Who Moved and Where Did They Go?
An analysis of residential moving patterns in King County, WA between 2002–2017

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About the Authors

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The **Public Health – Seattle & King County Assessment, Policy Development and Evaluation Unit**'s primary work is assessment and evaluation of population-based

data and interventions, integrating qualitative analysis, and policy development. They are a multidisciplinary group of epidemiologists, social research scientists, and policy specialists. They collaborate with community and other Public Health – Seattle & King County divisions, using and developing state-of-the-art techniques for data collection and analysis. The unit's goal is to provide leadership and technical assistance for population-level health assessment, data-driven program planning, program evaluation, and policy.

Acknowledgments

Suggested Citation

Contents

Executive Summary

- From 2002-2017, moderate and middle socioeconomic status (SES) King County residents exhibited greater rates of moving compared to the lowest and highest SES residents. Geographically, movement rates were highest in East King County and North Seattle. High-SES residents were the least likely to move during all years.

- The percentage of King County residents in the high-SES group increased by 8.9 percentage points between 2002 and 2017, while the percentages of middle-, moderate- and lower-SES residents decreased (by 3.3, 3.2, and 2.4 percentage points, respectively).

- Neighborhoods in Seattle and East King County have seen the biggest percentage increases in high-SES residents from 2002 to 2017.

- Low-SES residents in all regions were the most likely to move out of the Puget Sound area. High-SES residents were most likely to move within their neighborhood.

Introduction

Context

A healthy and sustainable regional economy allows for residents across the income spectrum to live in good-quality neighborhoods that enable economic opportunity. Counties with less concentrated poverty, less income inequality, better schools, and lower crime rates tend to enable better outcomes for children in low-income families; these phenomena are associated with residential stability (Chetty and Hendren 2018). Residential stability, or the ability of individuals and families to stay in one neighborhood long-term if they choose to do so, has implications not just for the wellbeing of the individual, but also the community. Residential stability can reinforce family, educational, and neighborhood stability (Evans 2004). High levels of residential instability have been linked to social and health disparities (Jelleyman and Spencer 2008; Sharkey and Sampson 2010), including lack of access to healthcare (Kirby and Kaneda 2006), higher crime rates (Sampson, Raudenbush, and Earls 1997), and poor mental health (Ross, Reynolds, and Geis 2000). Low-income Americans disproportionately experience residential instability. Between 2005 and 2010, half of all United States (US) households below the poverty line moved at least once (Ihrke and Faber 2012; Phinney 2013) and low-income children are almost twice as likely to experience acute residential instability than their wealthier counterparts, moving more than six times before adulthood (Wood et al. 1993).

Residential instability in low-income communities is partly driven by the growing lack of affordable housing across the US. Many low-income residents of the Seattle metro area, including King County, have struggled with housing affordability brought on by rising housing costs, insufficient wages, and other structural factors. These constraints have likely been further exacerbated by the COVID-19 pandemic (PHSKC, 2020). Pre-pandemic roughly a third of King County households paid more than 30% of their household income for housing.[1]

Community accounts have indicated growing displacement and neighborhood change may be disproportionately affecting low-income residents in the region, but

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[1] Retrieved (date) from Public Health – Seattle & King County, Community Health Indicators.

quantitative analyses of moving trends are lacking. Understanding moves prior to the COVID-19 pandemic and through the course of the last recession enables greater understanding of areas and populations vulnerable to additional financial stressors in the face of the recession caused by the COVID-19 pandemic. Rising housing costs, lack of a living wage, and frequent moves contribute to low-income residents being stuck in a cycle of poverty; exposure to poor neighborhoods, regardless of individual and family background, can diminish economic outcomes and social development (Ellen and Turner 1997; Brooks-Gunn, Duncan and Aber 1997; Sampson, Morenoff, and Gannon-Rowley 2002).

Implications of Frequent Moves

Those who are forced to move may face difficulty affording basic needs and dealing with the educational challenges that arise when children switch schools. Movers may also encounter longer and costlier commutes, as well as disruptions to social networks and access to cultural resources. In this way, residential instability impacts not just social relationships (Sampson and Groves 1989; Sampson et al. 1997), but access to opportunities based on a social/communal network.

Due to well-documented historical policies and practices that discriminated on the basis of race and ethnicity in the US, socioeconomic status and race/ethnicity are deeply linked, meaning that people of color are more likely to belong to a low-income household and to experience residential instability and the associated harms (Mattiuzzi 2022). This reinforces patterns of segregation in urban areas (Sampson 2008) and has negative implications for future economic prosperity in communities of color. Residential segregation also impacts mental and physical health through the limitation of access to care, healthy food options, and social capital, among other things (Crowder and Krysan 2017).

As more people are 'priced out' of their neighborhoods, fewer affordable options may push low- and moderate-SES residents to neighborhoods with fewer opportunities and resources and/or to outer areas of the region or from the Pacific Northwest altogether. Promoting residential stability by building affordable, sustainable, and vibrant communities has wide-ranging potential for the success and wellbeing of King County residents.

Report Roadmap and Research Questions

This report describes residential moves by King County residents within the three-county Seattle metropolitan region in the Puget Sound from 2002 through 2017. Data from large individual-level data sets were analyzed for trends over 15 years to see how people in King County, Washington moved within the region, and compare trends by SES level and neighborhood/geography. Short moves and long-distance moves were examined within King County and to neighboring Snohomish County to the north and Pierce County to the south. Analyses presented in this report offer insight into four questions about residential moves by King County residents:

1. **Who is moving in King County?** We sought to assess whether SES was associated with frequency of moving, whether people at different SES levels move more often during economic boom or bust years, and whether different parts of King County are becoming more economically segregated as a result of these moves.

2. **How have these moves changed the profile of who lives in King County?** Is King County becoming a region of greater SES inequality where fewer middle-SES people live? Does economic segregation vary by the four subregions within King County—the City of Seattle, North King County, the Eastside, and South King County?

3. **Where are people moving to?** How far away do people move? When people move, do they stay in King County, move to a neighboring county, or leave the Seattle metro area? Are these patterns the same for different SES groups?

4. When people move within King County, how does the neighborhood they left compare to their new neighborhood on socioeconomic measures? Does this differ by SES?

The analyses add to findings from analyses in other major cities showing that housing unaffordability has created residential instability, that low- and high-SES residents move less than moderate- and middle-SES residents, and low-SES residents are more

likely to move out of the neighborhood (in this case, out of the county) than other groups (Hwang and Shrimali 2021; Ding et al. 2016).

Data Sources

This report uses data from the Federal Reserve Bank of New York Consumer Credit Panel (CCP) and from the American Community Survey (ACS).

Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data: This analysis uses quarterly information on a 5% sample of adult consumers from January 2002 to December 2017, with census block group-level information on where individuals live, as well as their age, loans, mortgages, financial issues (e.g., delinquencies, bankruptcy, foreclosure), and Equifax Risk Scores (credit scores that indicate financial stability). These data are used to analyze individuals' financial health and moving patterns over time. The data is comprised of adult consumers with at least one credit account or collection/public record (such as bankruptcy or foreclosure), as well as those with closed or authorized user accounts. Nearly half of adults who do not have credit scores are represented in the data because they do have credit history, however those without any credit score or credit history are not included in the analysis, so low-SES residents are likely underrepresented.

The following analyses include residents ages 25 to 84 years old. Data from 2004 and are not included because geographic data were inconsistent due to changes in the geocoding procedures by the data vendor. Data points for 2004 are shown as an average of 2003 and 2005. Residents younger than 25 are underrepresented in the data and can have inaccurate address reporting due to moving for reasons related to higher education during this period. Residents older than 84 years old are overrepresented in the data, likely due to a lag in registered deaths in the data.

U.S. Census and American Community Survey (ACS): These publicly available datasets provide information for several variables to characterize neighborhoods people are moving to and from, including health (life expectancy), socioeconomic (poverty), and housing (home value) indicators.[2]

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[2] Census Bureau, "Glossary," Block Group, May 10, 2021.

Key Definitions and Measures

Socioeconomic Status (SES) Levels: Individual-level measures of SES are defined using Equifax Risk Scores, a credit score that ostensibly reflects the likelihood that an individual will pay their debts without defaulting. These scores are a proxy of financial stability and reflect a distinct dimension of SES from other measures, such as income or wealth, and are particularly relevant to the housing market, where landlords often use credit scores to screen tenants and lenders use credit scores to distribute mortgage products and make lending decisions. We define the SES categories in the following way by their Equifax Risk Scores, which range from 280 to 850[3]:

- **Low-SES:** < 580 or no Score (too few accounts or new credit)
- Moderate-SES: 580-649
- Middle-SES: 650-749
- **High-SES**: 750 or higher

[3] These cutoffs are based on common credit underwriting thresholds for mortgage products. Separate analysis of the distribution of residents in the San Francisco Bay Area by these SES categories are similar to the distribution of adult residents in the following income categories, respectively: < 50% of the US median household income; between 50%-100% US median household income; between 100-200% of the US median household income; and 200% of the median household income. These categories are not directly comparable to the U.S. Department of Housing and Urban Development (HUD) Area Median Income (AMI) categorizations, which are based on metropolitan area, family size, and income. The Changing Cities Research Lab's analysis of population distributions using data from the Comprehensive Housing Affordability Strategy (CHAS) for the City of Oakland show that the SES categories are similar to the following HUD AMI categories, respectively: <30% AMI ("extremely low", as labeled by the States of California and Washington), between 30% and 50% AMI ("very low"), between 50% and 100% AMI ("low" and "moderate"), and above 100% AMI ("high"). Seattle and Oakland have similar AMI profiles: Oakland's 2019 30% AMI was $26,040, while Seattle's was $24,300.

Housing Periods: The results are separated by four economic **housing periods** based on market trends from the Standard & Poor Case-Schiller Home Price Indices for WA-Seattle[4] (years represent the initial year of each annual sample of the CCP data):

- **Boom:** 2002-2006
- **Bust**: 2007-2011
- Recovery: 2012-2015
- Post-Recovery: 2016-2017

Health Reporting Areas: Results are reported by cities and neighborhoods in King County using Public Health – Seattle & King County-defined "Health Reporting Areas." These 48 areas were designed in collaboration between Public Health – Seattle & King County, local jurisdictions, and community groups in 2011 to facilitate reporting of health metrics and other related data. Where possible, Health Reporting Areas match local definitions of neighborhoods within large cities, political boundaries of smaller cities, and locally understood places within unincorporated areas of King County. For confidentiality and data reliability, some smaller reporting areas were combined.[5] A map of Health Reporting Areas is in Attachment B.

