance in cost of living. The Self-Sufficiency Standard, displayed in figure 29, "living wage income" was created as a measure to understand anti-poverty efforts in Washington State.³⁰ Comparing minimum wage earnings, the poverty threshold and the Self-Sufficiency Standard allows the County to track and understand the economic situation and barriers that minimum and low-wage workers face.

What is the Measure Status?

Although Washington State has one of the highest minimum wages in the country, the current state minimum wage falls significantly short of the income necessary for families to achieve self-sufficiency in King County. Figure 29 demonstrates that a family with one working adult earning minimum wage is living roughly \$26,000 below the Federal Poverty Threshold and \$44,000 under the living wage necessary for the region. Similarly, when two adults in the home work at minimum wage the family still falls \$8,000 below the Federal Poverty Threshold and \$49,000 under the living wage for King County. Figure 30 illustrates the availability of living wage jobs in King County. In 2011, most jobs in the county paid a wage that supported self-sufficiency. Less than 40 percent of jobs supported self-sufficiency for households with at least one school-age child.

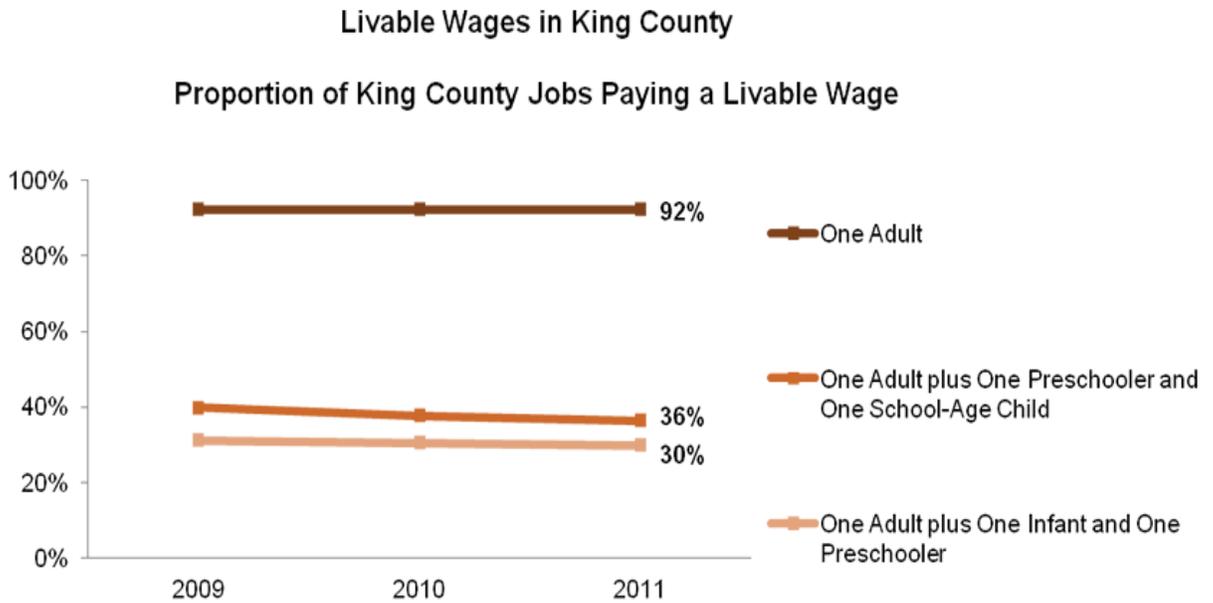
Figure 29



²⁹ Alliance for A Just Society. *Searching for Work That Pays: 2010 Job Gap Study*

³⁰ *The Self-Sufficiency Standard For Washington State 2011*

Figure 30



Data from *The Self-Sufficiency Standard for Washington State, 2011*. See technical note for more details.

What is the Measure Availability?

Data from figure 29 is analyzed by Communities Count. The data used to create this graph comes from the Annual Job Gap produced by the Alliance for a Just Society and is based on data for Washington State. Figure 30 is available on King County [AIMS High](#) website, but was developed by University of Washington's Center for Women's Welfare for the Workforce Development Council of Seattle-King County. The University of Washington and King County Workforce Development Council produces a Self-Sufficiency Report that is specific to King County every three years. The first publication was in 2011 and the second is expected in the fall of 2014.

Data Limitations

The analysis of updated information is crucial for truly understanding the current condition of living wages in King County.

Unemployment

Measure Definition: Percent of the civilian population age 16 and over without a job, were available to start a job and actively looking for work during the last four weeks.

What is the Measure Significance?

Unemployment creates a significant strain on families and communities. While measuring unemployment is a standard signal of economic prosperity, most analyses fail to include a differentiation by race/ethnicity. Understanding the significant variance in unemployment rates may inform strategies to improve economic security.

What is the Measure Status?

While unemployment in King County is lower than the national average, closer examination by race and place reveals nuances that unemployment is significantly worse than it appears. Figure 32 shows the unemployment rate for African Americans was nearly 16 percent between the years 2010 and 2012. Comparatively, White and Asian residents had

unemployment rates just above 7 percent. Additionally, figure 33 the map reveals areas in Tukwila, Burien and Auburn where unemployment rates are above 16.5 percent.

Figure 31



Figure 32

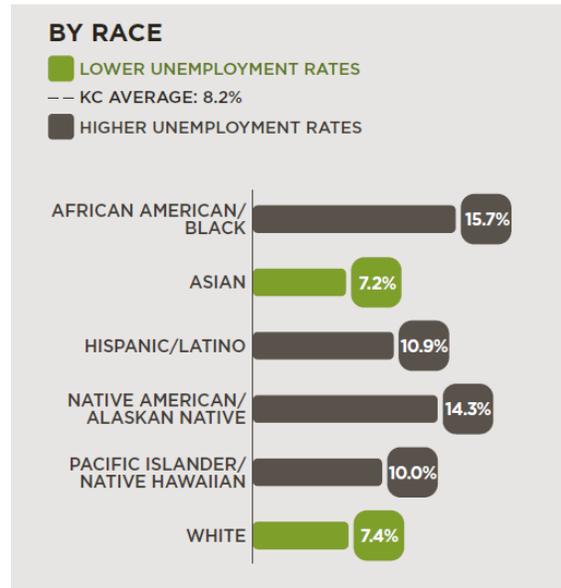
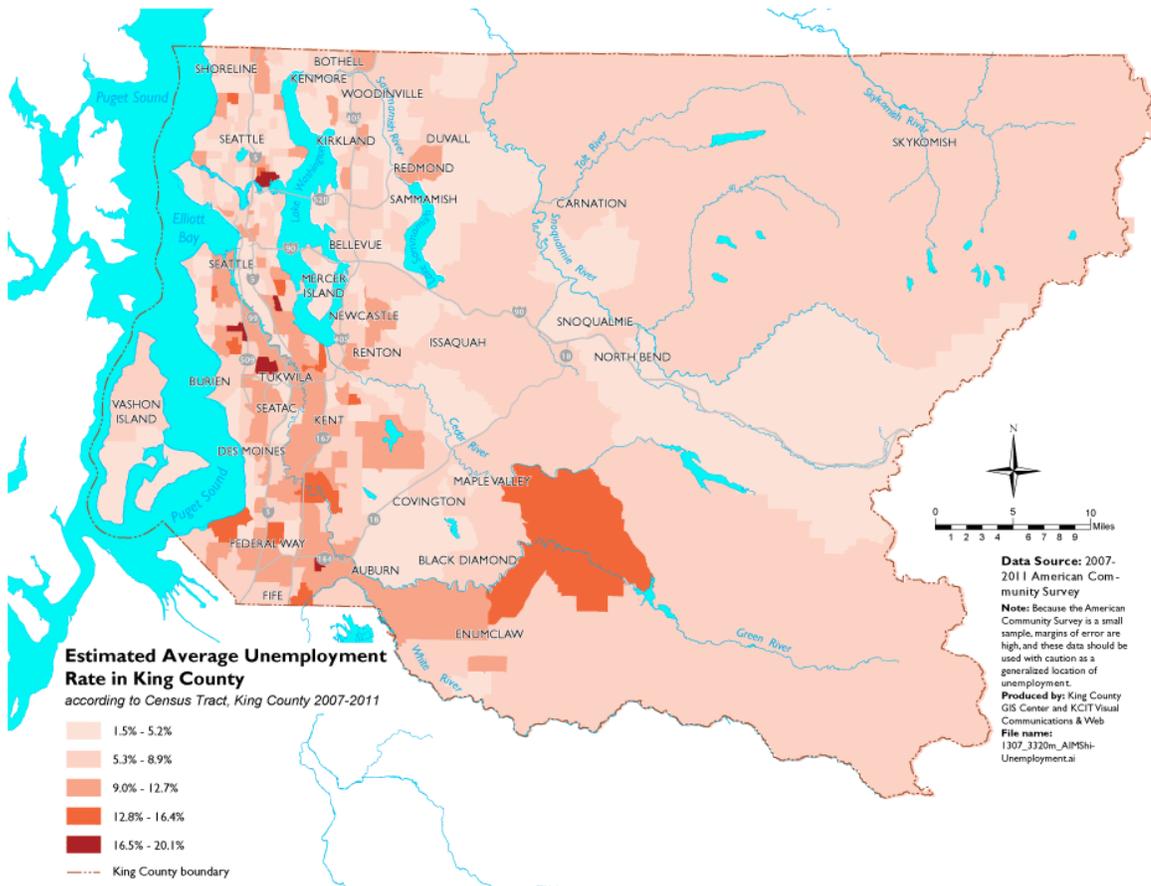


Figure 33



What is the Measure Availability?

This information is collected annually by the American Community Survey (ACS) and decennially by the US Census. This dataset is the base of analysis for the bar graph which is part of the 2013 ESJ Infographic and the map which is displayed on the King County AIMS High website.

Data Limitations

ACS data has a lag time in reporting of roughly two years so in any given year the most recent data available is two-years old. The County's unemployment rate was recently reported to be at near 4.7 percent. However, while these data may not give the most updated figures on unemployment, it is worth exploring historical data to see if it is possible to understand the nature of the disparities in unemployment rates. It is expected that the disparity in unemployment rates would remain constant while the rates may fluctuate.

Poverty Rate

Measure Definition: Percent of people living under 100 percent of the Federal Poverty Level.

What is the Measure Significance?

Areas with high concentrations of poverty may struggle to overcome a variety of place based disadvantages. Poverty is a significant social determinant of education, jobs, and healthy environment. Decreasing poverty can positively impact many of the other determinants of equity. Through understanding and measuring poverty, the County can understand what areas may experience barriers to access and equity.

What is the Measure Status?

Figure 34 highlights areas where people are living under 100 percent of the Federal Poverty Level. Based on the five year average of 2007 to 2011, areas in North East Seattle through South County experienced poverty above the county average of 10.5 percent. These locations range from 14 percent of residents experiencing poverty to 28 percent. Figure 35 shows the population groups who report experiencing the highest level of poverty in King County. African American, American Indian/Alaska Native and Hispanic/Latino people experience poverty at nearly three times the rate of White individuals. It is important to note that these are the same populations that also experience the highest level of unemployment.³¹

³¹ [Building Equity and Opportunity - King County](#)

Figure 34

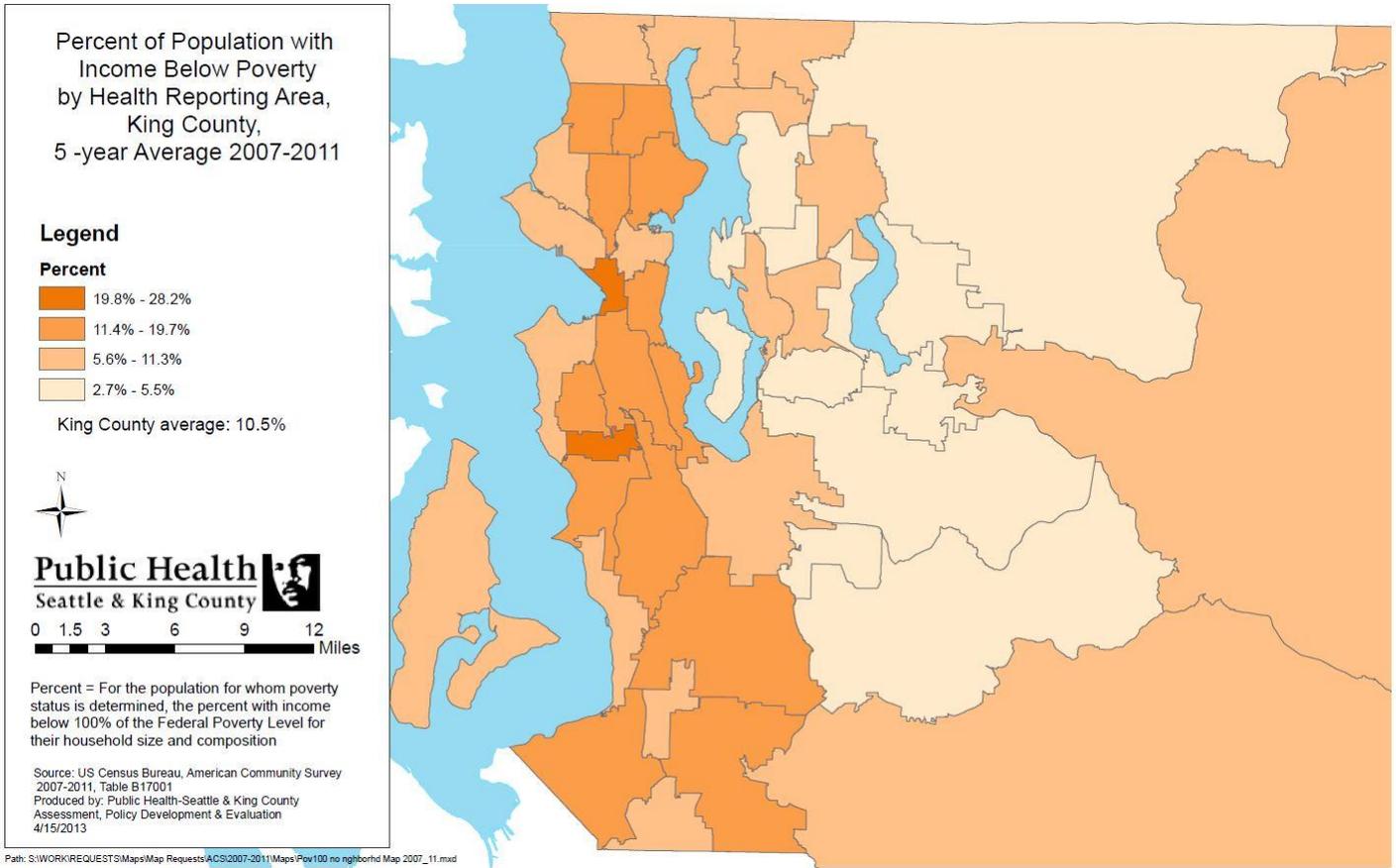
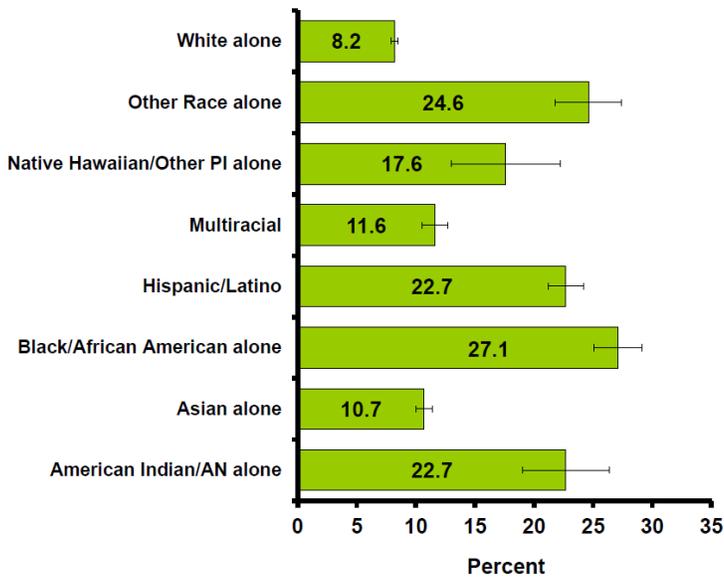


Figure 35

Percent Living Below Federal Poverty Level by Race/Ethnicity, King County, 2007-2011 Combined



Data Source: American Community Survey, U.S. Census
Produced By: Public Health - Seattle & King County; Assessment, Policy Development, & Evaluation, 12/12

What is the Measure Availability?

This information is collected annually by the U.S. Census Bureau’s American Community Survey (ACS). This dataset is analyzed and reported by the Public Health-Seattle & King County and Communities Count. Spatial representation of data is developed by Public Health-Seattle & King County.

Data Limitations

ACS data has a lag time in reporting of up to two years so in any given year the most recent data available is one to two years old. It is unclear at this time how frequently Communities Count will update its analysis.

Median Household Income

Measure Definition: Household income includes income of the head of household as well as all other household members over 15 years old. The median household income divides the income distribution into two equal groups with half of all households above this number and half below.

What is the Measure Significance?

There is a growing income and wage gap in in the United States. Household income, homeownership, inheritance and other factors are drivers of the widening wealth gap. Household income, poverty, and unemployment together help to create understanding of where the greatest economic need is in our communities.

What is the Measure Status?

Median household income varies significantly by race/ethnicity. For example, in 2010 there was a \$37,200 wage gap between the highest earning households, who are Asian residents, and the lowest earning households, who are Black/African American residents. Additionally the map of median household income in figure 36 shows areas in North East Seattle, Central Seattle, Federal Way and Kent that have a median yearly income of less than \$15,000 to \$34,000.

Figure 36

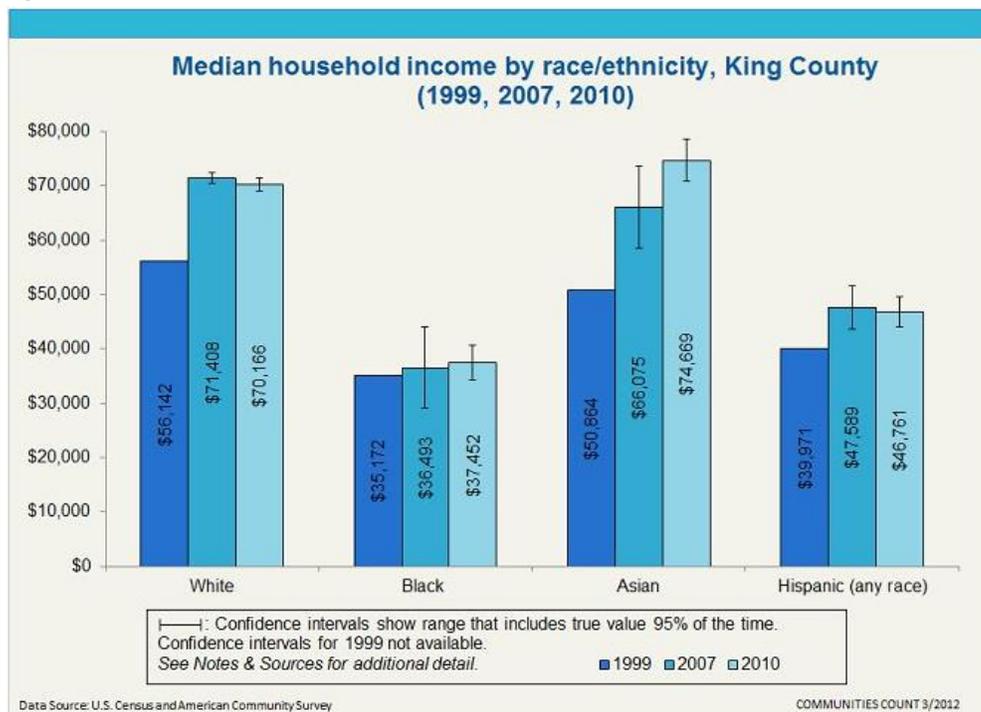
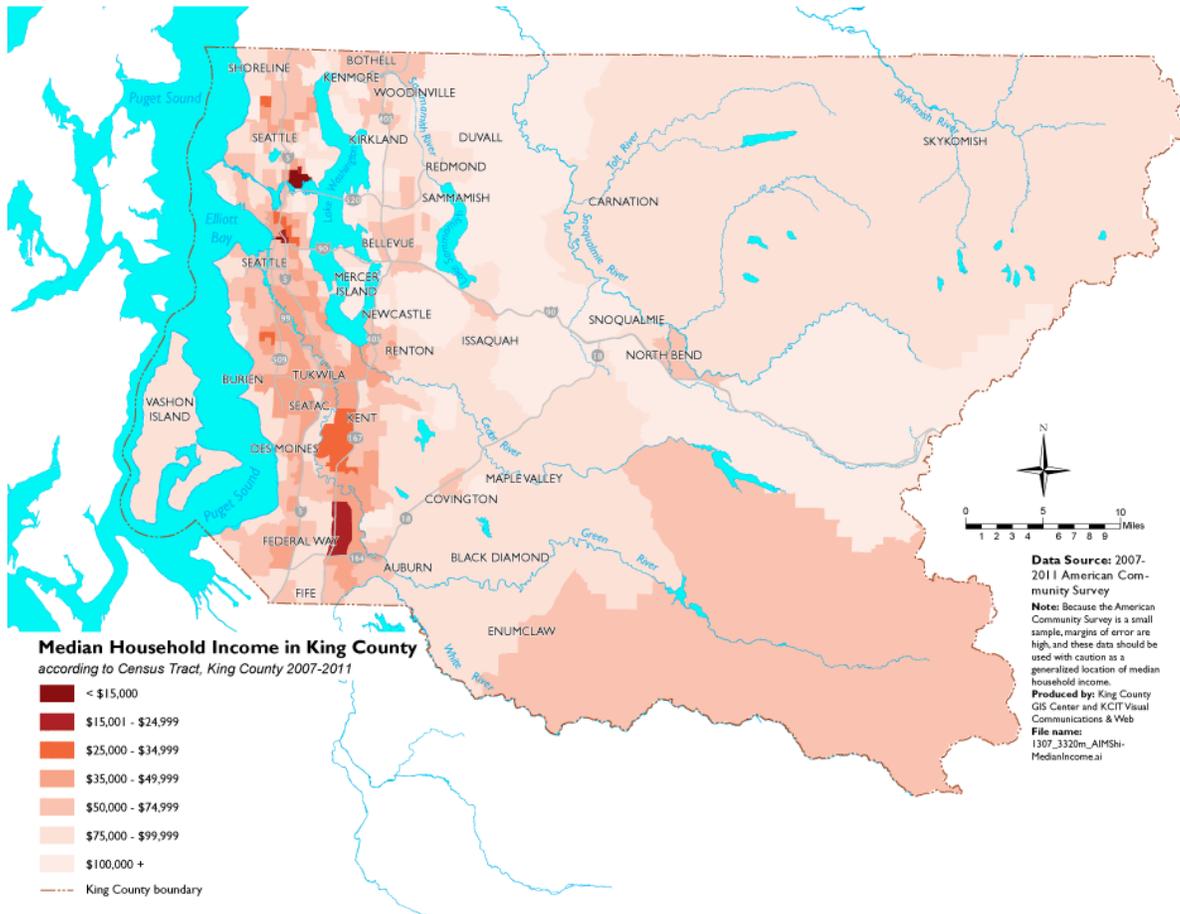


Figure 37



What is the Measure Availability?

This information is collected annually by the American Community Survey (ACS) program of the U.S. Census. This dataset is analyzed and reported by Communities Count/PHSKC. The spatial analysis is conducted by King County and is available on the [AIMS High](#) website.

Data Limitations

ACS data has a lag time in reporting of up to two years so in any given year the most recent data available is one to two years old. It is unclear at this time how frequently Communities Count will update its analysis.

Health and Human Services





Health and Human Services

Ordinance Definition: Health and human services that are high quality, affordable and culturally appropriate and support the optimal well-being of all people.

Tracking the overall condition of health in King County is critical for promoting optimal well-being for all people. Drawing awareness to health outcomes by race, place and income allows the County to uncover disparities and develop more specific intervention to improve health outcomes.

The recommended indicators below were selected for their ability to measure health and human services. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measures for this determinant are identified below in italics. Essential measures are the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

High Quality

- No Indicator Proposed

Access/ Affordable

- Unmet medical need
- *Uninsured Adults*
- Uninsured Children

Culturally Appropriate

- No indicator identified

Optimal Well-Being

- *Life expectancy*
- Infant Mortality
- Obesity
- Diabetes Prevalence
- Tobacco Use
- Frequent Mental Distress

Key Findings

- Expansion of the Affordable Care Act brought insurance coverage to nearly 200,000 additional people in King County.³²
- There is approximately a 10 year gap in life expectancy between areas of South King County where a high concentration of people of color, LEP, and low-income households reside and North and East King County.
- Mental distress is reported more frequently by residents in South and South East County

³² [Cover King County](#)

Limitation of Ordinance Definition

The language in this determinant is interpreted as having a primary focus on medical care. The language does not include other known contributing factors to health, such as environmental factors and behavioral health.

High Quality & Culturally Appropriate

Understanding and evaluating high quality and culturally appropriate health and human services is a topic surrounded by much discussion in the healthcare community. Given the time constraints of this project and the importance of these particular measures, the project team chose not to propose an indicator for this category because the project team did not have sufficient time to consult with stakeholders from the healthcare community. Given more time, the project team recommends incorporating the Healthcare Effectiveness Data and Information Set (HEDIS) and pursuing the following groups/organizations to define measures for this language.

- Washington Health Alliance
- Community healthcare providers
- Seattle & King County Public Health

Unmet Medical Need

Measure Definition: The number of adults who report not seeking medical care because of cost.

What is the Measure Significance?

Many people living in King County are unable to access medical services because of either a personal or structural barrier to care despite medical need. Access to health care is a contributor to health outcomes and years of healthy life. When people avoid or delay doctor visits it has a negative impact on their health status and may decrease the likelihood of early intervention for serious conditions. While the recent Affordable Care Act (ACA) expansion brought insurance coverage to nearly 200,000 people in King County some insurance plans include co-pays and other costs that may still prohibit some from seeking needed medical care.³³ Monitoring this indicator will provide a way to understand if health care related costs continue to remain a barrier following the ACA implementation. Understanding the amount of unmet medical needs allows the County to identify and create interventions for those in our community who do not have access to preventative services.

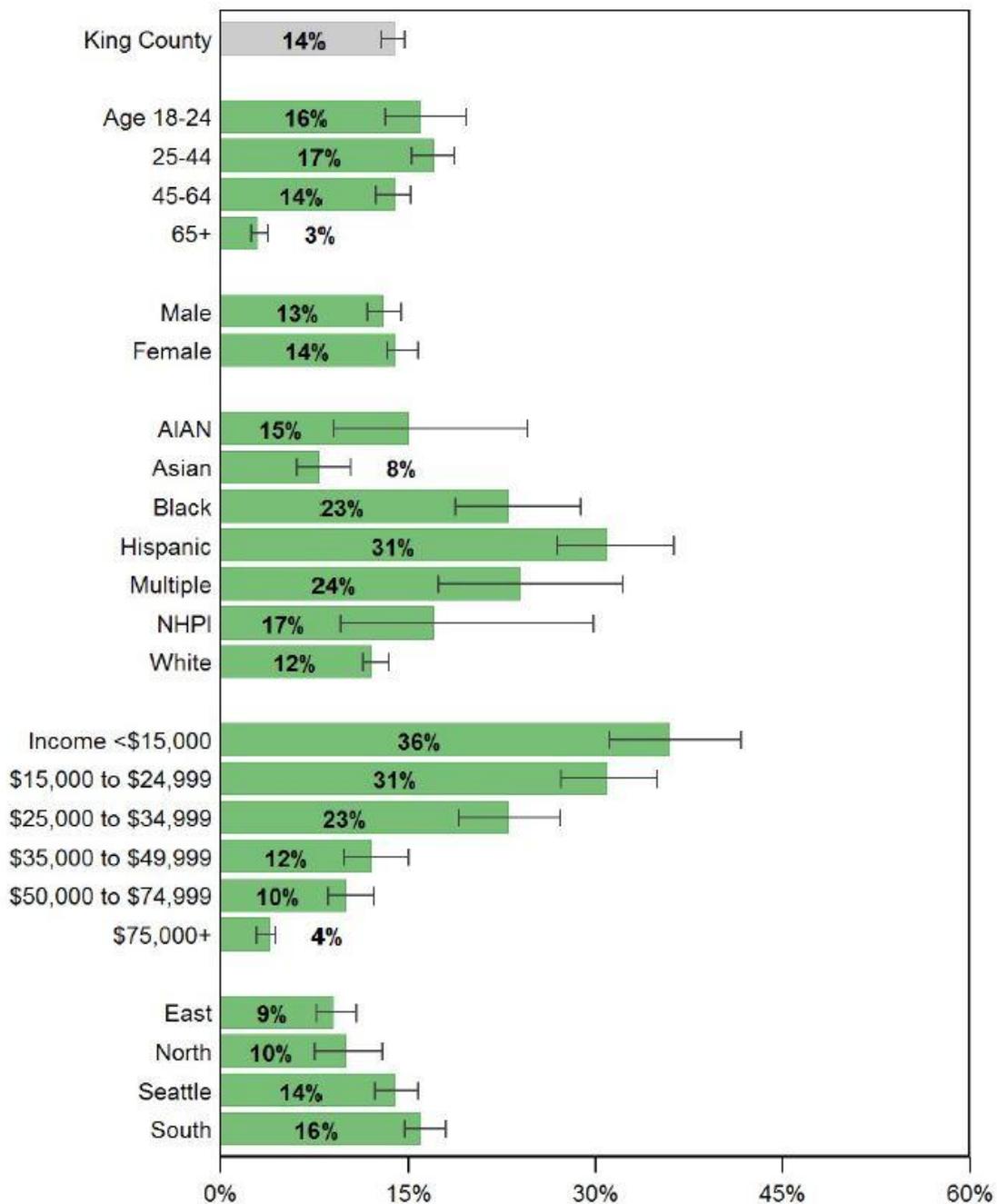
What is the Measure Status?

The Behavioral Risk Factor Surveillance System (BRFSS) collects this information from King County residents through a self-report survey. The trends in unmet medical need by income, race and region show that people who earn under \$35,000 per year, who identify as Hispanic and Black/African American, and who live in Seattle and South King County are most likely to have unmet medical need.

³³ [Cover King County](#)

Figure 38

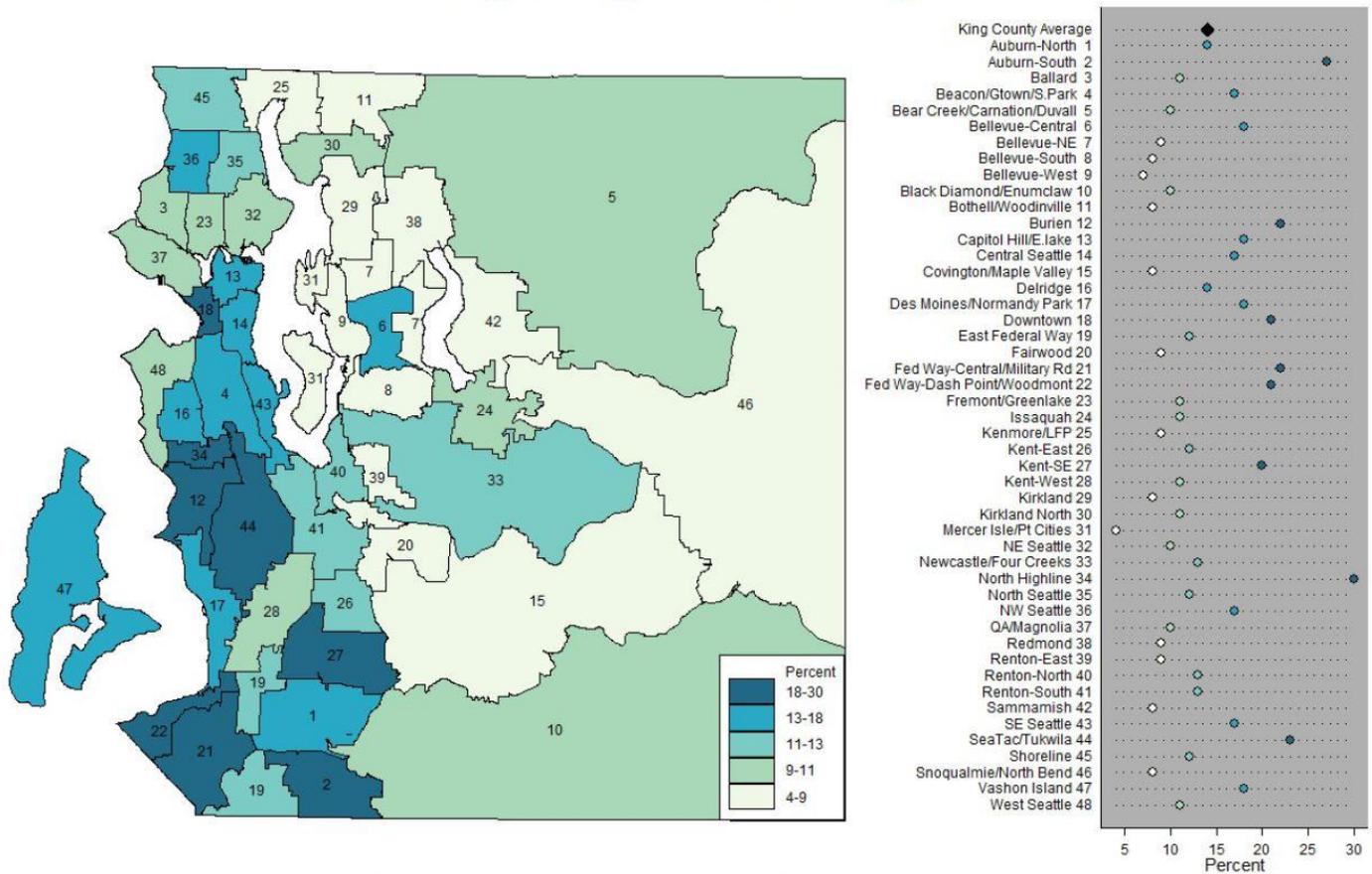
Unmet medical need (adults) King County, 2009-2013 average



Source: Behavioral Risk Factor Surveillance System.
 Prepared by Public Health - Seattle & King County, APDE, 12/2014.
 [-----] Confidence interval shows range that includes true value 95% of the time.
 * Too few cases to protect confidentiality and/or report reliable rates.
 § Too few cases to meet precision standard, interpret with caution.
 Persons of Hispanic ethnicity can be of any race and are included in the racial categories.

Figure 39

Unmet medical need (adults) by health reporting areas King County, 2009-2013 average



Note: HRA labels on the map match the chart on the right, listed in alphabetical order
 Source: Behavioral Risk Factor Surveillance System.
 Prepared by Public Health - Seattle & King County, APDE, 12/2014.

What is the Measure Availability?

BRFSS survey data collected by the Washington State Department of Health and reported to the Center for Disease Control (CDC) is generally considered a strong dataset. BRFSS data will continue to be accessible for use. Figure 38 and 39 are from Seattle & King County Public Health and it is anticipated to continue to be available by this organization in the future.

Data Limitations

Accuracy of respondent self-reporting, interviewer training and methodology all represent possible limitations in survey data. With respect to methodology, respondents who do not speak English or Spanish are not included in BRFSS survey results and those without a telephone are not contacted for this survey.

Uninsured Adults

Measure Definition: Number of adults 18 and over with no health insurance.

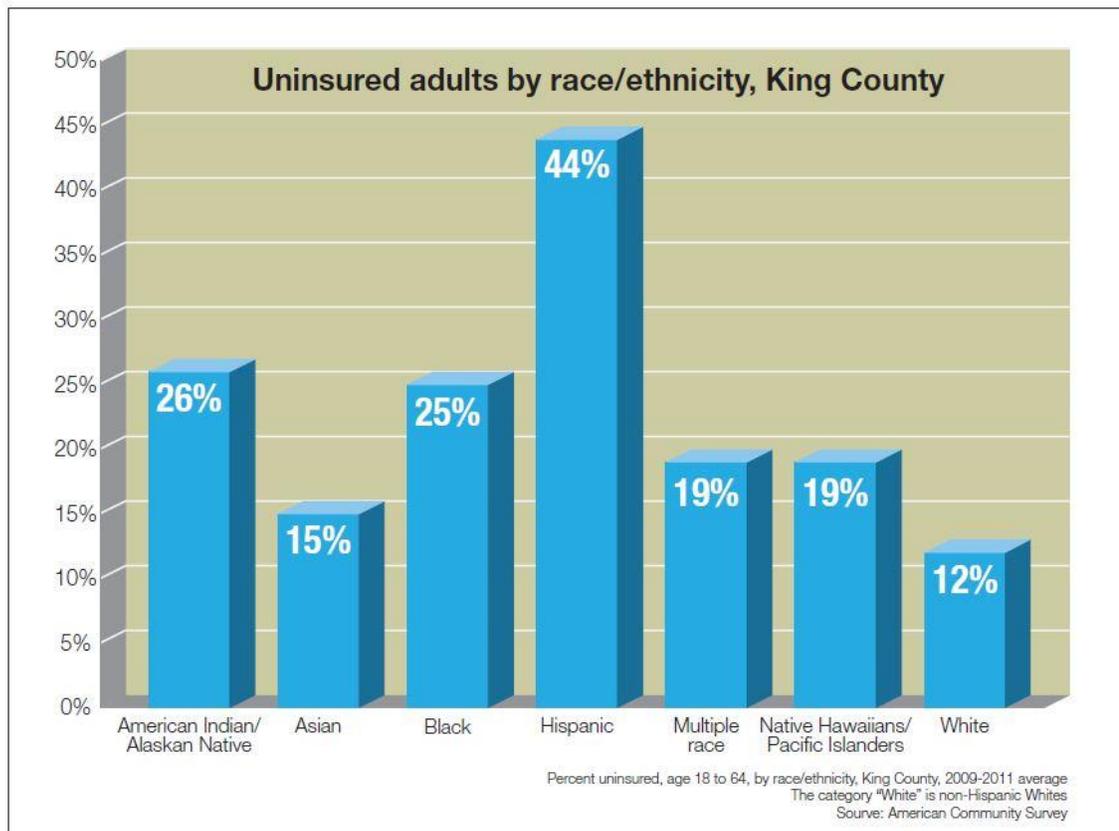
What is the Measure Significance?

Insurance helps to make medical care accessible and the lack of insurance is a barrier for engaging in preventative medical care or can create a significant financial burden for necessary treatment. Understanding the level of accessibility of medical care provides information about the health and financial challenges facing King County residents.

What is the Measure Status?

Since the implementation of the Affordable Care Act, nearly 200,000 have enrolled in private and Medicaid plans in King County.³⁴ Figure 40 shows the number of uninsured adults prior to the ACA, as more recent data become available, it will reflect changes in enrollment. Although ACA created opportunity for many people to gain insurance, populations still remain who are uninsured and/or who struggle to afford insurance including: lawfully present immigrants who have lived less than five years in the U.S. and undocumented immigrants.³⁵

Figure 40



³⁴ [Cover King County](#)

³⁵ [King County Affordable Care Act Fact Sheet \(2014\)](#). The impact of the affordable care act on uninsured adults in King County.

What is the Measure Availability?

This dataset is from the U.S. Census Bureau's American Community Survey (ACS) and analyzed by Seattle & King County Public Health/Communities Count.

Data Limitations

Although significant improvements in coverage have occurred, the lag time in ACS data reporting makes it difficult to understand the most current situation of uninsured adults.

Uninsured Children

Measure Definition: The number of children age 0-17 with no health insurance.

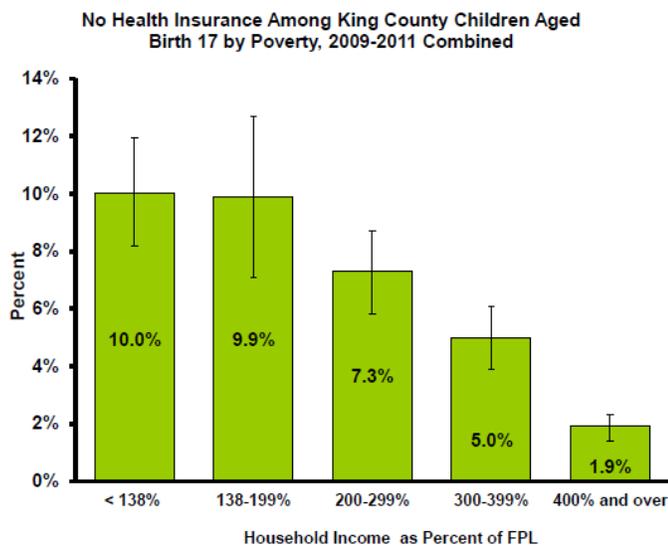
What is the Measure Significance?

Insurance helps to make medical care accessible during a very critical time of life: childhood. Lacking insurance is a significant roadblock for families seeking preventive care or treatment for their children. Understanding the level of accessibility of medical care for children provides information about the health and financial challenges facing King County residents.

What is the Measure Status?

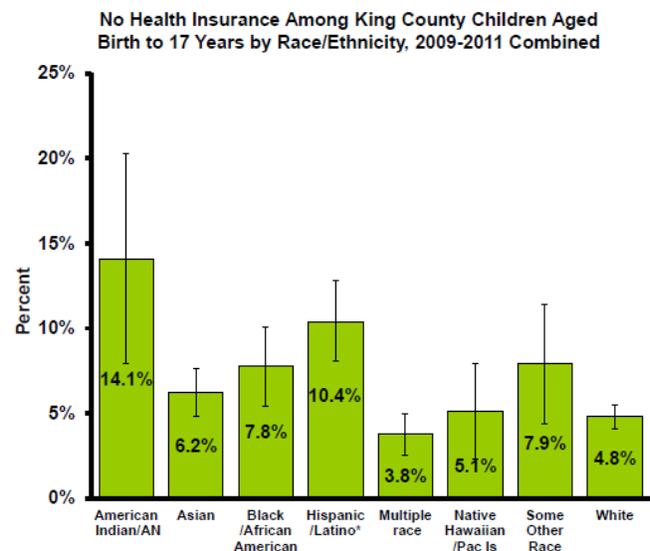
The data in figure 41 and 42 are from the ACS and analyzed by Seattle & King County Public Health. The analysis shows that the highest rates of uninsured children are in households that fall below 138 percent of the Federal Poverty Level (FPL) to 199 percent below the FPL. American Indian/Alaskan Native and Hispanic children are impacted by not having insurance at a higher rate than other ethnicities in King County. In Washington State children in families that are below 210 percent of the FPL qualify for free medical coverage under Apple Health for Kids which is part of Medicaid.³⁶

Figure 41



Data Source: 2008-2011 American Community Survey
Produced By: Assessment, Policy Development & Evaluation, Public Health - Seattle & King County, 12/12

Figure 42



Data Source: 2008-2011 American Community Survey
Produced By: Assessment, Policy Development & Evaluation; Public Health - Seattle & King County, 12/12

³⁶ Washington Apple Health for Kids; State Medicaid and CHIP Income Eligibility Standards - July 2014

What is the Measure Availability?

Availability of the dataset is ACS dataset is expected to continue. The analysis presented in this report is from Seattle & King County Public Health, Communities Count also produces an analysis of this data.

Data Limitation

Lag time in ACS data reporting makes it difficult to understand the most current situation of uninsured children.

Life Expectancy

Measure Definition: Number of years a person can expect to live if the current death rates stay the same for his/her life.

What is the Measure Significance?

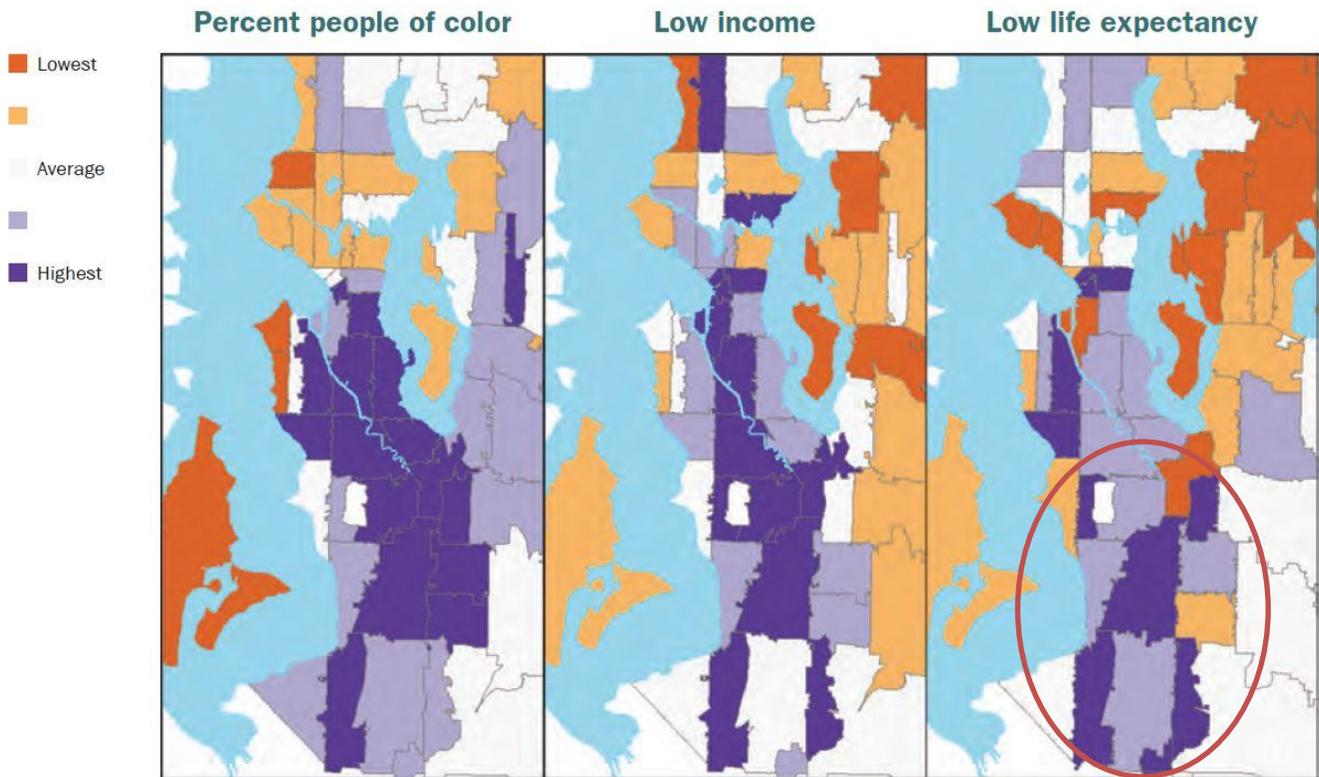
Life expectancy is a measure that captures the overall health status of a population.³⁷ Through examining life expectancy, King County can understand the health status of residents and develop specific interventions to improve health outcomes.

What is the Measure Status?

In King County, race, income and place all matter when looking at life expectancy. Figure 43 is an analysis conducted by Seattle & King County Public Health from ACS and public health data. The map highlights areas in South County that have the highest concentration of low life expectancy. Drawing on the map below, these areas of low life expectancy are also areas with the highest concentration of people of color and those who are low income. Figure 44 shows a 10 year gap in life expectancy between the areas with the highest life expectancy and the lowest life expectancy. Overall this analysis shows areas where health status is a concern.

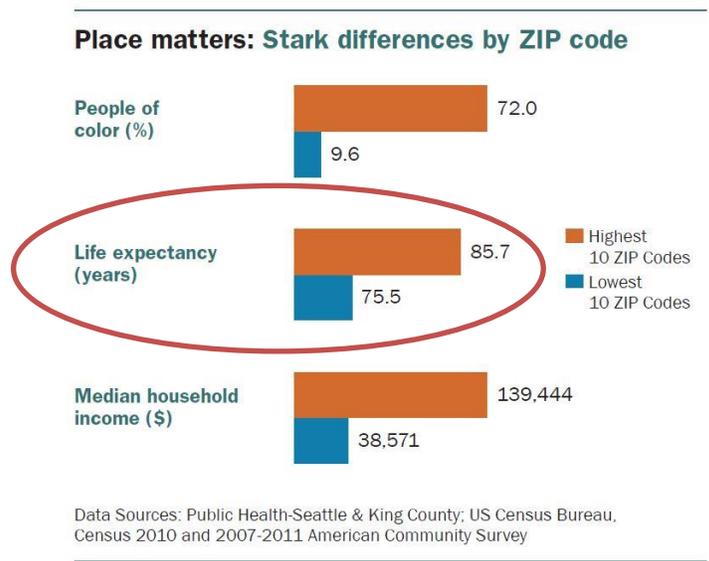
³⁷ [Office of Disease Prevention and Health Promotion](#)

Figure 43



Data Sources: Public Health-Seattle & King County; US Census Bureau, Census 2010 and 2007-2011 American Community Survey.

Figure 44



What is the Measure Availability?

Availability of this ACS dataset is expected to continue. Life expectancy data come from death certificates, which are collected annually and analysis is expected to continue. Figure 43 and 44 are featured in the 2013 King County ESJ Annual

Report.³⁸ It is unclear if the type of analysis presented in this report from Seattle & King County Public Health will continue.

Data Limitations

It is unknown if this analysis will continue being produced by Seattle & King County Public Health. Since this analysis is not generated from an outside source, it will require staff time to replicate.

Infant Mortality

Measure Definition: Children born that die within the first year of life.

What is the Measure Significance?

Infant mortality is regarded as a measure that indicates the overall community health.³⁹ Infant mortality refers to children born that die within the first year of life. Through examining infant mortality, King County can understand the health status of residents and develop specific interventions to improve health outcomes.

What is the Measure Status?

In King County, place, race and income matter when it comes to understanding infant mortality. For every 1,000 births, infants born in South County are more likely to pass away than in other parts of the county. Additionally, infants of American Indian/Alaskan Native and Black/African American residents die at higher rates than White and Asian residents. Finally, infants born in high to medium poverty households are more likely to pass away within the first year.

Figure 45

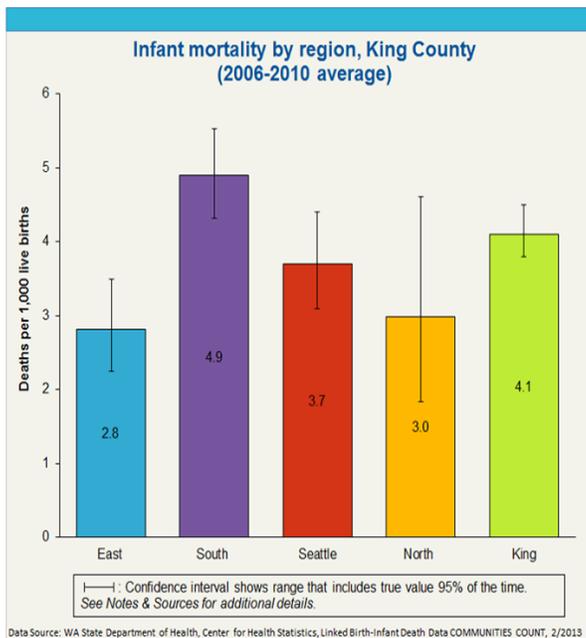
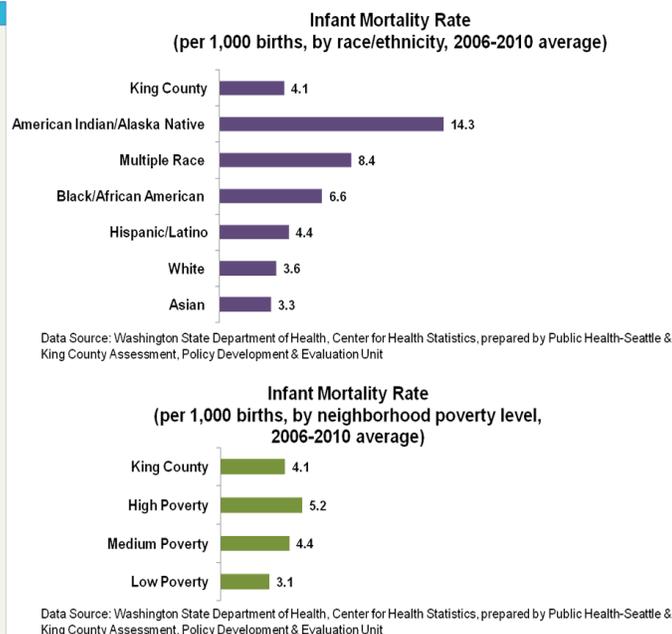


Figure 46



³⁸ King County ESJ Annual Report, 2013. pp 3-4.

³⁹ Communities Count - Infant Mortality

What is the Measure Availability?

This dataset is from Washington State Department of Health, Center for Health Statistics and is analyzed by both Seattle & King County Public Health and Communities Count. Birth certificates and death certificates are collected annually and analysis is expected to continue.

Data Limitations

This data is a three year rolling average. Five year averages will provide a more robust look at trends across King County.

Obesity

Measure Definition: Adult response to these BRFSS questions: "About how much do you weigh without shoes? and "About how tall are you without shoes?" School-age youth questions: "How tall are you without your shoes on?" and "How much do you weigh without your shoes on?"

What is the Measure Significance?

Obesity reduces workforce productivity, increases absenteeism, and is a leading cause of preventable death.⁴⁰ More than 1 in 5 King County adults, or over 335,000 adults, are obese. Annual medical costs due to obesity were \$147 billion for the US.⁴¹ Childhood obesity is associated with cardiovascular risk factors and diabetes and both overweight and obese children are more likely to become obese adults.⁴² Although obesity is too high among all King County residents, people of color experience a disproportionate burden with American Indian/Alaska Native adults 5.5 times more likely than Asian adults to be obese. The same holds true for youth—1 in 5 King County middle and high school students was overweight or obese and Native Hawaiian/Pacific Islander students were about 3.5 times more likely to be obese than Asian or white students. Obesity is a key metric for several local initiatives including Communities of Opportunity, the Health and Human Services Transformation Plan, and the recent Partnerships to Improve Community Health. Monitoring obesity in King County helps reveal the status of health outcomes and provide opportunity for intervention.

What is the Measure Status?

Responses to the above questions on height and weight are used to calculate Body Mass Index (BMI). Adults with a BMI of 30 or more are considered obese. For children, BMI is compared to percentiles specific to age and gender; a BMI in the top 5% is considered obese. The datasets in figure 47 and 48 come from the Behavioral Risk Factor Surveillance System (BRFSS) and the Washington State Healthy Youth Survey (HYS) and are analyzed by Public Health-Seattle & King County. Adult obesity has been on the increase but recent trends suggest a flattening of trends; lower income adults are more likely to be obese. Between 2004 and 2012, student obesity rates declined for the county as a whole and for all regions except South Region. A recent local prevention initiative was associated with a 17% drop in obesity from 2010 to 2012 in low-income school districts.⁴³ For both adults and youth, the highest obesity is found in South King County.

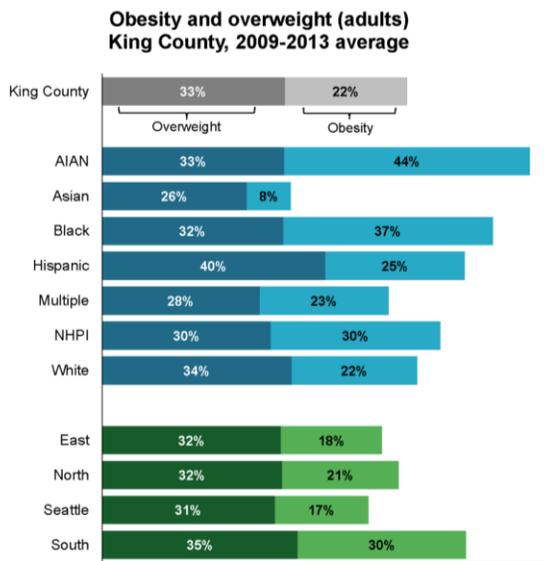
⁴⁰ Finkelstein EA, DiBonaventura MD, Burgess SM, Hale BC. The costs of obesity in the workplace. *J Occup Environ Med* 2010; 52(10):971-6.

⁴¹ <http://www.cdc.gov/obesity/data/adult.html>

⁴² <http://www.cdc.gov/obesity/childhood/basics.html>

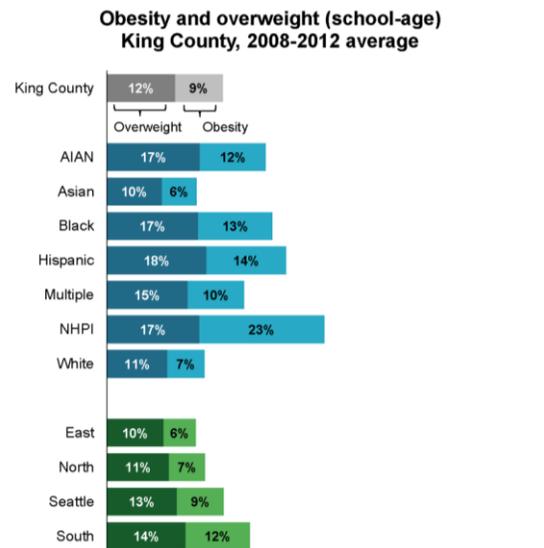
⁴³ Kern E, Chan NL, Fleming DW, Krieger JW. Declines in student obesity prevalence associated with a prevention initiative-King County, Washington, 2012. *Morbidity and Mortality Weekly Report* 2014; 63(07):155p7. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6307a4.htm>

Figure 47



Sources: Behavioral Risk Factor Surveillance System.

Figure 48



Sources: Healthy Youth Survey.

What is the Measure Availability?

BRFSS and HYS survey data collected by the Washington State Department of Health are generally considered a strong dataset. It is expected that BRFSS and HYS data will continue to be accessible for use. The chart analysis represented in this report is from Public Health-Seattle & King County and it is anticipated to continue to be available by this organization in the future.

Data Limitations

Accuracy of respondent self-report, interviewer training and methodology all represent possible limitations. Self-reported height and weight are known to be particularly problematic and about 10% lower than if height and weight were measured.⁴⁴ Although obesity prevalence is underestimated, disparities remain and available rates allow for comparisons. With respect to methodology, respondents who do not speak English or Spanish are not included in BRFSS survey results and those without a telephone are not contacted for this survey. For school-age youth, the Healthy Youth Survey is asked every other year since 2002 and these questions are asked among public schools grades 8, 10, and 12 only. Administration of HYS is dependent on school district participation. Population-based data are not collected on children of other ages.

⁴⁴ Van Eenwyk J, Bensley L, Ossiander EM, Krueger K. Comparison of examination-based and self-reported risk factors for cardiovascular disease, Washington State, 2006-2007. *Prev Chronic Dis.* 2012;9: E117.

Diabetes Prevalence

Measure Definition: Adults that have been diagnosed for diabetes by a doctor.

What is the Measure Significance?

Diabetes is the seventh leading cause of death in King County and the United States. In 2012 it was estimated that the total direct and indirect cost of diabetes in the United States was \$245 billion. Diabetes is a disease that makes individuals more susceptible to a host of other conditions including: heart disease, stroke, blindness, high blood cholesterol.⁴⁵ Understanding the prevalence of this disease in King County can help reveal the status of health outcomes and provide opportunity for intervention.

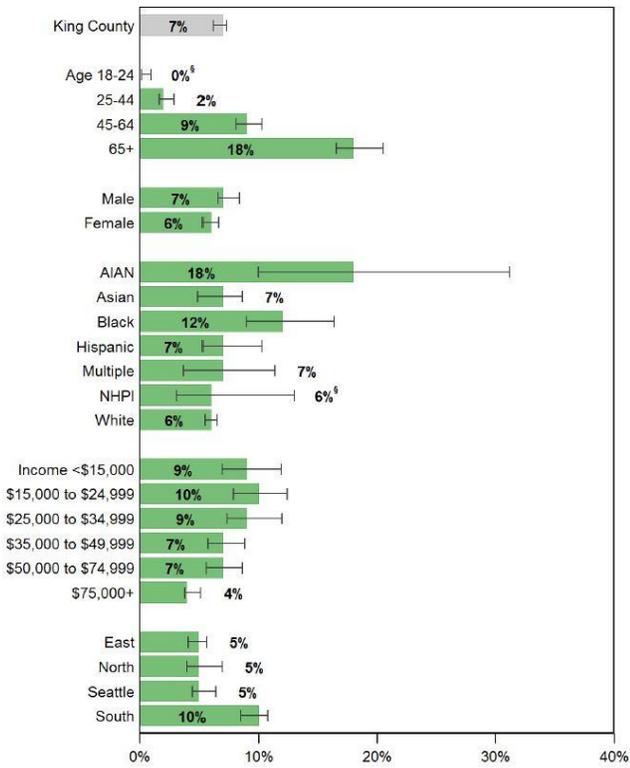
What is the Measure Status?

Dataset in figure 49 and 50 is from the BRFSS and analyzed by Seattle & King County Public Health. This five-year data shows diabetes prevalence and highlights the trend that residents in South County, who earn under \$35,000 per year and who identify as American Indian/Alaska Native and African American experience higher prevalence of diabetes.

Figure 49

⁴⁵Centers for Disease Control and Prevention. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014*. Atlanta, GA: U.S. Department of Health and Human Services; 2014. ; CDC, National Diabetes Statistics Report, p.7.

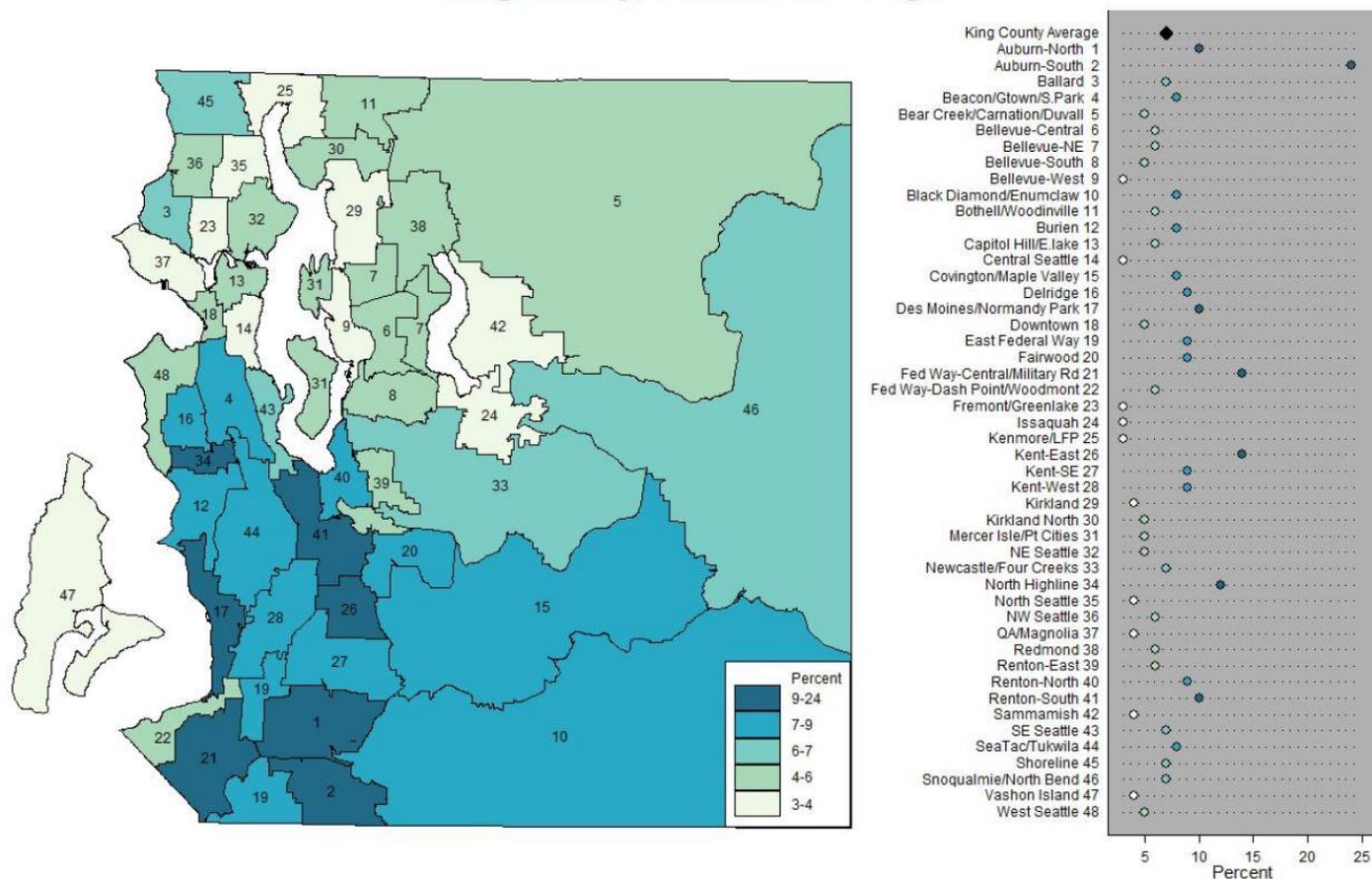
Diabetes (adults)
King County, 2009-2013 average



Source: Behavioral Risk Factor Surveillance System.
 Prepared by Public Health - Seattle & King County, APDE, 12/2014.
 |-----| Confidence interval shows range that includes true value 95% of the time.
[†] Too few cases to protect confidentiality and/or report reliable rates.
[§] Too few cases to meet precision standard, interpret with caution.
 Persons of Hispanic ethnicity can be of any race and are included in the racial categories.

Figure 50

Diabetes (adults) by health reporting areas King County, 2009-2013 average



Note: HRA labels on the map match the chart on the right, listed in alphabetical order
 Source: Behavioral Risk Factor Surveillance System.
 Prepared by Public Health - Seattle & King County, APDE, 12/2014.

What is the Measure Availability?

BRFSS survey data collected by the Washington State Department of Health and reported to the CDC is generally considered a strong dataset. BRFSS data will continue to be accessible for use. The chart analysis represented in this report is from Seattle & King County Public Health and it is anticipated to continue to be available in the future. Communities Count produces complementary analysis of obesity/overweight adults and children that may bring light to creating age specific interventions.

Data Limitations

Accuracy of respondent self-report, interviewer training and methodology all represent possible limitations. With respect to methodology, respondents who do not speak English or Spanish are not included in BRFSS survey results and those without a telephone are not contacted for this survey.

Tobacco Use

Measure Definition: Adult response to this BRFSS question: "Do you now smoke cigarettes every day, some days, or not at all?"

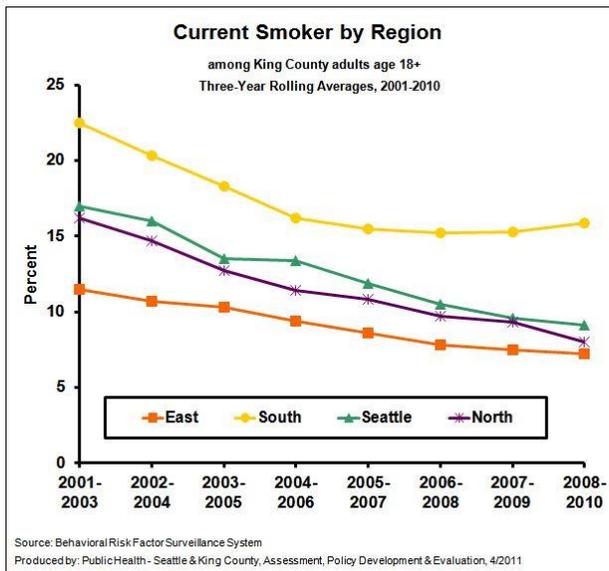
What is the Measure Significance?

Tobacco use is the leading cause of preventable death in the U.S., which spends an estimated \$289 billion per year on direct and indirect costs related to tobacco use.⁴⁶ According to Public Health Seattle & King County, tobacco use has an annual cost of \$343 million in health care expenses and lost wages in King County. Tobacco use is linked with cancer, heart disease, respiratory disease, poor birth outcomes, infertility, sudden infant death syndrome (SIDS), and many other poor health outcomes.⁴⁷ PHSKC reports that smoking accounts for one out of every five deaths, or about 1,800 deaths each year in King County. The most recent data estimates 196,000 tobacco users in King County. In addition, Public Health Seattle & King County highlights that 200,000 adults and youth are exposed to second-hand smoke, to which there is no safe level of exposure.⁴⁸ Tobacco use is a key metric for several local initiatives including Communities of Opportunity, the Health and Human Services Transformation Plan, and the recent Partnerships to Improve Community Health. Understanding the prevalence of smoking in King County helps reveal the status of health outcomes and provide opportunities for intervention.

What is the Measure Status?

The data in figure 51, 52 and 53 are from the BRFSS and analyzed by Seattle & King County Public Health. This ten-year dataset shows an overall decline in smoking in King County. Smoking remains higher in South County than in other parts of the County. Prevalence of smoking is also reported more frequently by those who earn less than \$25,000 per year and identify as African American.

Figure 51



⁴⁶ Center for Disease Control - Smoking & Tobacco Use

⁴⁷ Center for Disease Control - Smoking & Tobacco Use; Public Health Data Watch: Tobacco Use in King County

⁴⁸ Public Health Data Watch: Tobacco Use in King County

Figure 52

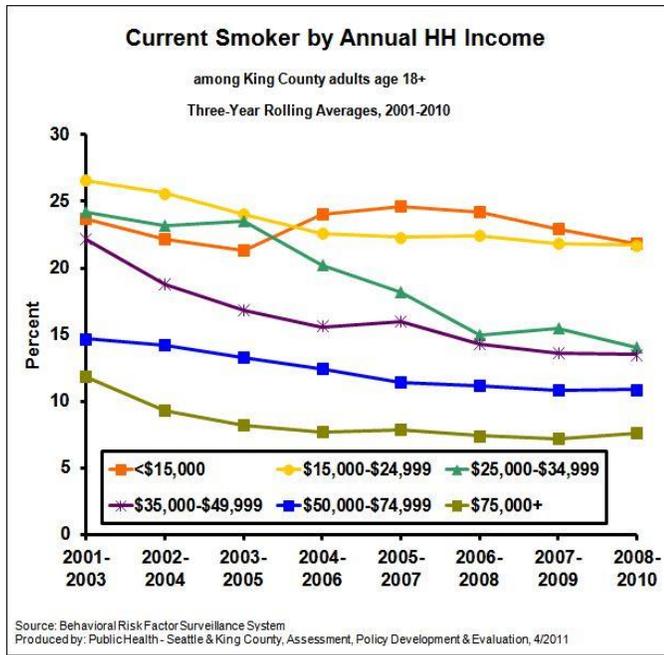
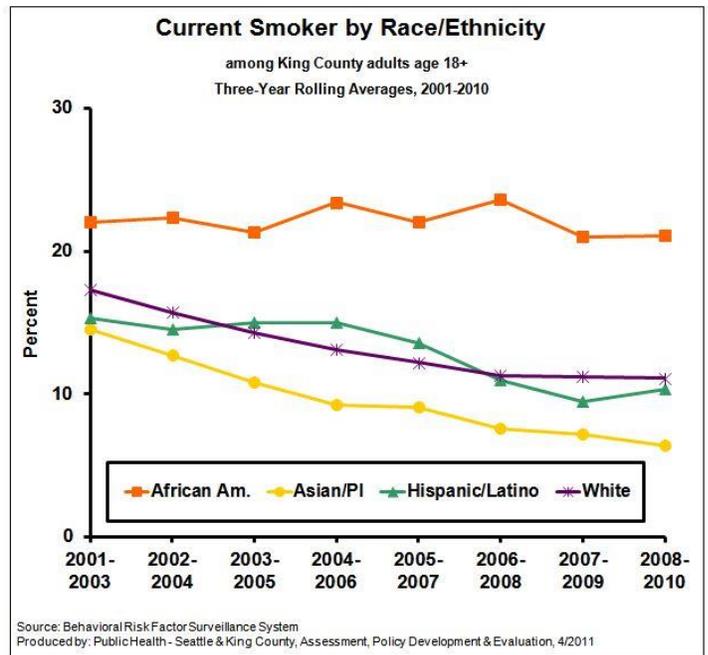


Figure 53



What is the Measure Availability?

BRFSS survey data collected by the Washington State Department of Health and reported to the CDC is generally considered a strong dataset. BRFSS data is will continue to be accessible for use. The chart analysis represented in this report is from Seattle & King County Public Health and it is anticipated to continue to be available in the future.

Data Limitations

Accuracy of respondent self-report, interviewer training and methodology all represent possible limitations. With respect to methodology, respondents who do not speak English or Spanish are not included in BRFSS survey results and those without a telephone are not contacted for this survey.

Frequent Mental Distress

Measure Definition: Adults that report having 14 or more bad mental health days in the last month.

What is the Measure Significance?

Frequent mental distress is measured by having 14 or more bad mental health days in the last month.⁴⁹ This indicator highlights the general experience and/or mental status of individuals around King County.

What is the Measure Status?

Figure 54 shows the concentration of reported mental distress in King County. Areas shaded in red have the highest concentration of mental distress while areas in blue report lower concentration of mental distress. Highlighting that mental distress is reported more frequently in South and South East County. Figure 55 and 56 show that individuals with

⁴⁹ Public Health - Seattle & King County

annual income less than \$15,000 per year and African American residents also reports higher frequency of mental distress.

Figure 54

Frequent Mental Distress

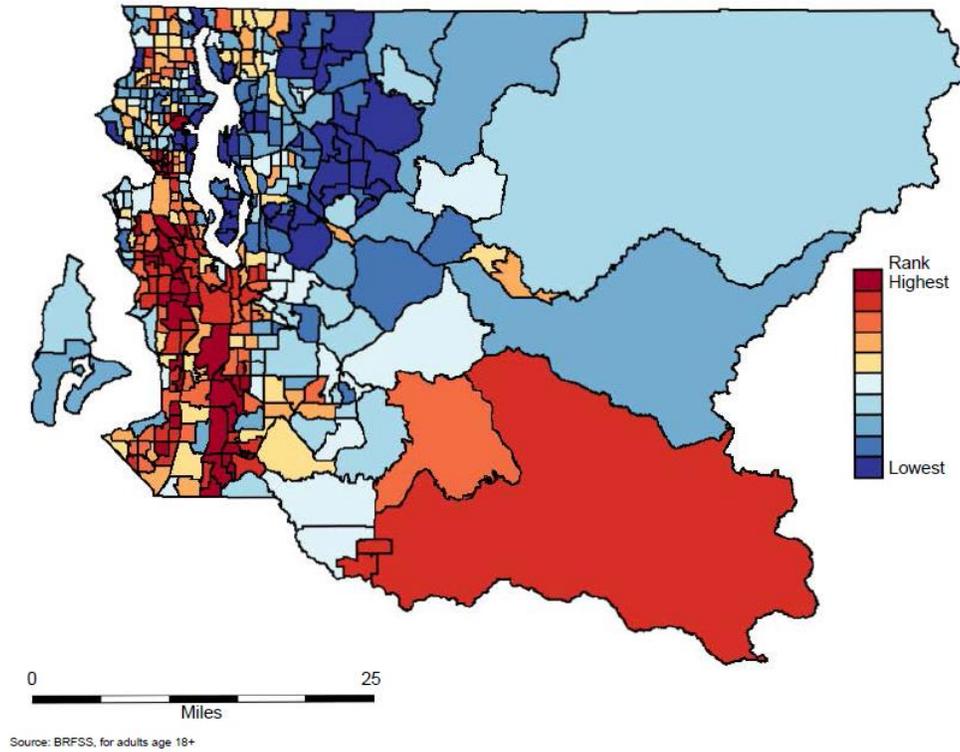


Figure 55

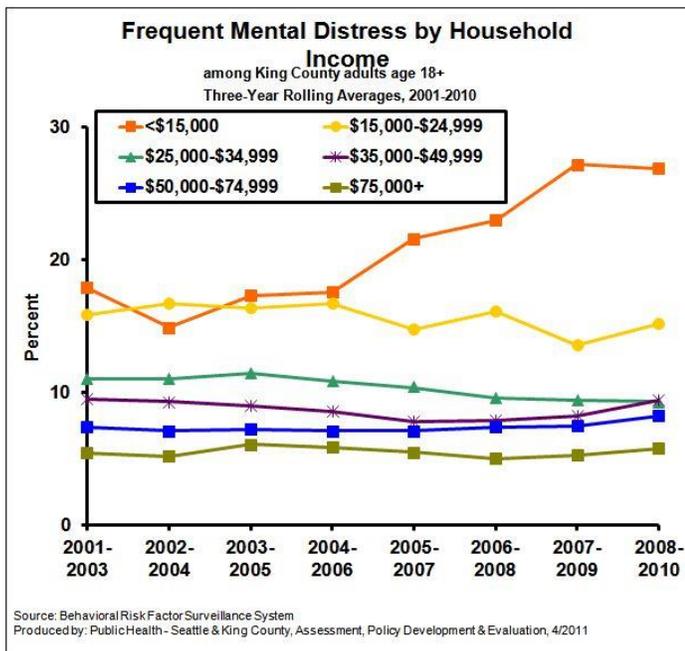
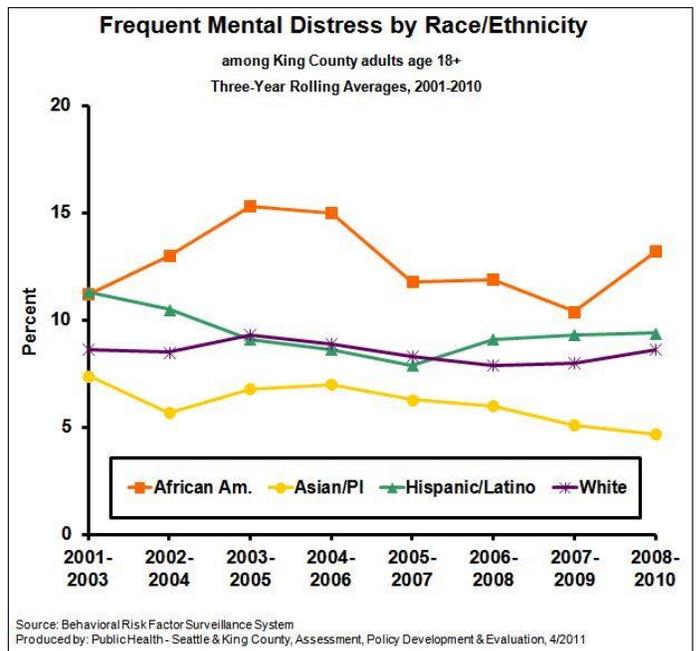


Figure 56



What is the Measure Availability?

The dataset is from BRFSS survey data collected by the Washington State Department of Health and reported to the CDC and is generally considered a strong dataset. BRFSS data will continue to be accessible for use. The map analysis was generated for the Health and Human Services Transformation Plan and the charts were developed by Seattle & King County Public Health. The frequency with which this measure will be updated is unknown.

Data Limitations

The orientation of the map scale is non-traditional and therefore, not easily interpretable upon first glance. Map scales typically rank from lowest to highest, this scale moves in the opposite direction. For example, high-ranking score on the top is associated with a negative outcome (more frequent mental distress). Furthermore, accuracy of respondent self-report, interviewer training and methodology all represent possible limitations. With respect to methodology, respondents who do not speak English or Spanish are not included in BRFSS survey results and those without a telephone are not contacted for this survey.

Food Systems



Food Systems

Ordinance Definition: Food systems that support local food production and provide access to affordable, healthy, and culturally appropriate foods for all people.

Food availability and affordability are critical links to understanding health outcomes. Understanding the price of food and the options available for people in different geographies in King County provides insights into chronic diseases such as obesity, and community conditions, such as poverty.

The recommended indicators below were selected for their ability to measure the determinant of food systems. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measures for this determinant are identified below in italics. Essential measures are the highest level indicator that capture the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Local Food Production

- No measure identified

Food Access

- *Retail Food Environment Index*

Food Affordability

- *Food Security*
- Percent of Students with Free or Reduced-Price Meals
- Participation in Food Assistance Programs

Key Findings

- Nearly half of Hispanic households with at least one child report running out of food at least once within the last 12 months in King County.
- On average, there are two and half times more fast food restaurants and convenience stores available than grocery stores and produce vendors across King County. Parts of South King County have five to seven times more fast food restaurants and convenience stores available than grocery stores and produce vendors.
- Nearly half of the students receiving free or reduced lunch reside in the South County.

Limitation in Ordinance Definition

One challenge with the language describing food systems is that measuring culturally appropriate food is nearly impossible without implementing an ethnographic effort in King County. This determinant definition may benefit from a revision of either eliminating this language or being more specific on what is meant by culturally appropriate food.

Local Food Production

Although there is currently much discussion on local food systems in King County, no specific ESJ measures for local food production were able to be identified. Given more time, the project team recommends pursuing the following groups/organizations as a starting point to investigate measures for this language.

- King County Food Initiative
- King County Kitchen Cabinet
- Seattle Tilth
- Cascade Harvest Coalition

Retail Food Environment Index

Measure Definition: Ratio of fast food restaurants and convenience stores divided by the number of supermarkets, small grocers and produce vendors.

What is the Measure Significance?

The type of food available for purchase in a community influences what people consume. This is important because food consumption influences health outcomes. For example, people living near groceries stores are more likely to meet fruit and vegetable requirements incurring a healthy diet and reducing risk of chronic diseases such as diabetes and obesity. Conversely, those living in areas with a higher concentration of fast food restaurants and convenience stores are at an elevated risk to make food choices that include a higher calorie diet, and consuming fewer fruits and vegetables, which heightens the risk of chronic disease.⁵⁰

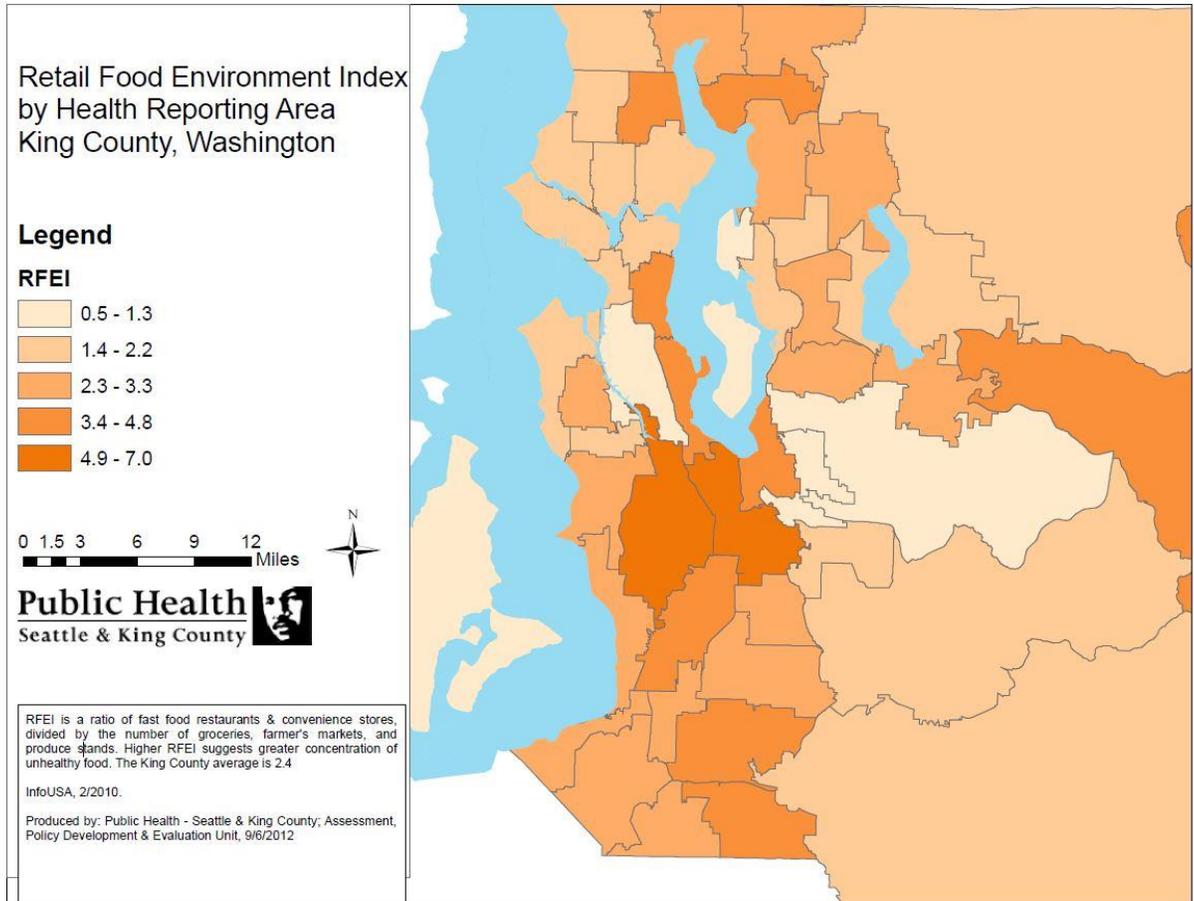
What is the Measure Status?