Regions: Results are also reported by larger geographic areas—the four subregions within King County. These are North King County, South King County, the City of Seattle, and the Eastside of the county (also called East King County below). These regions are defined either by combined postal ZIP codes or by city-based Health Reporting Areas. The North Region includes the areas of Bothell, Cottage Lake, Kenmore, Lake Forest Park, Shoreline, and Woodinville. South King County region contains Auburn, Burien, Covington, Des Moines, Enumclaw, Federal Way, Kent, Maple Valley, Normandy Park, Renton, Tukwila, SeaTac, White Center/Boulevard Park, and Vashon Island. The Eastside Region includes Bellevue, Carnation, Duvall, Issaquah, Kirkland, Medina, Mercer Island, Newcastle, North Bend, Redmond, Sammamish, and Skykomish.[6]

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[4] Federal Reserve Bank of St. Louis, FRED S&P/Case-Shiller WA-Seattle Home Price Index.
[5] Public Health – Seattle & King County, "Health Reporting Areas," May 10, 2021.
[6] Public Health – Seattle & King County, "Region," May 10, 2021.

Who is Moving in the King County Area?

### Who Moves by Socio-economic Status?

First, we looked at how SES relates to how often people in King County move. Figure 1 shows the number of residents who move out of their block group as a fraction of all residents in that block group over time. Figures also show the percentage of people throughout the U.S. who moved out of their block group as a black dashed line comparison.[7]

Figure 1 shows that King County residents in the high- and low-SES groups generally moved less than residents in the middle and moderate groups over the 15-year period and high-SES residents usually moved less often than the overall national average. Rates of movement in the moderate- and middle-SES groups were consistently 5-10 percentage points higher than the other two groups as each SES group's moving rate has remained steady over the last 15 years, except for occasional blips like 2006. By contrast, movement in the high and low groups, as well as the national average, appear to be declining slowly over time. Indeed, nationally, proportions of families living in low- or high-income neighborhoods have doubled, while corresponding proportions in middle-income neighborhoods have declined, suggesting that low-SES groups maybe be stuck in areas of concentrated disadvantage regardless of their preferences, while high-SES groups have enough resources to stay in place (Bischoff and Reardon, 2013; Crowder and Krysan 2017).

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[7] US Census Bureau, CPS Historical Migration/Geographic Mobility Tables. Accessed September 24, 2021.

Figure 1. Moderate SES King County residents were the most likely to move every year compared to the lowest- and highest-SES residents.

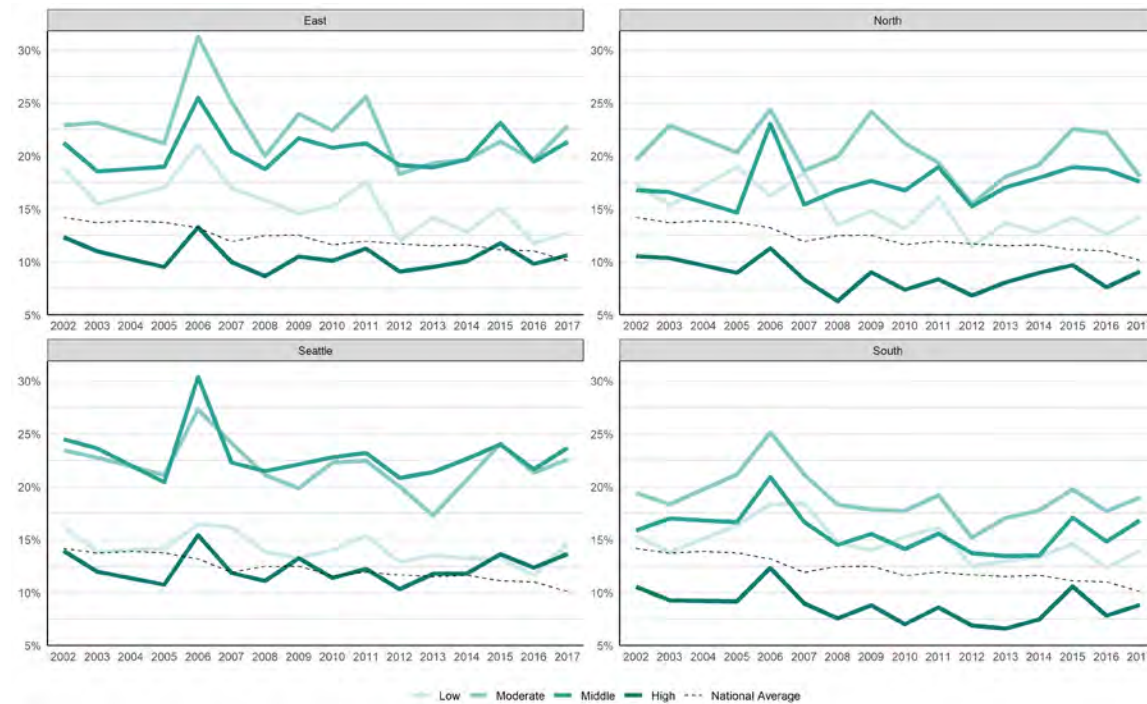*Percent of King County residents who move from their block group, 2002–2017*
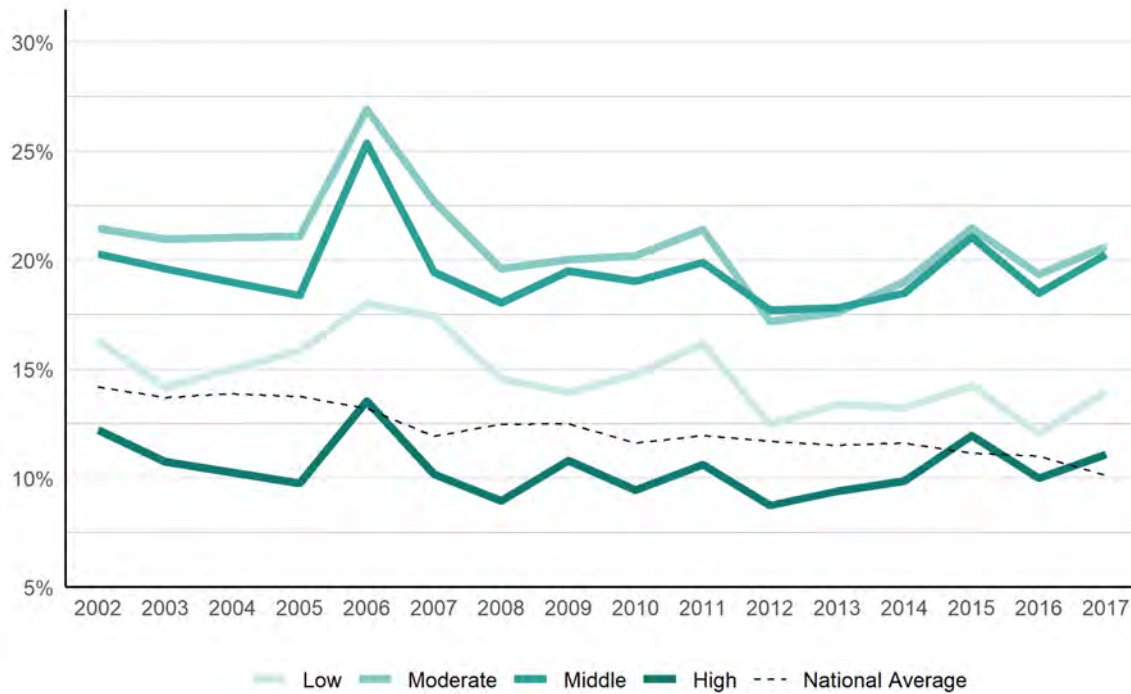
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Who Moves by SES Status and by Region of King County?

Figure 2. Moderate-SES residents were the most likely to move if they lived in East King County during and in the two years before the 2008 recession.

Percent of King County residents by region who move from their block group, 2002–2017

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 2 shows that different regions of the county experienced different rates of moving, with the East King County and Seattle having higher moving rates relative to North and South King County. East King County and Seattle also demonstrate a similar movement pattern to each other (and the overall County picture) where the middle and moderate groups are distinctly higher than the low and high SES groups. By contrast, the low-SES group in North, and especially South, King County seems more like the middle and moderate SES groups. In East King County, movement among the low-SES group has steadily dropped while in the other three regions, this group has

experienced relatively steady movement rates. In all four regions, only the highest SES residents moved less often than the national average in most years.

The maps in Figures 3 and 4 show the number of residents who move out of their block group, as a fraction of all residents over time (2002-2017) by SES. Figure 3 shows the overall percentage of those who moved, and Figure 4 shows the rate of moving by SES as well as by period.

Figure 3. Moderate- and middle-SES residents were the most likely to move, especially if they lived in East King County or in North Seattle.