The Retail Food Environment Index (RFEI) is a snapshot of the concentration of healthy and unhealthy foods in King County. This snapshot is important because it is associated with overall health outcomes. The RFEI is comprised of the ratio of fast food restaurants and convenience stores divided by the number of supermarkets, small grocers and produce vendors. The RFEI analysis in figure 57 shows that, on average, there are 2.5 times more fast food restaurants and convenience stores per health reporting area compared to grocery stores.⁵¹ The dark orange coloring highlights areas in South County that are above average in the concentration of unhealthy food, having roughly five to seven times more fast food restaurants and convenience stores nearby than grocery stores.

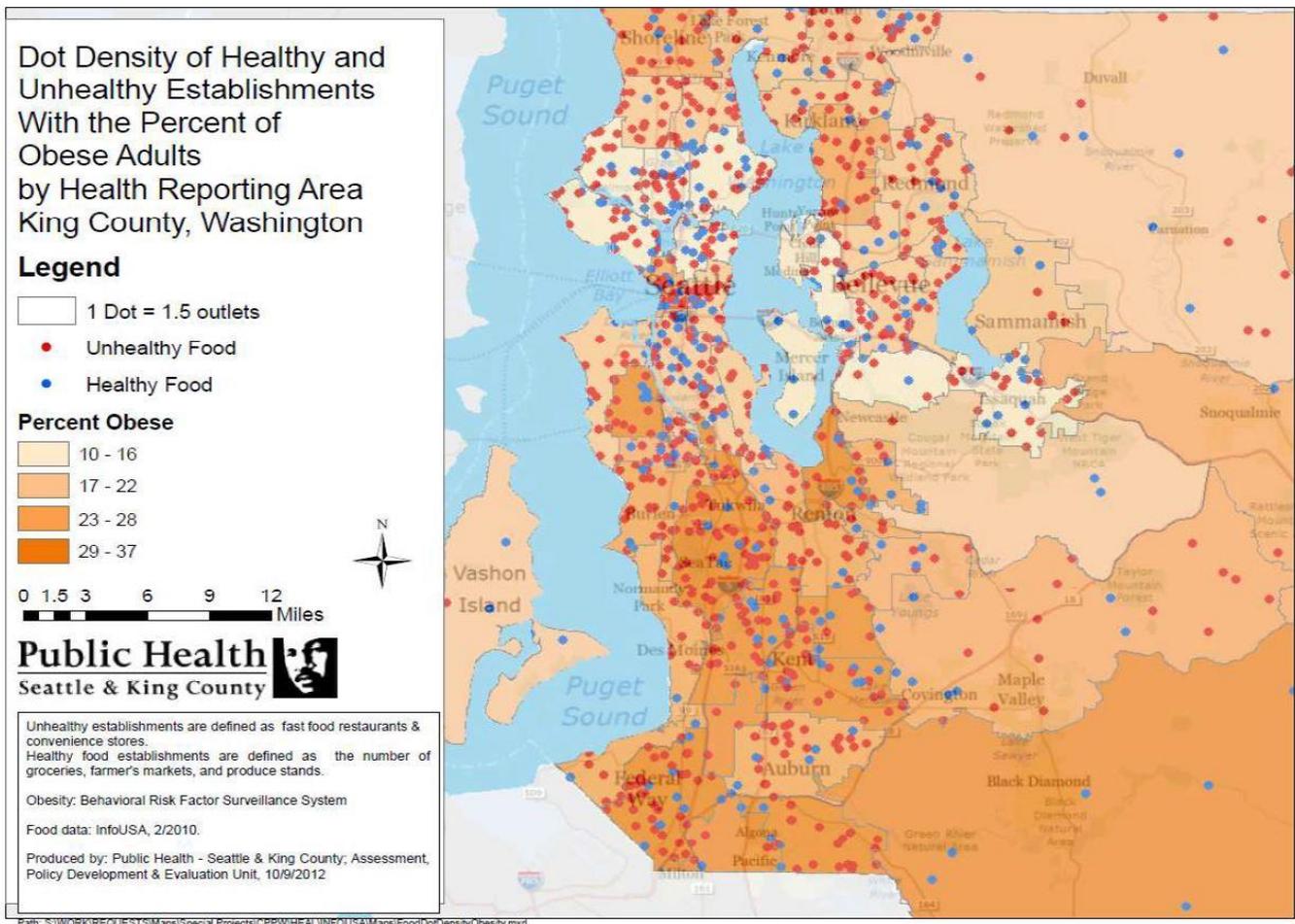
⁵⁰ Public Health Seattle & King County (2012). Seattle & King County Retail Food Environment Index. Assessment, Policy Development & Evaluation Unit.

⁵¹ Health Reporting Areas are geographies that more closely coincide with city boundaries. For more information please visit: [Public Health Seattle & King County Health Reporting Areas Definition](#).

Figure 57



To highlight the connection between health outcomes and the concentration of unhealthy food and chronic disease, figure 58 shows the percent of obese adults in conjunction with the location of unhealthy (red dots) and healthy (blue dots) food establishments. Although the distribution of unhealthy food establishments is present throughout the county, the intersection between unhealthy food establishments and obesity is salient in South County. Areas such as SeaTac, Tukwila, Kent, Federal Way, Algona/Pacific and Black Diamond, are known areas where higher concentrations of low-income people, people with limited English proficiency and people of color reside. These areas also appear more significantly impacted by the presence of unhealthy food establishments as compared to North and East County. Although the origin of obesity cannot be extrapolated from this map, it is worthwhile to consider the connection between the type of food available and health outcomes.



What is the Measure Availability?

Figure 57 and 58 are one-time measures created by Seattle & King County Public Health. The replication of these measures is feasible with a financial investment of roughly \$200 to pull the North American Industry Classification System data from Salesgenie. Once the data are pulled it takes approximately 200-300 hours of staff time to clean and analyze the data.

Data Limitations

The primary limitation is that the maintenance of this dataset requires a financial commitment both in acquiring data and staff time. Unless the County can contract the maintenance of this dataset to an organization like Communities Count, it will require attention from internal staff to maintain.

Food Security

Measure Definition: The financial relationship between income and food. The USDA defines low to very low food security from the reduction in the quality and variety of diet all the way to multiple indications of disrupted eating patterns and reduced food intake within the last 12 months.

What is the Measure Significance?

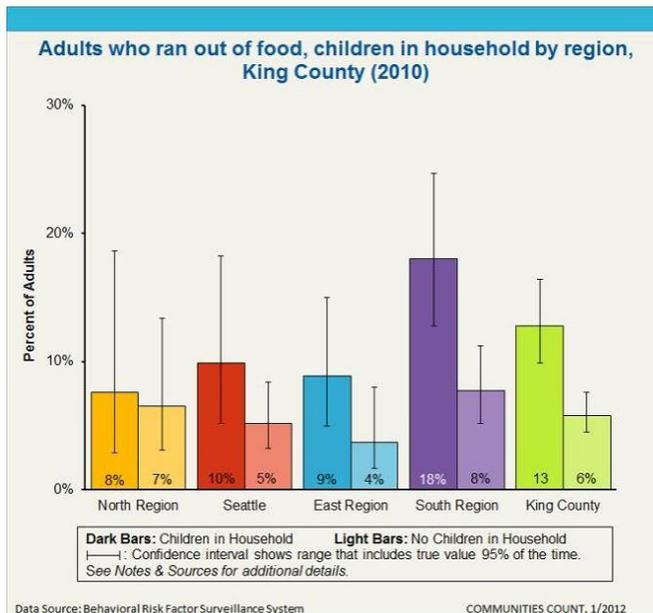
The ability to afford food is one of the most significant barriers to eating healthy. Food security is an important measure because it highlights an individual's ability to access food on a regular basis, a struggle most pronounced in low-income communities. The U.S. Department of Agriculture has a high to low food security range of classifications, which includes:

- *Food Security* - High to Marginal Food Security refers to individuals who have little to no indication of a food access problem or limitation.
- *Food Insecurity* - Low to Very Low Food Security refers to the reduction in the quality and variety of diet all the way to multiple indications of disrupted eating patterns and reduced food intake. Food Insecurity is commonly called food hardship. These terms are used interchangeably in this report.⁵²

What is the Measure Status?

In King County food hardship is most often experienced by households with at least one child. Additionally, people living in the South Region of King County, who annually earn \$35,000 or less and who identify as Hispanic, report experiencing significantly higher levels of food hardship. Defined by experiencing low food security at least one time in the past 12 months, these data are retrieved from the BRFSS survey conducted by the Washington State Department of Health and the CDC.⁵³

Figure 59



⁵² For a more detailed description of each classification refer to: [U.S. Department of Agriculture – Ranges of Food Security and Food Insecurity](#). Information Retrieved 9/3/2014.

⁵³ [Behavioral Risk Factor Surveillance System \(BRFSS\)](#) ; [Center for Disease Control - BRFSS FAQs](#)

Figure 60

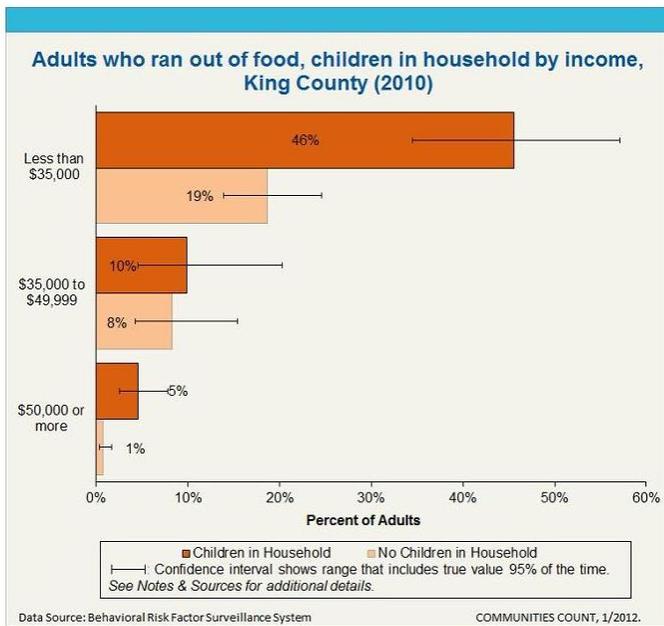
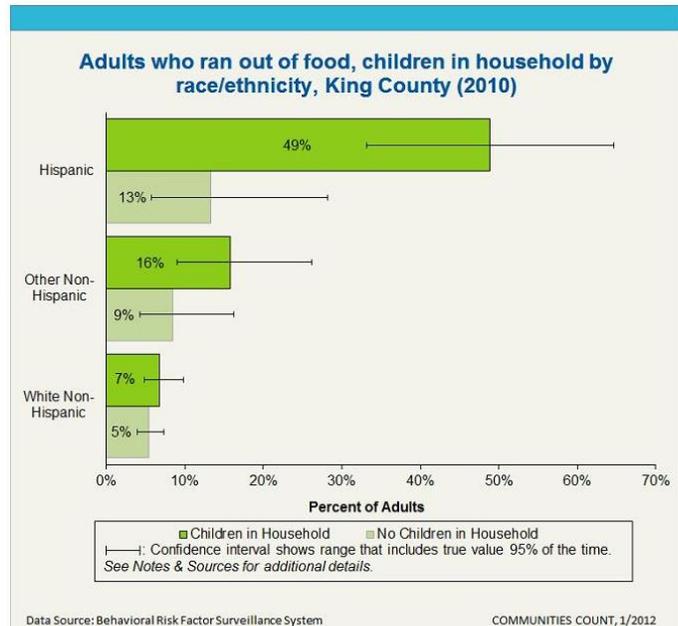


Figure 61



What is the Measure Availability?

BRFSS survey data collected by the Washington State Department of Health and reported to the CDC are generally considered a strong dataset. BRFSS data will continue to be accessible for use, although this question is not asked every year and is dependent on funding availability. The chart analysis represented in this report is from Communities Count and it is anticipated to continue to be available by this organization in the future.

Data Limitations

Accuracy of respondent self-report, interviewer training and methodology all represent limitations for collecting survey data. With respect to methodology, respondents who do not speak English or Spanish are not included in BRFSS survey results and those without a telephone are not contacted for this survey.

Percent of Students with Free or Reduced Price Meals

Measure Definition: The percent of students eligible for free and reduced priced meals by schools district.

What is the Measure Significance?

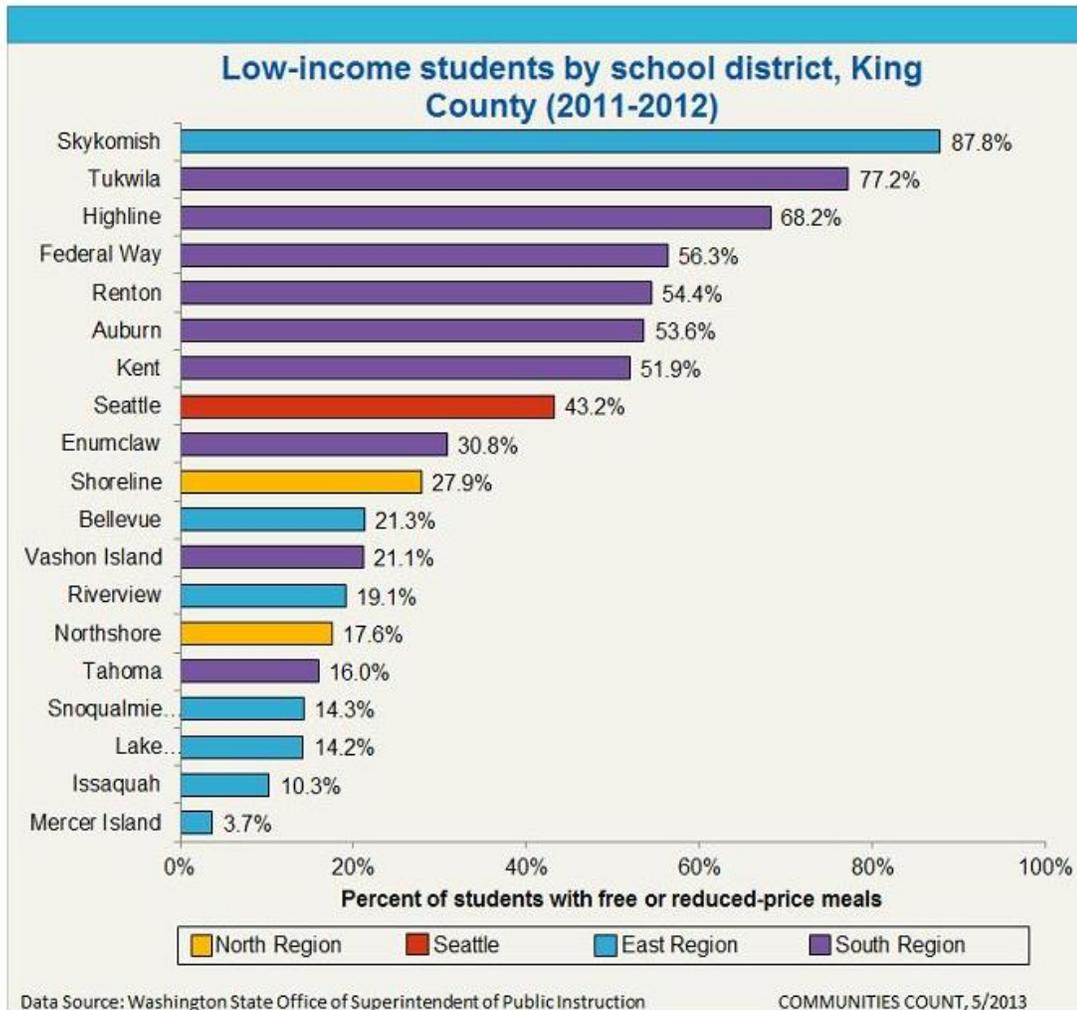
Student eligibility for free or reduced price meals is a reflection of overall household income. Eighteen percent of people living in South King County and 46 percent of households earning \$35,000 or less report experiencing food hardship. Given that the food hardship measure is limited to English and Spanish speaking individuals with a telephone, the measure of free or reduced price meals in schools allows for a broader perspective on the problems of food hardship. Adding strength to the BRFSS self-report survey on food hardship, eligibility for free or reduced price meals highlights the experience of a more diverse population and may advance our understanding of the prevalence of food hardship.

What is the Measure Status?

During the 2011-2012 school year, nearly half of the students receiving free or reduced price meals resided in South King County. Six out of seven school districts with over 50 percent enrollment were in South King County. The percent of

student enrollment in rural school districts such as Skykomish reached nearly 90 percent; urban school districts with significantly larger student populations such as Highline and Tukwila reached near 70 percent and 80 percent enrollment. The data below do not indicate how many of these students are from the same household or household demographics. What it does highlight is the regularity to which households in these cities meet the income threshold for free or reduced price meals. Meeting this threshold is a measure for poverty, which impacts the ability of households with at least one school-age child to afford food.

Figure 62



What is the Measure Availability?

Data collected by OSPI on free or reduced price meals are retrieved annually. The analysis conducted by Communities Count is anticipated to continue making this measure readily accessible for public use.

Data Limitations

The aggregate nature of these data as shown in figure 62 limits the understanding to school districts and does not provide demographic data of participants such as race or LEP. Inquiry to OSPI for further breakdown by race and LEP is an option worth investigating if this measure is utilized.

Participation in Food Assistance Programs

Measure Definition: The participation in EBT, WIC, and food bank utilization.

What is the Measure Significance?

Enrollment and utilization of food assistance programs such as food stamp (EBT), WIC (women, children, infants food assistance program) and food bank utilization, provide an overall sense of the issue of food affordability. This is important because the ability to afford food often impacts the type of food people consume, which is linked to health outcomes. Knowing the prevalence of enrollment and utilization of food assistance programs allows for the consideration of financial and market based interventions to improve food affordability for those who are low-income.

What is the Measure Status?

The steady growth in food stamp recipients, WIC, and food bank utilization highlights the increasing challenge of affording food in King County. The data below do not account for population growth or show regional or demographic trends. Despite these limitations, seeing the enrollment of food stamps nearly double from 2008 to 2012 highlights the economic challenges facing residents. This data highlights the bottom line people are increasingly having trouble affording food.

Figure 63

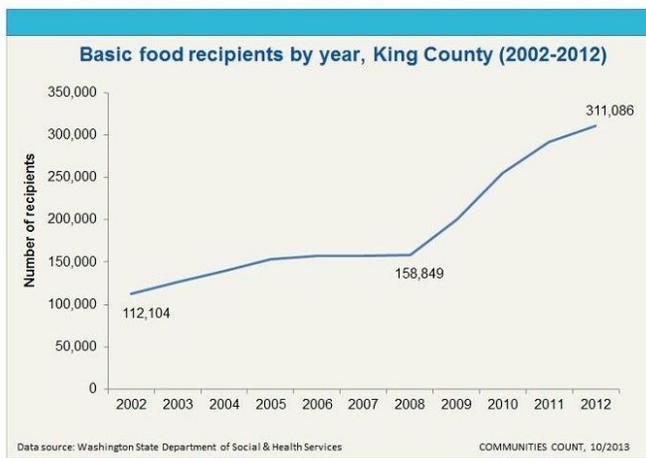


Figure 64

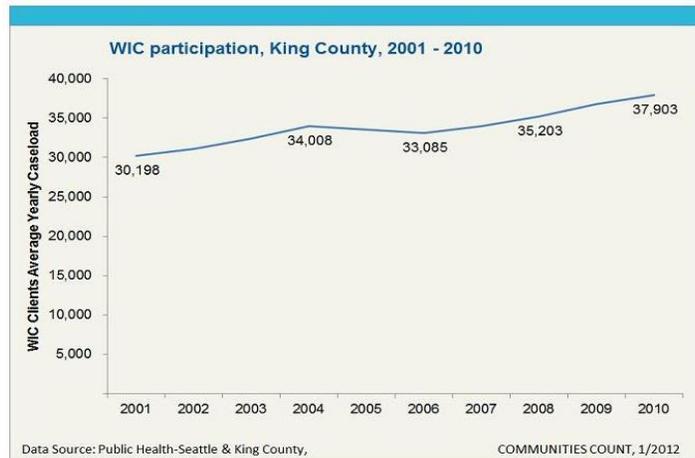
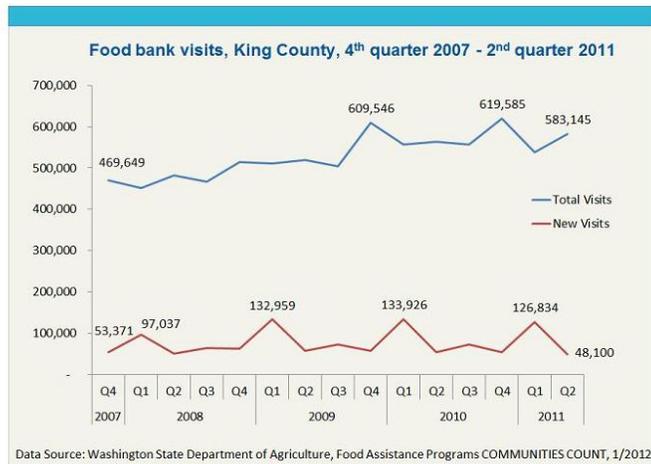


Figure 65



What is the Measure Availability?

Data on food stamps and WIC enrollment are collected annually. Food bank utilization is collected quarterly. Owners of this data include Washington State Department of Health & Human Services (DSHS), Seattle & King County Public Health and the USDA. It is anticipated that all three entities will continue to collect and report these data. Analysis conducted by Communities Count makes these data readily accessible for use.

Data Limitations

These data do not account for population growth or show regional or demographic trends. Including population growth, demographics and information on regional concentration of EBT, WIC and food bank utilization would be helpful in generating targeted interventions. Additionally, a consolidated chart with these three data points might be a helpful next step for improving the usability of the data.

Parks and Natural Resources





Parks & Natural Resources

Ordinance Definition: Parks & Natural Resources that provide access for all people to safe, clean and quality outdoor spaces, facilities and activities that appeal to the interest of all communities.

Parks, trails and green spaces promote recreation and improve neighborhood quality. Living in areas with access to natural resources is associated with physical activity and positive mental health. The goal of examining parks and natural resources with an equity lens is to understand the accessibility of recreational opportunities across King County.

The recommended indicators below were selected for their ability to measure parks and natural resources. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. Essential measures are the highest level indicators that capture the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Safe/Clean

- Resident Satisfaction with Parks

Quality of Outdoor Space

- Open Green Space
- Distribution of Regional Trails

Facilities & Activities

- *Park Accessibility*
- Distribution of Playgrounds

Key Findings

- The 2009 and 2012 King County Resident Survey reports that 71 percent of King County residents report satisfaction with regional parks and trails.
- A park access study using 2010 data shows that affluent neighborhoods have almost twice the amount of robust park access (variety in park size and travel distance) than areas with a higher concentration of people of color, LEP and low-income households.
- To advance regional trail equity, the King County Department of Natural Resources and Parks has a newly funded Capital Improvement Project (CIP) to move toward regional trail equity.

Limitation of Ordinance Definition

This determinant seems primarily directed toward parks and recreation, making it difficult to capture measurement for natural resources which speaks more to biodiversity and environments undisturbed by humans. If revision of language is considered, it is recommended that natural resources be paired with natural environment. This pairing will allow for more focused analysis of ESJ considerations and environmental justice.

Resident Satisfaction with Parks

Measure Definition: Percent of King County survey respondents who said they were satisfied or very satisfied with regional parks and trails.

What is the Measure Significance?

Resident satisfaction is a measure that sheds light on the overall community perception of parks in King County. This measure is important because it captures community voice on this important government service. Monitoring community feedback allows for the opportunity to improve service delivery as needed.

What is the Measure Status?

An underlying assumption in this measure is that residents often do not distinguish between parks maintained by King County and those maintained by cities within King County. Assuming this lack of distinction makes the information in figure 66 and 67 a more general reflection of King County resident’s experience of parks. The 2012 King County Resident Survey showed that the majority of residents (71 percent) are satisfied with regional parks and trails.⁵⁴ This level of satisfaction was unchanged from the 2009 survey results. Additionally, King County residents report higher levels of satisfaction with local parks when compared to other large communities (figure 67). Although this survey had over 1,000 responses across the region with representation from multiple backgrounds, the primary challenge with these data are that the survey does not separate responses by demographic group or region in a way that is meaningful to measure ESJ considerations. While the regional perspective on park satisfaction is high, it unclear if this level of satisfaction spans income, race and language proficiency categories.

Figure 66

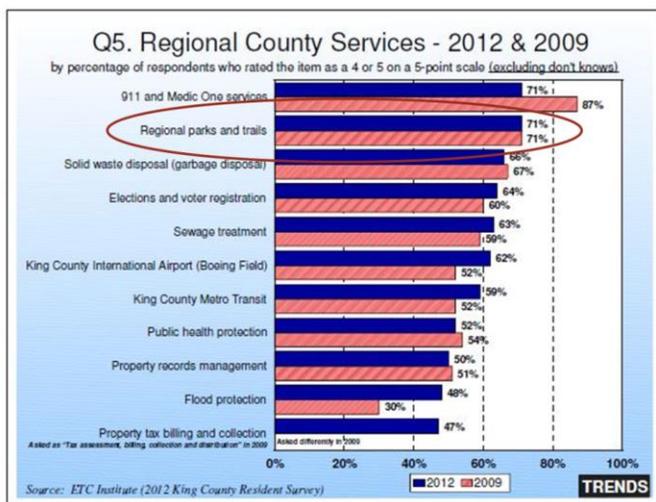
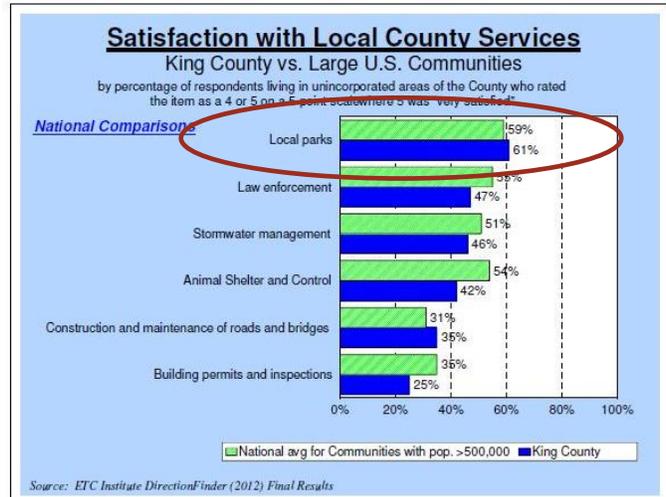


Figure 67



What is the Measure Availability?

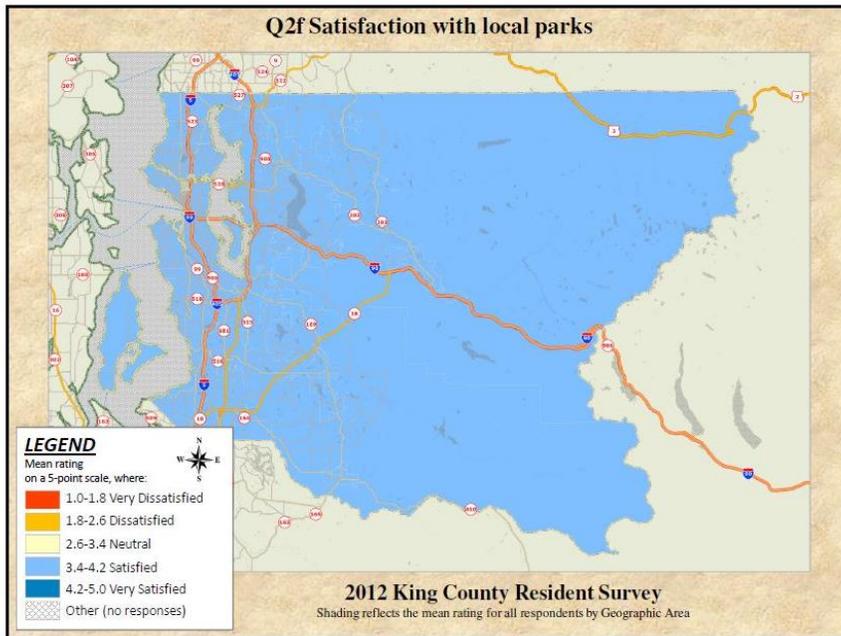
The King County Resident Survey, first conducted in 2009, is an important part of the strategic planning process and is therefore anticipated to continue on a triennial basis.

⁵⁴ 2012 King County Resident Survey – p.48 (A-5), p.60 (B-2)

Data Limitations

One challenge is that responses are presented in the aggregate. The report does not separate responses by demographic or region in way that is meaningful to measure ESJ. Figure 68 is an example of the geographical representation of parks satisfaction included in the report. In the future, it would be helpful to disaggregate demographic information to understand which residents are satisfied with parks and trails.

Figure 68



Open Green Space

Measure Definition: Less developed parks, greenbelts, open space, undeveloped areas, natural areas, ecological land, and developed parks that are within King County.

What is the Measure Significance?

Quality outdoor space in the form of greenbelts, ecological areas and tree cover contribute to neighborhood quality. This is important because neighborhood greenness is associated with physical activity and positive mental health.⁵⁵ Understanding the availability of green space in King County allows for considering how the natural environment can contribute to quality of life.

What is the Measure Status?

Figure 69 is in development to help understand the distribution of open green space across King County. The orange shading on the map represents: public parks, greenbelts, open space, undeveloped areas, natural areas and ecological land, plus larger parks that have a large component of undeveloped natural areas (e.g. Cougar Mountain). The green shading are represents parks with more developed components (i.e. fields, facilities). From the initial draft of this map, it appears that South County, SeaTac and Kent, have less open green space than areas of North and East County. Although the high presence of industrial land and the airport in South County may explain why there is less green space, this type of map prompts the conversation of the type of quality of life residents in South County experience.

⁵⁵ Rhew, I.C, Stoep, A.V., Kearney, A., Smith, N.L. & Dunbar, M.D. (2011). Validation of the normalized difference vegetation index as a measure of neighborhood greenness. *Ann Epidemiol.* 21(12): 946-952

Figure 69



What is the Measure Availability?

This map was created by the King County Geographic Information System (GIS) center for this project. If this measure is selected, the map will benefit from an update at regular intervals to show changes in the availability of open green space.

Data Limitations

This map was created for a one-time analysis and will have an associated cost to replicate.

Distribution of Regional Trails

Measure Definition: Proximity of regional trails by ESJ score.

What is the Measure Significance?

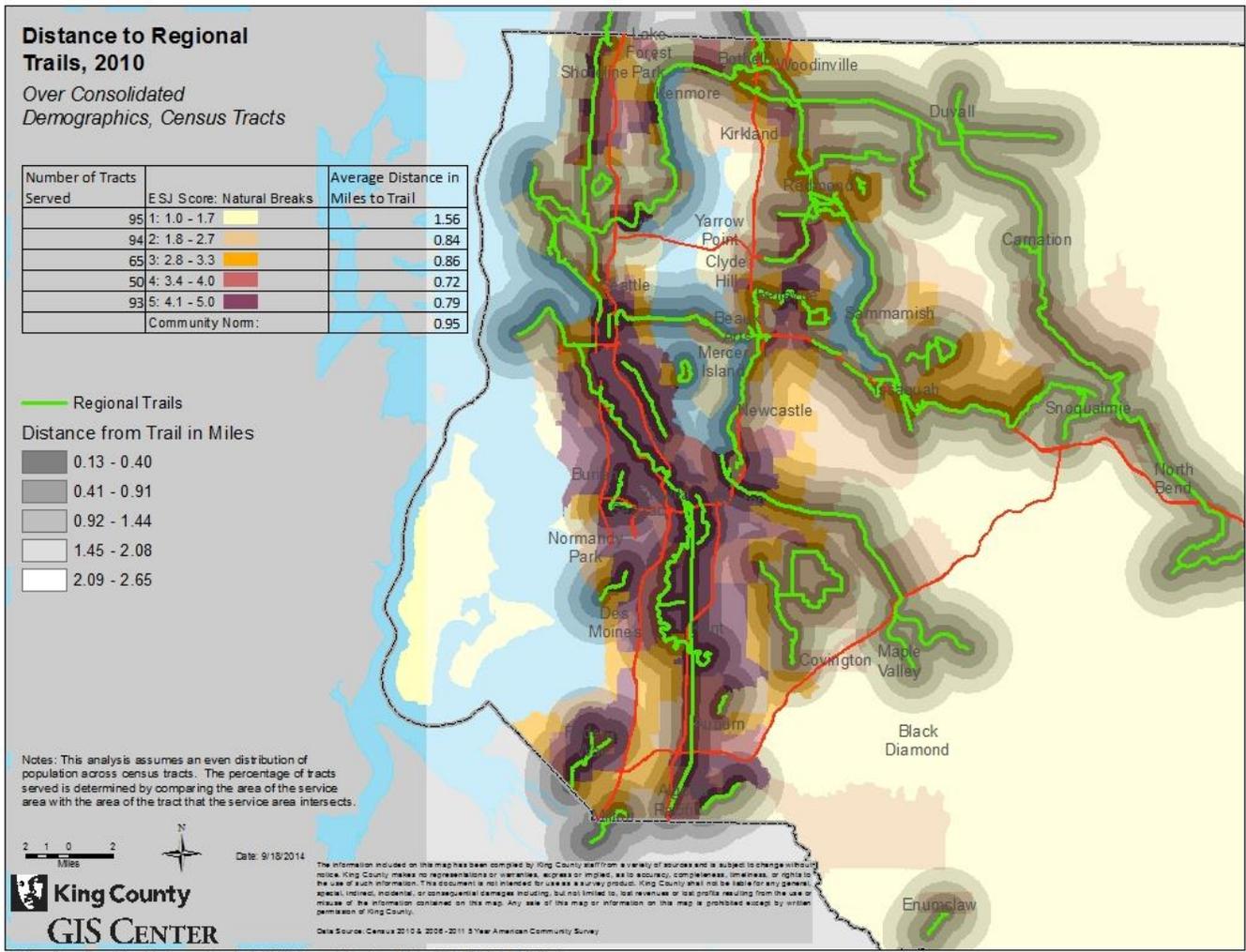
Regional trails are another form of outdoor space provided by King County. Regional trails provide space for recreation and can serve to mobilize people by connecting trails to key areas of opportunity. For example, regional trails can connect people to transit centers and jobs. The goal of examining the location of regional trails with an equity lens is to understand the distribution of and recreational opportunities across King County.

What is the Measure Status?

Figure 70 shows proximity to regional trails by ESJ score. The ESJ score is derived from an analysis that looks at the concentration of people of color, low-income and limited English proficiency (LEP) by census tract. The map shading represents this consolidated demographic or ESJ score. The darker shading represents areas with a higher concentration of residents of color, who are low-income and who are less proficient in English. This map shows that on average, locations with the highest ESJ score are .79 mile from a regional trail, while areas with the lowest ESJ score are on average over a mile and half to a regional trail. An additional equity consideration of this analysis is trail connectivity. South County, an area with a higher ESJ score appears to have fewer connecting trails than in North and North East County. Connecting trails are important for mobilization; for example, a resident in Carnation could use trails to connect from a rural location to an area of high opportunity like downtown Seattle. A resident living in Des Moines, Normandy Park or Burien does not have this opportunity based on lack of trail connectivity. To advance regional trail equity, the King County Department of Natural Resources and Parks has a newly funded Capital Improvement Project (CIP) to move toward regional trail equity.⁵⁶

⁵⁶ King County 2015/2016 Biennial Budget, p.49

Figure 70



What is the Measure Availability?

This specific map was created for a one-time analysis but is available for replication if resources permit. Availability of these data are anticipated to continue and likely become more refined if the project launches.

Data Limitations

The mapping of regional trails with socioeconomic information to reflect ESJ seems to have been done with little consistency in past years. Establishing a common way to map trails and demographics will be helpful in monitoring this measure.

Park Accessibility

Measure Definition: Travel distance to a park.

What is the Measure Significance?

Parks promote recreation and improve neighborhood quality. Parks contribute to neighborhood greenness, which is associated with physical activity and positive mental health.⁵⁷ Park accessibility is important to measure because it shows the distance people have to travel to access these public facilities. The goal of examining park accessibility with an equity lens is to understand recreational opportunities across King County.

What is the Measure Status?

One common method for analyzing park accessibility is to look at resident's proximity to parks. This measure differs from simply looking at the distribution of parks because it calls attention to the distance people must travel to access the park. Measuring proximity does not indicate park quality, size or amenities (i.e. picnic tables, play areas, or community centers). Two different methodologies for analyzing proximity are, first, looking at park distribution and estimate distance to park and second, opportunity stacking to show for park size and travel distance.

The current measure for park access at King County is considering the overall distribution of parks and estimating the distance to a park. Figure 71, 72, 73, and 74 show park proximity by providing a consolidated look at race, income and limited English proficiency (LEP). The map shading represents this consolidated perspective on demographics; the darker shading represents areas with a higher concentration residents of color, less proficient in English and lower income. The circles (buffers) on the map represent varying distances to parks. Figure 71 and 72 are regional park maps that show little change in park service between the years 2000 and 2010. However, figure 73 and 74 zoom in to the East Region and show difference in park development between 2000 and 2010. Figure 73 shows that in 2000 areas with dark shading (higher concentration of low-income, non-white, LEP) had the lowest access to parks at 76 percent. Figure 74 shows the drastic change and uneven park growth over the last ten years. By 2010 park accessibility increased about six percent for our most diverse communities (ESJ score 5) and increased over 18 percent for the more affluent communities (ESJ score 1).