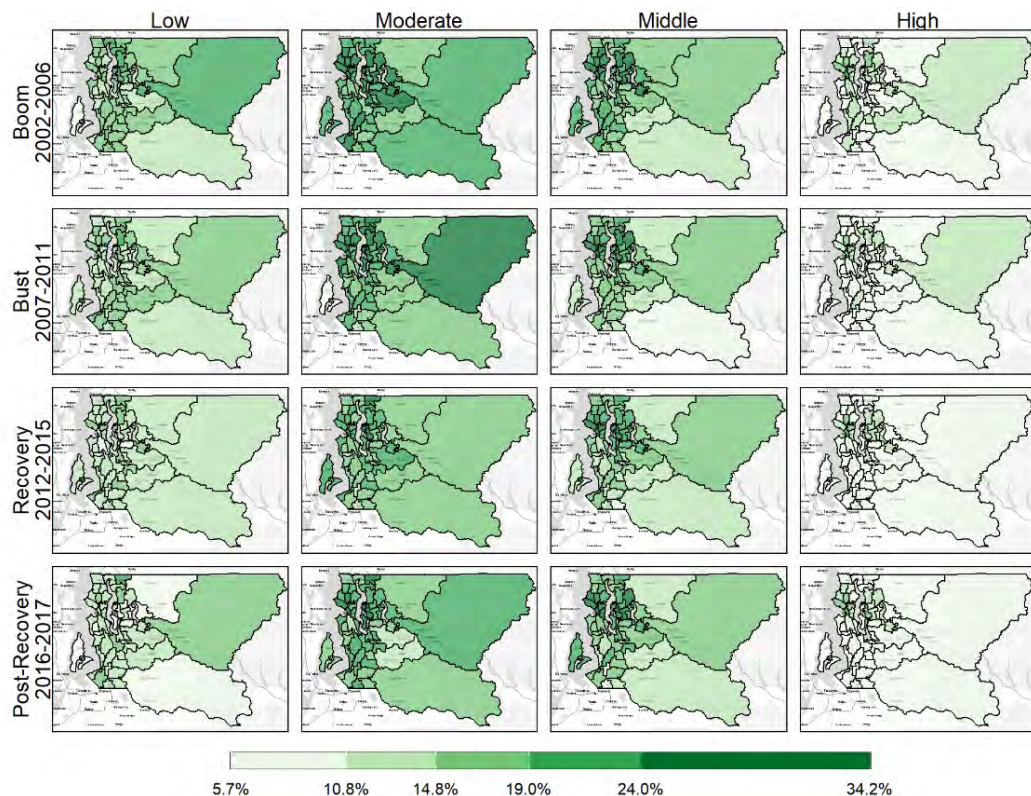*Percent of King County residents who move from their block group by SES, 2002-2017*
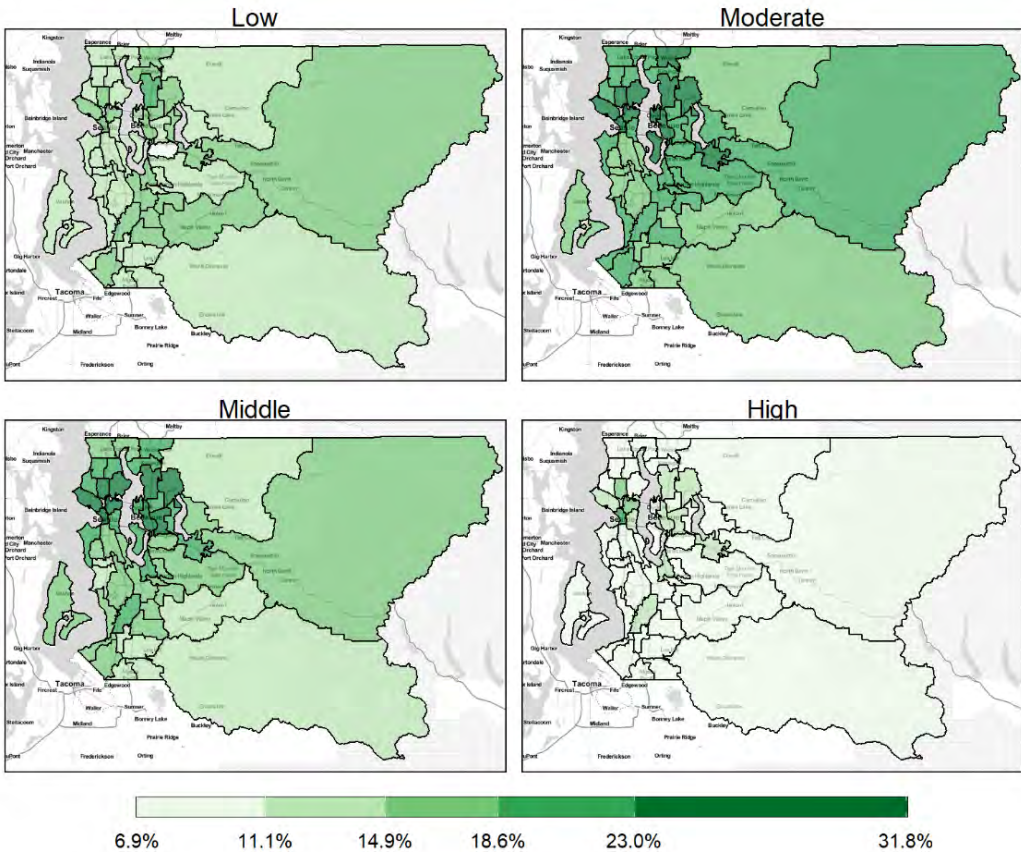
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 3 shows that from 2002 to 2017, between 11.1% and 18.6% of low-SES residents moved each year and there is relatively little geographic variation (based on origin). For moderate- and middle-SES residents though, those who lived in the wealthier neighborhoods in East King County and in North Seattle were substantially more likely to move than those who lived in South King County. High-SES residents living in downtown Seattle were the most likely to move although overall high-SES residents moved much less often than lower SES ones. In most locations, only 6.9% to 11.1% of high-SES residents moved.

Figure 4. Moderate-SES residents living in high housing cost locations were the most likely to move before and during the 2008 recession, while high-SES residents were the least likely to move during all years.

Percent of King County residents who move from their block group by SES, 2002–2017

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 4 provides more detail about how many people of different income levels moved in different parts of the county over time. The most likely to move in all periods were moderate- and middle-SES residents and they moved the most just before and after the 2008 recession. In general, the areas with highest percent of movers—notably the northern half of Seattle and Eastside (e.g., Bellevue, Mercer Island, Kirkland)—are also places with the highest housing costs in King County (United States Census Bureau, 2022; Appendix C, Figures 16 and 17).

Who is Left After All These Moves?

Figure 5 shows a composition breakdown of SES categories in King County from 2002-2017. For example, in 2002, 16.1% of King County residents were low SES and in 2017, only 13.7% were. By contrast, the percentage of high-SES residents rose from 43.6% in 2002 to 52.5% in 2017. Although the main contributing factor of this SES shift is difficult to ascertain, anecdotal evidence suggests that is likely a combination of lower-SES people moving out of the county combined with in-migration from relatively high-SES people.

Figure 5. The percentage of King County residents who are high-SES rose from 2002 to 2017.

Composition of SES categories in King County, 2002–2017
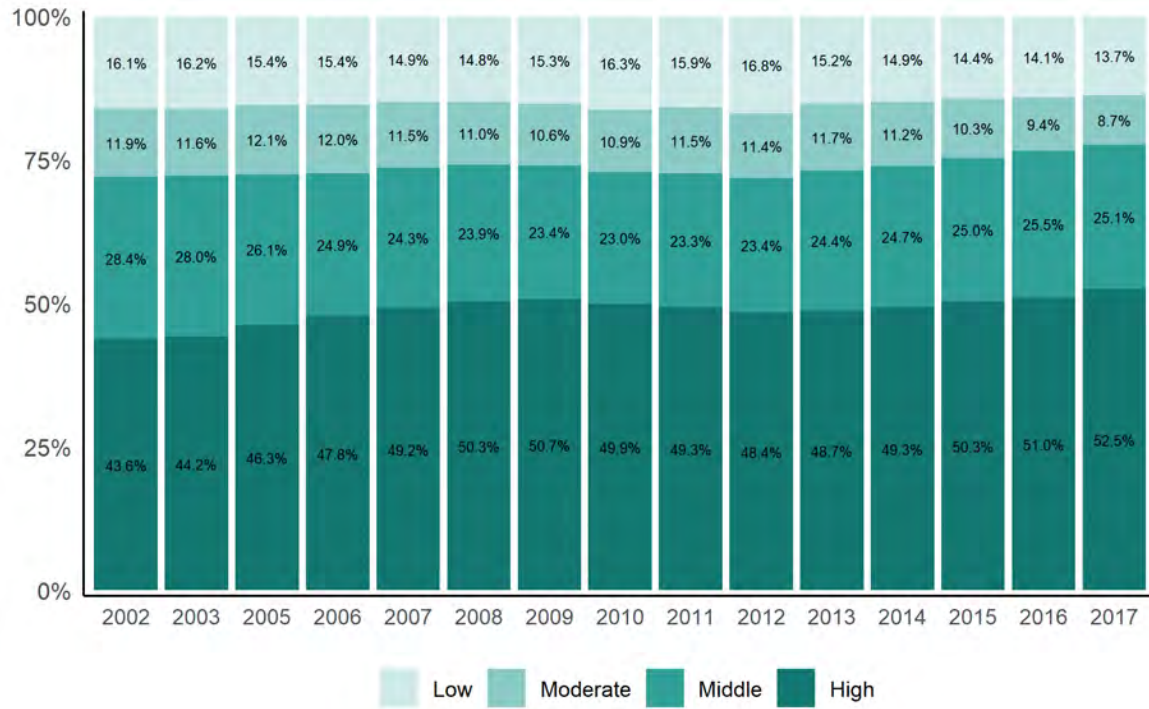
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Table 1 summarizes the changes over time, and we can see that there are 3.3 percentage points fewer middle-SES residents, 3.2 percentage points fewer moderate SES and 2.4 percentage points fewer low-SES residents in the county in 2017 compared to 2002. By 2017, the percentage of residents who were high SES rose by almost nine percentage points, from less than half of all residents to more than half.

Table 1. The percentage of high-SES residents rose by 8.9 percentage points and the percentages of lower-SES residents fell, 2002 to 2017.

Percentage change in SES categories in King County, 2002 to 2017

| Income Level	2002	2017	Difference
Low	16.1%	13.7%	-2.4%
Moderate	11.9%	8.7%	-3.2%
Middle	28.4%	25.1%	-3-3%
High	43.6%	52.5%	8.9%

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 6 shows the same composition breakdown by the four regions of the county. Figure 6 shows, for example, that in 2002, 52.4% of Eastside residents were high SES, compared 37.2% of South King County residents. By 2017, 63.5% of Eastside residents were high SES and 41% of South King County residents were.

Figure 6. The Eastside has the largest percentage of high-SES and the lowest percentages of low- and moderate-SES residents and South King County is home to the largest percentages of low-, moderate- and middle-SES residents.