⁵⁷ Rhew, I.C, Stoep, A.V., Kearney, A., Smith, N.L. & Dunbar, M.D. (2011). Validation of the normalized difference vegetation index as a measure of neighborhood greenness. *Ann Epidemiol.* 21(12): 946-952

Figure 71

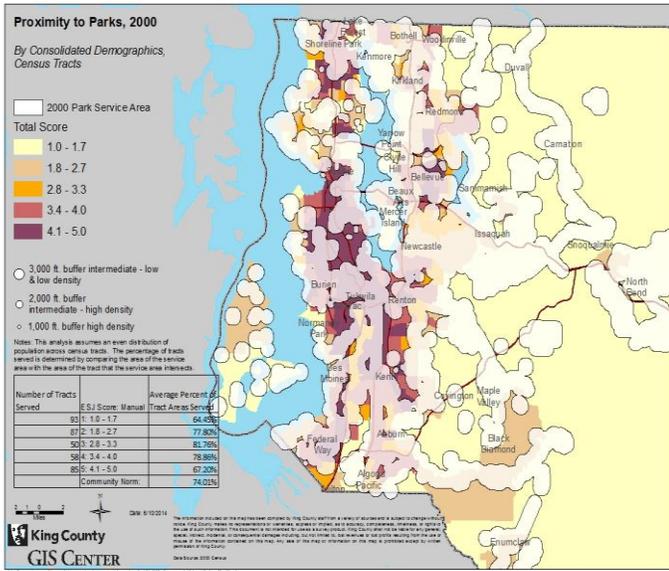


Figure 72

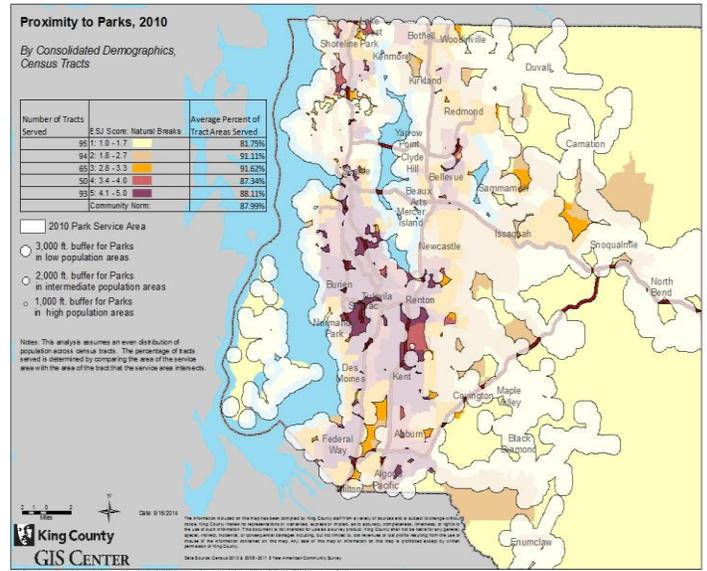


Figure 73

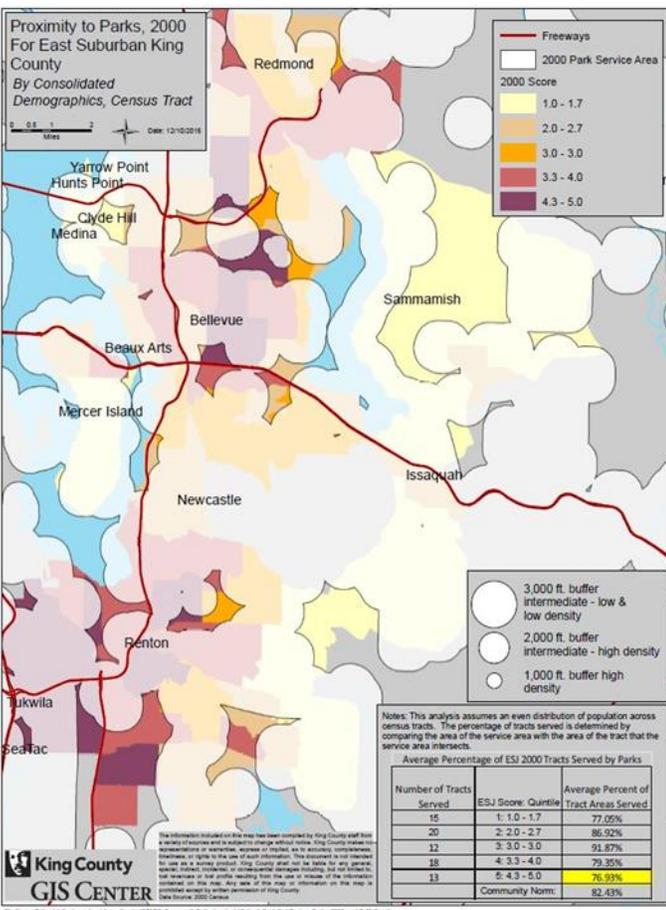
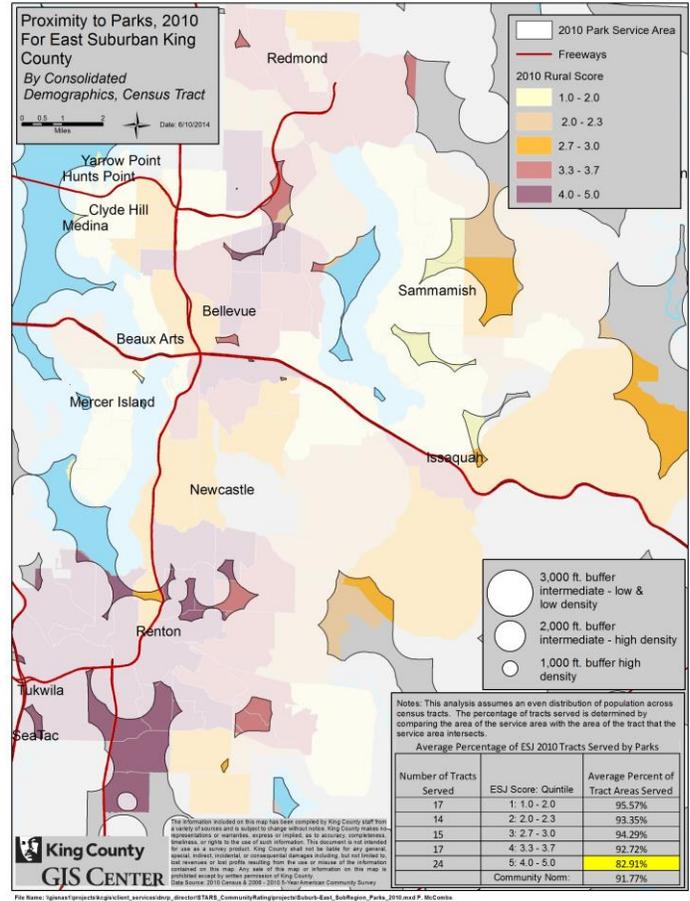


Figure 74



The second measure for park proximity is opportunity stacking developed by University of Washington Masters in GIS students who sought to understand park access at a finer scale.⁵⁸ To achieve this research goal, the park access score was developed based on guidelines from the National Recreation and Parks Association on park quantity and accessibility. Park access scores are on a one to four scale, where one indicates no access closer than a 30 minute drive and four indicates access within a quarter-mile walk of a mini park, a half-mile walk to a neighborhood park (15 acres), one to two miles from a community park (25 acres) and 30 miles from a regional park. Figure 75 and 76 show park access scores for 2000 and 2010.

Figure 75

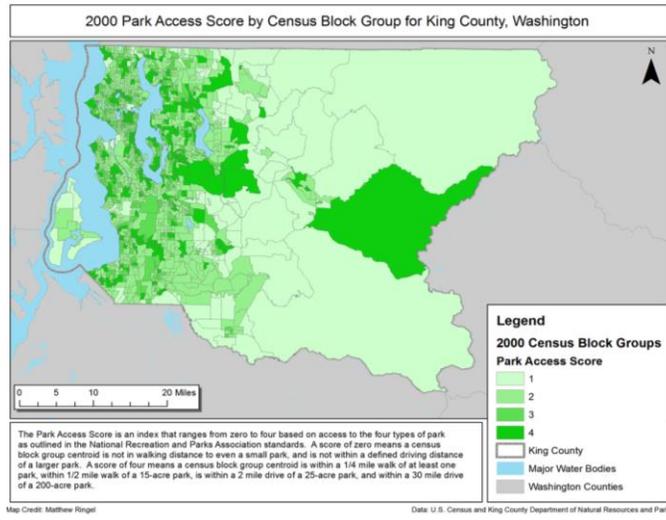
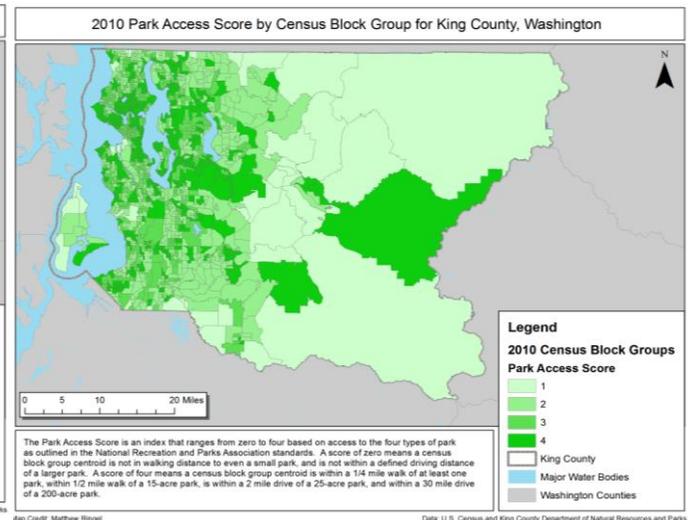


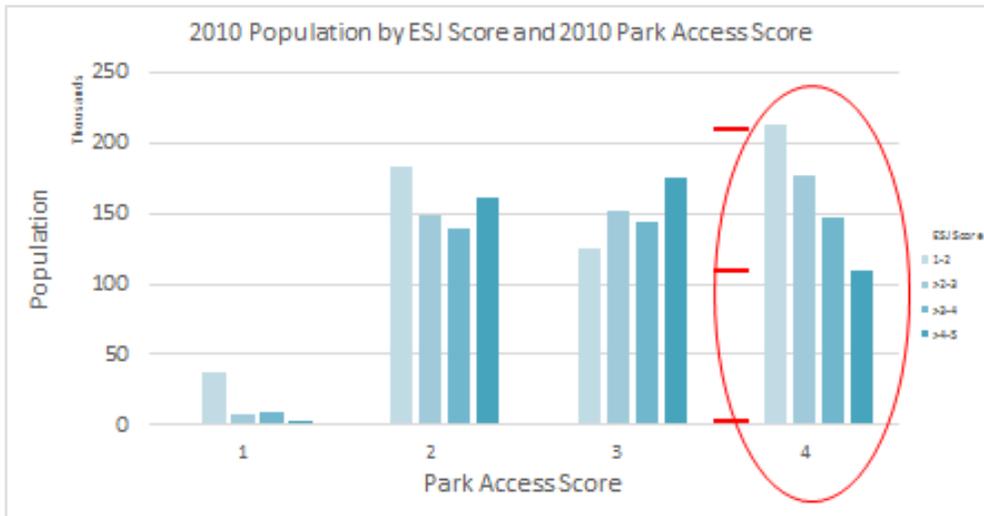
Figure 76



An ESJ perspective is introduced by pairing the consolidated demographic layer with the park access score. Figure 77 shows the greatest inequity in areas that have a park access score of four, noting that areas with low ESJ have almost twice as much robust park access as areas with a high ESJ score of four and five. The park score analysis highlights an increasing inequity in the types of parks available to residents who are low-income, persons of color or have limited English proficiency.

⁵⁸ Ringel, M., Tokizawa, D. (2014). Equitable Park Access in King County: An Analysis for King County Department of Natural Resources and Parks.

Figure 77



“In 2010, of those with a Park Access Score of four, there are almost twice as many (95% more) people with an ESJ Score from one to two than there are with an ESJ Score from four to five. While the trends for other Park Access Score categories are less dramatic, this alone is evidence of inequitable access in King County.”

What is the Measure Availability?

The map of park proximity by consolidated demographic layer is a produced internally by King County and is available for update. The opportunity stacking methodology was created for a one-time analysis by students from the University of Washington. The capacity to replicate this measure is currently being investigated.

Data Limitations

Opportunity stacking provides a more robust measure for park access but is currently not replicated by King County. The mapping of park proximity by consolidated demographic is limited in utility because it does not provide information regarding the difference types of parks accessible to residents.

Distribution of Playgrounds

Measure Definition: Distribution of playgrounds by median household income.

What is the Measure Significance?

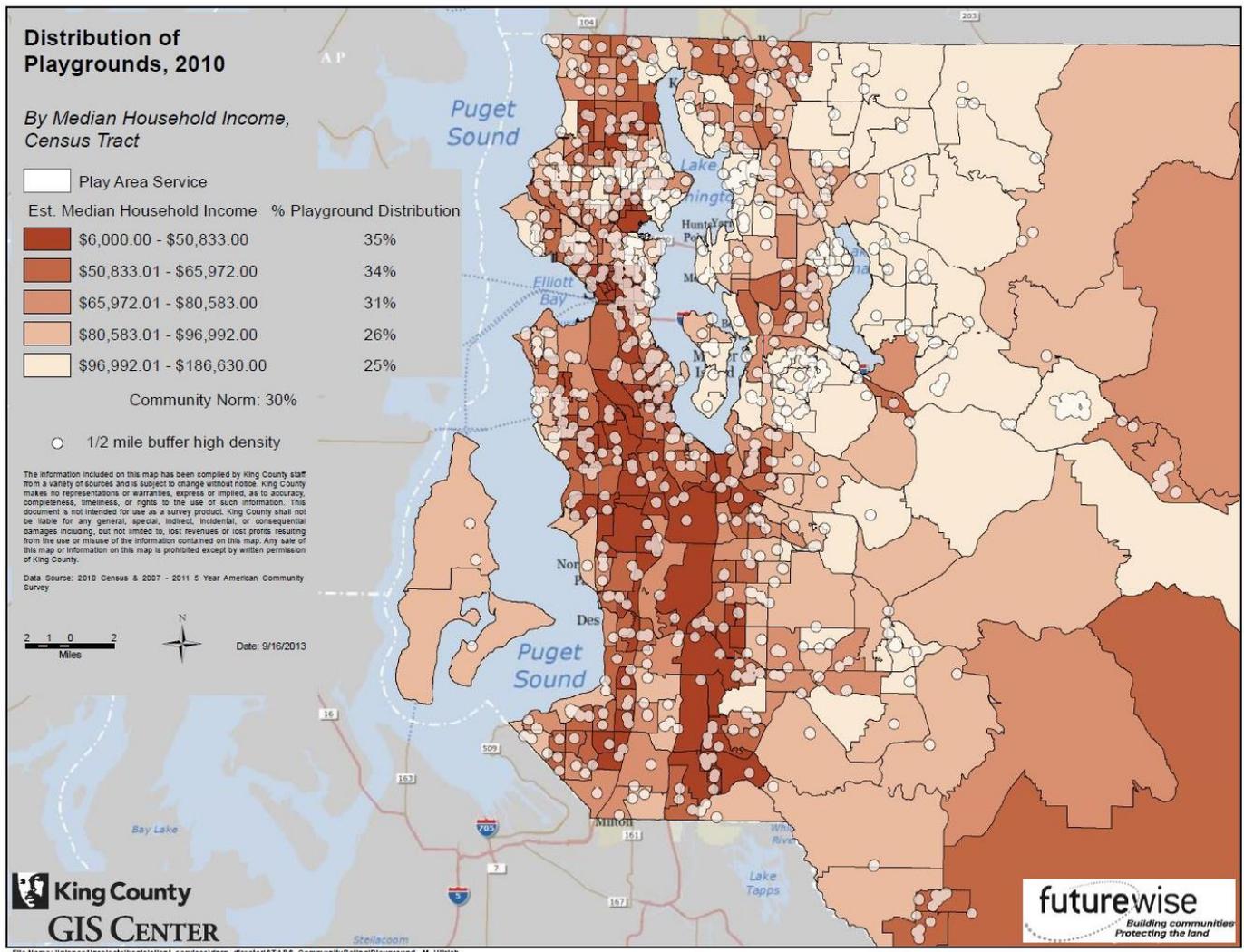
Livable communities create opportunity to access recreation appropriate for all ages. Playgrounds provide the opportunity for an active lifestyle in households with children. Furthermore, playgrounds are often located on or near parks which makes this measure a viable proxy for park distribution. The goal of looking at playground distribution with an equity lens is to understand recreational opportunities throughout King County.

What is the Measure Status?

Figure 78 shows the distribution of playgrounds by median income where each dot represents a half mile distance to a playground. This map highlights that 35 percent of playgrounds are distributed in the lowest earning areas and only 25 percent are distributed in areas with the highest income. On the surface, this appears like an equitable distribution, but it is important to take into account that many times people who have higher incomes and/or live in less urban environments

have increased access to open space that can serve as a play area. In addition, people who have a high income are more likely to have access to a vehicle which improves their ability to access play areas. Conversely, urban residents particularly those who are low-income, often have less access to open space and designated play areas. For example, in South King County there are noticeable gaps in playground distribution which presumably will have a higher impact on child recreation than areas that are less urban. This is important because equity in playground distribution and child recreation can impact health outcomes such as childhood obesity and promotes developmental aspects of play and socialization.

Figure 78



What is the Measure Availability?

This map was created for as one-time analysis in conjunction with Futurewise and is not anticipated to be recreated. Since King County GIS Center likely has the data necessary to recreate this map, updating it to reflect current conditions is feasible permitting resources availability.

Data Limitations

One limitation of this map is the large range (e.g. low income spans \$6K-\$50K) for median household income that is represented. Reducing the range of income would allow for the distribution of playgrounds to be more accurately assessed for equity considerations.

Healthy Built and Natural Environment



Healthy Built & Natural Environment

Ordinance Definition: Healthy built and natural environments for all people that include mixes of land use that support: jobs, housing, amenities and services; trees and forest canopy; clean air, water, soil and sediment.

Considering the built and natural environment with an equity lens is particularly important to create a King County where everyone can thrive. Infrastructure impacts physical and mental health; it can be an asset or barrier to prospering in King County. Identifying how the built environment supports residents in improving quality of life, accessing jobs and housing is critical for promoting a healthy environment for all residents.

The recommended indicators below were selected for their ability to measure healthy built & natural environment. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Mixes of Land Use

- Land Use Mix Index

Tree & Forest Canopy

- Vegetation Distribution

Exposure to Toxins

- *Pollution by Region*

Clean Air

- Air Quality – No specific ESJ measure identified.

Water

- Water Quality – No specific ESJ measure identified.

Soil & Sediment

- Sediment Quality – No specific ESJ measure identified.

Key Findings

- The air release of toxic chemicals grew by 24 percent in the South Region of King County between the years 2000 and 2006. During this same time period, air release of toxic chemicals declined in the East Region of King County by 19 percent and in Seattle by 5 percent.
- Creating a combined dataset of land use with an ESJ lens is an important next step in understanding built environment.

- There is a lack of vegetation in South County, particularly from Tukwila south to Algona/Pacific, which can impact quality of life.

Limitation of Ordinance Definition

Understanding the built environment and the natural environment are two very large and distinct bodies of work. In fact, many equity reports separate these into two stand-alone categories. The inclusion of both built and natural environment makes it very difficult to accurately capture the ESJ landscape for this determinant. Additionally, standard measures for air, water and sediment quality are captured at the aggregate and do not often capture ESJ populations in analysis. Air, water and sediment quality are closely monitored at the aggregated level for the entire county by the Federal Government. If a revision of language is proposed for this determinant, water, air and soil and sediment ought to be considered for removal since they are closely in the aggregate monitored for the entire county. Additionally, making the built environment a stand-alone category will help capture this measure more accurately. Finally pairing natural environment and natural resources will likely allow for more focused analysis of ESJ considerations and environmental justice.

Land Use Mix Index

Measure Definition: Land distribution by looking at the square footage of: single and multi-family residential, retail, office, civic & education, and entertainment.

What is the Measure Significance?

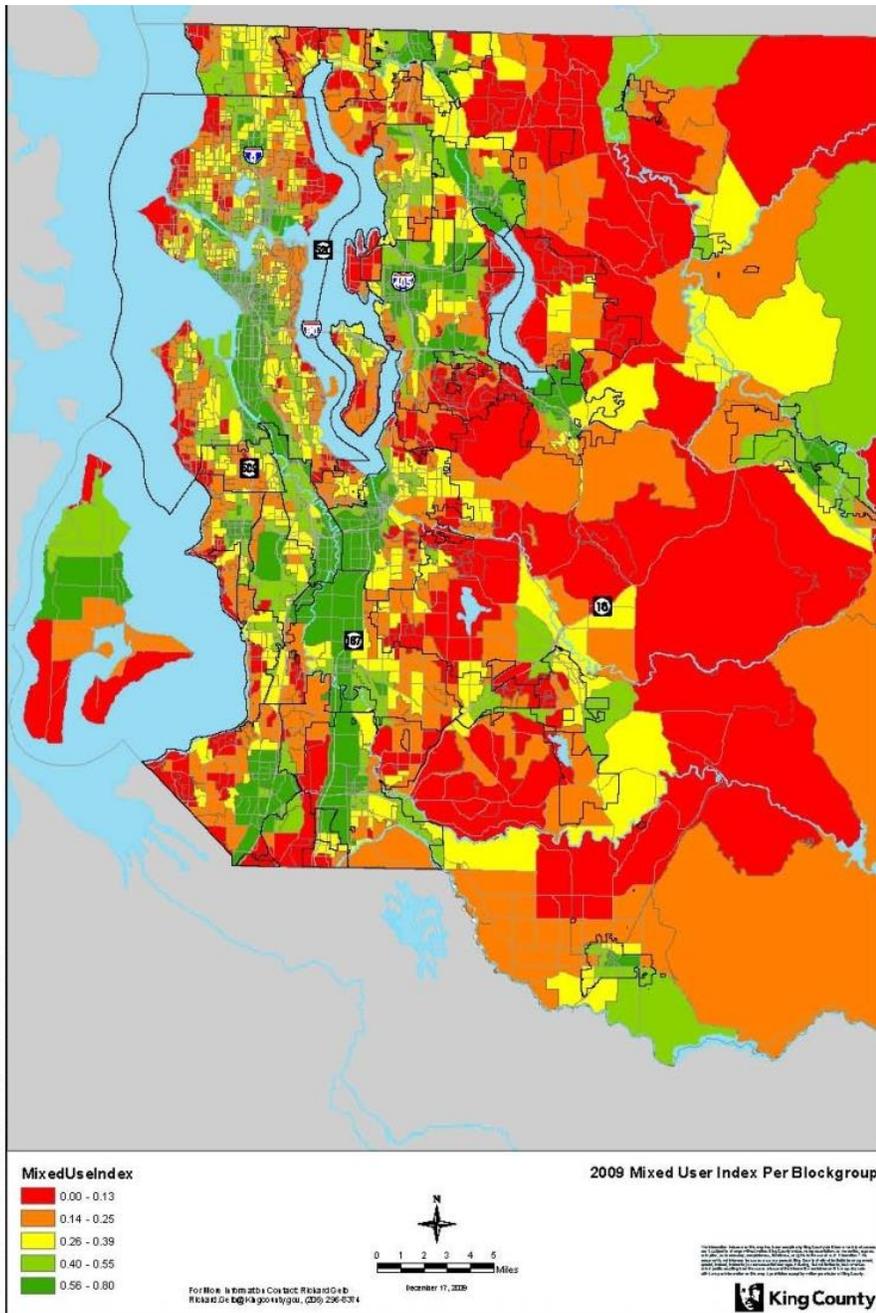
Understanding the use of buildable lands throughout the county provides insight into land use. Identifying whether or not the county's built environment supports resident access to necessities (such as jobs and housing) and infrastructure (such as parks and tree canopy) is important because it helps identify if King County is a place where everyone can thrive.

What is the Measure Status?

Figure 79 was created as a one-time analysis of land use.⁵⁹ The map seeks to show the evenness of land use distribution by looking at the square footage of single and multi-family residential units, retail space, office, civic and education, and entertainment. This map is intended to measure whether the different types of land use are in close proximity to one another, which is important for understanding how accessible areas are for walking trips and transit. The green shading in the map represents areas where different types of land use are in close proximity to one another while the red shading represents the opposite. This map provides a general analysis of land use but without applying an ESJ lens it is difficult to understand potential disparities.

⁵⁹ Lawrence Frank & Company, Inc. 2008. Memo Re: Proposed Methodology for Phase II GHG Emissions Modeling and Mapping Project.

Figure 79



What is the Measure Availability?

This measure was created as a one-time analysis and is not anticipated to be replicated. The 2014 King County Buildable Lands Report is a robust document that provides the most current information and dataset regarding development in King County in conjunction with the nuances of the Growth Management Act.⁶⁰ Pairing the information in this report with the ESJ lens provided by the consolidated demographic GIS layer could be a helpful step in understanding land use mix from an ESJ perspective.

⁶⁰ [The 2014 King County Buildable Land Report](#)

Data Limitations

The combination of an explicit ESJ lens in land development analysis is difficult to locate. Having a combined dataset of land use and something like the ESJ consolidated demographic layer could be an interesting next step. As is, ESJ demographic data and land use analysis will have to be analyzed in parallel.

Vegetation Distribution

Measure Definition: Normalized difference vegetation index (NDVI).

What is the Measure Significance?

Vegetation such as tree cover is an important community feature that contributes to neighborhood greenness allowing residents respite from the concrete and mortar built environment. Neighborhood greenness is positively associated with physical activity and mental health.⁶¹ This key feature contributes to a thriving environment in King County.

What is the Measure Status?

The Normalized Difference Vegetation Index (NDVI) is a measure for neighborhood greenness and is one way to measure regional tree canopy cover. Figure 80 and 81 include two snapshots in time: 2000 and 2010. The base of these maps is a consolidated look at demographics including race, income and limited English proficiency. Darker shading on the map represents areas with a higher concentration of residents of color, less proficiency in English and lower income. Similarly, the dots representing vegetation move from red (low) to green (high). These maps show a slight decrease in overall vegetation between the years 2000 and 2010. The spectrum of red to golden yellow dots shows areas that are below the community average for vegetation. These areas are particularly concentrated in North Seattle down through South Seattle. The maps also show a consistent lack of vegetation near the freeway corridor from Tukwila down to Algonia/Pacific. A reverse of this trend occurred in parts of Black Diamond. Overall, urban Seattle has exposure to less vegetation. The largest cluster of lack of vegetation occurs in Seattle between 520 and I-90, although this area houses a mix of residents, those who are low-income are likely impacted more because they have fewer resources to travel to areas with high vegetation.

⁶¹ Rhew, I.C., Stoep, A.V., Kearney, A., Smith, N.L. & Dunbar, M.D. (2011). Validation of the normalized difference vegetation index as a measure of neighborhood greenness. *Ann Epidemiol.* 21(12): 946-952

Figure 80

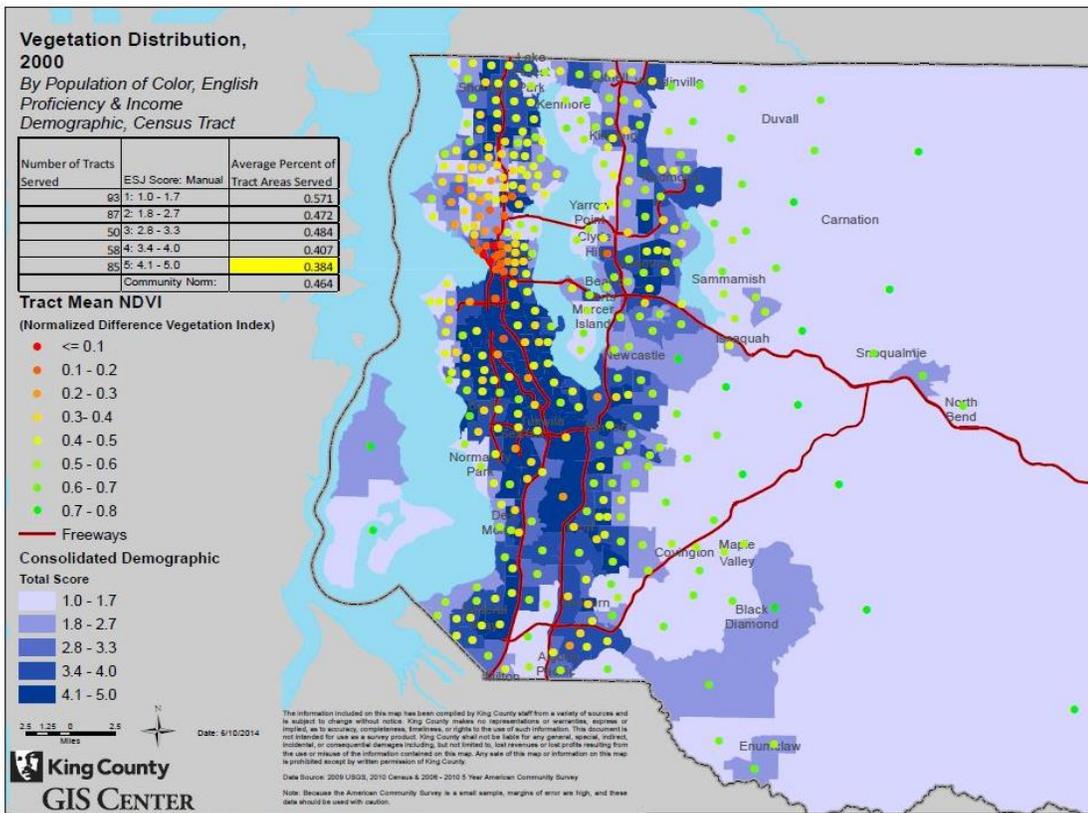
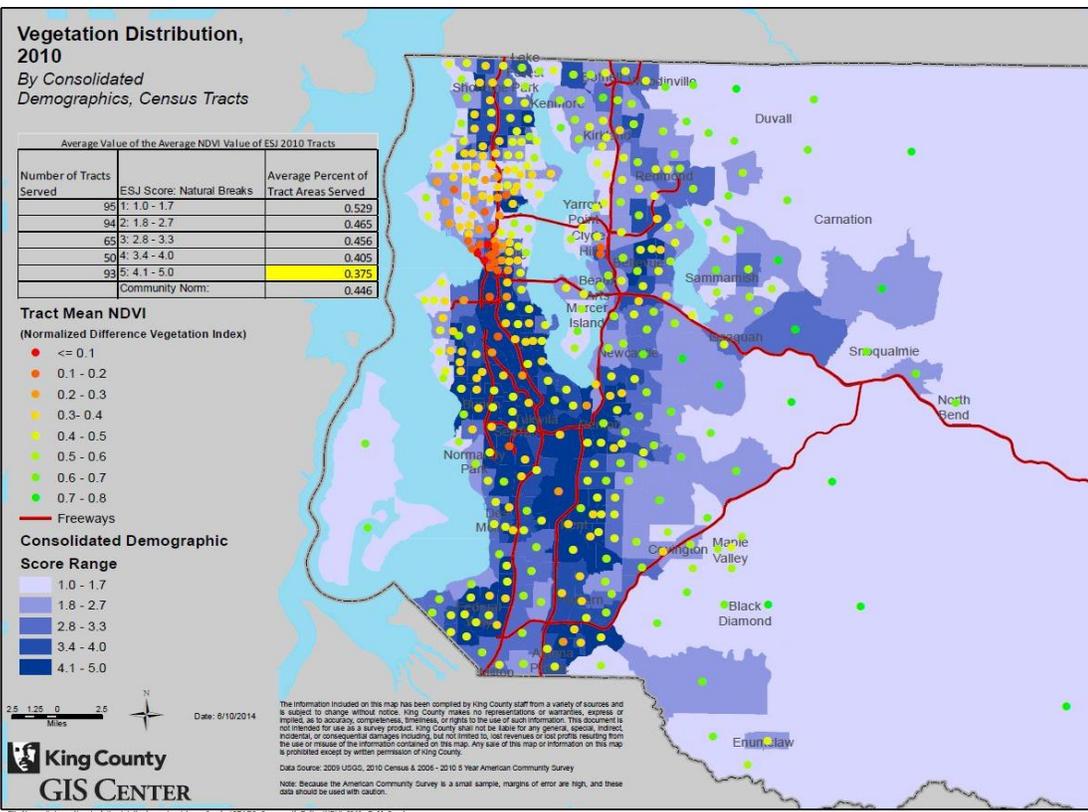


Figure 81



What is the Measure Availability?

It is anticipated that King County will continue to update and make available NVDI results. Additionally, the consolidated demographic layer is readily available and updating map demographics is feasible.

Data Limitations

Having a sub region version of this map might be more beneficial because it would allow a closer look at the vegetation in each neighborhood. Additionally having further knowing the percent of vegetation distribution by census tract might improve the utility of this map.

Pollution by Region

Measure Definition: Air release of all reportable toxic chemicals & carcinogenic chemicals by region.

What is the Measure Significance?

This measure is important because exposure to pollution increases the risk of health problems, such as asthma. Although more pollution exists in urban areas in general, identifying areas with above average pollution can help guide investment of County resources to mitigate disparate impact of exposure.

What is the Measure Status?

Communities Count reported on the release of toxic chemicals by region from 2000 through 2006.⁶² This report shows the steady growth in population and toxic release in the South Region: toxic release grew by 24 percent, from 55 percent in 2000 to 79 percent in 2006. This growth is over seven times that of other regions in King County in the same time period. Additionally, between 2000 and 2006, both Seattle and the East Region experienced a decline in toxic release while the North Region experienced no reportable release.

⁶² [Communities Count - 2008 Natural Built Environment Report, p.95](#)

Figure 82

Air Releases of All Reportable Toxic Chemicals by Region King County, 2000, 2003, and 2006

Region	Total Pounds Released			Percent of Total Released			Number of Facilities			Percent of Facilities			Percent of Population		
	'00	'03	'06	'00	'03	'06	'00	'03	'06	'00	'03	'06	'00	'03	'06
North	300	300	20	0%	0%	0%	1	5	3	2%	6%	4%	8%	8%	7%
Seattle	260,000	160,000	91,000	16%	20%	11%	26	25	32	42%	31%	41%	32%	33%	31%
East	470,000	36,000	79,000	29%	5%	10%	7	14	13	11%	17%	17%	23%	23%	24%
South	900,000	600,000	630,000	55%	75%	79%	28	37	30	45%	46%	38%	37%	36%	38%
King County	1,630,300	796,300	800,000	100%	100%	100%	62	81	78	100%	100%	100%	100%	100%	100%

Air Releases of Carcinogenic Chemicals by Region King County, 2000, 2003 and 2006

Region	Total Pounds Released			Percent of Total Released			Number of Facilities			Percent of Facilities			Percent of Population		
	'00	'03	'06	'00	'03	'06	'00	'03	'06	'00	'03	'06	'00	'03	'06
North	0	0	0	0%	0%	0%	0	1	0	0%	3%	0%	8%	8%	7%
Seattle	53,000	29,000	26,000	28%	42%	19%	10	17	14	40%	44%	38%	32%	33%	31%
East	47,000	31,000	50,000	25%	45%	36%	2	10	9	8%	26%	24%	23%	23%	24%
South	88,000	9,600	61,000	47%	14%	45%	13	11	14	52%	28%	38%	37%	36%	38%
King County	188,000	69,600	137,000	100%	100%	100%	25	39	37	100%	100%	100%	100%	100%	100%

What is the Measure Availability?

The data for this measure are derived from the U.S. Environmental Protection Agency (EPA) Toxic Release Inventory (TRI). TRI data is collected annually by the EPA. Although the base dataset will continue to be available, analysis by county region is difficult to locate. It is unclear if Communities Count will continue to report this data by region.

Data Limitations

If Communities Count discontinues reporting, internal staff time will have to be allocated to develop TRI report by region.



Transportation

Transportation

Ordinance Definition: Transportation that provides everyone with safe, efficient, affordable, convenient and reliable mobility options including public transit, walking, carpooling and biking.

The goal of transportation is mobility that connects people with opportunities. Whether it is to school, work or play, the ability to safely and efficiently navigate King County is critical for creating an environment for people to thrive.

The recommended indicators below were selected for their ability to measure transportation. Due to time constraints, measurement in this area focuses primarily on one aspect of public transportation: Metro Transit. Future iterations ought to examine other domains of transportation (e.g. roads, ferries, and trains) to gain a more well-rounded perspective. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Safe

- Metro Transit Rider Satisfaction with Safety

Efficient/Convenient/Reliable

- Reliance on Metro Transit
- Metro Transit Passenger Crowding & Schedule Reliability
- *Proximity to Metro Transit*
- Metro Transit On-Time Performance
- Walk Score
- Bike Score
- Transit Score

Affordable

- Metro Reduced Fare Permit Utilization
- Metro Low-Income Fare Utilization - March 1, 2015
- Transportation Cost Burden

Key Findings

- Minority and low-income residents have better than average proximity to Metro Transit - 76 percent of households in low-income census tracts and 67 percent of households in minority census tracts are within a quarter-mile of a transit stop, compared with 65 percent of all households in the county.
- Metro Transit's on-time performance and levels of overcrowding are comparable across demographics and income.

- Low-income riders are more likely than higher income riders to say they depend on Metro for “All” and “Most” of their transportation needs, while minority riders are more likely than non-minority riders to depend on Metro for “Most” of their transportation needs.
- Approximately 72 percent of the total hours needed to meet target service levels are on minority corridors; about 52 percent of Metro’s service hours are operated on minority routes. Approximately 63 percent of the total hours needed to meet target service levels are on low-income corridors; about 50 percent of Metro’s service hours are operated on low-income routes.
- Residents in rural King County face a higher transportation cost burden than urban residents in the county.

Limitation of Ordinance Definition

Measuring overall transportation throughout King County is a huge task. Although the language does reference other modes of transportation, this determinant is interpreted as being primarily directed at capturing equity in public transportation. In addition, a number of the goals established in the definition overlap, making the scope of measurement difficult to define. Words like efficient, convenient and reliable overlap making it difficult to align a specific measure for each. For example, reliable service is efficient and convenient. Similarly, service that is convenient is both efficient and reliable. If revision of this determinant is considered, the research team recommends removing one or more of these closely linked descriptive words from the definition, or more clearly defining each.

Metro Transit Rider Satisfaction with Safety

Measure Definition: King County Metro riders' satisfaction with personal safety and riders' perceptions that Metro provides a safe and secure environment and of safety improvements within the last year.

What is the Measure Significance?

Metro Transit provides the critical service of connecting people with opportunities around King County – as evidenced by the 118 million boardings on Metro service in 2013.⁶³ Measuring rider satisfaction with and perceptions of personal safety is important because it speaks to the customer experience with Metro Transit and opens the conversation to understand specific ESJ considerations.

What is the Measure Status?

The 2013 King County Rider/Non Rider Survey reveals that personal safety is an area that customers rank as a high priority but one that has below average satisfaction (figure 83).⁶⁴ A closer examination of the rider survey reveals the complexity of measuring customer satisfaction with personal safety. Figure 84 shows satisfaction with the six elements measured for personal safety ranged from 84 percent to 94 percent in 2013. Satisfaction with four of the six elements remained unchanged from 2012 to 2013, while satisfaction with personal safety in the downtown transit tunnel declined, and satisfaction with nighttime safety while waiting for the bus increased. Figure 85 shows minority riders are less satisfied with waiting for the bus after dark than non-minority riders. Low-income riders seem to be somewhat less satisfied with this same element than higher income riders.⁶⁵ Low-income and minority riders are more likely than higher income and non-minority riders to say they avoid riding the bus due to concerns about personal safety. There were no significant differences in satisfaction with other elements of personal safety between these groups. However, low-income riders and minority riders were more likely than higher income and non-minority riders to respond that they felt safer riding Metro than a year ago, and that Metro has been proactive in improving safety and security. There were no significant differences between these groups in perceptions that Metro provides a safe and secure transportation environment.

Figure 83

High Importance / Above-Average Satisfaction Maintain		High Importance / Below-Average Satisfaction Improve	
Mean Rating		Mean Rating	
Information	4.29	Level / Reliability of Service	4.16
		Safety	4.13
		Transferring	3.83
		Comfort while Riding	4.08
Low Importance / Above-Average Satisfaction Monitor		Low Importance / Below-Average Satisfaction Strategically Target	
Mean Rating		Mean Rating	
Fare Payment	4.54	Comfort at Stops *	4.01
Drivers	4.52		
Park-and-Ride Lots*	4.28		

Mean is based on five-point scale where "5" means "very satisfied" and "1" means "very dissatisfied."
Average mean across all dimensions is 4.29.
* Not a significant contributor

Figure 84

Rider Satisfaction with Safety	Percent Satisfied	
	2012	2013
Daytime personal safety while riding	92	94
Daytime personal safety while waiting	93	90
Nighttime personal safety while riding	84	81
Nighttime personal safety while waiting	79	86*
Personal safety at Park & Ride Lots	92	91
Personal safety in the transit tunnel	92	84*
* significant change, 2012 to 2013		

⁶³ [King County Metro - Ridership Data](#)

⁶⁴ [2013 Rider/Non Rider Survey](#), p.114 & p.195

⁶⁵ Due to small sample sizes, this difference is significant at somewhat less than the 90% confidence level.

Figure 85 ⁶⁶

Customer Satisfaction and Perceptions by Income & Ethnicity										
	HH Income < \$35K per/yr (N=186)		HH Income > \$35K per/yr (N=667)		Minority (N=227)		Non-Minority (N=630)			
	Total Satisfied		Total Satisfied		Total Satisfied		Total Satisfied		Total Satisfied	
Overall satisfaction with Metro		91%		83%		90%		85%		
Value of service for fare paid		89%		92%		88%		92%		
Satisfaction with Personal Safety										
On bus daytime		86%		91%		88%		91%		
On bus after dark		79%		82%		75%		83%		
Waiting for bus day		95%		95%		93%		95%		
Waiting for bus after dark*		68%		78%		68%		79%		
In downtown transit tunnel		83%		86%		80%		86%		
	Yes	No	Yes	No						
Do you avoid riding the bus or streetcar due to concerns about your personal safety?	27%	73%	20%	80%	27%	73%	20%	80%		
Somewhat and strongly agree with:	Total		Total		Total		Total		Total	
Metro offers good value		94%		87%		92%		87%		
Metro values its customers		86%		86%		86%		86%		
I feel significantly safer riding Metro than I did a year ago		58%		38%		59%		36%		
Metro has been proactive in improving safety and security		81%		61%		79%		61%		
Metro provides safe and secure transportation environment		90%		88%		91%		88%		

What is the Measure Availability?

King County Metro conducts an annual survey of riders. Riders’ satisfaction with and perceptions of personal safety will continue to be an important focus of this research.

Data Limitations

Examining rider satisfaction with safety is an important and readily available measure that provides a regional ESJ lens. One alternative to this measure is passenger and driver assaults. These data are an aggregate count and if the count of assaults were to be made available by region or route, it could be a useful companion measure for rider satisfaction with and perception of safety. Finally, the diversity of languages spoken in King County is an ongoing challenge for survey research. In the 2013 Rider/Nonrider Survey, interviews were conducted in Spanish as well as English. Seven percent of those contacted spoke Spanish. Of the 493 Spanish-speaking respondents reached, 39 percent were screened out as non-riders, 20 percent did not live in King County and 34 percent refused to complete the survey. These efforts resulted in only eight completed surveys in Spanish. An additional 8 percent of respondents contacted spoke a language other than English or Spanish.

⁶⁶ Significant differences at the 95 percent confidence level shown in red. The significance of the difference between low-income and higher income riders on this element is slightly less than 90 percent.

Reliance on Metro Transit

Measure Definition: Percent of people who use metro transit for most or all transportation needs.

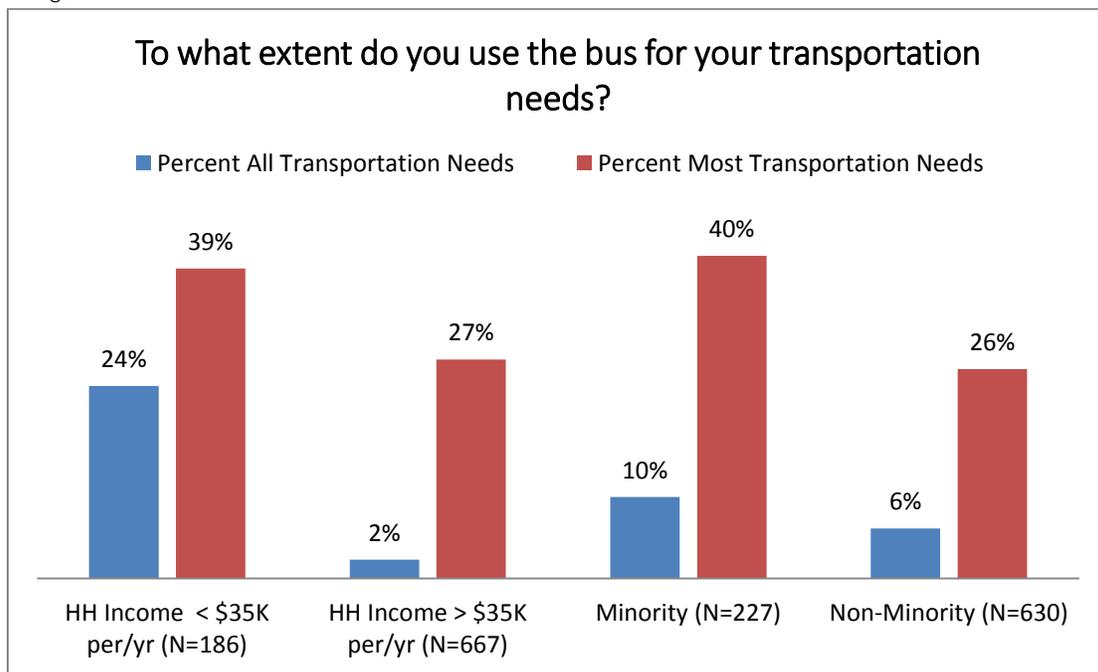
What is the Measure Significance?