Composition of SES categories in King County by region, 2002-2017
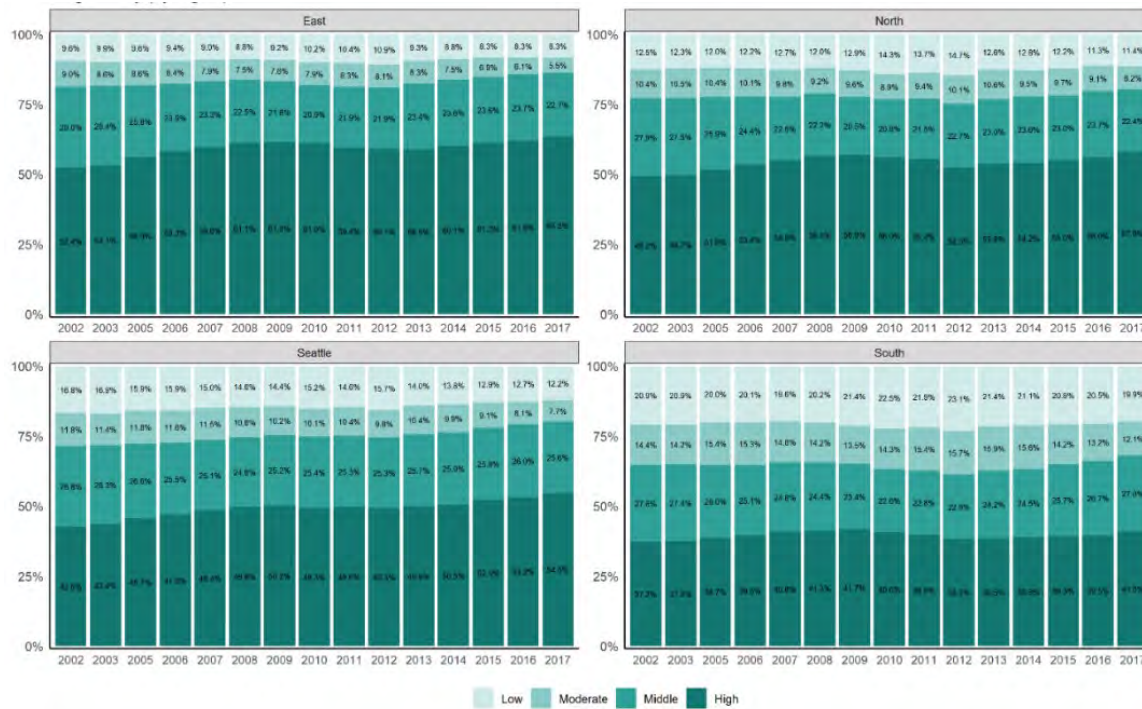
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 6 shows a stable pattern over time, with the Eastside having the largest percentage of residents who are high SES and the lowest percentage who are low SES. Conversely, South King County has the largest percentages of low- and moderate-SES residents and the lowest percentage of high-SES residents. From 2012 to 2017, the percentage of residents who have high SES rose in all four regions. From 2013 to 2017, the percentages of residents with low- and moderate-SES fell in all four regions. The next set of figures looks at where the growth and declines in the percentage of residents who are high SES have been the most notable.

What Areas Have Seen the Biggest Changes in Where High-SES Residents Live?

Figure 7 shows maps of how the share of high-SES residents has changed in King County. Figure 7 shows the change in percentage points between 2002 and 2017 (i.e., the percentage of high-SES in 2017 minus the percentage of high-SES in 2002). For example, the share of high-SES residents on Vashon Island increased by 9-13 percentage points between 2002 and 2017.

Figure 7. The biggest percentage increases in high-SES residents were in Seattle neighborhoods and those in East King County.

Change in percentage of high-SES King County residents, 2002-2017
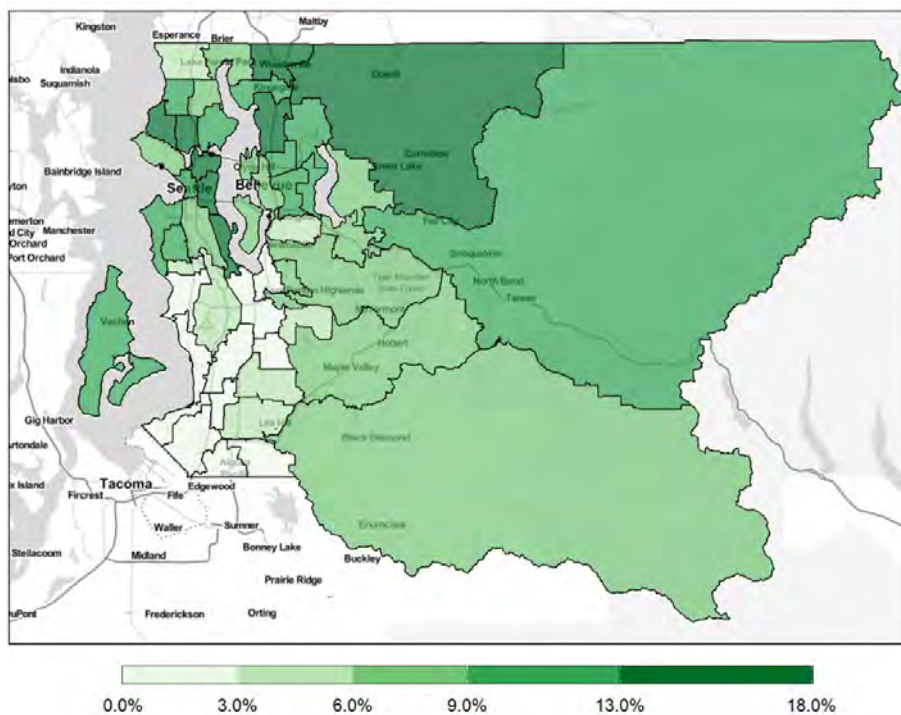
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 7 shows that certain North and Central Seattle neighborhoods (Ballard, Wallingford/Fremont, Madrona, Central District and Rainier Valley) along with

Eastside locations (North Bellevue, Kirkland and the Duvall/Carnation area) have had 13 to 18 percentage point increases in the high SES component of their populations. All geographic areas had increases in the percentage of residents who are high SES from 2002 to 2017.

Figure 8 shows similar maps for shorter time periods, and we can see again that the pre-2008 recession years had the biggest changes.

Figure 8. Most parts of King County had increases in the percentages of residents with high SES in the early 2000s and most saw declines from 2007 to 2011. After 2012, many locations saw increases in high-SES residents again.

Change in percentage of high-SES King County residents, 2002-2017
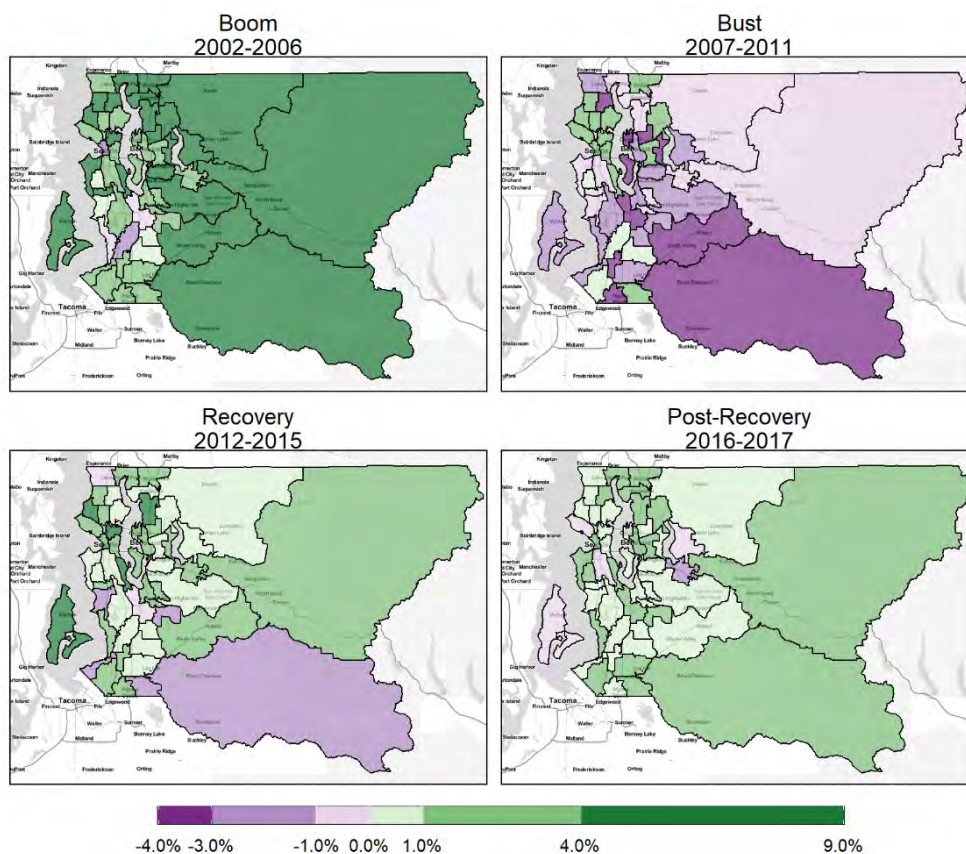
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

The detail in Figure 8 indicates that only during the bust years between 2007 and 2011 did most parts of the county see declines in high SES residents—likely a combination of outmigration and overall depression in credit ratings due to the recession. From 2002 to 2006, most locations saw substantial increases in high SES residents, with the exceptions of parts of Renton, Burien, and Des Moines. From 2007 to 2011, many places saw declines in the percentage of residents with high SES levels, except much of North Seattle, parts of the Eastside and two areas of Federal Way, which saw modest increases.

Where Do People Move To?

The next figure shows how far away people moved and whether this distance varied depending on SES level or where in the county people lived. Figure 9 is a compositional breakdown of where King County residents move to, by region. For example, just over 25% of low-SES movers in East King County move out of the Seattle metro area entirely.

Figure 9. Low-SES residents in all regions were the most likely to move out of the Seattle metro area. High-SES residents were most likely to move within their neighborhood.