The goal of public transportation is to connect people with opportunities such as work and school. The reliance on this service is particularly salient for those whose only means of mobility is public transit. Capturing the rate of transit dependency for people of color and those who are low income compared to more affluent, non-minority riders is important for promoting equitable service delivery in transportation.

What is the Measure Status?

Data from the 2013 King County Metro Rider/Non Rider survey reveals that Low-income riders are more likely than higher income riders to say they depend on Metro for “All” and “Most” of their transportation needs, while minority riders are more likely than non-minority riders to depend on Metro for “Most” of their transportation needs.⁶⁷ Second, the rate of automobile ownership throughout the county is a companion data point to this survey because it reinforces the reality that fewer people of color own vehicles.⁶⁸ Although the overall vehicle ownership in the county is roughly 90 percent, people of color are much more likely than whites to not own vehicles. Capturing the rate of transit dependency between people of color and those who are low income compared to more affluent, non-minority, riders is important for promoting equitable service delivery in transportation, as reflected in Metro’s service guidelines which give greater weight to routes serving minority and low-income areas.

Figure 86



⁶⁷ 2013 King County Metro Ride/Non Rider Survey

⁶⁸ US Census 2000. Automobile Ownership by race

Figure 86 Con't⁶⁹

To what extent do you use the bus for your transportation needs?			
	All	Most	Most/All
HH Income < \$35K per/yr (N=186)	24%	39%	62%
HH Income > \$35K per/yr (N=667)	2%	27%	30%
Minority (N=227)	10%	40%	50%
Non-Minority (N=630)	6%	26%	32%

Figure 87

Automobile Ownership by Race

Percent of Households with NO Vehicle, 2000

	<u>King Co.</u>	<u>Seattle</u>
All households	9.3%	16.3%
Non-Hisp white	7.8%	13.7%
Black	21.1%	29.0%
Native Amer.	20.9%	34.2%
Asian	12.3%	21.5%
Hisp./Latino	13.9%	22.5%
2+ race	14.4%	23.2%

Source: US Census 2000, SF3

What is the Measure Availability?

King County Metro conducts an annual survey of riders. Information from the annual rider survey will strengthen the utility of this measure by showing change over time. Finally, census data regarding vehicle ownership is anticipated to continue to be available for public use.

Data Limitations

The rider survey is limited to individuals who have a landline telephone or cell phone. The 2012 and 2013 rider surveys were conducted in English and Spanish. Therefore, the sample is limited to these languages, and cannot be said to represent the 4.5 percent of King County households where other languages are spoken.

⁶⁹ Significant differences at the 95 percent confidence level shown in red

Metro Transit Passenger Crowding & Schedule Reliability

Measure Definition: Percent of estimated service needed to reduce passenger crowding, improve schedule reliability and meet target service levels on minority or low-income routes.

What is the Measure Significance?

Bus crowding and lateness limit people's ability to conveniently and reliably use Metro Transit. Highlighting the service need to decrease bus crowding and improve schedule reliability is important because it reveals areas where resource allocation can improve equity in service delivery.

What is the Measure Status?

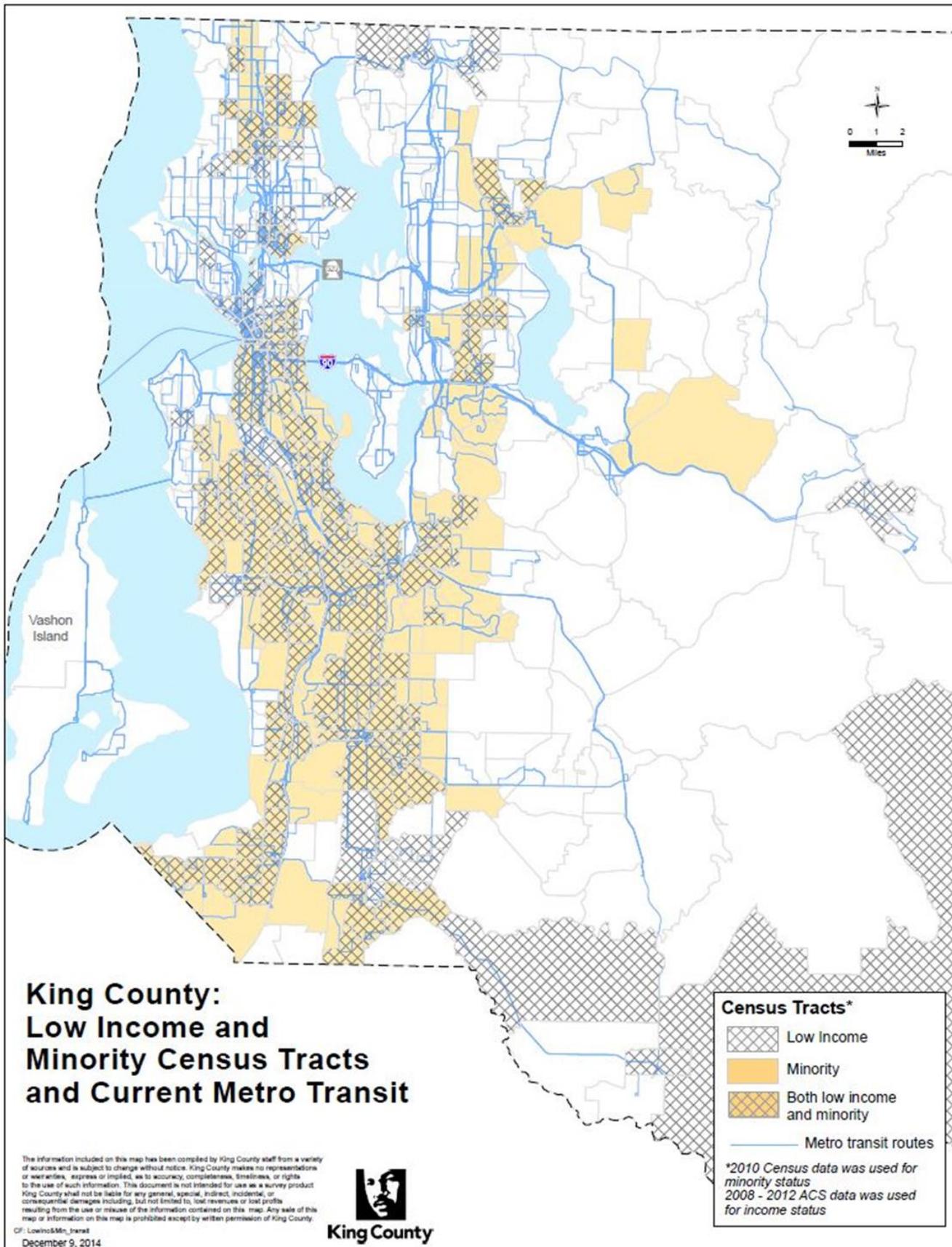
The 2014 King County Metro Transit Service Guidelines Report estimates the amount of service needed to decrease crowding, improve schedule reliability and overall performance.⁷⁰ To show how these investments affect low-income and minority routes and corridors Metro reports on the percent of investment need identified on low-income and minority routes and corridors. The estimated needs shown below are King County Metro Transit's investment priorities.

- Metro's route level investment needs to address overcrowding and schedule reliability are concentrated on low-income and minority services.
 - Approximately 45 percent of the total hours needed to address passenger crowding are on minority routes; about 52 percent of Metro's service hours are operated on minority routes. Approximately 31 percent of the total hours needed to address passenger crowding are on low-income routes; about 50 percent of Metro's service hours are operated on low-income routes.
 - Approximately 46 percent of the total hours needed to address schedule reliability are on minority routes; about 52 percent of Metro's service hours are operated on minority routes. Approximately 53 percent of the total hours needed to address schedule reliability are on low-income routes; about 50 percent of Metro's service hours are operated on low-income routes. .
- Metro's corridor analysis identifies corridors for future service investments. This analysis gives priority to corridors that: have high residential and job densities; serve regional and manufacturing industrial centers and activity centers; and serve low-income and minority area. In this way, Metro prioritizes the mobility needs of minority and low-income populations. The 2014 Service Guidelines Report identified needed service investments on minority and low-income corridors at a rate of more than 2 to 1 (when compared to investments in corridors not identified as minority or low-income). Approximately 72 percent of the total hours needed to meet target service levels are on minority corridors; about 52 percent of Metro's service hours are operated on minority routes. Approximately 63 percent of the total hours needed to meet target service levels are on low-income corridors; about 50 percent of Metro's service hours are operated on low-income routes.

Figure 88 gives a visual representation of the intersection of Metro routes with low-income and minority census tracts.

⁷⁰ [King County Metro Transit 2014 Service Guidelines Report](#)

Figure 88



What is the Measure Availability?

The Service Guidelines Report is an annual report that identifies investment priorities including overcrowding and schedule reliability, and is the primary source of this information. These data also appear in the Title VI report that is provided by Metro Transit to the Federal Transit Administration (FTA) every three years.⁷¹ In addition, pursuant to FTA's Title VI regulations, Metro Transit develops a Title VI analysis of major service changes that is submitted to the King County Council with the ordinance adopting the changes.

Data Limitations

The Service Guidelines Report is issued once a year. It reports on the number of incidences of overcrowding, but does not report the severity of overcrowding.

Proximity to Metro Transit: Population within a Quarter Mile Walk of a Transit Stop or a Two Mile Drive to a Park-and-Ride

Measure Definition: Percent of housing units per census tract that are located within a quarter mile of a transit stop or a two mile drive to a park-and-ride.

What is the Measure Significance?

The distance people travel to access transit measures convenience and overall accessibility. Accessing transit is an essential measure because if people cannot get to the bus stop, then issues of crowding and reliability are inconsequential.

What is the Measure Status?

Minority and low-income residents have better than average proximity to Metro Transit. The 2013 King County Metro Transit Strategic Plan reports that:

- Overall, 65 percent of housing units are within a quarter mile of a transit stop and 22 percent are within two miles of a park-and-ride for a cumulative score of 87 percent.
- Of low-income residents, 76 percent are within a quarter mile of a transit stop and 19 percent are within two miles of a park-and-ride for a cumulative score of 95 percent.
- Of minority residents, 67 percent are within a quarter mile of a transit stop and 25 percent are within two miles of a park-and-ride for a cumulative score of 92 percent.⁷²

What is the Measure Availability?

This measure is currently used by Metro Transit to monitor the goal of providing equitable opportunities for all people to access public transportation. This measure has been used in years past so it is possible to see change over time. It is anticipated that Metro will continue to report on this measure, making it readily accessible for use.

Data Limitations

There is a fairly significant travel difference between a quarter-mile walk and two mile drive. This data might be communicated more clearly if these categories were portrayed separately. In addition, the consideration of how many

⁷¹ [2013 King County Metro Transit Title VI Program Report](#)

⁷² [2013 King County Metro Transit Strategic Plan](#), p.10

people in low-income and minority areas own vehicles to drive two miles to a park and ride could be an interesting companion dataset.

Metro Transit On-Time Performance

Measure Definition: A bus is considered to be on time if it arrives between 1 minute early and 5 minutes late.

What is the Measure Significance?

Bus timeliness is important because it is a key element of service reliability for customers (2013 R/NR⁷³). Reliable and convenient service is particularly important when serving residents who utilize public transit for all or most of their transportation needs. Examining service reliability across minority and low-income routes provides an equity checkpoint for transit service delivery.

What is the Measure Status?

The 2013 King County Metro Transit Title VI Program Report shows that Metro Transit has a relatively even distribution of on-time performance across demographics and income.⁷⁴ Figure 89 shows that service is slightly timelier on minority routes than on non-minority routes. Low-income routes and non-low-income routes are also separated by a one percent difference in service.

Figure 89

Average On-Time Performance by Minority Classification, Spring 2012

WEEKDAY	% On Time	% Late	% Early
Minority route	76%	19%	5%
Non-minority route	76%	20%	4%
System	76%	19%	5%
SATURDAY	% On Time	% Late	% Early
Minority route	76%	18%	6%
Non-minority route	74%	21%	5%
System	75%	20%	5%
SUNDAY	% On Time	% Late	% Early
Minority route	78%	15%	6%
Non-minority route	77%	18%	5%
System	78%	17%	6%

**Table 15
Average On-Time Performance by Low-Income Classification, Spring 2012**

WEEKDAY	% On Time	% Late	% Early
Low-income route	75%	20%	5%
Non-low-income route	77%	19%	4%
System	76%	19%	5%
SATURDAY	% On Time	% Late	% Early
Low-income route	75%	19%	6%
Non-low-income route	74%	21%	5%
System	75%	20%	5%
SUNDAY	% On Time	% Late	% Early
Low-income route	77%	16%	7%
Non-low-income route	79%	17%	4%
System	78%	17%	6%

⁷³ 2013 Rider/Non Rider Survey, p.190

⁷⁴ 2013 King County Metro Transit Title VI Program Report, p.27

What is the Measure Availability?

These data appear in the Metro Transit Title VI Report which is produced every three years. On-time performance is a common indicator for measuring transportation reliability. It is unclear how often the combination of demographic breakdown for on-time performance by race and income will appear. At minimum, this breakdown will likely occur every three years in the Title VI Report.

Data Limitations

One challenge with these data is an inability to see a larger time period to understand change over time. If this measure is selected, further inquiry to Metro Transit can likely produce additional information to strengthen the utility of the data by showing change over time in on-time bus performance.

Walk Score, Bike Score, Transit Score

Throughout the course of this project, it came to light that the highest level measure that captures this determinant may be walk score, bike score and transit score. Given more time, the project team recommends investigating these three measures to determine if they will provide an accurate picture of the ESJ landscape for transportation in King County.

Metro Transit Reduced Fare Utilization

Measure Definition: King County provides reduced fares for disabled, senior or youth cardholder. These trips can be measured by ORCA card use.

What is the Measure Significance?

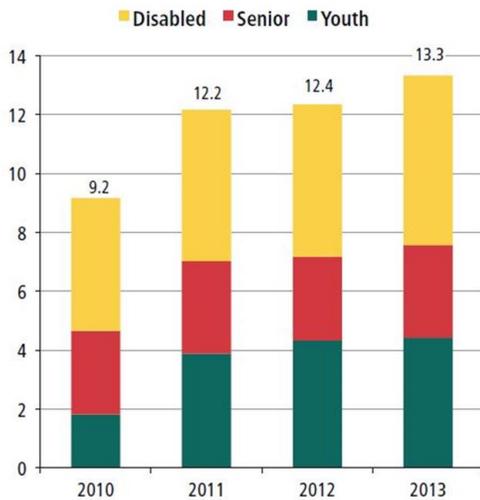
Transportation affordability is important to measure because not being able to afford fare limits access. King County Metro participates with other regional transit agencies in the Regional Reduced Fare Permit (RRFP) for seniors and disabled individuals. Metro provides a large fare discount to RRFP holders to help alleviate the cost burden of transportation. RRFP utilization is important because it measures transit use for this group of riders. Metro also provides a youth fare discount.

What is the Measure Status?

Reduced fares for seniors, riders with disabilities and youth when paid via ORCA card are tracked in an aggregate fashion. ORCA use for these reduced fare categories is currently the only measure for public transit fare assistance that the research team could locate. The measure is limited because it excludes people who are low-income and are not using an RRFP or youth ORCA card for fare payment. . Additionally, this measure does not show utilization by demographic category or geography (zip codes).

Figure 90

Reduced fare ORCA trips (in millions)



What is the Measure Availability?

The measure of RRFP utilization is collected annually so it possible to see change over time in utilization.

Data Limitations

This measure is limited because it excludes people who are low-income and are not disabled or a senior. Additionally, this measure does not show any utilization by demographic category or geography (zip codes) of RRFP card holders. More research will be required to learn if these data can be disaggregated.

Metro Transit Low Income Fare Utilization - March 1, 2015

What is the Measure Significance?

With the aim of striking a balance between generating revenue and keeping public transit affordable, King County Metro is introducing a low-income fare beginning March 1, 2015.⁷⁵ The new fare will apply to residents at or below 200 percent of the federal poverty level. Metro Transit is currently working to establish the most accessible way to determine resident eligibility. Residents will have to re-qualify for the program every two years.

What is the Measure Status?

Measuring the utilization of this new fare is recommended because it can provide insight into affordability and the cost burden of public transportation on low-income individuals. One anticipated challenge in capturing these data are adults who pay by cash instead of ORCA card.

⁷⁵ [2015 King County Metro Fare Change](#)

Figure 91

2015 Fare Changes

Category	Current Fare	New Fare	Difference
Adult 1-zone Peak	\$2.50	\$2.75	+\$0.25
Adult 2-zone Peak	\$3.00	\$3.25	+\$0.25
Adult Off-Peak	\$2.25	\$2.50	+\$0.25
Adult Low Income	NA	\$1.50	
Youth	\$1.25	\$1.50	+\$0.25
Senior/Disabled	\$0.75	\$1.00	+\$0.25
Access Paratransit	\$1.25	\$1.75	+\$0.50

What is the Measure Availability?

This measure currently does not exist. Metro typically tracks rider data very closely, these data are likely to be available on an annual basis once the program begins.

Data Limitations

No data limitations identified at this time.

Transportation Cost Burden

Measure Definition: The calculation for cost burden is: (auto ownership costs + auto use costs + public transit costs)/representative income.

What is the Measure Significance?

Calculating the cost burden of transportation as a percent of income is important for understanding the financial challenges surrounding mobility in the region.

What is the Measure Status?

The two maps below are examples of the types of data available for this measure. The maps were created using the Center for Neighborhood Technology’s Housing and Transportation (H+T) Affordability Index, a free online resource that was originally developed in partnership with the Brookings Institute.⁷⁶ The calculation for cost burden is:

- cost burden = (auto ownership costs + auto use costs + public transit costs)/ representative income

Figure 92 and 93 show transportation cost for the area “typical” income of \$64,000 and the area “moderate” income of \$51,000. Both maps show the higher cost burden for those living in rural areas of King County to varying degrees.

Although this measure seems directionally accurate, it would be particularly insightful if it included the cost burden of residents living at or below 200 percent poverty.

⁷⁶ H+T Affordability Index

Figure 92

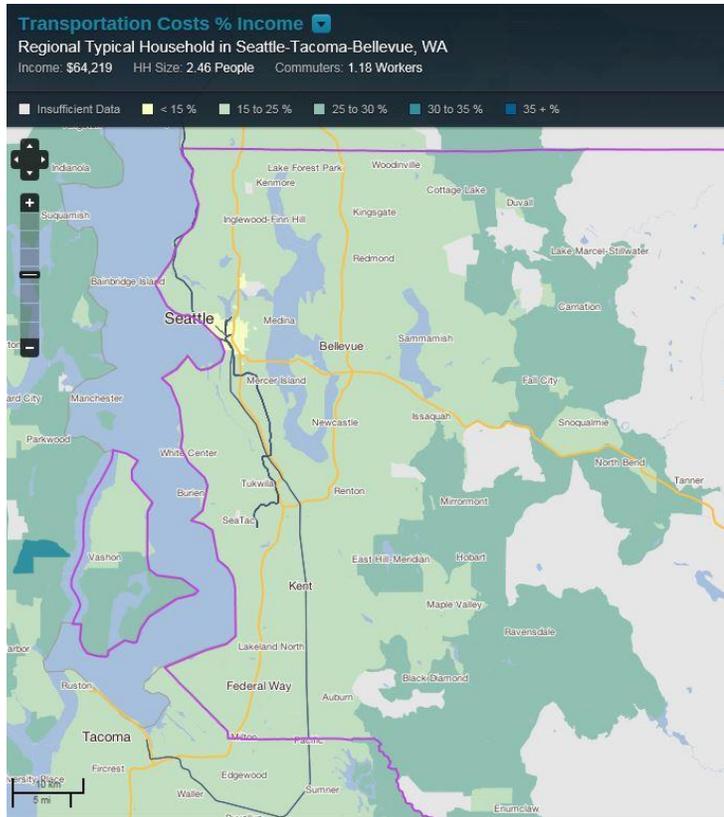
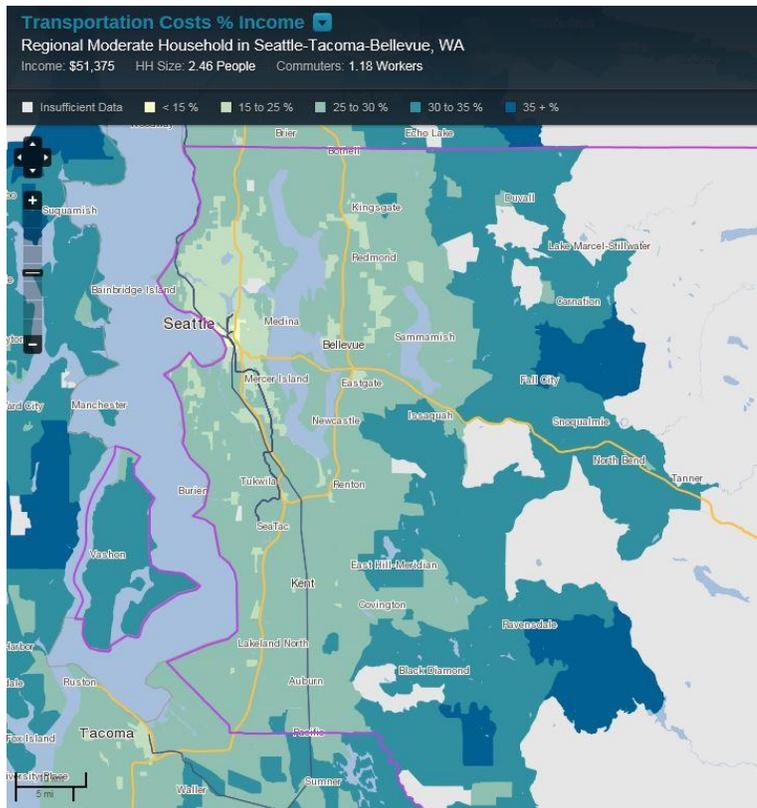


Figure 93



What is the Measure Availability?

The H+T index began in partnership between the Center for Neighborhood Technology and the Brookings Institute's Urban Markets Initiative in 2006. This measure uses a variety of datasets including census data and general transit feed specification (GTFS). The tool is free for public use. If this measure is selected, it is worth investigating to learn if it is possible to achieve a closer level of detail in neighborhood results by income.

Data Limitations

The comparison of transportation cost as a percent of area income would be more helpful if calculated using a relatively high income that does not represent low-income residents. It would be insightful if this data could further disaggregate the cost burden to residents living at or below 200 percent poverty.

Community Economic Development





Community and Economic Development

Ordinance Definition: Community Economic Development that supports local ownership of assets, including homes and businesses, and assures fair access for all to business development and business retention opportunities

Applying an ESJ perspective to community and economic development expands the conversation from looking at area wealth and business ownership to a more specific conversation on who is benefiting from the current structure. This type of analysis allows for reconsidering the allocation of resources to promote thriving communities across King County.

The recommended indicators below were selected for their ability to measure community and economic development. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Local Ownership of Assets

- *Home Ownership*
- Foreclosure Risk Score
- Residential Assessed Value

Business Development and Retention

- People of Color Owned Businesses

Key Findings

- In 2009, White and Asian residents were almost two times more likely to own a home than Black/African American or Hispanic/Latino residents.
- Only 13 percent of all business enterprises are minority owned in King County, 7 percent below the U.S. average among other counties.
- Foreclosure risk is the highest in South County.

Limitation of Ordinance Definition

None noted at this time.

Home Ownership Rates

Measure Definition: The percent of people in King County that own a home by race/ethnicity.

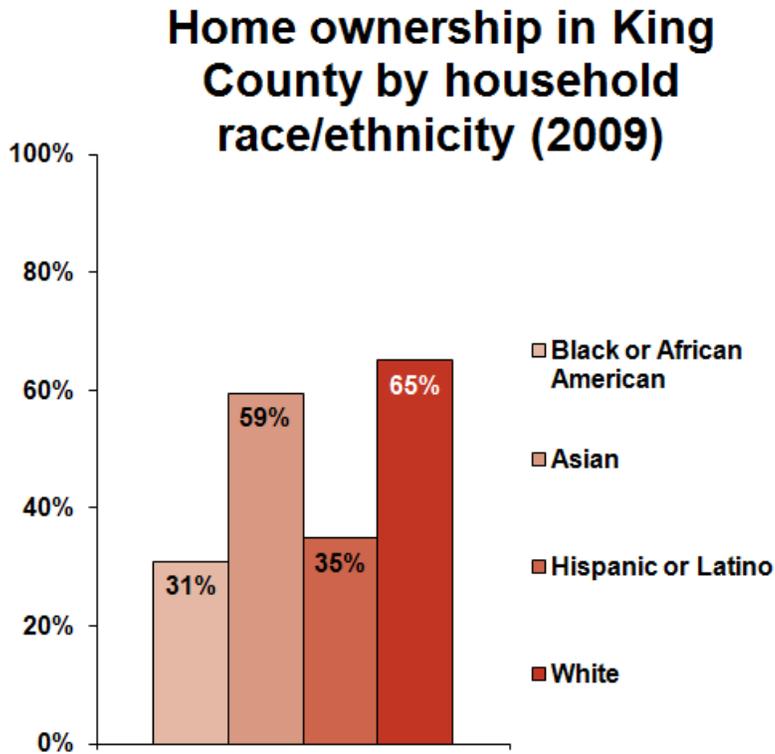
What is the Measure Significance?

Purchasing a home is often the largest financial investment a household will make. Home ownership is a measure of personal and area wealth. Home ownership is the best indicator of accumulated wealth. Examining home ownership rates in King County brings understanding to area wealth and underscores residents who are able to make this type of investment and those who may require additional support in order to make this investment.

What is the Measure Status?

Figure 94 shows homeownership by race/ethnicity in 2009. White and Asian residents were almost two times more likely to own a home than Black/African American or Hispanic/Latino residents. Although these data will have changed since 2009, a similar directional trend is anticipated to be reflected in newer reports. This type of information is useful for highlighting who holds the wealth in King County.

Figure 94



What is the Measure Availability?

This dataset is from the American Community Survey (ACS) and was retrieved from the King County [AIMs High website](#). This dataset is anticipated to continue to be made available by the ACS.

Data Limitations

Lag time in ACS data reporting makes it difficult to understand the most current situation of home ownership.

What is the Measure Availability?

The longevity of this analysis tool is unknown; however the composite score uses datasets that are available through the U.S. Census, therefore monitoring and analysis for this measure can continue.

Data Limitations

Although Foreclosure-Response has provided a useful tool, it is unclear how long this service will be available. If the County chooses to continue monitoring this measure, investigating the longevity of this organization or identifying other partners who analyze these data will be a useful endeavor. Finally, census data are collected every five years; solely relying on census data makes it difficult to understand the most current foreclosure situation.

Change in Residential Assessed Value

Measure Definition: Percent change of residential assessed value of homes by neighborhood.

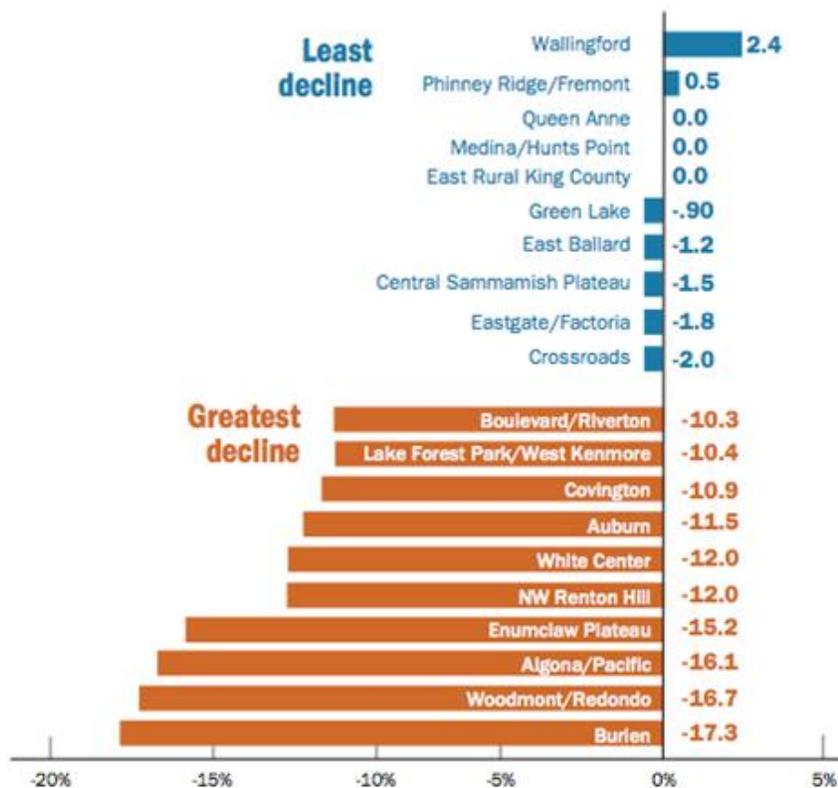
What is the Measure Significance?

Home ownership is the best indicator of wealth accumulation. Understanding changes in the assessed value of homes is therefore a proxy to understanding the accumulation of personal and area wealth. Decreasing home values impacts the owner's wealth and property investment. Conversely, increasing property value may also challenge the owners' ability maintain their investment and afford the accompanying increase in property taxes. Evaluating assessed values with an equity lens allows the County a high-level view of concentrated wealth and the ability to see the risk of neighborhood displacement and gentrification.

What is the Measure Status?

During the recession, declines in home values were not felt equally across King County. The graph below is an analysis conducted by the King County Office of Economic and Financial Analysis. Figure 96 shows areas where home and area wealth are in decline. The graph draws particular attention to South County where a higher concentration of people of color, low-income individuals and those with limited English proficiency reside.

King County Communities with the Least and Greatest Decline in Residential Assessed Value, 2012



Data source: King County Office of Economic and Financial Analysis

What is the Measure Availability?

These data are collected by the King County Office of Economic and Financial Analysis (OEFA) and were created for the 2012 Equity and Social Justice Annual Report. While these data were compiled on a one-time basis, OEFA has recently indicated intent to track specific economic indicators that are particularly relevant to the determinants, thus providing an opportunity to partner with OEFA to recreate this measure in the future.

Data Limitations

These data are part of a one-time analysis. If this measure is chosen, it is recommended that a partnership is pursued with OEFA to recreate this analysis at regularly scheduled intervals.

People of Color Owned Businesses

Measure Definition: Percent of minority owned businesses.

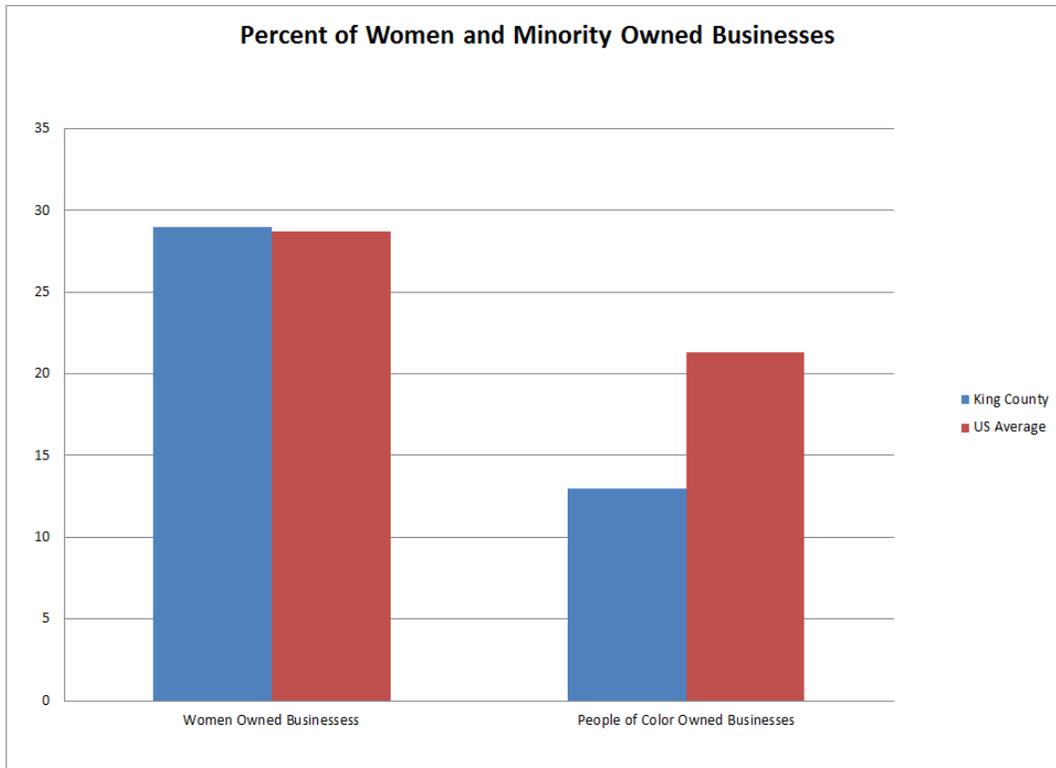
What is the Measure Significance?

Businesses are an important driver of jobs and economic success. Equal access to business opportunities help support and strengthen local economies. Applying an ESJ perspective to business ownership allows for a conversation on the accessibility of diverse business ownership in King County.

What is the Measure Status?

The 2008 U.S. Census Survey of Business Owners (SBO) ranks King County 14th among all counties for women-owned businesses. Having 29 percent of non-farm women owned business is on par with the national average of 28.7 percent. Looking at minority owned businesses, approximately 13 percent of all business enterprises are minority owned in King County, this is much lower than the U.S. average which is just over 20 percent. Further analysis of these data might include a comparison of the percentage of women and minority owned businesses with the total numbers of women and minorities in the King County population. This type of analysis would be helpful in understanding whether or not the share of business owners is proportionate.

Figure 97



What is the Measure Availability?

This dataset is available from the U.S. Census Survey of Business Owners (SBO). Data are collected every five years during years that end in two and seven. The current categories provided in the SBO provide information by race/ethnicity as well as in demographic categories of minority, and non-minority. Figure 97 is a portrayal of information available on the [King County Executive's Small Business Awards](#) website and is not an original analysis of SBO data.

Data Limitations

These measures originate from the U.S. Census Survey of Business Owners (SBO), the data presented above display the results available from the most recent, 2007, survey. The SBO was administered again in 2012 and the data are expected to be released in 2015. To find more information about the expected release dates please see the [U.S. Census 2012 Survey of Business Owners Tentative Release Schedule](#).

Neighborhoods





Neighborhoods

Ordinance Definition: Neighborhoods that support all communities and individuals through strong social networks, trust among neighbors and the ability to work together to achieve common goals that improve the quality of life for everyone in the neighborhood.

Neighborhoods provide insight into resident's daily life. Understanding neighborhood factors allows King County an opportunity to develop area specific plans to improve quality of life.

The recommended indicators below were selected for their ability to measure neighborhoods. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Strong Social Networks

- Residential Mobility
- Social Support

Neighborhood Cohesion

- *Social Cohesion*

Quality of Life

- Resident Satisfaction with Quality of Life

Civic Vitality

- Voter Registration
- Voter Turnout

Key Findings

- Almost three quarters (74 percent) of people who responded to the King County Resident Survey reported being very satisfied/satisfied with their quality of life in King County.
- Residents earning less than \$20,000/year reported having the least amount of trust among neighbors.
- Civic vitality is not included in the determinants, but is deemed a key component of equity and therefore is included in this report and recommended that ordinance 16948 be updated to include this key attribute of democracy.

Limitation of Ordinance Definition

The neighborhoods determinant does not include a component for civic vitality. Throughout this research project civic vitality was identified as a key component of equity that other regions are measuring and is thus included in this report

despite this language being entirely absent from ordinance 16948. It is recommended that the be updated to include this key attribute of democracy.

Residential Mobility

Measure Definition: Percent of households that have moved residence within the last year.

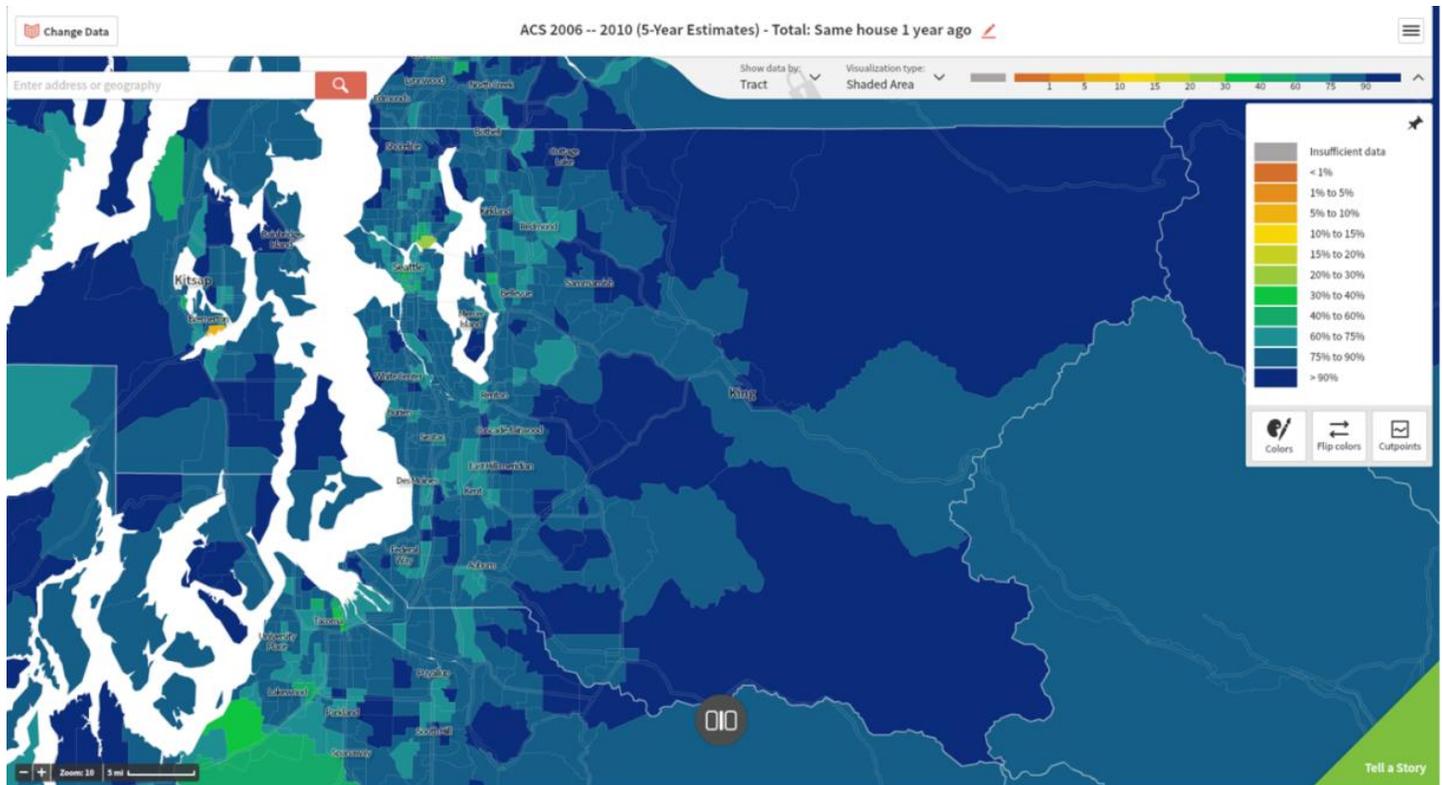
What is the Measure Significance?

Neighborhoods that have higher rates of turnover may experience decreased social cohesion and trust among neighbors. Residential instability may also indicate displacement, which can occur for a variety of reasons including cost of living and job relocation.

What is the Measure Status?

Figure 98 is an example of the type of information available to show displacement. The areas that are shaded lighter indicate more frequent turnover. In Seattle the area with most frequent housing turnover is located near the University of Washington, which is attributed to the student population. Additionally, there are areas in South Seattle/South County that have higher than average neighborhood mobility/turnover. The least amount of residential mobility/turnover is found in East County indicating people there are likely to remain in their neighborhoods for a longer period of time. Although this map provides an initial glimpse into residential mobility, understanding this information based on socioeconomic variables may provide valuable insight the reason behind areas with high turnover/displacement.

Figure 98



What is the Measure Availability?

These data are available through the American Community Survey which collects data annually. The map above was generated from Social Explorer, an online GIS mapping tool which the authors had access to via an educational subscription.⁷⁸ To create this map in the future would require either staff time, buying GIS mapping time or purchasing a subscription to this service.

Data Limitations

While residential mobility may be an indicator of displacement, this measure does not allow analysis of the reasons for moving, but rather provides a starting place to understand displacement. In order to reduce the margin of error associated with ACS sampling, the map shown above uses five year estimates. However, using five year estimates may cause some yearly changes to be missed.

Social Support

Measure Definition: A measure of the physical and emotional comfort and practical resources received from family, friends, co-workers and others. For more information on the questions related to this measure see Communities Count.

What is the Measure Significance?

Social support indicates the extent to which people feel supported by their networks and have someone who can care for them mentally/emotionally/physically if needed. The questions included in this measure include “how often is someone available to help you if you were confined to bed,” and “how often is someone available to confide in or talk about yourself or your problems.” According to Communities Count social support “refers to the physical and emotional comfort and the practical resources that we receive from family, friends, co-workers, and others.” Strong social support can mediate the effects of stress and improve positive psychological strengths.⁷⁹

What is the Measure Status?