Destination of King County movers by SES, 2002-2017
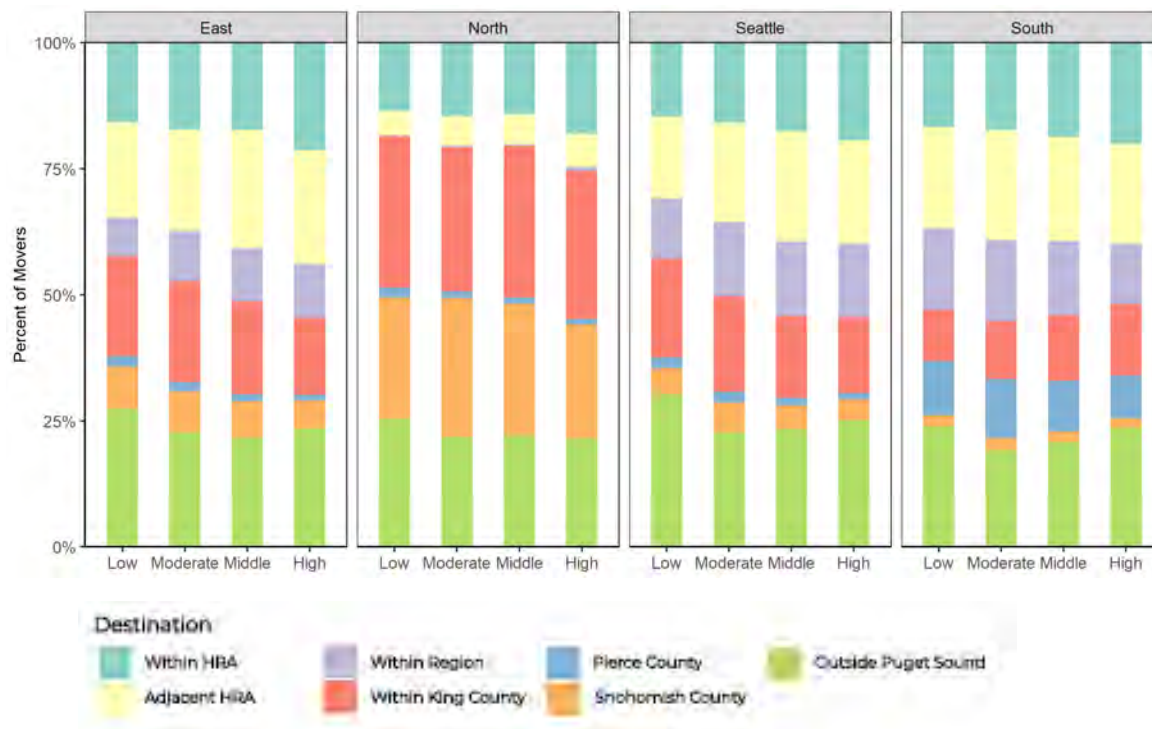
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

Figure 9 shows where those who moved ended up. The charts show four different SES levels within the four regions of the county and the destination of all movers from 2002 through 2017. Compared to movers from other regions, a higher proportion of movers from North King County moved to Snohomish County (orange). Similarly, a higher

proportion of South King County movers ended up in Pierce County (blue). Overall, most moves were to nearby destinations within the original city/neighborhood (HRA), to an adjacent location, or within the original region of the county, with many more moves to another part of King County.

Low-SES movers were the most likely to move out of the Seattle metro area, with low-SES movers from Seattle having the highest rate of moving outside the region at 30%. High SES residents in all regions were the most likely to make nearby moves within their city or neighborhood or to one adjacent (teal and yellow). Other than North King County residents who moved to Snohomish County and South King County residents who moved to Pierce County, there were relatively few moves (less than 10% of moves) to either Snohomish or Pierce Counties.

## What are the Characteristics of Where People at Different SES Levels are Moving?

Figure 10 (and additional figures in Attachment C) reports on the characteristics of neighborhoods that a subset of movers left (origin) and moved to (destination) within King County during a calendar year. The figure shows the difference in life expectancy between the neighborhood where individuals moved to and where they moved from . For example, we see low-SES movers who left Mercer Island/Point Cities moved to neighborhoods with an average of -2.5 years lower neighborhood life expectancy. The greatest gain in average neighborhood life expectancy was among moderate-SES movers leaving Auburn-South who on average moved to a location with a greater than three year higher average life expectancy. Because these characteristics are neighborhood level some regression to the mean is expected—slightly complicating the interpretation of the change. For example, Mercer Island has the highest life expectancy of examined neighborhoods, and as such, people can only move to places with a lower life expectancy. Similarly, Auburn-South has the lowest life expectancy , and therefore movers can only move to locations with a higher life expectancy.

While the direction of the change in neighborhood life expectancy for movers from a given neighborhood is generally consistent regardless of SES, movers at the lower end of the SES spectrum have larger downward changes in average destination life expectancy. For example, movers across the SES range from the neighborhoods in

Bellevue on average moved to neighborhoods with lower life expectancy. However, lower SES movers moved to places with lower average life expectancy than higher SES movers.

Figure 10. Change in Neighborhood Average Life Expectancy by Origin Health Reporting Area for Those who Moved

Change in Average Life Expectancy of Health Reporting Areas between Origin and Destination King County Neighborhood (2002-2017)
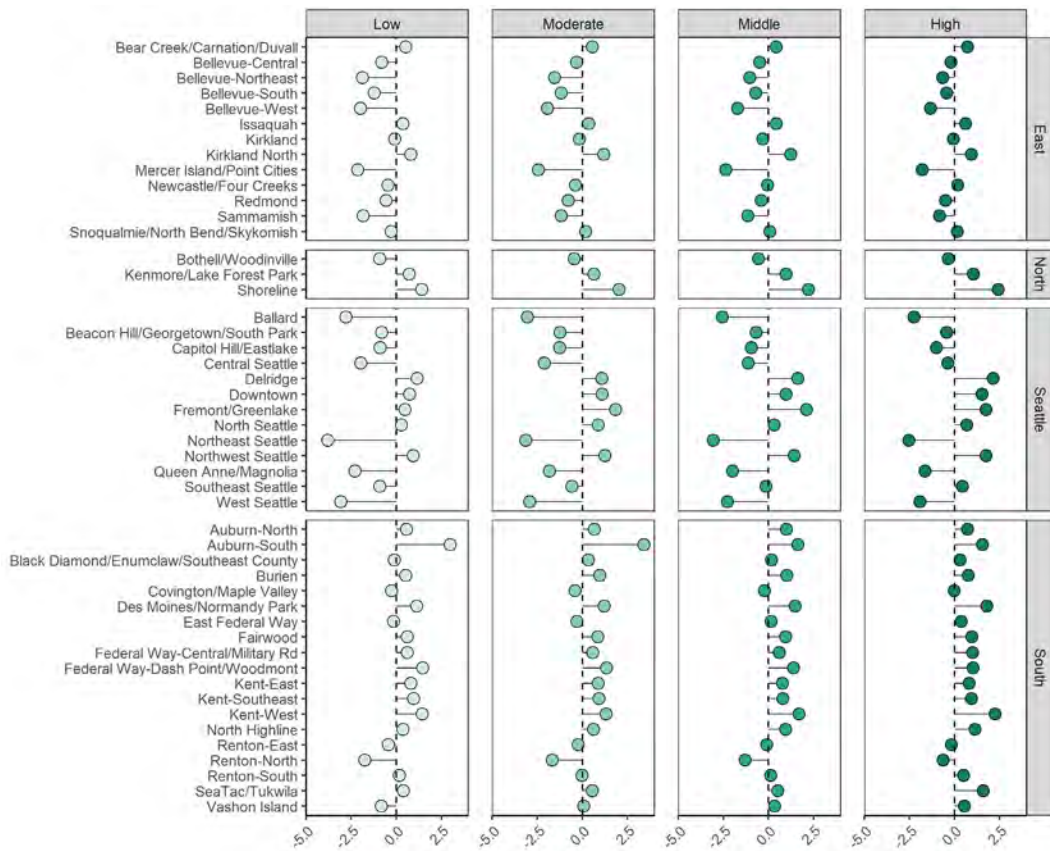
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Additional origin, destination, and change figures for very recent changes from 2016 to 2017 and for life expectancy, median home values and poverty rates can be found in Attachment C.

Summary

This report shows that moderate- and middle-SES people in the King County area are the most frequent movers, particularly during tough economic times (Figure 4). High-SES residents of King County tended to move to destinations with similar characteristics as the ones they left. Higher-SES residents are buffered from the effects of recessions like frequent moves and from challenging neighborhood conditions such as high poverty and lower life expectancies. Low SES residents moved less frequently than moderate- and middle-SES residents, though more frequently than high-SES residents. Further analysis is needed to determine whether neighborhood SES composition changes are due to in-migration, out-migration, and/or changes in credit scores of people who stayed in each neighborhood.

These findings can help policymakers and growth management planners make decisions when developing policies for different SES groups and for different geographic areas of the county. Our study period concludes at the end of 2017 so moves prompted by the pandemic are not taken into account. While recessions affect everyone in the region, this report shows that economic downturns place greater pressures on the day-to-day lives of those who may have incomes just above the eligibility levels that would qualify them for many safety-net supports and services. During economic upheavals associated with recessions or with the pandemic, policymakers may want to be especially attuned to meeting the needs of moderate- and middle-SES residents, as well as with preserving supports and services for low-SES residents to enable them to stay in the region. As parts of the region become increasingly high SES, sustaining support for lower- and middle-SES residents and for those outside of the wealthier areas of the City of Seattle and the East side of the county will help ensure the region remains accessible to all residents.

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Appendix A: Additional Information about the Consumer Credit Panel

Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data (CCP)

The CCP data consist of an anonymized 5% random sample of consumers over 18 years old with Social Security numbers (SSNs) and a credit history, collected quarterly by the credit bureau Equifax. The sample is intended to be a nationally representative sample of consumers in a given quarter. About 1-3% of consumers are dropped and a similar share are added to the panel each quarter to maintain this representativeness. Thus, younger people and new immigrants who become consumers are added and consumers who die, move out of the U.S., or have a prolonged period of inactivity are dropped. The sample includes consumers with at least one credit account or collection/public record (such as bankruptcy or foreclosure), as well as those with closed or authorized user accounts (Lee and van der Klaauw 2010). While 45 million U.S. adults do not have credit scores (Wherry et al. 2019), nearly half of these adults are represented in our data.

The CCP data includes information on individuals' age, credit information including Equifax Risk Scores—a credit score, census block group of address, and payment activity of mortgages and other credit accounts. Similar information is provided for all other adult consumers in the same household, based on their residential address. The CCP data excludes individuals who lack credit or a credit history, which may underrepresent younger individuals, noncitizens or undocumented immigrants, and very low-SES individuals and may overrepresent older individuals and include those who are deceased. Further, our ability to assess mobility among homeless individuals and those who are severely residentially unstable is limited because their residential data is likely misreported.