According to the Communities Count Survey, low-income people are less likely to report feelings of social support than their higher-earning peers. This may indicate that low-income people have less access to supportive social networks. The byproduct of feeling less support is that low-income people are at higher risk for experiencing stressors that might otherwise be alleviated by having supportive peers. People who are unable to work report having the least amount of social support of all subgroups surveyed, perhaps indicating that being able to work provides broader access to social networks and social support. People of color report lower social support than white residents and those with English as the primary language report higher levels of support than those where English is not their primary language. Finally, the residents in the South Region report having less social support than the county average in 2007 and 2011.

⁷⁸ [Social Explorer](#)

⁷⁹ Mitchell, C.U. and LaGory, J. (2002) 'Social Capital and Mental Distress in an Impoverished Community', *City & Community* 1 : 195 #x2014;216 . <http://www.ncbi.nlm.nih.gov/pubmed/20524555>;

Figure 99

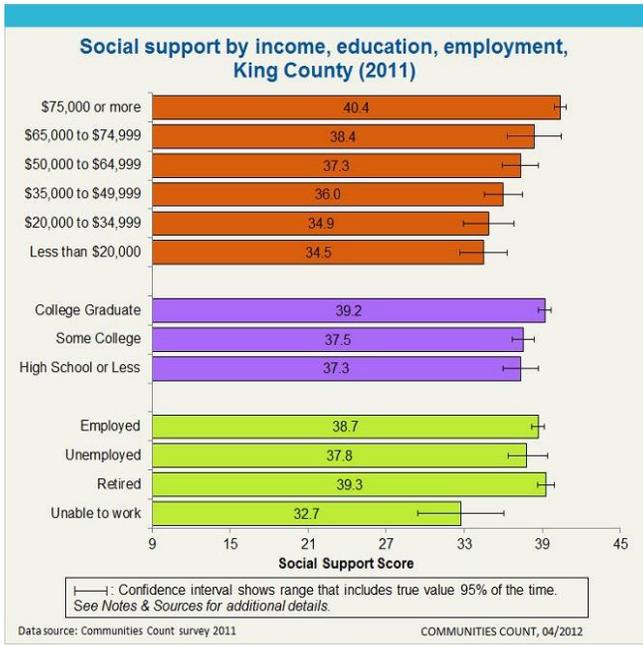


Figure 100

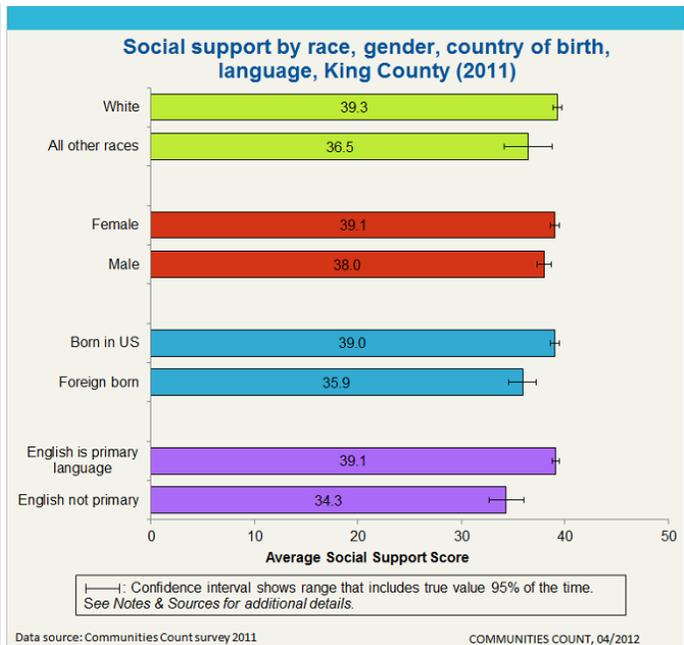
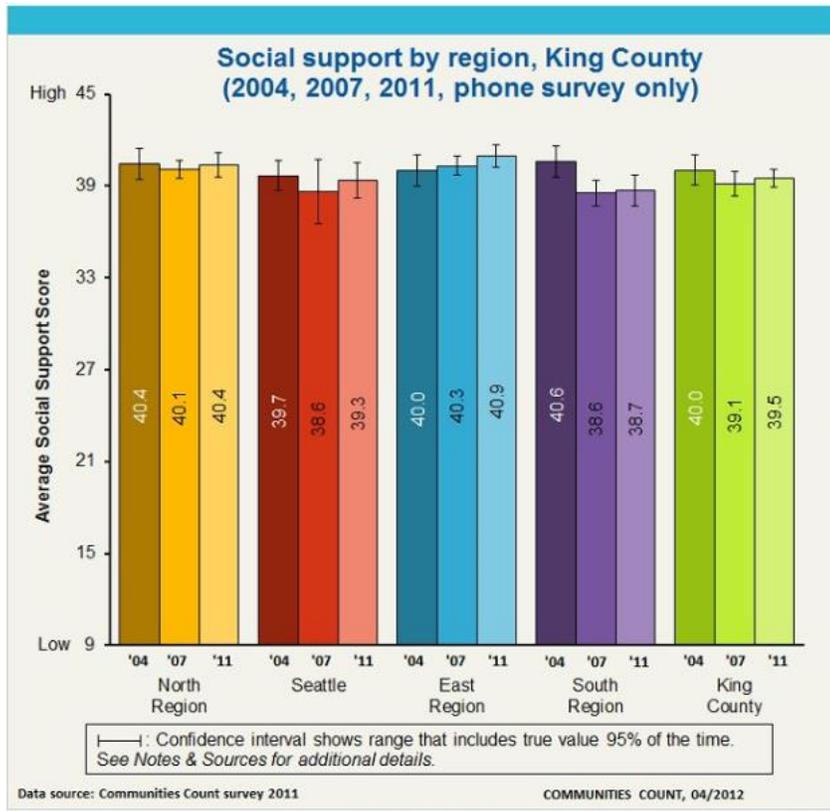


Figure 101



What is the measure availability?

These data are collected by the Communities Count Survey, which is implemented approximately every three years. Communities Count reports these data on its website making it readily available. The current reporting structure does not differentiate between the multiple race/ethnic identities that make up "People of Color," a larger sampling of people of

color in the survey will enable a more detailed reporting structure. A similar trend is true for income and languages spoken.

Data Limitations

These data are dependent upon continuous funding for the Communities Count Survey. Further, assuming the survey is continued, variation in the survey administration or question structure may prevent the analysis of trend data. The current survey reporting structure is limited to reporting differences in race/ethnicity in two binary categories of “White” and “All other races,” future reporting of this measure to include detailed subgroup information on race/ethnicity.

Neighborhood Social Cohesion

Measure Definition: A measure of mutual trust among neighbors and informal social control for example, the likelihood that a neighbor would intervene if children were skipping school or spray-painting graffiti. For more information on the questions related to this measure see [Communities Count](#).

What is the Measure Significance?

The measure of social cohesion is an indicator of neighbor trust. This measure includes questions about the degree to which respondents feel “people in this neighborhood can be trusted” and the likelihood that neighbors would intervene if children were skipping school, or spray-painting graffiti, as well as other questions related to informal social control. Neighborhoods with high social cohesion have lower rates of violence and greater connectivity. Neighborhood social cohesion also influences participation in physical activity and is positively correlated with better physical and mental health.⁸⁰

What is the Measure Status?

Social cohesion was reported at higher rates among White respondents than Black/African American or Asian respondents. Respondents in the lowest income bracket, those making less than \$20,000 a year, reported the least amount of social cohesion with a social cohesion score of 31.9. One challenge is that this information is not connected with particular spatial locations so it is difficult to ascertain whether trust is lower in areas with concentrated poverty or whether these low-income respondents are living in mixed income neighborhoods. There was less variation in social cohesion by region than by race/ethnicity or income. Social cohesion was found to be the highest in the East Region and the lowest in Seattle.

⁸⁰ http://uwashington.worldcat.org.offcampus.lib.washington.edu/title/neighborhood-social-cohesion-and-youth-participation-in-physical-activity-in-chicago/oclc/2330316956956?referer=brief_results ; http://uwashington.worldcat.org.offcampus.lib.washington.edu/title/neighborhood-contexts-and-the-mediating-role-of-neighborhood-social-cohesion-on-health-and-psychological-distress-among-hispanic-and-non-hispanic-residents/oclc/2330776360129?referer=brief_results

Figure 102

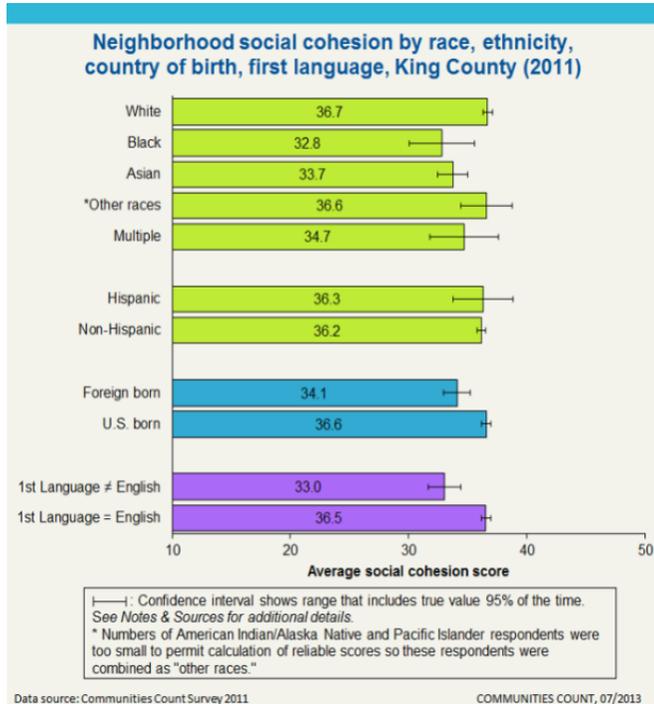


Figure 103

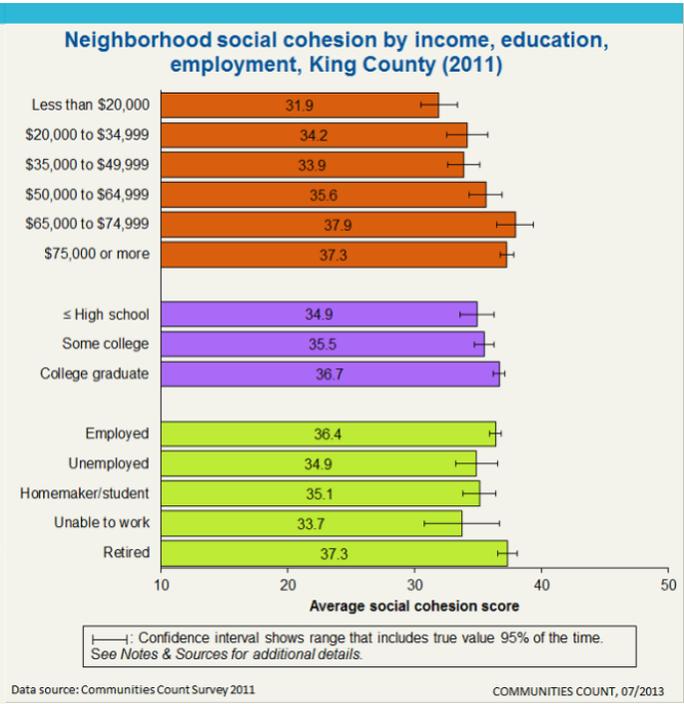
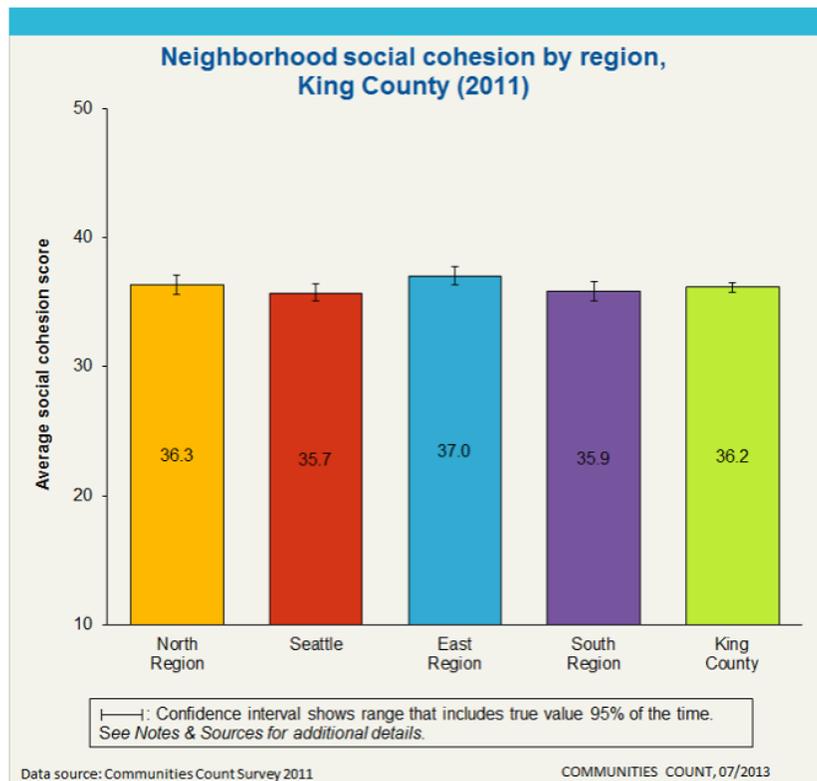


Figure 104



What is the Measure availability?

These data are collected by the Communities Count Survey which is conducted approximately every three years. Communities Count reports these data on its website making it readily available. The current reporting structure uses First Language rather than Limited English Proficiency as a subgroup language measure. The survey also does not differentiate

between the multiple race/ethnic identities that make up “People of Color,” a larger sampling of people of color in the survey will enable a more detailed reporting structure. A similar trend is true for income and languages spoken.

Data Limitations

These data are dependent upon continuous funding for the Communities Count Survey. Further, assuming the survey is continued, variation in the survey administration or question structure may prevent the analysis of trend data.

Resident Satisfaction with Quality of Life

Measure Definition: Likert scale rating of resident satisfaction with quality of life in King County.

What is the Measure Significance?

Resident satisfaction with quality of life provides insight into perception of the County as a good place to live, work and play. Understanding how residents perceive their quality of life may provide insight into how well the County is doing in providing services. Differences in satisfaction with quality of life between residents may provide insight into how the County can work to better serve residents and improve neighborhood conditions.

What is the Measure Status?

Of the residents that participated in the King County Resident Survey, 74 percent of respondents were very satisfied/satisfied with their quality of life in King County. The current reporting structure does not provide any insight into demographic or spatial information of residents. Without a demographic breakdown this measure does not provide insight into ESJ related subgroups. In order for this measure to become more meaningful, future reporting should include a demographic breakdown of respondents to gain insight into differences the dominant and non-dominant groups.

Figure 105

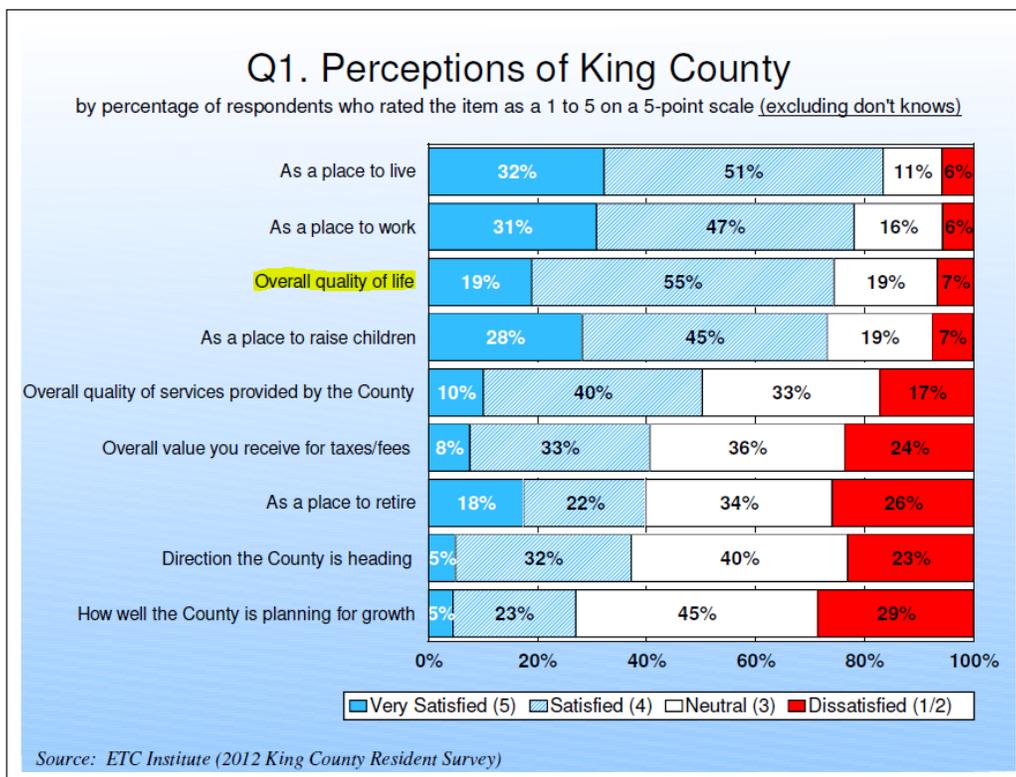
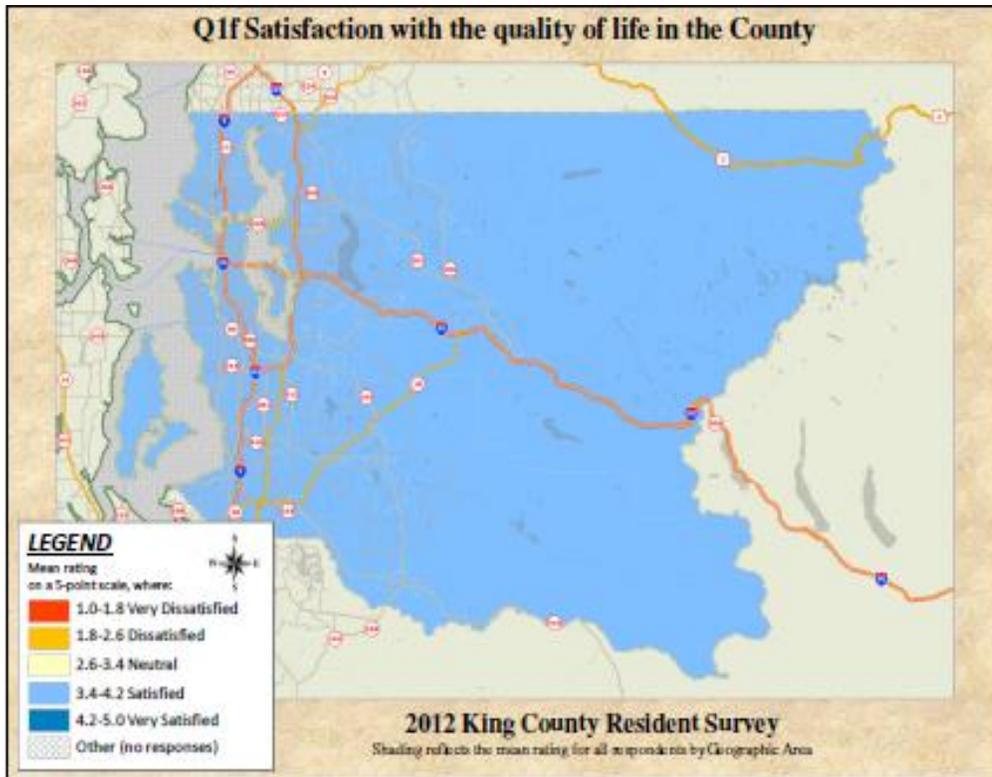


Figure 106



What is the Measure Availability?

Data are collected by the King County Residential Survey which is conducted approximately every three years and housed in the Office of Performance Strategy and Budget.

Data Limitations

Current reporting does not analyze responses by race/ethnicity, LEP, or income. The current map provided does not convey regional differences in responses. In order for this measure to be a meaningful way to understand the ESJ implications of quality of life, future reporting should include regional, race/ethnic, LEP, and income subgroup information.

Voter Registration

What is the Measure Significance?

Participation in elections is a cornerstone to a strong democracy. In a country where access to voting has a long and tumultuous history of exclusion, it is important to monitor access to voting in in King County. Voter registration provides insights into who is participating in local decision-making. This information will allow for more strategic outreach to underrepresented communities to help ensure they have a voice in the civic process.

What is the Measure Status?

Data for this measure were under development by the King County Elections Department in the fall of 2014. The County ought to monitor this with an equity lens to understand barriers to voting.

Voter Turnout

What is the Measure Significance?

Understanding differences in voter turnout can inform strategies to engage registered voters and inform the general public about voting participation. This measure may also indicate differences in turnout between election cycles and provide insight into how turnout relates to the issues on the ballot. Further, this measure may also help the County inform strategies for understanding barriers to voting.

What is the Measure Status?

Data for this measure are under development by King County Elections Department in the fall of 2014. The County ought to monitor this with an equity lens to understand barriers to voting.

Housing



Housing

Ordinance definition: Housing for all people that is safe, affordable, high quality and healthy

Housing instability contributes to high levels of stress as well as difficulty securing and maintaining employment. Unaffordable housing may also contribute to homelessness or overcrowding.

The recommended indicators below were selected for their ability to measure housing. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Safe/High Quality

- Poor Housing Conditions by Geography

Affordable

- *Cost Burdened Households by Geography and Race/Ethnicity*

Healthy

- Weighted Road Density Values in Urban King County

Access

- Homelessness

Key Findings

- Households that pay over 30 percent of income for housing are considered cost burdened by the [U.S. Department of Housing and Urban Development](#). On average, 47 percent of households that rent in King County report paying over 30 percent of their annual household income on housing costs.
- Lack of access to stable housing remains an acute problem. On any given night an estimated 3,000 people sleep without shelter in King County.⁸¹
- The highest concentration of poor housing conditions is found in South Seattle and South King County.

Limitation of Ordinance Definition

The housing determinant's broad definition provides significant challenge in locating appropriate measure for each descriptor. Direct measures for safe, quality, healthy and accessible housing are not uniform across providers causing this

⁸¹ King County One Night Count (2014). Because the one night count does not count everywhere in King County and many people live in places not visible or accessible, this number is considered an undercount.

report to choose several proxy measures to understand these descriptors. Reconsidering language revisions that align with national housing standards may allow for more uniform measurement in this area.

Poor Housing Conditions

Measure Definition: Households with two or more of the following conditions: housing cost greater than 30% of income, more than one person per room in the house, no working kitchen, no working bathroom.

What is the Measure Significance?

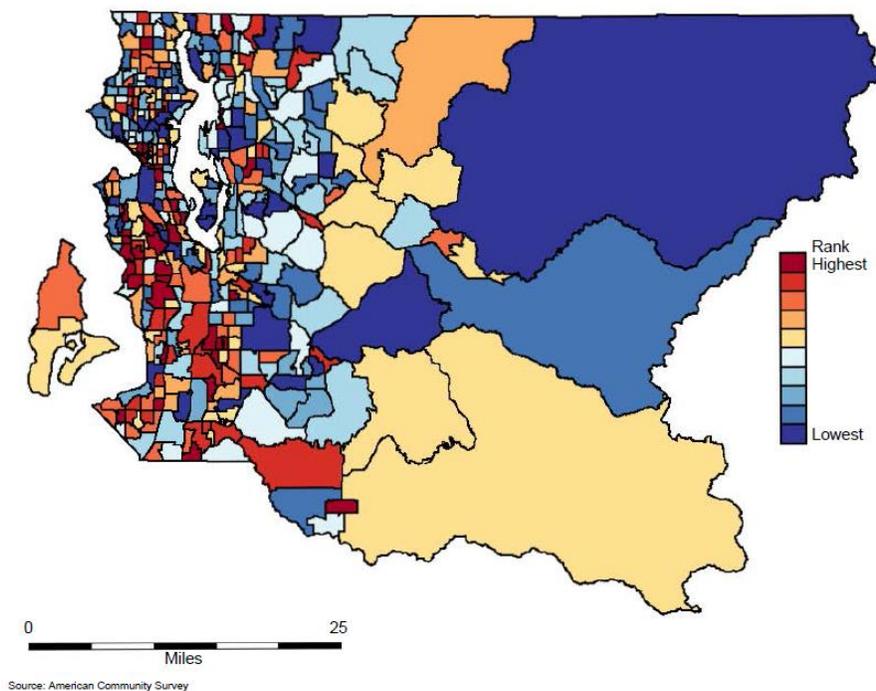
The King County Health and Human Services Transformation Plan describes the importance of this measure in the following way: “Housing quality and health outcomes in the United States are intimately linked. Substandard housing is associated with injury, respiratory illness, lead poisoning and asthma. Housing conditions may also reflect neighborhood conditions”.⁸² For the purpose of this measure, poor housing is defined as households with two or more of the following housing conditions: housing costs greater than 30 percent of income; more than one person per room in the house; no working kitchen; no working bathroom.

What is the Measure Status?

Figure 107 shows data from the King County Health and Human Services Transformation plan. The map displays areas with the highest concentration of poor housing in red, highlighting many areas across King County that rank high on the poor housing scale. The highest concentration of poor housing is found in South Seattle and South King County.

Figure 107

Poor Housing Conditions



⁸² [Health and Human Services Transformation Plan](#)

What is the Measure Availability?

This composite measure was developed by the Health and Human Services Transformation Plan. The frequency with which this measure will be updated is unknown; however, the dataset is available from the ACS so it is replicable.

Data Limitations

There is no standard measure for housing quality. This measure is a composite of three indicators gathered by the ACS. Figure 107 is from the Health and Human Services Transformation Plan. The evaluation plan for Communities of Opportunity is not finalized at this time and it is unclear if the map shown above will be recreated again for King County or only for the selected Communities of Opportunity.

Cost Burdened Households by Race/Ethnicity

Measure Definition: Renters and mortgage-holders that pay more than 30 percent of income for housing by race/ethnicity.

What is the Measure Significance?

Households that pay a high percentage of their income for housing have less money for essentials such as food, transportation and health care costs. Unaffordable housing can put individuals and families at risk for homelessness. Decreasing the number of households that are cost burdened can increase the personal capital necessary to thrive in King County.

What is the Measure Status?

Figure 108 is an analysis of ACS data between the year 2007 and 2011 that shows, on average, 47 percent of renters reported paying over 30 percent of their annual household income for housing costs. This map highlights areas such as Tukwila, Burien, SeaTac, Kent and Carnation where overpaying for rent is particularly prominent. Figure 109 shows the situation of both renter and mortgage-holders paying over 30 percent of their income by race/ethnicity. The spectrum of unaffordable housing is reported by White residents at a rate of 36 percent compared to a 55 percent reported by Black/African American residents.

Figure 108

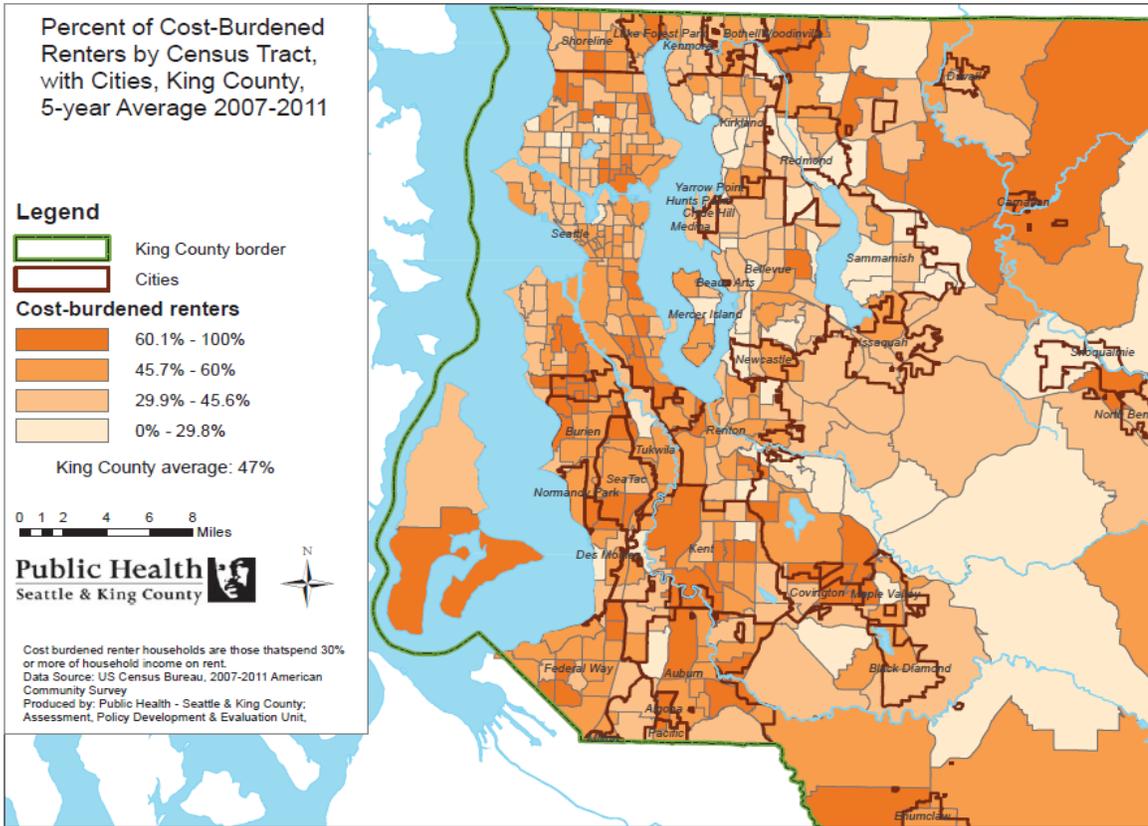
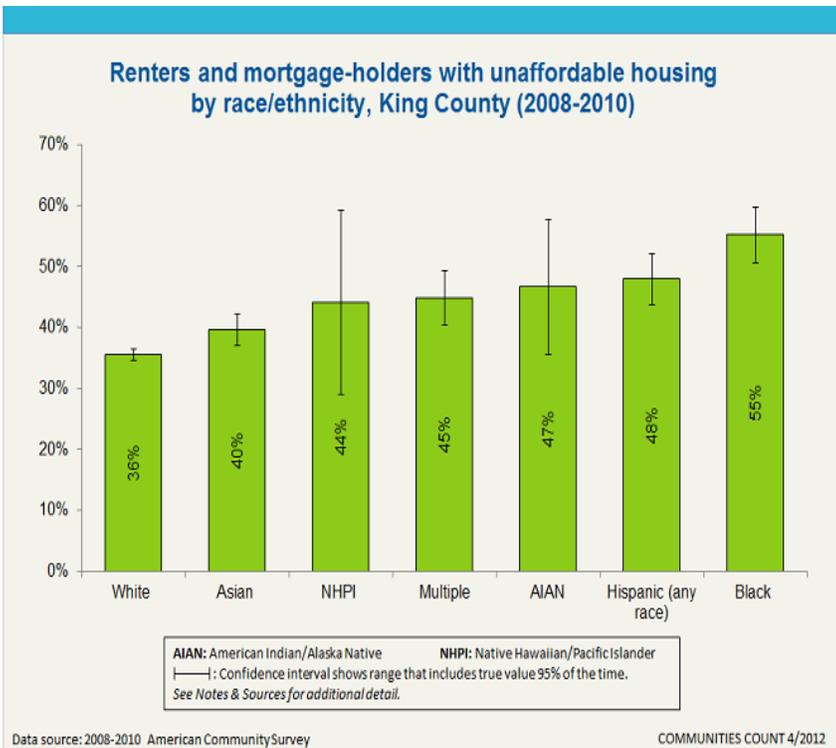


Figure 109



What is the Measure Availability?

These data are collected annually by the ACS and analyzed by both Seattle & King County Public Health and Communities Count.

Data Limitations

This measure does not differentiate between cost-burden and extreme cost-burden (households paying 50 percent or more of income for housing). The data displayed above do not use corresponding averages or starting points in time.

Weighted Road Density Values

Measure Definition: Weighted Road Density is a measure of traffic density values estimated based on distance to the eight major road classes defined by the Washington State Department of Transportation. Distance values are weighted based on the typical traffic volumes on each class of road within urban King County by select geographic area.

What is the Measure Significance?

Traffic density correlates with increased noise pollution and ambient air pollution.⁸³ Housing locations with high Weighted Road Density (WRD) Scores are exposed to high levels of pollution from traffic. WRD values provide a proxy for understanding exposure to potential health risks associated with housing conditions in areas with high traffic density. WRD is a proxy measure for healthy housing. Other measures for healthy housing such as mold or lead exposure were not available at the community-level and therefore are not included in this report.

What is the Measure Status?

Traffic density and the corresponding health and environmental implications are not evenly distributed throughout King County. Internal analysis shows a relationship between traffic density and socioeconomic variables of income, race/ethnicity and LEP status.⁸⁴ Figure 110, 111, 112, and 113 show the following:

- Increase in income by census tract, WRD decreases (figure 110).
- Increase in English Proficiency by census tract, WRD decreases (figure 111).
- Increase in residents of color by census tract, WRD increases (figure 112).

These three socioeconomic and demographic variables converge when considering the type of housing available to people. Often housing units that are more affordable are exposed to higher levels of traffic density. These housing units are subject to the corresponding pollution more so than residents who can afford to live away from busy roads.

⁸³ Kim, M., Chang S.I., Park T.H., Ko J.H., Holt J.B., Croft J.B., % Seong J.C. (2012). Road traffic noise: Annoyance, sleep disturbance, and public health implications. *Am.J.Prev.Med.American Journal of Preventative Medicine*, 43(4), 353-360.

⁸⁴ Schulte, J (2012). Traffic Density, census demographics and environmental equity in Housing: A geographic analysis in urban King County.

Figure 110

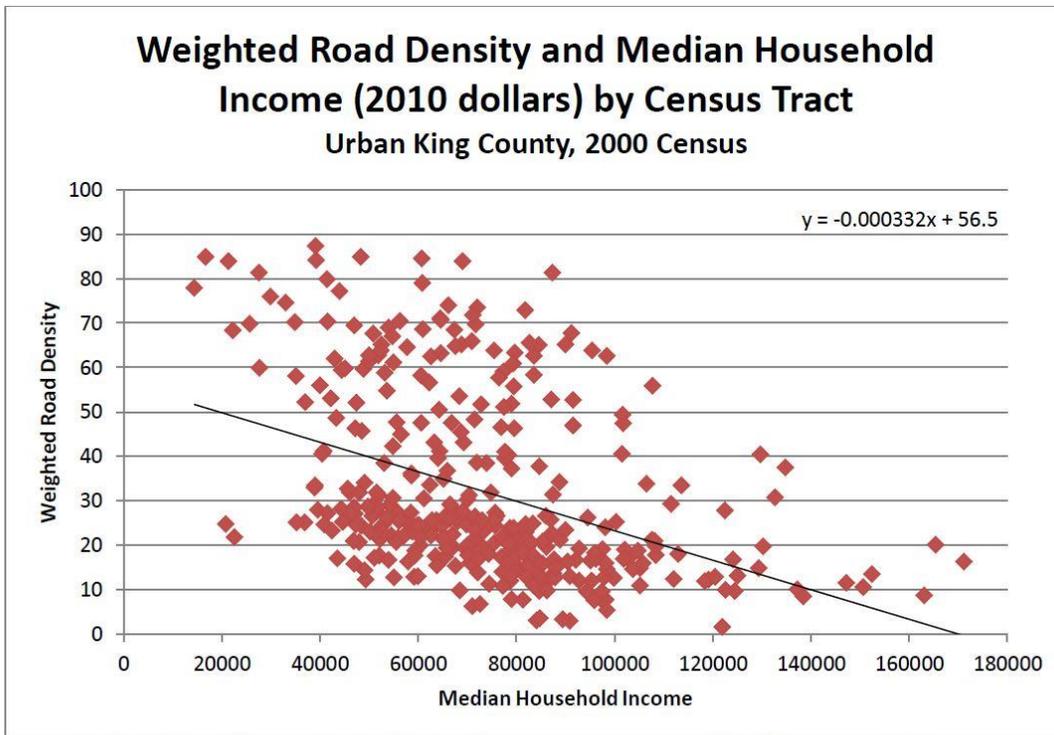


Figure 9. Weighted road density and median household income by census tract, urban King County, 2000 census (inflation-adjusted to 2010 dollars).

Figure 111

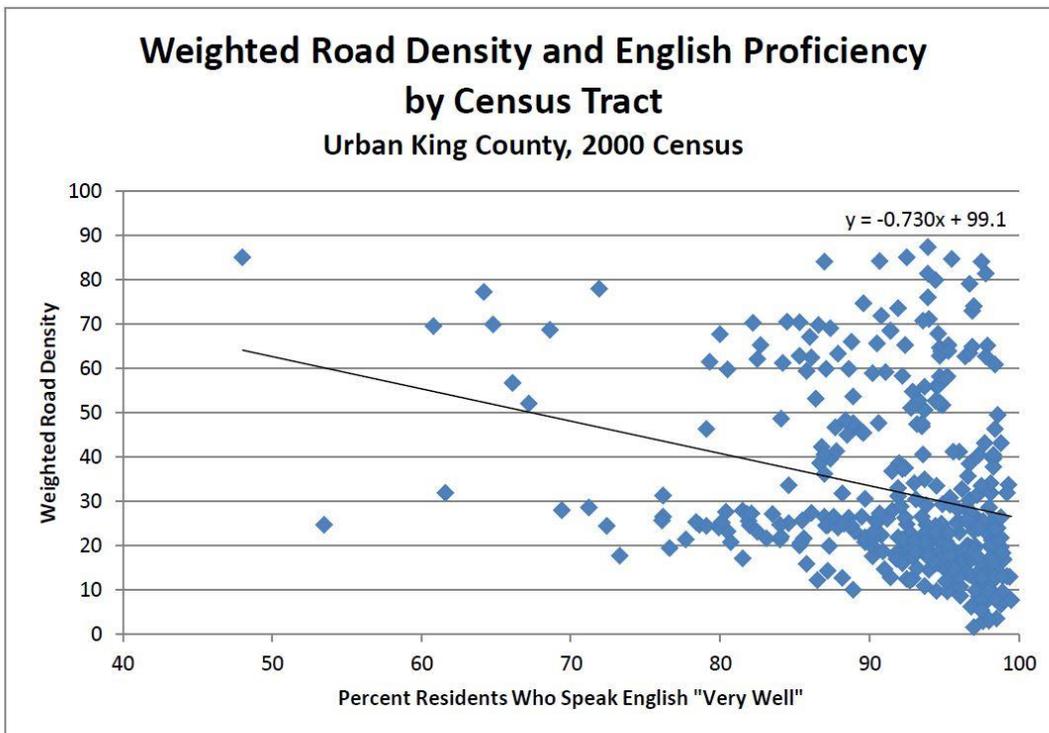


Figure 10. Weighted road density and English proficiency by census tract, urban King County, 2000 census

Figure 112

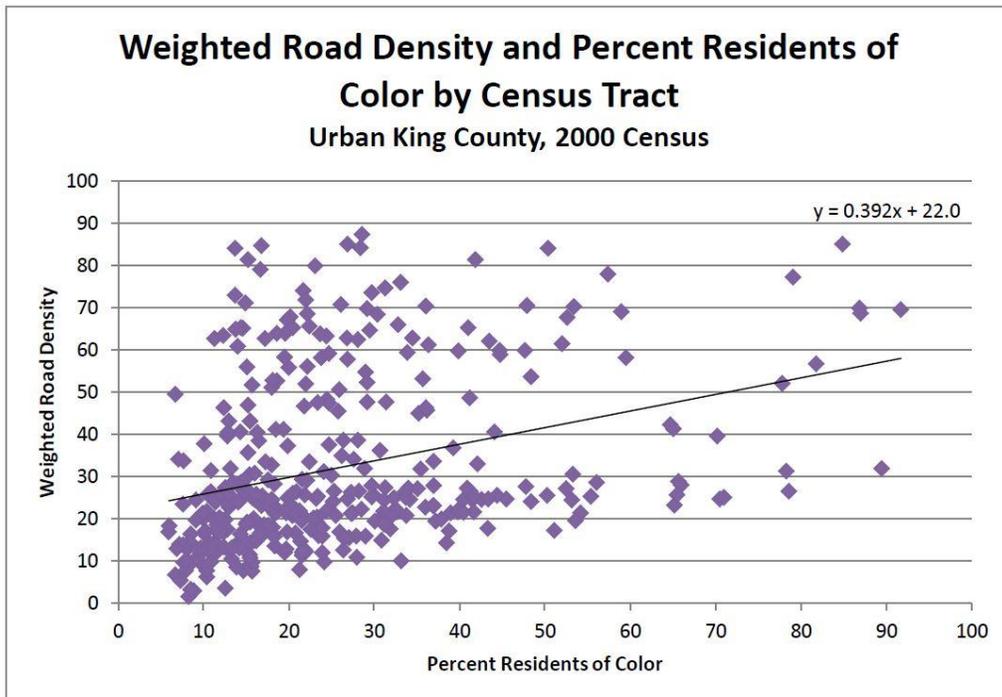


Figure 11. Weighted road density and percent residents of color by census tract, urban King County, 2000 census

Figure 113

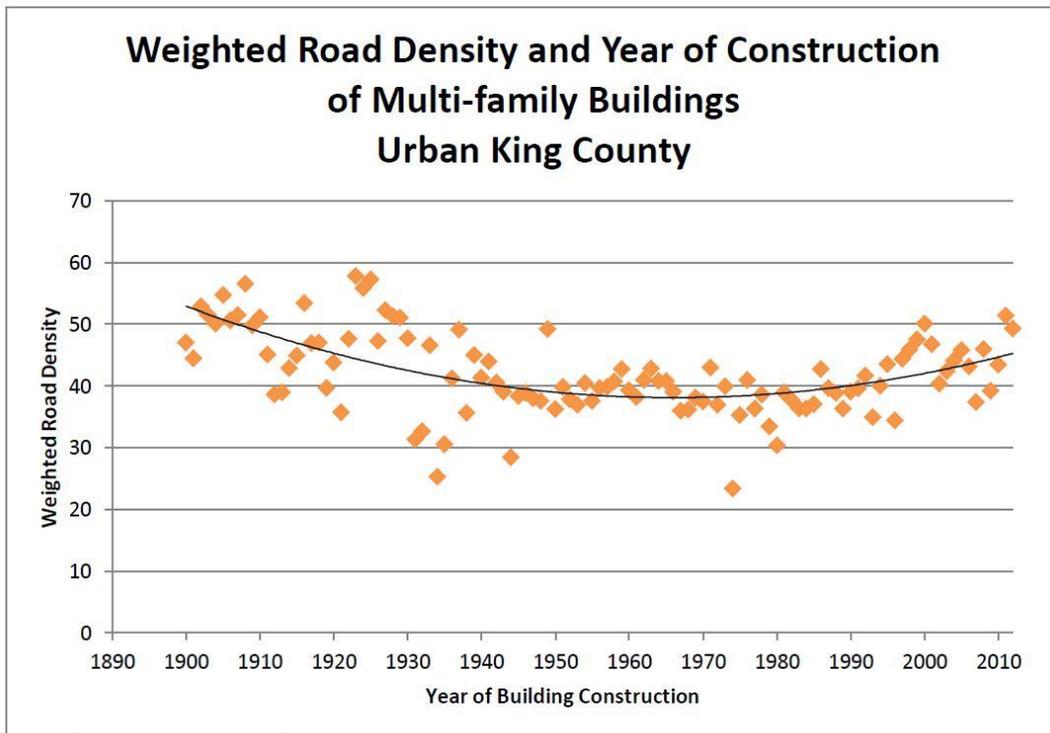


Figure 14. Weighted road density and year of construction of multi-family buildings, urban King County

What is the Measure Availability?

These data were compiled and analyzed by an MPH candidate and in a one-time report.⁸⁵ Recreating this measure would require additional staff time. King County AIMS High has produced GIS maps that display exposure to noise pollution along high volume roadways in King County. Exploring the combination of WRD and the maps created for Aims High is potentially one avenue to efficiently monitor this measure.

Data Limitations

Although proximity to highways and roads does increase exposure to pollution, it also may indicate the accessibility to public transportation. Additionally, WRD analysis treats all roads equally and does not distinguish between roads that have higher traffic volumes such as interstates and arterial roads. This is not a measure currently reported by King County and would require additional staff time to recreate.

Homelessness

Measure Definition: Sleeping without shelter over the past 12-months.

What is the Measure Significance?

Lack of access to stable housing remains an acute problem in King County. On any given night, an estimated 3,000⁸⁶ people sleep without shelter in King County. Over the course of a year it is estimated more than 24,000 people experience an episode of homelessness.⁸⁷ Although homelessness can be brought on by a variety of different factors including the high cost of housing, domestic violence, mental illness and chemical addiction, it tends to disproportionately impact people of color. The County can better understand access to housing by continuing to measure homelessness.

What is the Measure Status?

Native Hawaiian/ Pacific Islanders, Black/African Americans, and Native Americans are overrepresented in the population of homeless individuals accessing emergency, transitional, or supportive housing services.⁸⁸

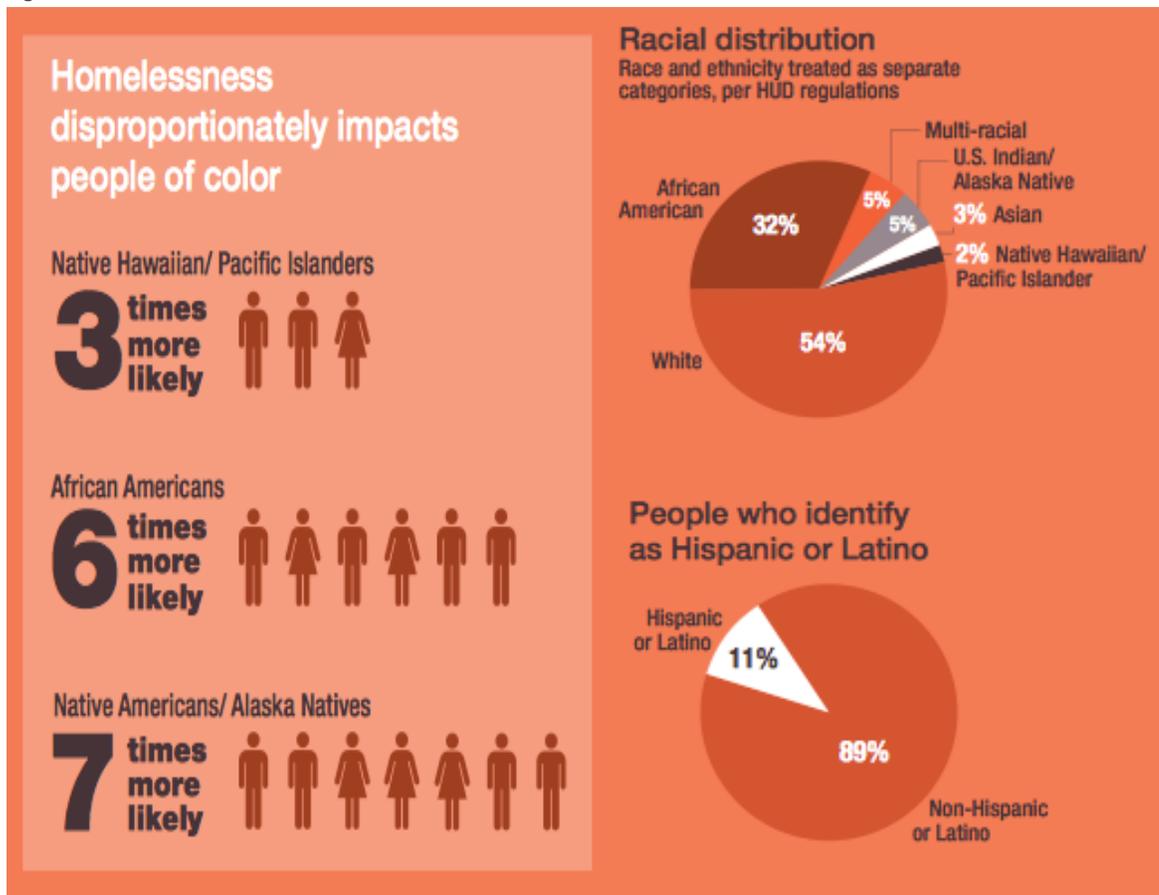
⁸⁵ Schulte. J (2012). Traffic Density, census demographics and environmental equity in Housing: A geographic analysis in urban King County.

⁸⁶ King County One Night Count (2014). Because the one night count does not count everywhere in King County and many people live in places not visible or accessible, this number is considered an undercount.

⁸⁷ King County Committee to End Homelessness. Retrieved from: <http://www.cehkc.org/Scope.aspx>

⁸⁸ King County Committee to End Homelessness King County 2013 Annual Report

Figure 114



What is the Measure Availability?

Figure 114 was reported in the 2013 Committee to End Homelessness Annual Report; however the original source for this data is Safe Harbors. It seems reasonable to assume that Safe Harbors and the Committee to End Homelessness will continue to collect and report on this information in future years.

Data Limitations

It is important to recognize the variety of reasons that stem beyond housing affordability that trigger homelessness. Finally, the one night count does not collect demographic information. Although the data seems directionally accurate, the one night count provides only a snapshot in time of homelessness in King County and leaves several areas of the county unaccounted for.

Community & Public Safety





Community & Public Safety

Ordinance Definition: Community and public safety that includes services such as fire, police, emergency medical services and code enforcement that are responsive to all residents so that everyone feels safe to live, work and play in any neighborhood of King County.

Feeling safe impacts how people interact in their environment. In order to create an environment in King County where everyone feels safe to live, work and play we must begin with understanding resident perception of safety and their actual experiences of crime.

The recommended indicators below were selected for their ability to measure community and public safety. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Community Perception of Safety

- *Perceived neighborhood safety*

Actual Safety

- Crime Rate

Key Findings

- Residents in South King County continue to report feeling a higher concern for safety than residents in other regions throughout the county.
- Residents who are low-income, people of color and LEP report feeling a higher concern for safety.
- Although the crime rate declined during 1997-2011, Seattle, South Cities and people of color persistently experienced violent crime at a higher rate.⁸⁹

Limitation in Ordinance Definition

Community and public safety is a subset of the Law and Justice System and neighborhoods. This determinant might better serve as being diffused into those two determinant categories. As is, the determinant language is a catch-all and will benefit from having a more specific definition to clarify scope. Finally, measures for emergency response services (i.e. fire, police, EMS) and code enforcement are accounted for on an aggregate level, not incorporating an explicit ESJ lens.

⁸⁹ [Communities Count](#) - The FBI Index Crime Rate, expressed as number of crimes per 100,000 persons, tracks serious crime in the U.S. The Index includes four major violent crimes (homicide, rape, robbery, and aggravated assault) and four major property crimes (burglary, larceny/theft, motor vehicle theft, and arson).

Perceived Neighborhood Safety

Measure Definition: Measure reflects how often within the last 12-months people experienced feeling worried about the threats to safety. See metadata for complete list of threats to safety inquired about.

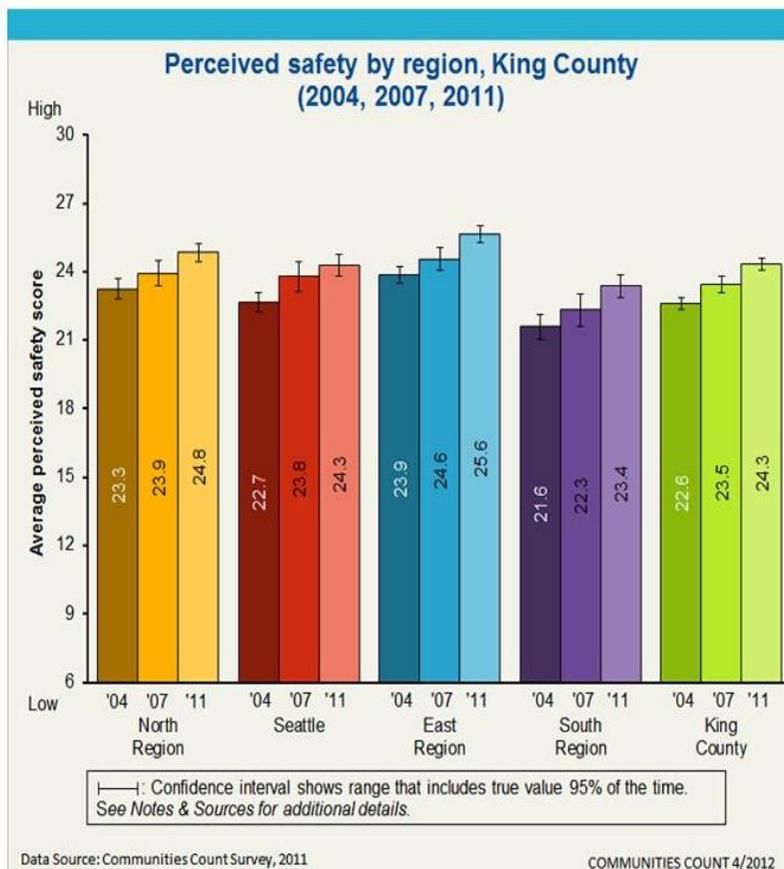
What is The Measure Significance?

Feeling safe impacts how people interact in their environment. The reason perceived safety is important is because it influences the level to which people feel isolated or engaged in their neighborhoods. Research has shown that increased resident isolation can impact individuals and neighborhoods in ways such as increased depression rates, increased child maltreatment rates, and overall increase in crime rates.⁹⁰ To create an environment in King County where everyone feels safe to live, work and play we must begin with understanding resident perception of safety.

What Is The Measure Status?

Figure 115 shows that perceived community safety has increased over time in King County.⁹¹ Although the perception of safety has increased in general, the South Region has maintained the lowest safety scores; highlighting that individuals in the South Region continue to face a higher concern for safety than those in other regions throughout the county. Figure 116 and 117 shows that residents who earn under \$35,000 per year, who identify as a person of color and where English is not their first language report feeling higher safety concerns.

Figure 115



⁹⁰ Booth, Ayers & Marsiglia, 2012; McDonnell & Waters, 2011; O'Brien and Wilson 2011.

⁹¹ Communities Count – Safety scale rating ranges from 6 (low safety) to 30 (high safety).

Figure 116

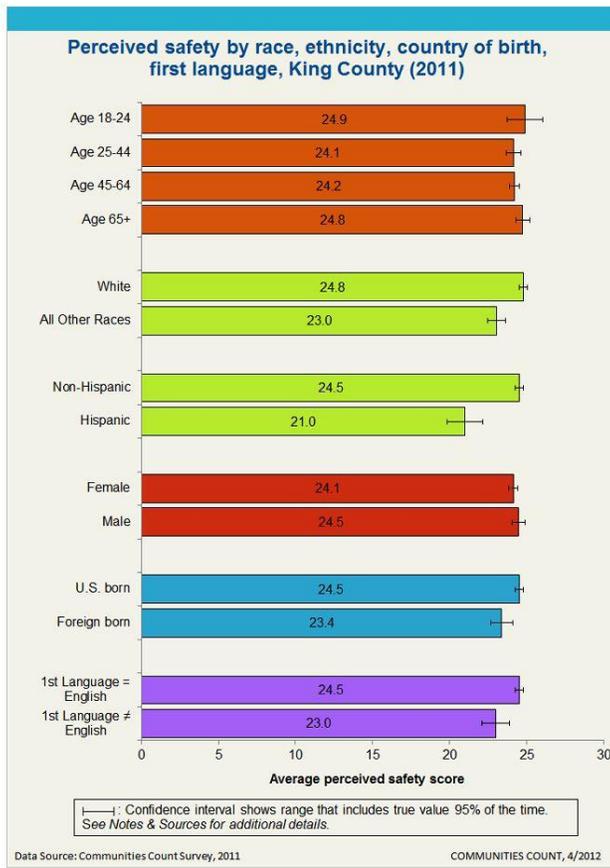
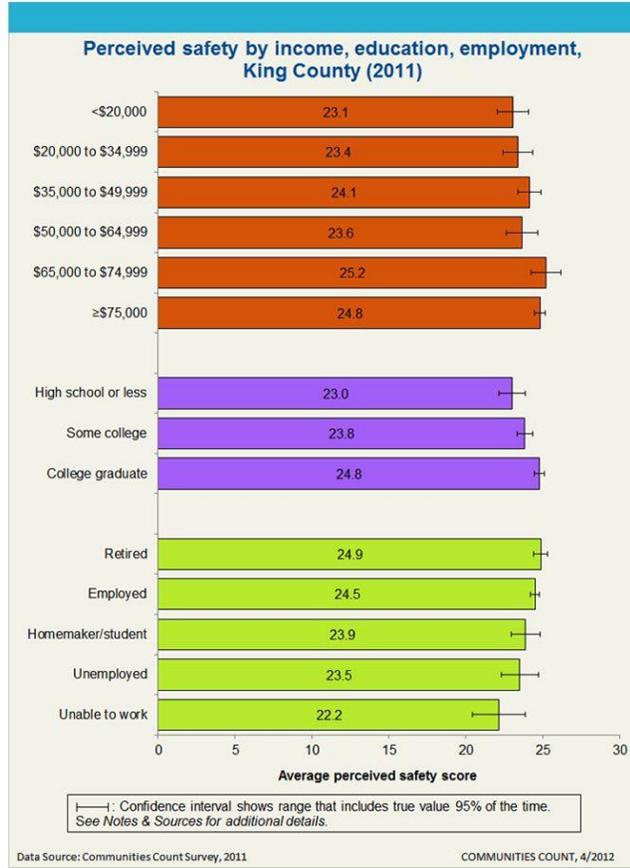


Figure 117



What is The Measure Availability?

The data available for this measure are collected roughly every three years from a community survey conducted by Communities Count. It is anticipated that this data will continue to be updated by Communities Count and will be accessible for future use.

Data Limitations

Limitations for this survey include: 1) people who do not have a telephone or a permanent mailing address were missed. 2) People who do not speak English or Spanish were not able to participate.

Actual Safety

Measure Definition: FBI Index Crime Rate, expressed as number of crimes per 100,000 persons, tracks serious crime in the U.S. The Index includes four major violent crimes (homicide, rape, robbery, and aggravated assault) and four major property crimes (burglary, larceny/theft, motor vehicle theft, and arson).

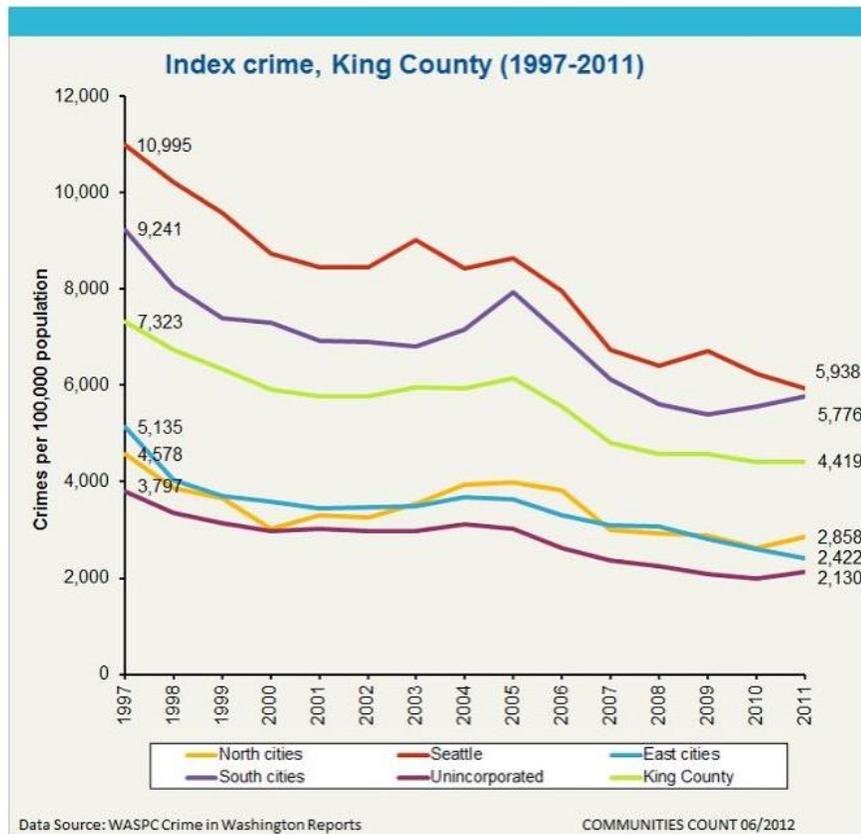
Why Is The Measure Significance?

The measure of actual safety is important because it helps reveal why people in various regions experience differing levels of perceived safety. Examining documented incidents of compromised safety allows the County to create targeted interventions to create an environment where everyone feels safe to live, work and play.

What Is The Measure Status?

Over the past decade, regional crime has declined.⁹² In 2011 the average rate was 4,419 crimes per 100,000 people. Although crime is in decline during this period, Seattle and South Cities persistently experience crime at a higher rate than other areas in the county. Figure 119 shows disaggregated crime data that highlights victims of homicide by race/ethnicity. The reason for highlighting this information is because it is important to consider the rate at which different populations experience crime. The rate to which crime is experienced by one group over another can influence the perception of safety which ultimately impacts the ability of people to feel safe to live, work and play in King County. From 1999-2011, victims of homicide were roughly three per 100,000 people in King County.⁹³ Although the homicide trend is consistent with the declining crime index, it is important to highlight that Black/African Americans and Hispanics are victims at a higher rate than other populations.

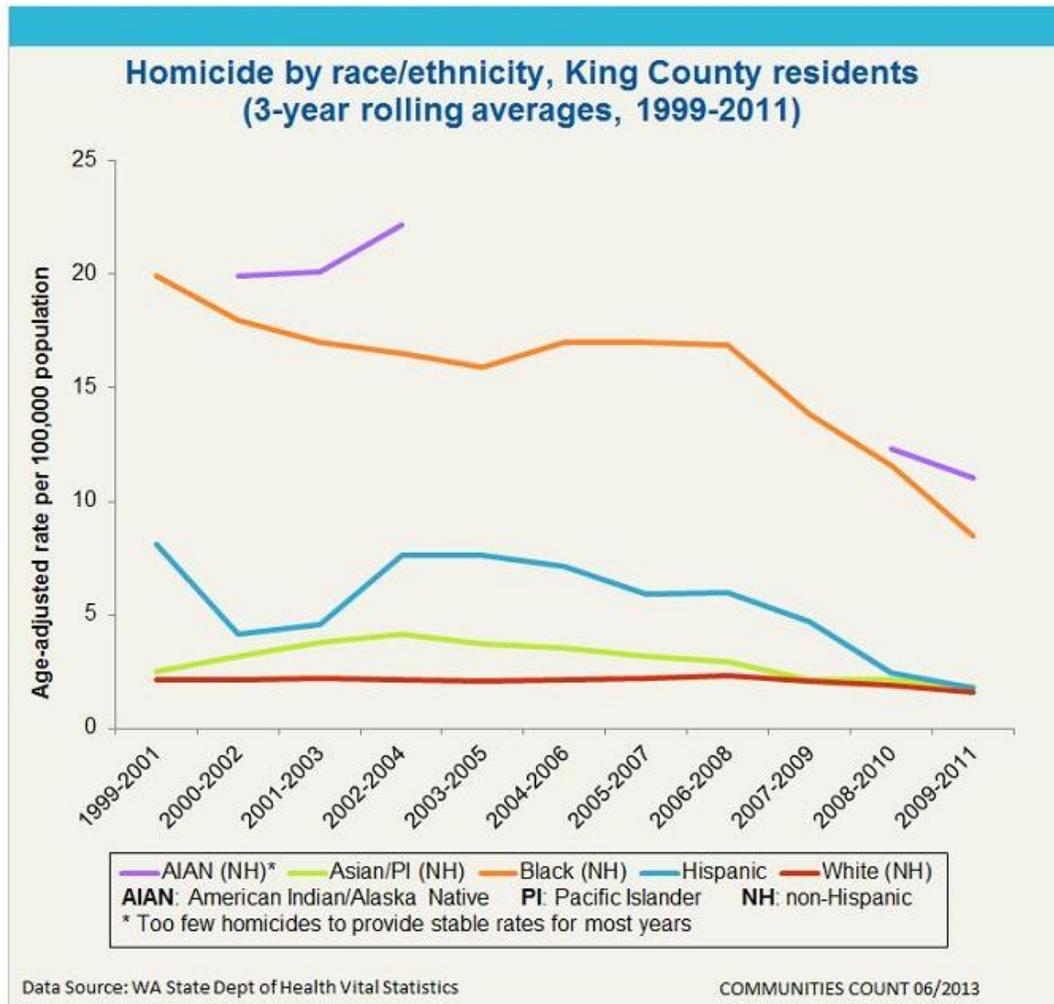
Figure 118



⁹² [Communities Count](#) - The FBI Index Crime Rate, expressed as number of crimes per 100,000 persons, tracks serious crime in the U.S. The Index includes four major violent crimes (homicide, rape, robbery, and aggravated assault) and four major property crimes (burglary, larceny/theft, motor vehicle theft, and arson).

⁹³ [Communities Count - Homicide Trend Data](#)

Figure 119



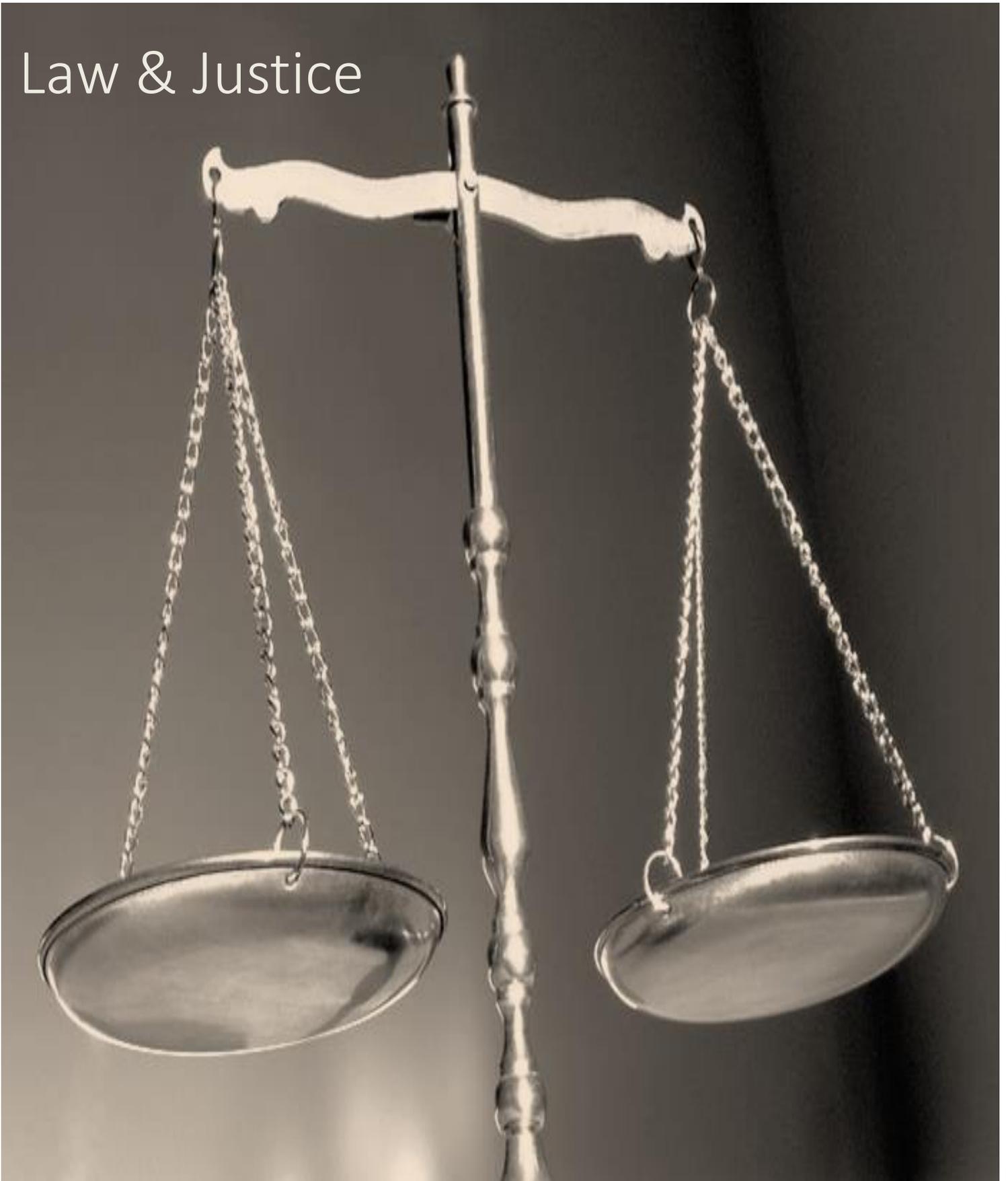
What is The Measure Availability?

The data used to comprise the crime index are collected at the federal level and anticipated to continue to be available yearly. Communities Count has performed several levels of analysis on the crime index which makes this measure accessible for immediate use. Communities Count also draws from WA. State Department of Health Vital Statistics to analyze information for specific crimes.

Data Limitations

The FBI Crime Index only reflects trends in eight specific crimes. The index includes four major violent crimes (homicide, rape, robbery, and aggravated assault) and four major property crimes (burglary, larceny/theft, motor vehicle theft, and arson). Additionally, the crime data that incorporates race/ethnicity is not associated with a specific geography so it is difficult to know if these crimes occur more frequently in certain areas than other. The lack of specific geographic information makes it more challenging to pinpoint interventions.

Law & Justice



Law & Justice

Ordinance Definition: A law and justice system that provides equitable access and fair treatment for all.

Throughout America people of color experience the economic and psychosocial impact of incarceration at a higher rate than White residents; King County is no exception to this trend. The psychological, emotional, and economic cost of incarceration is felt by everyone either through explicit loss or implicit societal costs. Seeking to understand equitable access and fair treatment in the legal system in King County is vital for creating a community where all residents can thrive.

The recommended indicators below were selected for their ability to measure law and justice. Each indicator matches with a measurable topic in the ordinance definition. Recognizing it may not be feasible to track all indicators over time, the essential measure for this determinant is identified below in italics. An essential measure is the highest level indicator that captures the spirit of the determinant and can impact other determinant areas.

Preliminary Measures

Equitable Access & Fair Treatment

- *Incarceration Rate*
- Juvenile Justice Population Change by Decision Point

Key Findings

- Although the overall incarceration rate has declined between 2005 and 2011, Black/African American adults remain significantly overrepresented in the jail population relative to their percentage in the general population.
- In 2013 Black/African American youth were five times more likely to be referred to the Juvenile Justice System than White youth.
- The adult Criminal Justice System will benefit from developing a system to track disproportionality by decision-point similar to the Juvenile Justice System.

Limitation of Ordinance Definition

If language revisions are considered for this determinant, it is recommended that a more specific definition be given to define the scope of what is meant by law and justice. The parameters of equitable access and fair treatment are very broad classifications making it difficult to fully ascertain the status of any particular function of the law and justice system. Given more time, an analysis of system entry to exit would be in order to fully understand this determinant.

Incarceration Rate

Measure Definition: Adult incarceration rate per 100,000. Data captures adults booked into King County Jail System, includes Department of Correction violators, but not including persons booked in municipal jail.

What is the Measure Significance?

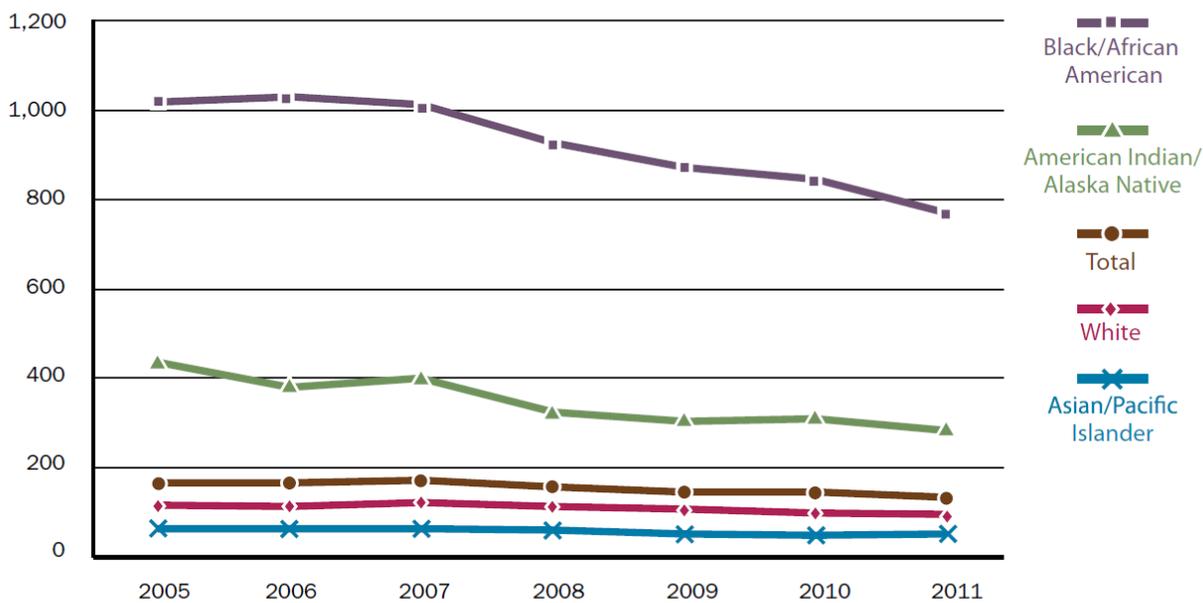
The overrepresentation of Black/African American adults in the Criminal Justice System is a national trend mirrored in King County. The high level of incarceration has a significant economic and opportunity impact on communities of color.

What is the Measure Status?

The data below are retrieved from the King County Jail System which includes Department of Correction violators, but does not include persons booked on city misdemeanors. The graph shows that although the incarceration has declined between 2005– 2011, Black/African American adults remain overrepresented in the jail population.

Figure 120

Incarceration Rate per 100,000 in King County Secure Detention, by Race and Year, 2005-2011



Data source: Annual Detentions and Alternatives Report, King County Department of Adult and Juvenile Detention; Public Health - Seattle & King County

What is the Measure Availability?

These data are collected annually by King County Department of Adult and Juvenile Detention (DAJD). The analysis above was created for the 2012 ESJ Report.⁹⁴ DAJD also tracks and reports this information on a monthly basis. Incarceration rate is a prominent measure where data analyses are anticipated to continue.

⁹⁴ King County Equity Report

Data Limitations

The race/ethnicity data collected by DAJD are from self-report. Also, there is no Hispanic category for self-reporting. Data on Hispanic populations are included in the White demographic category. Finally, having the ability to understand the adult system by decision point, similar to the Juvenile Justice System, would be helpful in learning where disproportionality occurs most regularly.

Juvenile Justice Population Change by Decision Point

Measure Definition: Based on the relative rate index that is intended to show equity level at each of the decision points in the Juvenile Justice System.

What is the Measure Significance?

Youth involvement in the Criminal Justice System can impact educational attainment, development and family systems. Understanding youth involvement by decision-point helps start the conversation on what types of interventions are appropriate to mitigate inequity.

What is the Measure Status?

Figures 121 through 124 are generated from the Relative Rate Index (RRI). This index measures disproportionality at each decision point in the Juvenile Justice System. Figure 121 shows that in 2013 Black/African American youth were five times more likely to be referred to the Juvenile Justice System than White youth. While the overall count of referrals is lower, the referral rate for Black/African American youth is higher than White youth based on their population size. The only two decision points in this chart where there is no statistically significant difference between Black/African American youth and White youth are Probation and Secure Confinement. All other decision points show disparity, either with the number being above 1.0 indicating *more likely* or below 1.0 indicating *less likely*. For example, Black/African American youth are more likely to be referred to the Juvenile Justice System (overrepresented in decision point) and less likely to be diverted (underrepresented in decision point).

Figure 122 shows the 2013 cumulative impact of the Juvenile Justice System on Black/African American youth. The overrepresentation of Black/African American youth in the referral stage is the driver for increased disparity as these youth move through each decision point. Although similar trends are experienced by Hispanic and Asian youth at various decision points (figure 123 & 124), the rate of Black/African American youth is by far the most striking. Figure 125 shows a timeline of Juvenile Justice Initiatives and their influence on decreasing the number of youth detained. Although the number of youth detained is declining, disproportionality remains present.

Figure 121

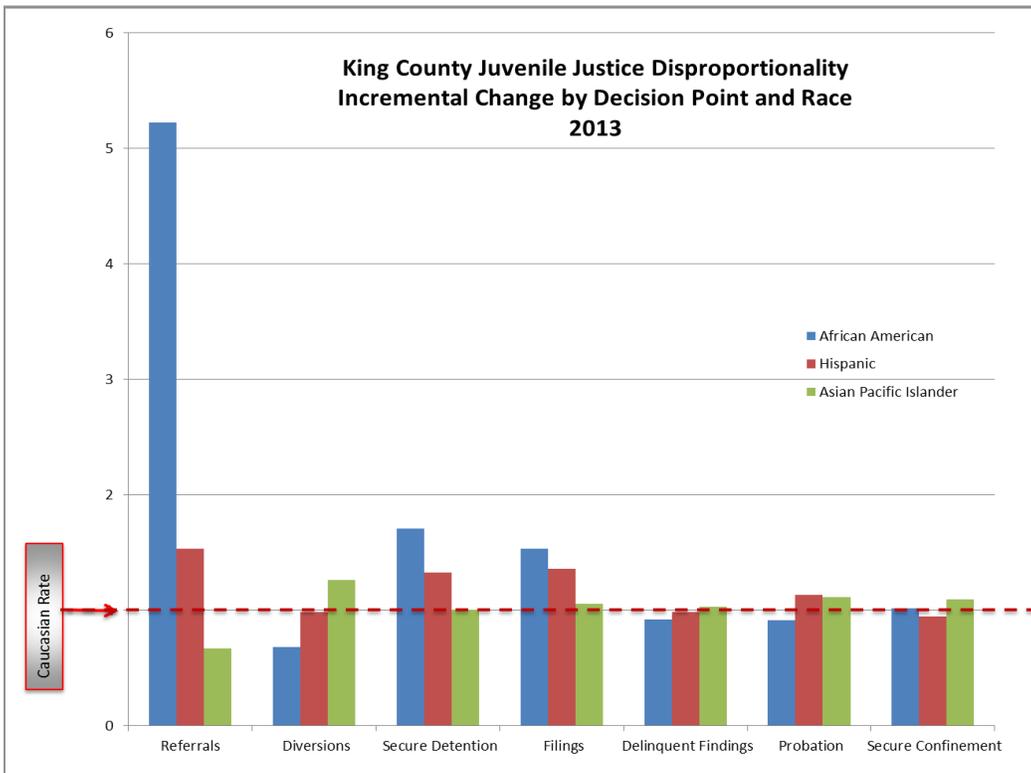


Figure 122

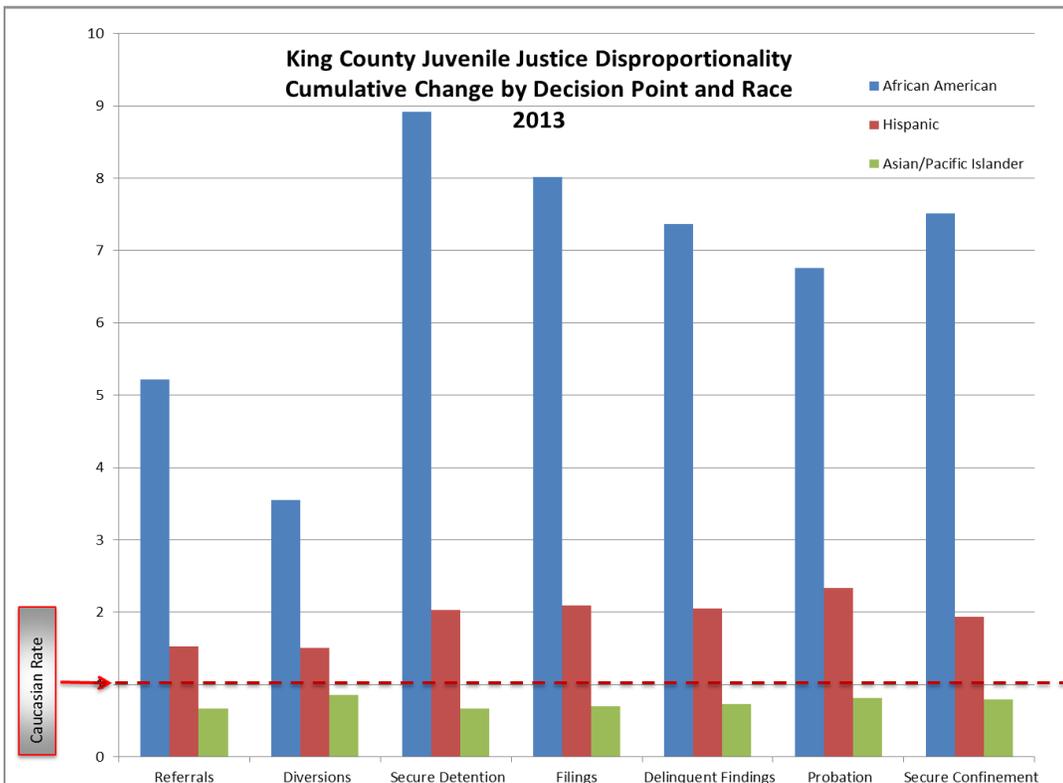


Figure 123

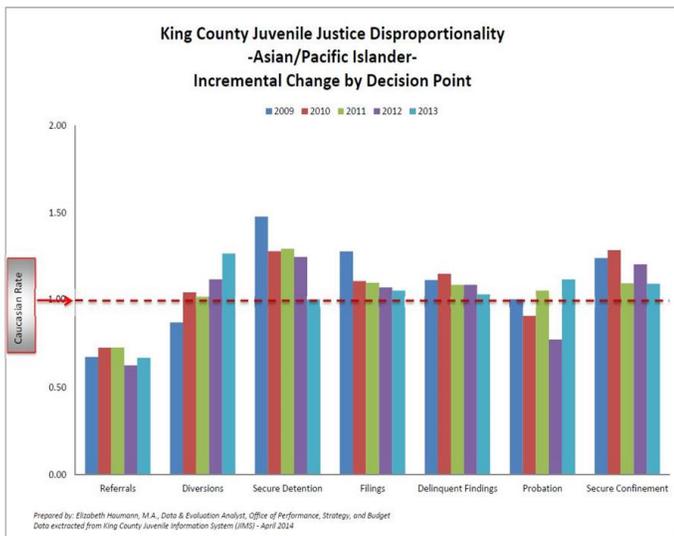


Figure 124

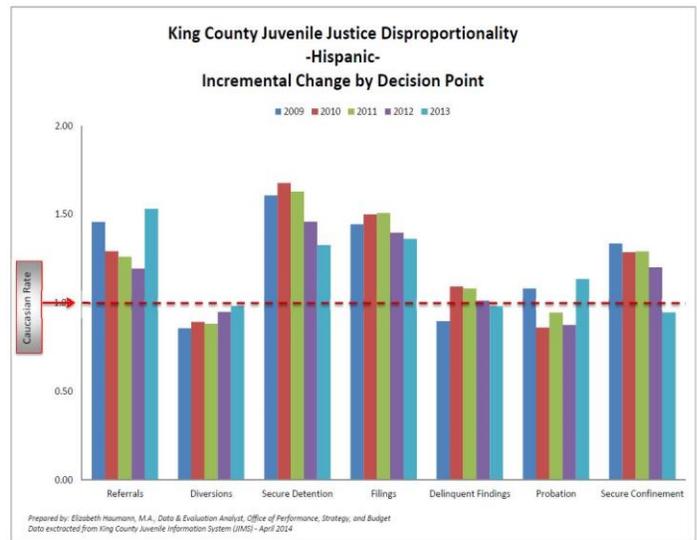
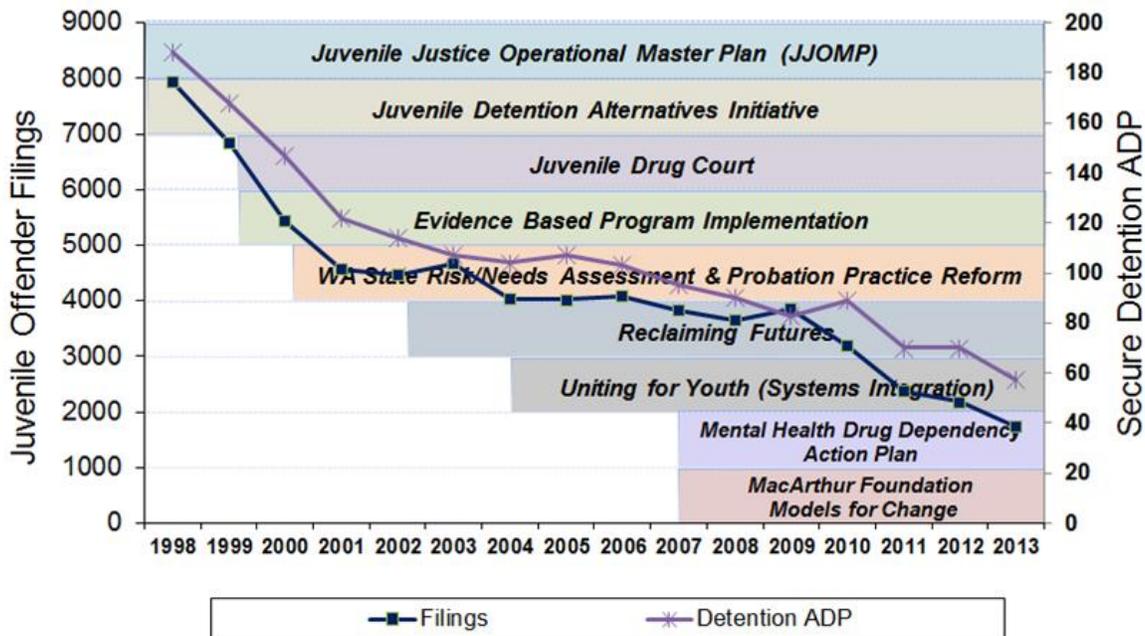


Figure 125

Juvenile Justice Trends and Initiatives 1998 - 2013



What is the Measure Availability?