The Equifax Risk Score is a proprietary credit score that estimates the likelihood that an individual will pay his or her debts without defaulting. A variety of factors that relate to loan performance contribute to credit scores, including previous payment history, outstanding debts, length of credit history, new accounts opened, and types of credit used (Federal Reserve Board 2007; Fair Isaac Corporation 2015), and delinquency, large increases in one's debt, and events of public record (e.g., bankruptcy or foreclosure) often lead to low credit scores (Anderson 2007). The scores range from 280 to 850, with higher scores representing greater financial health and

advantage.[8] Having no score indicates that the consumer has a "thin" file, or too few accounts or new credit such that there is too little information to estimate a score (Brevoort et al. 2016). Because the CCP data contain individuals who have a public record for collection, thin files are disproportionately lower-SES, but younger consumers are also more likely to have thin files (Brevoort et al. 2016). Credit bureaus do not factor income into calculating credit scores, though credit scores correlate highly with income levels; however, credit scores can reflect individuals across the income and wealth distributions (Bostic, Calem, and Wachter 2005; Brevoort, Grimm, and Kambara 2016).

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[8] Transunion and Experian, the other two major credit bureaus, produce scores with similar scoring models but slightly different scales.

Appendix B: Health Reporting Areas Map of King County

Source: Public Health – Seattle &King County Assessment, Policy Development & Evaluation
Colors in the Health Reporting Area map above show city boundaries. For example, the City of Kent, WA is represented by three light green areas—Kent-West, Kent-East and Kent-SE.

Appendix C: Additional Destination, Origin, and Change Charts

Sampling variation in the estimates can introduce error and is higher in the ACS, especially when it comes to reporting dollar values, like home values. While there is no systematic bias in the measures, measures about individual tracts are subject to error, particularly those with smaller populations. More details about the dataset and Equifax Risk Scores are in Appendix A.

Figures 11 and 12 show the average life expectancy of the neighborhood where individuals moved to (the destination) and where they moved from (the origin). For example, Figure 11 shows that low-SES movers who ended up in Mercer Island/Point Cities then lived in a neighborhood that had an average life expectancy of about 85 years, the highest expected destination neighborhood life expectancy among all HRAs. This is likely because most moves are nearby, and Mercer Island has one of the highest average life expectancies in King County. Middle SES movers who moved to Auburn South then lived in a neighborhood with the lowest average life expectancy— around 78 years—also likely explained by the predominance of nearby moves, as Auburn-South has the lowest life expectancy among King County HRAs.

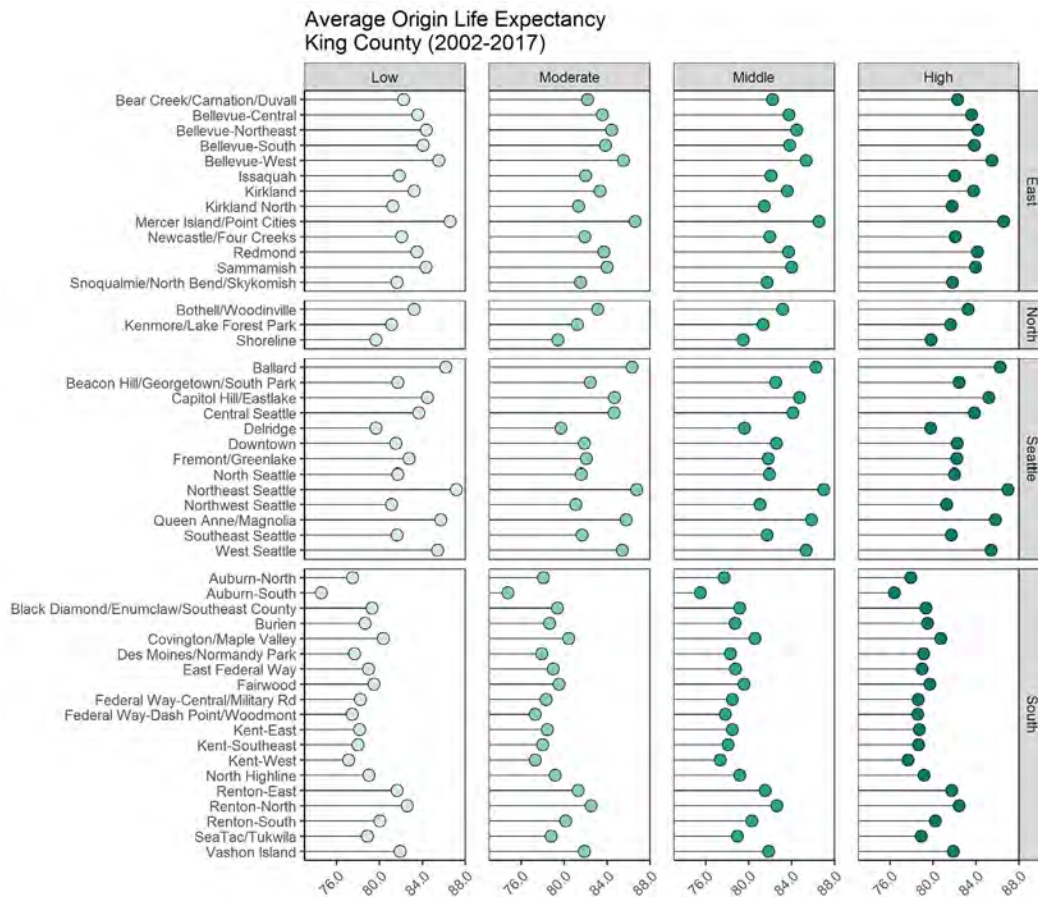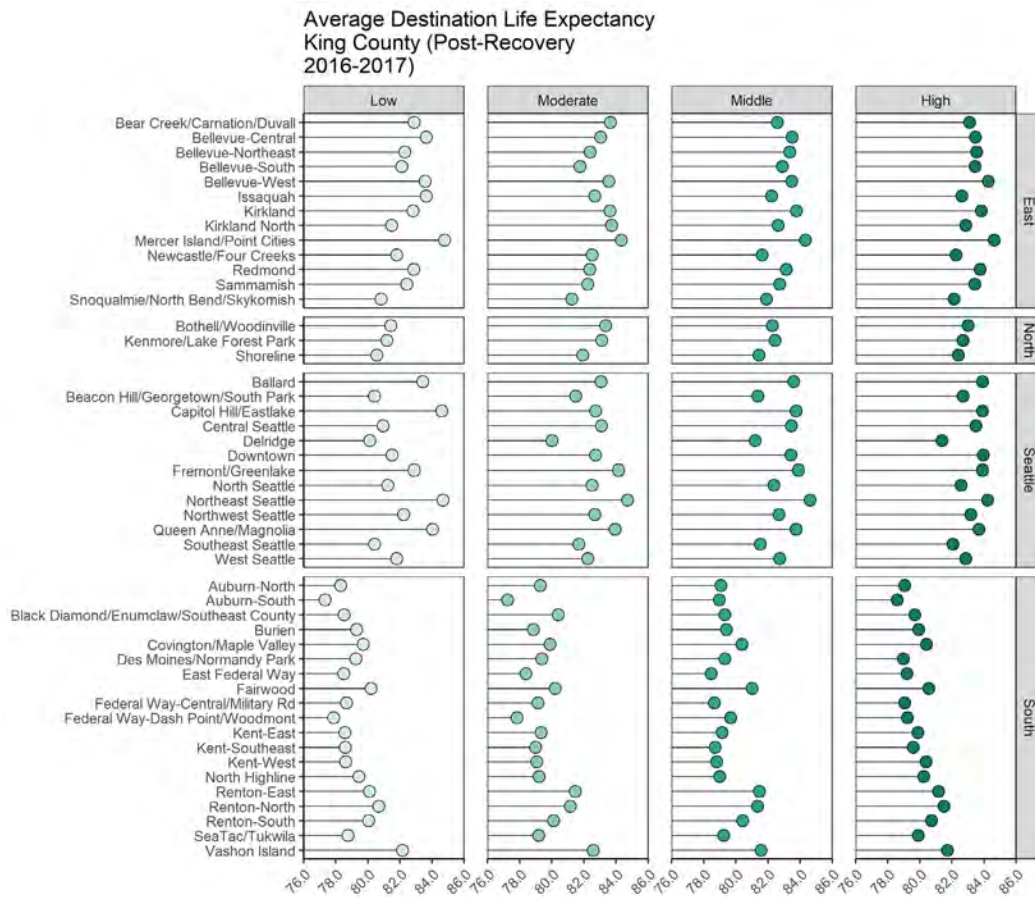## Figure 11. Average Destination Life Expectancy
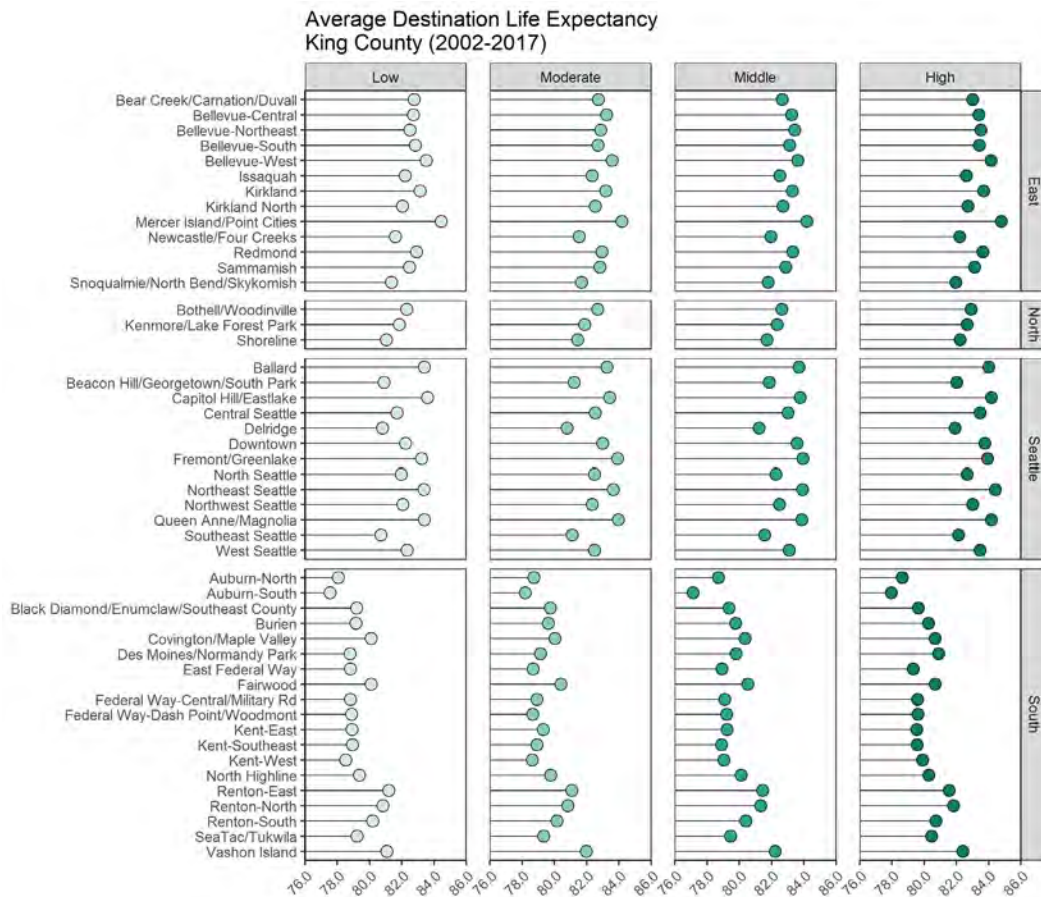
Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+

Figure 12 shows the neighborhood life expectancy where movers start. For example, movers originating in Mercer Island/Point Cities lived in a neighborhood with a life expectancy of almost 88, second only to Northeast Seattle. Again, since many moves are within the same neighborhood or only a short distance away, the movers' destinations and origin neighborhood characteristics are similar to the neighborhood's characteristic. Mercer Island and Northeast Seattle have the two highest life expectancies by neighborhood in the county.[9]

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[9] Public Health – Seattle & King County, "Community Health Indicators," Life Expectancy.