The RRI is a national index used by the U.S. Department of Justice.⁹⁵ The dataset behind the RRI for King County is drawn from the King County Juvenile Information Management System (JIMS). The analysis was conducted internally by the Office of Performance, Strategy and Budget. This analysis is anticipated to continue because it corresponds with federal standard.

Data Limitations

This data provides a starting place for investigating disproportionality, but does not indicate the root cause. Further systemic analysis is required to understand the root cause and interventions that will alleviate disparity.

⁹⁵ Office of Juvenile Justice and Delinquency Prevention

Appendix A: Metadata

The metadata below are organized by determinant chapter. The indicators listed in each chapter are ordered by mention in the report.

Early Childhood Development

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Indicator: Nightly Reading

Definition: Percent of parents who report reading nightly to children under five years old, reported by race/ethnicity, income and primary language status.⁹⁶

Source: [Communities Count Survey](#)

Frequency of Collection: Survey conducted approximately every three years.

Indicator: Adverse Childhood Experiences (ACE)

Definition: Experiencing sexual abuse, verbal abuse, physical abuse, witnessing domestic violence, having divorced/separated parents, a household member who with substance abuse issues, a household member in prison or a mentally ill household member.

Source: BRFSS

Frequency of Collection: BRFSS survey, although this question is not asked regularly. This question is slated to be asked again in 2017.

Indicator: Participation in Early Achievers

Definition: Percent of licensed eligible childcare centers participating in Early Achievers (WA QRIS program).⁹⁷

Participation in Early Achievers signifies the intent of a childcare program to participate in the state Quality Rating and Improvement System (QRIS). Early Achievers is a new program and many centers that have enrolled to participate have not yet been rated.

Source: Child Care Resources

Frequency of Collection: Enrollment data collected annually

Indicator: Childcare Cost Burden

Definition: Median child care cost as percent of annual income by race/ethnicity.

Source: American Community Survey (ACS): race/ethnicity income data

Child Care Resources: Childcare cost in King County

Frequency of Collection: Annually

⁹⁶The form of this question changed in the 2011 survey and as such no trends are available.

⁹⁷ Participation in Early Achievers signifies the intent of a child care program to participate in the QRIS system. Early Achievers is a new program and many centers who have enrolled to participate have not yet been rated.

Indicator: Kindergarten Readiness

Definition: Percent of students who demonstrate the skills of a kindergartener in the domains of social emotional, physical, language, cognitive, literacy, and math at the beginning of kindergarten.

Source: OSPI – WaKIDS; County information available by request from OSPI Student Information Coordinator by County.

Frequency of Collection: Annually by school year

Education

[Return to Chapter](#)

Indicator: Third-grade reading proficiency

Definition: Percent of students proficient in third-grade reading on the Measurement of Student Progress (MSP) test by race, LEP, and income from 2010-2012.

Source: OSPI Report Card

Frequency of Collection: Annually by school year

Indicator: Fourth-grade math proficiency by race

Definition: Percent of students proficient in fourth-grade math on the Measurement of Student Progress (MSP) test by race, LEP, and income from 2010-2012.

Source: OSPI Report Card

Frequency of Collection: Annually by school year

Indicator: English language learners (ELL) progress learning English

Definition: Annual Measurable Achievement Objectives - 1 (AMAO-1).

Source: OSPI Transitional Bilingual Instructional Program, Washington English Language Proficiency Assessment (WELPA) for K-12 ELL Students, AMAO-1 from 2011-2012

Frequency of Collection: Annually

Indicator: Parent Perception of Cultural Responsiveness

Definition: Composite score of 7 questions rated on 1-5 likert scale. The survey questions include:

- I am greeted warmly when I call or visit the school.
- Teachers work closely with me to meet my child's needs.
- I am invited to visit classrooms to observe teaching and learning.
- The school encourages feedback from parents and the community.
- My child's teachers know my child well.
- My home culture and home language are valued by the school.
- At this school, it is difficult to overcome the cultural barriers between staff and parents.
(reverse coded)

This data only covers the Road Map region (Auburn, Federal Way, Highline, Kent, Renton, Tukwila and South Seattle Public Schools) and does not include Bellevue, Enumclaw, Lake Washington, Mercer Island, Northshore, Riverview, Shoreline, Snoqualmie, Tahoma, Vashon or schools outside of South Seattle. The questions used in this indicator come from a set of agreed upon parent indicators, these questions could be incorporated into the Communities Count Survey or King County Residential Survey.

Source: The Road Map Project 2013 Regional Parent Poll

Frequency of Collection: Unclear how frequently the parent survey will be administrated.

Indicator: On-Time High School Graduation Rates

Definition: Adjusted four-year cohort graduation rates by race, LEP and income.

Source: OSPI Graduation and Dropout Statistics

Frequency of Collection: Annually

Indicator: Dropout Rates

Definition: Total number of students who have dropped out of high school divided by the net total number of students, by race, LEP and income.

Source: OSPI Graduation and Dropout Statistics

Frequency of Collection: Annually

Indicator: Discipline Rates

Definition: Percent of total discipline actions, which include: short term suspension, long-term suspension, or expulsions.

Source: OSPI State Level Discipline data

Frequency of Collection: Annually

Indicator: Direct Enrollment

Definition: Direct enrollment into a two or four-year college after high school graduation.

Source: BERG Group - <http://www.collegetracking.com/>

Frequency of Collection: Annually



Jobs and Job Training

[Return to Chapter](#)

Indicator: Wage Gap

Definition: Comparison between poverty level, current minimum wage, and living wage.

Source: Communities Count analysis of Job Gap Study, 2010, Alliance for a Just Society; The King County Workforce Development Council produces Self-Sufficiency Standard (SSS).

Frequency of Collection: Annually; SSS produced every three years

Indicator: Unemployment

Definition: Percent of civilian population age 16 and over without a job, were available to start a job and actively looking for work during the last four weeks.

Source: American Community Survey

Frequency of Collection: Annually

Indicator: Poverty Rate

Definition: Percent of people living under 100% of the Federal Poverty Level.

Source: American Community Survey

Frequency of Collection: Annually

Indicator: Median Household income

Definition: Household income includes income of the head of household as well as all other household members over 15 years old. The median household income divides the income distribution into two equal groups with half of all households above this number and half below.

Source: American Community Survey

Frequency of Collection: Annually

Health and Human Services

[Return to Chapter](#)

Indicator: Unmet Medical Need

Definition: The number of adults who have outstanding medical issues and report not seeking medical care because of cost.

Source: BRFSS Survey. Analysis conducted by PHSK

Frequency of Collection: Annually

Indicator: Uninsured Adults

Definition: Number of adults 18 and over with no health insurance.

Source: American Community Survey. Analysis conducted by PHSK.

Frequency of Collection: Annually

Indicator: Uninsured Children

Definition: The number of children age 0-17 with no health insurance.

Source: American Community Survey. Analysis conducted by PHSK.

Frequency of Collection: Annually

Indicator: Life Expectancy

Definition: Number of years a person can expect to live if the current death rates stay the same for his/her life.

Source: Washington State Department of Health, Center for Health Statistics. Analysis conducted by PHSK.

Frequency of Collection: Annually

Indicator: Infant Mortality

Definition: Children born that die within the first year of life.

Source: Washington State Department of Health, Center for Health Statistics. Analysis conducted by PHSK.

Frequency of Collection: Annually

Indicator: Obesity

Definition: Adult response to these BRFSS questions: "About how much do you weigh without shoes?" and "About how tall are you without shoes?" School-age youth questions: "How tall are you without your shoes on?" and "How much do you weigh without your shoes on?"

Source: BRFSS Survey & Healthy Youth Survey. Analysis conducted by PHSK

Frequency of Collection: BRFSS data collected annually. For school-age youth, the HYS is asked every other year since 2002 and these questions are asked among public schools grades 8, 10, and 12 only.

Indicator: Diabetes

Definition: Adults that have been diagnosed for diabetes by a doctor.

Source: BRFSS Survey. Analysis conducted by PHSK.

Frequency of Collection: Annually

Indicator: Tobacco Use

Definition: Adult response to this BRFSS question: "Do you now smoke cigarettes every day, some days, or not at all?"

Source: BRFSS Survey. Analysis conducted by PHSK.

Frequency of Collection: Annually

Indicator: Frequent Mental Distress

Definition: Adults that report having 14 or more bad mental health days in the last month.

Source: BRFSS Survey. Analysis conducted by PHSK.

Frequency of Collection: Annually

Food Systems

[Return to Chapter](#)

Indicator: Retail Food Environment Index (RFEI)

Definition: Ratio of fast food restaurants and convenience stores divided by the number of supermarkets, small grocers and produce vendors.

Source: Seattle & King County Public Health

Frequency of Collection: One time measure. Replication is anticipated to cost \$200 plus 200-300 hours of staff time.

Indicator: Food Security

Definition: The financial relationship between income and food. USDA defines low to very low food security as to the reduction in the quality and variety of diet all the way to multiple indications of disrupted eating patterns and reduced food intake within the last 12-months.

Source: BRFSS

Frequency of Collection: This is not a regular question on BRFSS Survey. It is unknown when this question is slated to be asked again.

Indicator: Percent of Students with Free or Reduced-Price Meals

Definition: The percent of students eligible for free and reduced priced meals by schools district.

Source: OSPI

Frequency of Collection: Annually

Indicator: Participation in Food Assistance Program

Definition: The participation in WIC, EBT & food bank utilization.

Source: Public Health-Seattle & King County and Washington State Department of Social & Health Services datasets.

Frequency of Collection: Annually; Food Bank Visits Collected Quarterly



Parks & Natural Resources

[Return to Chapter](#)

Indicator: Resident Satisfaction with Parks

Definition: Percent of King County survey respondents that rated they were satisfied or very satisfied with regional parks and trails.

Source: King County Resident Survey

Frequency of Collection: Approximately every three years

Indicator: Open Green Space

Definition: Less developed parks, greenbelts, open space, undeveloped areas, natural areas, ecological land, and developed parks that are within King County.

Source: King County GIS Center

Frequency of Collection: Although the data behind this map is updated regularly, this particularly depiction was created for a one time analysis.

Indicator: Distribution of Regional Trails

Definition: Proximity of regional trails by ESJ score.

Source: King County DNRP

Frequency of Collection: Unknown

Indicator: Park Accessibility

Definition: Travel distance to park.

Source: King County DNRP

Frequency of Collection: Unknown

Indicator: Distribution of Playgrounds

Definition: Distribution of playgrounds by median household income.

Source: U.S. Census tracts analyzed by Futurewise

Frequency of Collection: Replication of measure not anticipated



Healthy Built & Natural Environment

[Return to Chapter](#)

Indicator: Land Use Mix Index

Definition: Land distribution by looking at the square footage of: single and multi-family residential, retail, office, civic & education, and entertainment.

Source: Lawrence Frank & Company, Inc. 2008.

Frequency of Collection: One time analysis, replication not anticipated.

Indicator: Vegetation Distribution

Definition: Normalized difference vegetation index (NDVI).

Source: King County DNRP

Frequency of Collection: Unknown

Indicator: Pollution by Region

Definition: Air release of all reportable toxic chemicals & carcinogenic chemicals by region.

Source: U.S. Environmental Protection Agency (EPA) Toxic Release Inventory (TRI).

Frequency of Collection: Annually



Transportation

[Return to Chapter](#)

Indicator: Metro Rider Satisfaction with Safety

Definition: King County Metro riders' satisfaction with personal safety and riders' perceptions that Metro provides a safe and secure environment and of safety improvements within the last year.

Source: 2013 King County Metro Rider/Non-Rider Survey

Frequency of Collection: Annually

Indicator: Reliance on Metro Transit

Definition: Percent of people who use metro transit for most or all transportation needs.

Source: 2011 King County Metro Rider/Non-Rider Survey; 2013 King County Metro Title VI Program Report

Frequency of Collection: Annually; Triennially

Indicator: Metro Transit Passenger Crowding & Schedule Reliability

Definition: Percent of estimated service needed to reduce passenger crowding, improve schedule reliability and meet target service levels on minority or low-income routes.

Source: 2013 King County Metro Transit Title VI Program Report

Frequency of Collection: Triennially

Indicator: Proximity to Metro Transit: Population within a quarter mile of a transit stop or a two mile drive to a park-and-ride

Definition: Percent of housing units per census tract that are located within a quarter mile of a transit stop or a two mile drive to a park-and-ride.

Source: 2013 King County Metro Transit Strategic Plan

Frequency of Collection: Annually

Indicator: Metro Transit On-Time Performance

Definition: A bus is considered to be on time if it arrives between 1 minute early and 5 minutes late.

Source: 2013 King County Metro Transit Title VI Program Report

Frequency of Collection: Triennially

Indicator: Metro Transit Reduced Fare Utilization

Definition: King County provides reduced fares for disabled, senior or youth cardholder. These trips can be measured by ORCA card use.

Source: 2013 King County Metro Transit Strategic Plan

Frequency of Collection: Annually

Indicator: Transportation Cost Burden

Definition: The calculation for cost burden is: (auto ownership costs + auto use costs + public transit costs)/ representative income.

Source: Center for Neighborhood Technology's Housing and Transportation (H+T) Affordability Index

Frequency of Collection: Economic census data collected every five years.



Community and Economic Development

[Return to Chapter](#)

Indicator: Home Ownership Rates

Definition: The percent of people in King County that own a home by race/ethnicity.

Source: American Community Survey

Frequency of Collection: Annually

Indicator: Foreclosure Risk Score

Definition: Composite score comprised of risk factors that include: subprime lending, mortgage delinquencies, foreclosures and vacancies.

Source: U.S. Census data analyzed by Foreclosure-Response.org

Frequency of Collection: Census economic data, every five years; Census housing data, every ten years.

Indicator: Change in Residential Assessed Value

Definition: Percent change of residential assessed value of homes by neighborhood.

Source: King County Office of Economic and Financial Analysis

Frequency of Collection: One-time OEFA analysis that is likely feasible to replicate.

Indicator: People of Color Owned Businesses

Definition: Percent of minority owned businesses.

Source: U.S. Census Survey of Business Owners

Frequency of Collection: Data is collected every five years during years that end in two and seven



Neighborhoods

[Return to Chapter](#)

Indicator: Residential Mobility

Definition: Percent of households that have moved residence within the last year.

Source: American Community Survey

Frequency of Collection: Annually

Indicator: Social Support

Definition: A measure of the physical and emotional comfort and practical resources received from family, friends, co-workers and others. For more information on the questions related to this measure see [Communities Count](#).

Source: Communities Count Residential Survey

Frequency of Collection: Every three years (this survey is dependent on funding and as such sometimes occurs every 4th year)

Indicator: Neighborhood Social Cohesion

Definition: A measure of mutual trust among neighbors and informal social control for example, the likelihood that a neighbor would intervene if children were skipping school or spray-painting graffiti. For more information on the questions related to this measure see [Communities Count](#).

Source: Communities Count Residential Survey

Frequency of Collection: Every three years (this survey is dependent on funding and as such sometimes occurs every 4th year)

Indicator: Quality of Life in King County

Definition: Likert scale rating of resident satisfaction with quality of life in King County.

Source: King County Residential Survey

Frequency of Collection: Survey administered every 3 years.

Housing

[Return to Chapter](#)

Indicator: Poor Housing Conditions

Definition: Households with two or more of the following conditions: housing cost greater than 30% of income, more than one person per room in the house, no working kitchen, no working bathroom.

Source: American Community Survey dataset analyzed by King County Public Health and Human Services Transformation Plan

Frequency of Collection: Annually

Indicator: Cost Burdened Households by Race/Ethnicity

Definition: Renters and mortgage-holders that pay more than 30% of income for housing by race/ethnicity.

Source: American Community Survey

Frequency of Collection: Annually

Indicator: Weighted Road Density values in urban King County

Definition: Weighted Road Density is a measure of traffic density values estimated based on distance to the eight major road classes defined by the Washington State Department of Transportation. Distance values are weighted based on the typical traffic volumes on each class of road within urban King County by select geographic area.

Source: Schulte. J (2012). Traffic density, census demographics and environmental equity in housing: A geographic analysis in urban King County. Report prepared for King County.

Frequency of Collection: One-time report, no known intent to replicate

Indicator: Homelessness

Definition: Sleeping without shelter over the past 12-months.

Source: Safe Harbors Annual Homeless Assessment Report

Frequency of Collection: Annually



Community & Public Safety

[Return to Chapter](#)

Indicator: Perceived Neighborhood Safety

Definition: Measure reflects how often within the last 12-months people experienced feeling worried about the following threats to safety:

- Children's safety in their neighborhood
- Children's safety in school
- Their own physical safety in their neighborhood
- Their physical safety at home
- Being robbed or having their house broken into
- Being physically attacked by someone they don't know

Source: Communities Count Community Survey

Frequency of Collection: Roughly every three years as survey is contingent on funding. Survey conducted 2004/2007/2011, next survey anticipated in 2015.

Indicator: Actual Safety

Definition: FBI Index Crime Rate, expressed as number of crimes per 100,000 persons, tracks serious crime in the U.S. The Index includes four major violent crimes (homicide, rape, robbery, and aggravated assault) and four major property crimes (burglary, larceny/theft, motor vehicle theft, and arson).

Source: Communities Count analysis retrieved from Washington State Uniform Crime Report which is consistent with FBI Uniform Crime Reporting.

Frequency of Collection: Annually



Law & Justice

[Return to Chapter](#)

Indicator: Incarceration Rate

Definition: Adult incarceration rate per 100,000. Data captures adults booked into King County Jail System, includes Department of Correction violators, but not including persons booked in municipal jail.

Source: King County Department of Adult and Juvenile Detention

Frequency of Collection: Annually

Indicator: Juvenile Justice Population Change by Decision Point

Definition: Based on the relative rate index that is intended to show equity level at each of the decision points in the Juvenile Justice System.

Source: King County Juvenile Information System

Frequency of Collection: Annually

Appendix B: Measures Considered, But Not Selected

Below is a list of discarded indicators along with rationale. The purpose of this is to show the breadth of analysis and to allow future decision makers and analyst to see what points have been considered to date.

Determinant	Indicator	Rationale
Early Childhood Development	Percent of staff newly hired (proxy for turnover)	Measure voted down by steering committee, noting that staff turnover does not indicate that a staff/student relationship was not nurturing.
	Percent of facilities serving children with subsidy	Measure voted down by steering committee. This indicator does not measure affordable childcare at the highest level.
	Percent of children enrolled in Head Start & ECEAP	Measure voted down by steering committee. This indicator does not measure affordable childcare at the highest level.
Education	Dual Enrollment	Direct Enrollment was determined to be the strongest indicator related to career potential. Direct Enrollment information was also found to be readily available whereas this data would require more development. This data can be found on OSPI's website . Definitions about each category of dual enrollment can be found here . It is noteworthy that we learned through conversations with the Road Map Project Tech Prep is a program that is being phased out and not expected to be measureable over time.
	Percent of teachers with Master's Degree	Measure voted down by steering committee. This indicator is not as robust when compared to other measures for high quality education.
	Percent of teachers specializing in teaching English language	Measure voted down by steering committee. Data for this indicator is not readily accessible.
Jobs & Job Training	N/A	N/A
Health & Human Services	Percent of adults receiving recommended clinical preventive services by income.	This measure deemed to not be representative of high quality medical care.
	Proximity to public health facilities.	Geographic access deemed not to be the highest level indicating access to HHS, particularly because the majority of HHS does not necessarily occur in public health facilities.
	Percent of adults who did not see a dentist in the past year	Steering committee voted to not use this indicator because it is not the highest level measure for affordable HHS.
	CLAS Standard	CLAS standard training for medical professionals does not necessarily indicate culturally appropriate medical care is delivered.
	Low birth weight	Low birth weight in developed countries can be attributed to caesareans and therefore is deemed to not be an accurate measure of "supporting optimal well-being."

	Late or no prenatal care	Deemed not the highest level measure for the category of “supporting optimal well-being.”
	Activity Limitation	Steering committee voted to not use this indicator because it is not the highest level measure of “supporting optimal well-being.”
Food System	Target percent of local food production	No consensus reached by steering committee for measuring local food production. King County Kitchen Cabinet is working to define measure in this category.
	Target Percent of local food purchases to sustain demand for food production	No consensus reached by steering committee for measuring local food production. King County Kitchen Cabinet is working to define measure in this category.
	Utilization of community gardens	Steering committee agreed this was not the highest level measure for understanding local food production.
	Farm worker health/treatment	Steering committee did not reach consensus on this measure, noting that this determinant is focusing more on production than the individual farmers.
	Distribution of farmers markets & grocery stores	Steering committee agreed this was not the highest level measure for understanding food accessibility.
	Food Deserts	Steering committee agreed this was not the highest level measure for understanding food accessibility. REFI is a more robust measure for this category.
	Perception of food affordability	Information on this measure is not readily available.
	Amount of EBT benefits used at farmers markets	Data collection for this measure does not extend past Seattle at this time.
Parks & Natural Resources	Perception of King County parks and trails	Data collected by King County Parks Customer Satisfaction Survey. The data raised measure validity concerns because respondents are not reflective of ESJ ordinance population.
	Resident satisfaction with cleanliness of King County parks and trails.	Data collected by King County Parks Customer Satisfaction Survey. The data raised measure validity concerns because respondents are not reflective of ESJ ordinance population.
	Customer satisfaction with facilities and features of King County parks and trails.	Data collected by King County Parks Customer Satisfaction Survey. The data raised measure validity concerns because respondents are not reflective of ESJ ordinance population.
	Distribution of community centers	Concerns with measure validity arose as community center locations are only as accurate as city reporting.
Healthy Built & Natural Environment	Air quality index (PM 2.5)	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Greenhouse gas emissions	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Marine water quality	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ

		ordinance populations.
	Fresh water quality	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Water quality audit by income	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Sediment quality	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Proximity to hazardous waste/superfund sites by race & income	Steering committee agreed this was not the highest level measure for understanding exposure to toxins.
	Wastemobile sites by demographic	Steering committee agreed this was not the highest level measure for understanding exposure to toxins.
	Transfer station sties by demographic	Steering committee agreed this was not the highest level measure for understanding exposure to toxins.
	Wastewater facilities by demographic	Steering committee agreed this was not the highest level measure for understanding exposure to toxins.
Transportation	Rider/Operator Assaults	This measure not selected because aggregate number could not be broken down by demographic or geographic location, providing no specific insight into ESJ ordinance populations.
	Number of jobs within a quarter-mile walk of a transit stop or a two mile drive to a park-and-ride	This indicator not selected because there is no information about the types of jobs accessible within this standard.
	Commute mode – walking, biking, carpooling, driving	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Traffic fatalities by commute mode	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Road density & bike lanes	Information for this measure not readily available/accessible.
	Road density & sidewalk availability	Information for this measure not readily available/accessible.
	Average commute time (WSDOT report)	This measure not selected because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Distribution of bike lanes	Information for this measure not readily available/accessible outside of the City of Seattle.
	Functionality of regional	Although this may be useful measure in the future, information for

	trails	this measure not readily accessible.
Community Economic Development	Affordability Index	Steering committee agreed this was not the highest level measure for understanding local ownership.
	Absentee landlords	Steering committee agreed this was not the highest level measure for understanding area retention.
	Home loan denial rates by race	Information not readily accessible/available
	Business closure	This measure not selected as measure for business retention because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations.
	Home equity	Steering committee agreed this was not the highest level measure for understanding local ownership.
	Debt/income ratio	Steering committee agreed this was not the highest level measure for understanding local ownership/fair access.
Neighborhoods	Participation in community organizations	Steering committee agreed this was not the highest level measure for understanding neighborhood cohesion.
	Race, ethnic, gender make-up of advisory boards & commissions compared to population at large	Steering committee agreed this was not the highest level measure for understanding neighborhood cohesion.
	Distribution of libraries	Steering committee agreed this was not the highest level measure for understanding quality of life.
	Percent of residents living within one mile of community venue	Steering committee agreed this was not the highest level measure for understanding quality of life.
Housing	Number of Affordable Housing Units operated by King County/Partnerships	Does not categorize community-level housing conditions but is rather a look at the County efforts to impact housing.
	Distribution of Owners & Renters	This measure may provide insight into trends about increasing or decreasing homeownership trend but does not include a dimension that helps understand the role of affordability.
	Rental Vacancy Rate	Steering committee agreed this was not the highest level measure for understanding affordable housing.
	Crowded Housing as percent of total households	Crowding is a component of the composite Poor Housing Conditions measure. Poor Housing Conditions was chosen as it provides a multidimensional way to look a healthy housing.
	Proximity to Alcohol, tobacco & fast food outlets mapped on the consolidated demographics	No measure identified
	Proximity to ports, rail yards, freeways or other toxic waste sites	No measure identified. Weighted Road Density values was more readily available and thus was selected as a way to measure exposure to pollution.

	Housing Discrimination Complaints	Too few cases reported
	ADA Compliance	No measure identified
Community & Public Safety	EMS response time by neighborhood	Steering committee agreed this was not the highest level measure for capturing responsive community services.
	911 response time	Data not readily accessible.
Law & Justice	Arrest rate at point of contact/community of origin	Data not readily accessible because arrest data is not typically collected/reported in this manner.
	Public defender caseload	Data not readily accessible in disaggregated format by race/ethnicity.
	Average length of jail stay	This measure not selected as measure fair treatment because the aggregate count does not necessarily provide information to advancing understanding of community conditions and transportation challenges faced by ESJ ordinance populations. Having this data disaggregated by race/ethnicity would make this a robust measure.
	Release Planning: Number of adults who are released with/without release planning consultation	Data not readily accessible.
	Post-release employment	Data not readily accessible. There is also consideration of whether this measure belongs in the law and justice domain.

Appendix C: Recommended Ordinance Language Revisions

Below is a consolidated list of recommended ordinance language revisions. This list is a compilation of the recommendations proposed throughout this report.

Early Childhood Development:

The early childhood development determinant does not include a component for culturally competent or culturally responsive education. Any revisions to ordinance language ought to include adding culturally responsive education. No data that correspond with culturally competent early childhood education were identified at this stage of research. Further research is needed in this area to identify appropriate measures for culturally competent/culturally responsive early childhood education.

Education:

This determinant is interpreted as emphasizing K-12 education and not specifically accounting for adult learners. Either explicitly limiting this determinant to K-12 or expanding the definition to include adult learners would be helpful in defining the scope of this determinant. Accounting for adult learners who return to a traditional four year university or community and technical college to achieve a degree or change career paths could make this measure more representative of the education system as a whole.

Jobs & Jobs Training

The determinant definition does not explicitly account for adult learners who return to a traditional four year university or community and technical college to achieve a degree or change career paths. Explicitly expanding the definition beyond job training to include adults returning to school or changing careers will better capture the intent of this determinant.

Health & Human Services

The language in this determinant is interpreted as having a primary focus on medical care. The language does not include other known contributing factors to health, such as environmental factors and behavioral health.

Food Systems

One challenge with the language describing food systems is that measuring culturally appropriate food is nearly impossible without implementing an ethnographic effort in King County. This determinant definition may benefit from a revision of either eliminating this language or being more specific on what is meant by culturally appropriate food.

Parks & Natural Resources:

This determinant seems primarily directed toward parks and recreation, making it difficult to capture measurement for natural resources which speaks more to biodiversity and environments undisturbed by humans. If revision of language is considered, it is recommended that natural resources be paired with natural environment. This pairing will allow for more focused analysis of ESJ considerations and environmental justice.

Healthy Built & Natural Environment

Built environment and natural environment are two very large and distinct bodies of work. In fact, many equity reports separate these into two stand-alone categories. The inclusion of both built and natural environment makes it very difficult

to accurately capture the ESJ landscape for this determinant. Additionally, standard measures for air, water and sediment quality are captured at the aggregate and do not often capture ESJ populations in analysis. Air, water and sediment quality are closely monitored at the aggregated level for the entire county by the Federal Government. If a revision of language is proposed for this determinant. Water, air and soil & sediment ought to be considered for removal since they are closely monitored for the entire county. Additionally, making built environment a stand-alone category will help capture this measure more accurately. Finally pairing natural environment and natural resources will likely allow for more focused analysis of ESJ considerations and environmental justice.

Transportation

Measuring overall transportation throughout King County is a huge task. Although the language does reference other modes of transportation, this determinant is interpreted as being primarily directed at capturing equity in public transportation. In addition, a number of the goals established in the definition overlap, making the scope of measurement difficult to define. Words like efficient, convenient and reliable overlap making it difficult to align a specific measure for each. For example, reliable service is efficient and convenient. Similarly, service that is convenient is both efficient and reliable. If revision of this determinant is considered, the research team recommends removing one or more of these closely linked descriptive words from the definition, or more clearly defining each.

Community & Economic Development: None noted at this time.

Neighborhoods

The neighborhoods determinant does not include a component for civic vitality. Throughout this research project civic vitality was identified as a key component of equity that other regions are measuring and is thus included in this report despite this language being entirely absent from ordinance 16948. It is recommended that the be updated to include this key attribute of democracy.

Housing

The housing determinant's broad definition provides significant challenge in locating appropriate measure for each descriptor. Direct measures for safe, quality, healthy and accessible housing are not uniform across providers causing this report to choose several proxy measures to understand these descriptors. Reconsidering a language revision that matches national housing standards may allow for more uniform measurement in this area.

Community & Public Safety

Community and public safety is a subset of the Law and Justice System and neighborhoods. This determinant might better serve as being diffused into those two determinant categories. As is, the determinant language is a catch-all and will benefit from having a more specific definition to clarify scope. Finally, measures for emergency response services (i.e. fire, police, EMS) and code enforcement are accounted for on a more aggregate level, not incorporating an explicit ESJ lens.

Law & Justice

If language revisions are considered for this determinant, it is recommended that a more specific definition be given to define the scope of what is meant by law and justice. The parameters of equitable access and fair treatment are very broad classifications making it difficult to fully ascertain the status of any particular function of the law and justice system. Given more time, an analysis of system entry to exit would be in order to fully understand this determinant.

Appendix D: Interviews

Below is a complete list of interviewees that participated in this project. Names in bold indicate participation in steering committee. Starred names indicate those who were not involved in the initial interviews but played a key role in the drafting phase of this report.

Internal Interviews:

Public Health Seattle & King County

- **Marguerite Ro - Chief of APDE Unit**
- **Eva Wong – Epidemiologist APDE Unit**
- Kirsten Wysen – Plan Project Manager
- Louise Carter – Research Scientist APDE Unit
- **Matias Valenzuela – ESJ Manager**

Department of Executive Services

- Paula Harris-White - Manager, DES ESJ Programs

Office of Civil Rights & Open Government

- Kelli Williamson - Director

Department of Transportation (Metro)

- Chuck Sawyer – Supervisor*
- Stephen Hunt – Transportation Planner III
- Lori Mimms – Project/Program Manager*

Juvenile Court

- Teddi Edington
- Elizabeth Haumann*

Office of Economic Forecasting & Analysis

- Dave Reich – Senior Economist
- Tony Cacallori – Economist

Department of Elections

- Jacqueline Blackwell – ESJ Program Manager
- Julie Wise – Voter Services Program Manager

Department of Judicial Administration

- Barbara Miner – Director & Superior Court Clerk
- Teresa Bailey – Deputy Director

Department of Community & Health Services

- Martine Kaiser - Project/Program Manager III

- Sean Power – Functional Analyst
- Laurie Sylla – Project/Program Manager IV

Department of Natural Resources & Parks

- **Richard Gelb – Performance Management Lead**

Office of Performance, Strategy & Budget

- **Michael Jacobson – Deputy Director**
- **Cristina Gonzalez – Senior Business & Management Analyst**
- Claudia Balducci – Justice System Manager
- Chandler Felt – Demographer
- **Steve Stamper – Performance & Strategy Analyst**
- Van Badzik – Senior Strategy & Performance Analyst
- Paula Ding – Senior Strategy & Performance Analyst
- **Arun Sambataro – Project Manager**

External Interviews:

Road Map Project

- Alessandra Pollock – Data Analyst
- Andrew Sahalie – Senior Data manager

Seattle King County Workforces Development Council

- Marlena Sessions – Chief Executive Officer

Child Care Resources

- Phoebe Anderson – Chief Program Officer

Appendix E: Peer Jurisdictions & Practitioner Research

Below is a list of government and practitioner equity measurement projects that contributed to the development and thinking around this report.

Regional Equity Atlas 2.0 is part of the Coalition for a Livable Future. The atlas maps the Portland Metro area showing the accessibility of key resources across the region. The mapping project uses many indicators that fall within King County's Determinants of Equity and therefore is an example of where the County could go with a based mapping service.

- <https://clfuture.org/equity-atlas>

Regional Planning Association (RPA) operates in the New York-New Jersey-Connecticut metropolitan regions and has been planning for future growth in the area since 1922. RPA is a resource that provides a good example of interactive opportunity mapping, highlighting for example how many jobs are available within a 30 minute bus ride. The interactive map also gives an example of how many jobs are available in a given region by degree held. This type of mapping provides a good example of the intersection between transportation and areas of opportunity.

- <http://www.rpa.org/>

Multnomah County in Oregon is a Pacific Northwest example of government working to advance equity. The Multnomah's equity movement is more mature than King County and provides good examples an equity lens, logic model and training material for advancing the work.

- <https://multco.us/diversity-equity/equity-and-empowerment-lens>

Puget Sound Regional Council (PSRC) is a local organization that brings a wealth of knowledge to understanding growth management, transportation and economic development in Western Washington. PSRC has an Equity Network Steering Committee made up of individuals across the Western Washington in both government and non-government organizations. The organization conducts community outreach and is overall a very important resource for keeping pace with development in the region.

- <http://www.psrc.org/>

The Quality of Life Project is a performance measures report from New Zealand published every five years with the intent to provide information to decision-makers to improve the quality of life in major New Zealand areas.

- <http://www.qualityoflifeproject.govt.nz/index.htm>

Race to Equity: A Baseline Report on the State of Racial Disparities in Dane County. This report provides an example of how Dane County Wisconsin approached their baseline efforts.

- <http://racetoequity.net/dev/wp-content/uploads/WCCF-R2E-Report.pdf>

The Opportunity Index, sponsored by Measure of America and Opportunity Nation, provides insight into opportunity at the state and county level. This index provides a way to compare conditions across regions and nationally as well.

- <http://opportunityindex.org/methods-sources/>

The Health Equity Alliance focuses on the correlation between social determinants and health outcomes in Connecticut Towns. The website includes information at the Census tract level and examines the Social Determinants of Health and Health Outcomes. The website is intended to promote multi-sector collaboration and decision making for improved health outcomes.

- <https://www.sdo.org/>

The Metro Boston Indicators Project is sponsored by the Metropolitan Area Planning Council and as part MetroFuture, the 30 year regional plan for the Boston Metro Region. The project is foundation funded and establishes a baseline for the equity related measures in Economy, Education, Environment, Housing, Public Health, Public Safety and Transportation, the site also tracks population demographics.

- <http://regionalindicators.org/equity/housing/foreclosure-rates/>

The Bell Policy Center Gateways to Opportunity provide a means to understand equity from birth to end of life in Colorado through focusing on 9 critical gateways to opportunity and equity. Each gateway is associated with key indicators and progress on these indicators is updated in regular equity reports. The gateways are similar to the determinants of equity and the structure of their reporting may provide insight into how to build future equity reports.

- <http://bellpolicy.org/content/gateways-opportunity>

Sustainable Communities Index emerged from a project initiated by the San Francisco Department of Public Health in response to the intense period of development that occurred in San Francisco between mid-late 1990's and early 2000s. The project sought to address issues with infrastructure, zoning, public safety, environmental impacts and affordable housing. Out the project emerged the Healthy Development Measurement Tool. The organization provides several community facing measures for developing equity in cities.

- <http://www.sustainablecommunitiesindex.org/indicators/>

Corporation for Enterprise Development (CFED) is a nonpartisan policy organization that works to create economic opportunity. CFED provides has developed and assets and opportunity scorecard by state that provides information on economic development, housing, health care and education.

- <http://scorecard.assetsandopportunity.org/2014/state/wa>

Everyone is welcome is a public-private initiative that empowers people financially by providing financial training and helping people access and use mainstream financial services such as checking/savings accounts.

- <http://www.everyoneiswelcome.org/>

National Results & Equity Collaborative (NREC) provides a library of tools and resources in use by practitioners across the country. This program uses Results-based Accountability strategic planning and management and provides a Results Scorecard tool as a common framework.

- Website: <http://resultsandequity.org/tools-and-resources/>

Robert Wood Johnson Foundation in collaboration with the University of Wisconsin Population Health Institute has created a program for County Health Rankings. This interactive tool provides a snapshot of how specific counties in America rank on health indicators in comparison to the entire state. This site uses standard measures which provide a good example of how other organizations define health outcomes.

- <http://www.countyhealthrankings.org/measuring-progress/rankings-measures>

Appendix F: Guiding Questions for Interviews and Steering Committee

Agency Interview Questions

1. When you think about all of the data your office collects, can you tell us where you see the largest disparities in outcome equity? What areas have the least disparities or greatest equity?
2. Over the next biennium, which determinants can your office have the greatest impact on?
 - a. What methods (indicators/data collection) will you use to measure impact?
3. At the end of the day, how does your office define success in moving equity forward?
4. What are the barriers your office faces in promoting equity in service delivery?
5. What sort of demographic data does your office collect related to race/ethnicity, income status, and limited English proficiency (LEP)?
 - a. Does your office collect information on translation services or translated materials?
6. Since our goal is to establish baseline measures, do you have recommendations on:
 - a. The type of data your department collects that is related to the determinants of equity? (Preferably data that is available at the census tract level, collected annually and readily available.)
 - b. Where we might find others (at the county, non-profit, or national scale) doing this type of work.
 - c. Previously identified indicators that are widely accepted.
 - d. Where to find the richest data

Steering Committee Guiding Questions

1. Is this a valid way to measure this determinant? This topic?
2. Does this measure address this determinant at the highest level?
3. Is this measure community oriented and actionable by the county?
4. Does this indicator measure progress and capacity for change?
5. Is this measure derived from high quality data? If no, do you have suggestions for improvement?
6. What's missing from this picture?

Appendix G: List of Additional Measures to Pursue

The list below highlights additional measures that the research team identified but was unable to pursue due to time constraints. Measures highlighted in this list may help contribute to the understanding of the equity landscape across King County.

Determinant	Indicator	Rationale
Law and Justice	Geographic area of origin of youth filings	This can potentially provide helpful information on where youth who become involved in the Juvenile Justice System originate and therefore may prompt targeted youth interventions in specific geographies across the county.
	Public Defender Caseloads	May provide insight into the level of attention public defenders are able to provide to clients.
	Number of first time offenders who receive mandatory minimum sentence by race/ethnicity	May serve as a check-point for understanding equity in sentencing.
Education	Teacher Diversity	There is quite a bit of data collection in the area of matching teacher demographics with that of the student demographics. This type of measure may provide insights into whether culturally appropriate education is being provided.
	Student Teacher Ratio	Ratio of average number of students per certified teacher is currently collected by OSPI Static Data Files Staff Profiles on an annual basis.
Health & Human Services	Healthcare Effectiveness Data and Information Set (HEDIS)	This collection of measure is a national standard and required for health plan accreditation. This indicator may be helpful in measuring high quality healthcare.
	Prevention Quality Indicators	A set of indicators that looks at hospitalizations that are potentially preventable with good outpatient/preventative care. May be another measure for access to care.