Figure 12. Average Origin Life Expectancy

Average Origin Life Expectancy
King County (2002-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figures 13-15 show destination-origin-change for mean life expectancy for movers from 2016 and 2017. Figures 16-21 show analyses for median home value, in the destination-origin-change order, first for the entire time period, with subsequent figures highlighting the post-recovery period alone. Figures 22-27 follow this pattern for average poverty rate. Each cluster of figures is labeled.

Figure 13. Destination Life Expectancy, Post-Recovery (2016-2017 Only)

Average Destination Life Expectancy King County (Post-Recovery 2016-2017)

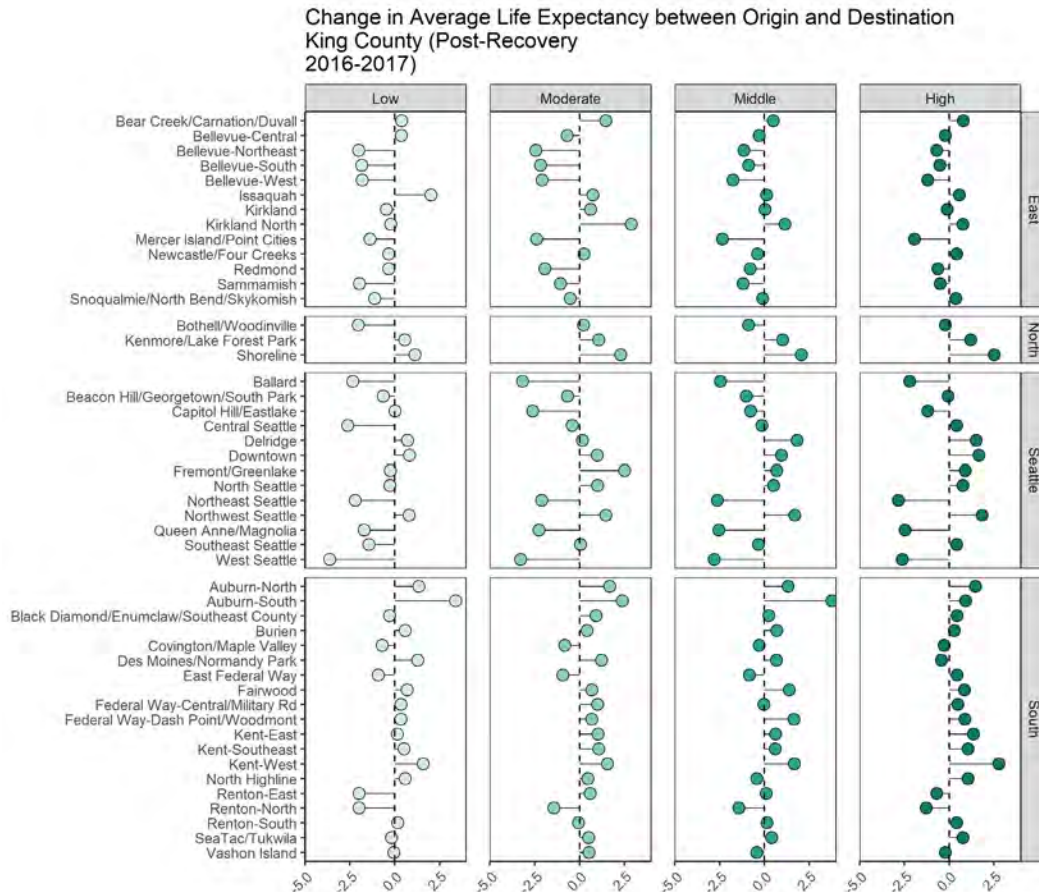*Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.*

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 14 Origin Life Expectancy, Post-Recovery (2016-2017 Only)
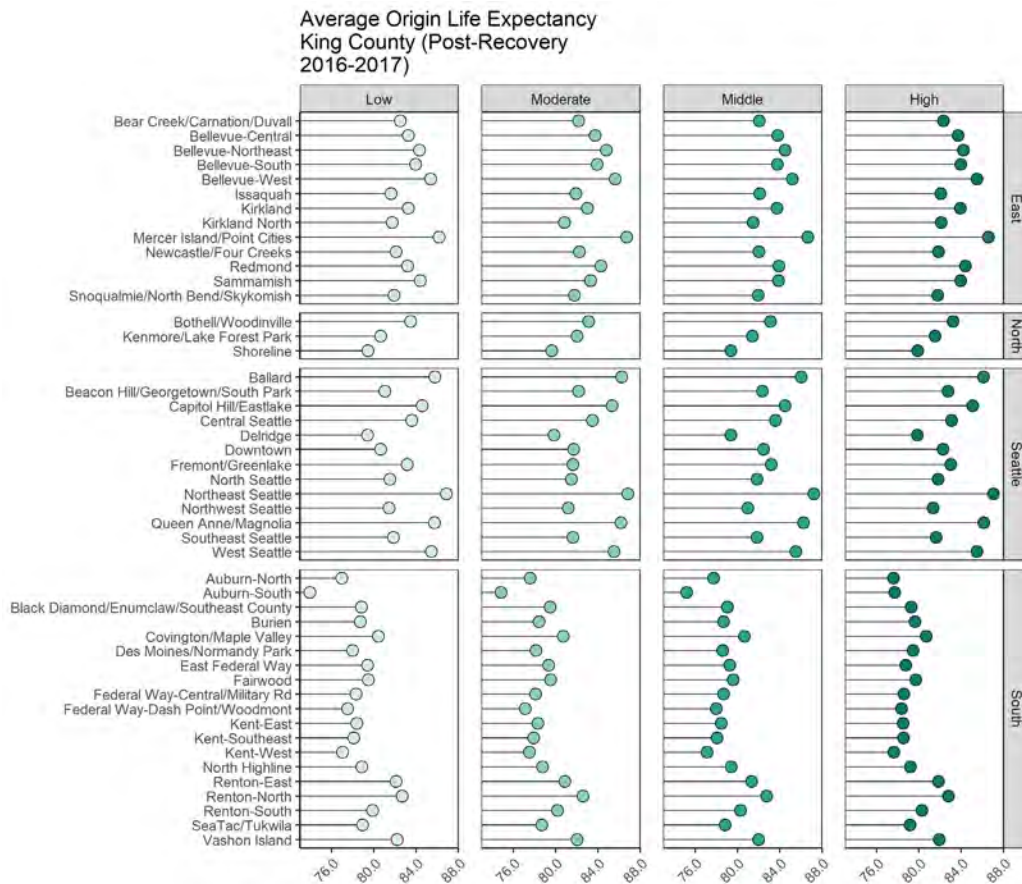
Average Origin Life Expectancy
King County (Post-Recovery 2016-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+

Figure 15. Change in Life Expectancy between Origin and Destination, Post-Recovery (2016-2017 Only)

Change in Average Life Expectancy between Origin and Destination
King County (Post-Recovery
2016-2017)

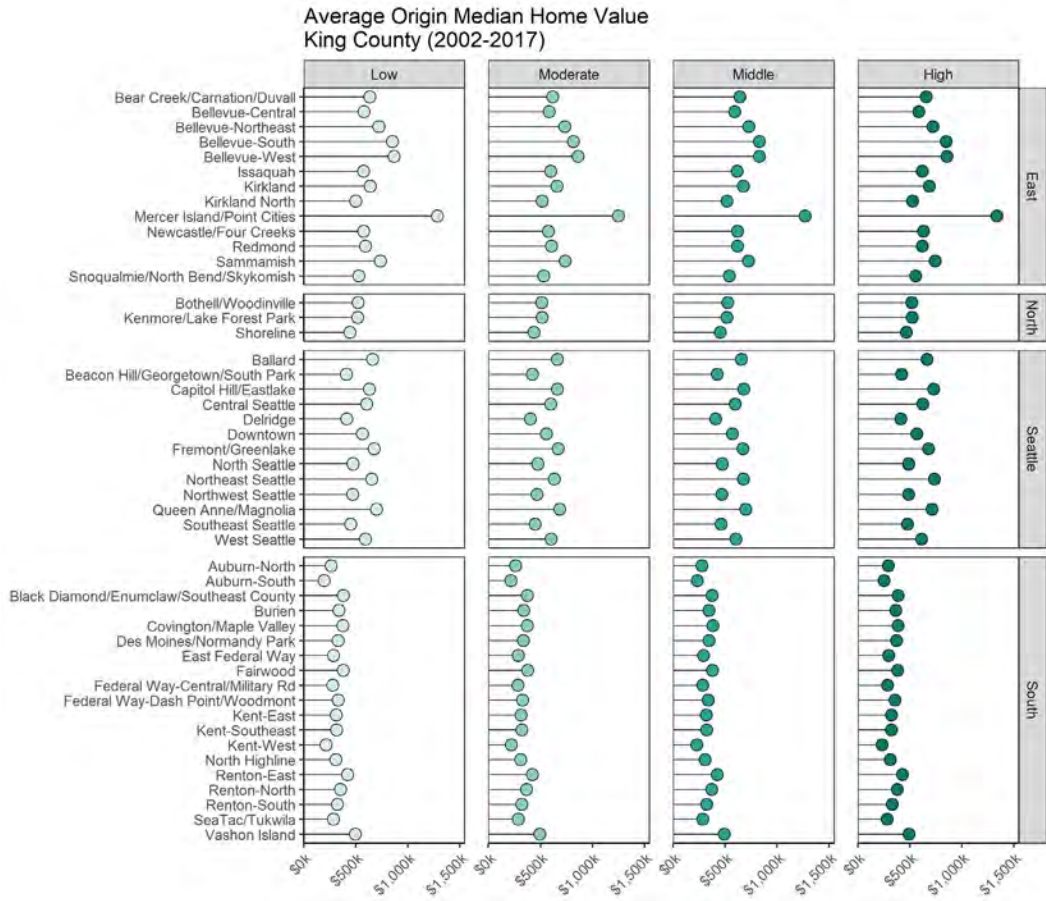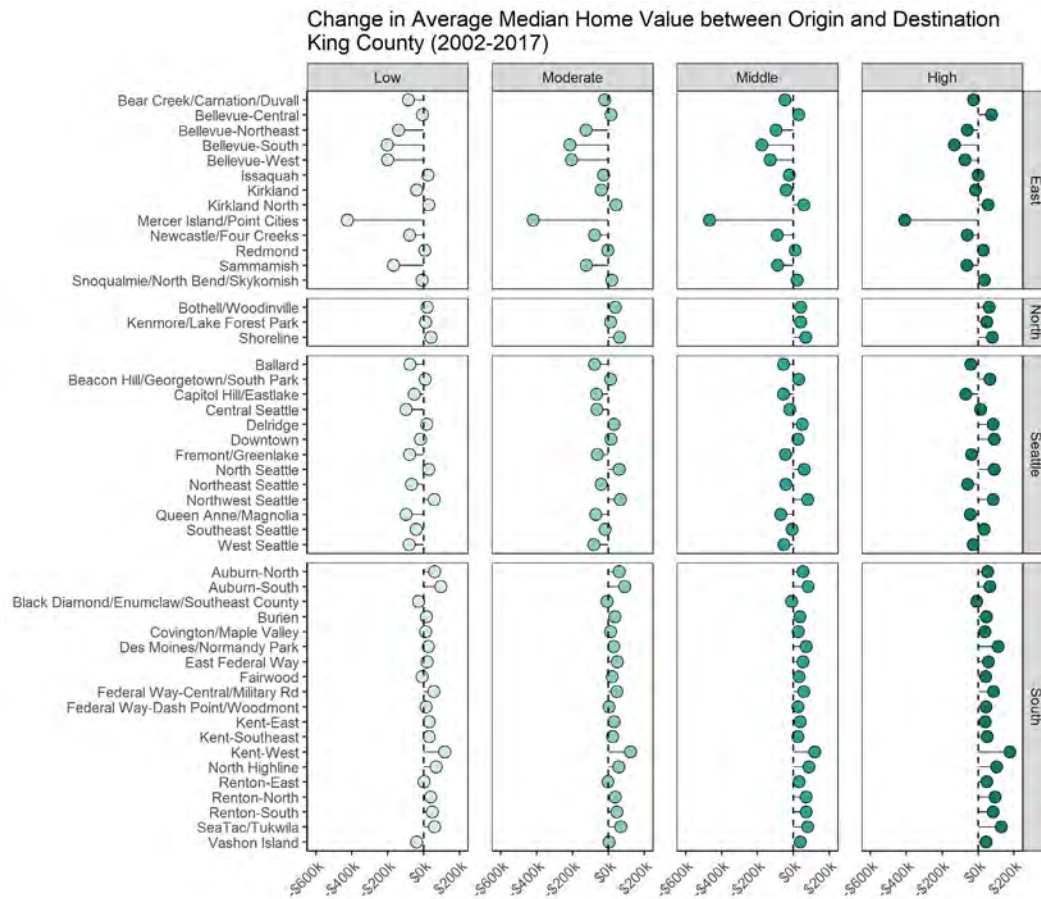*Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.*
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 16 and 17. Median Home Values of Destinations and Origins (2002-2017)
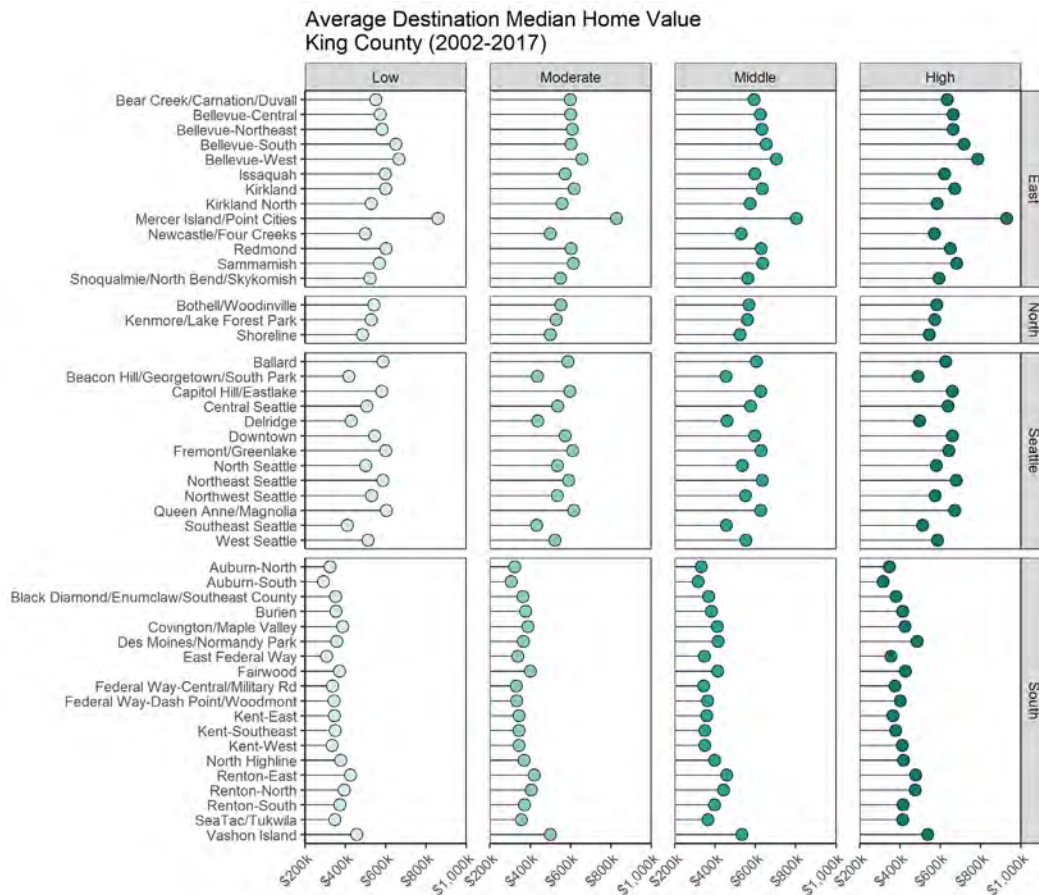
Average Destination Median Home Value
King County (2002-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+
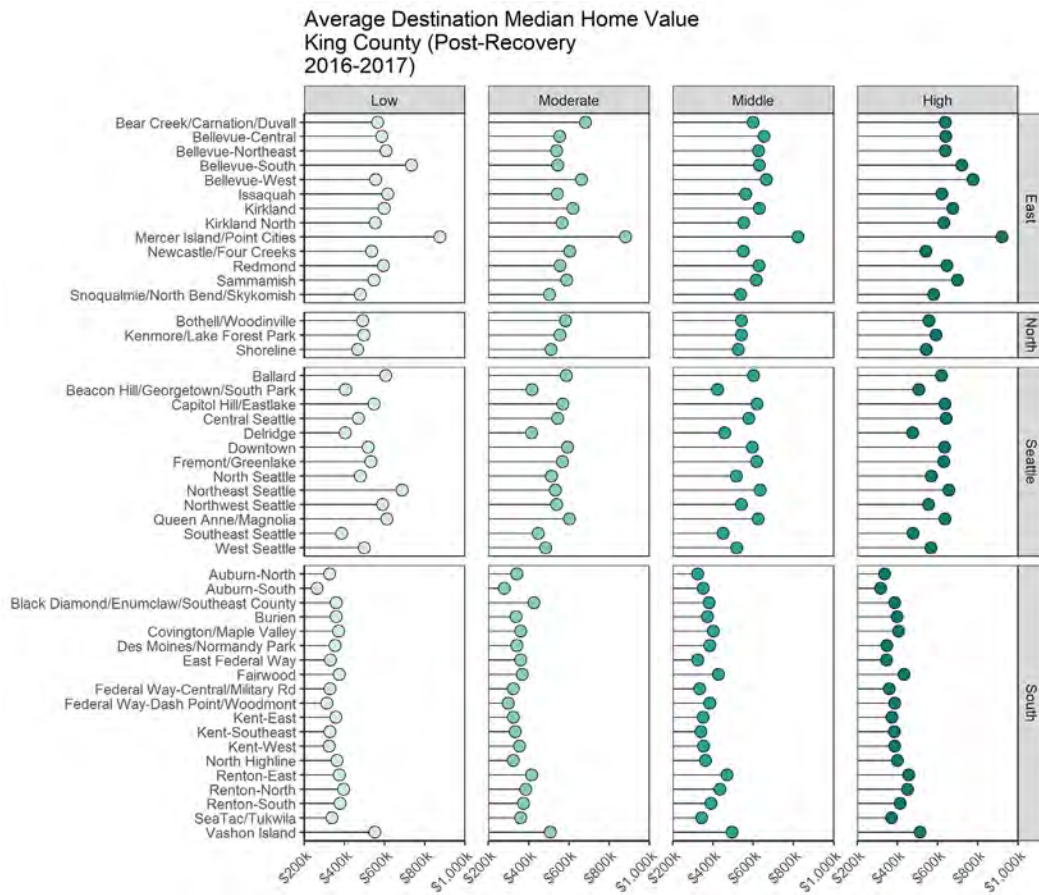
Average Origin Median Home Value
King County (2002-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650–749, High = 750+
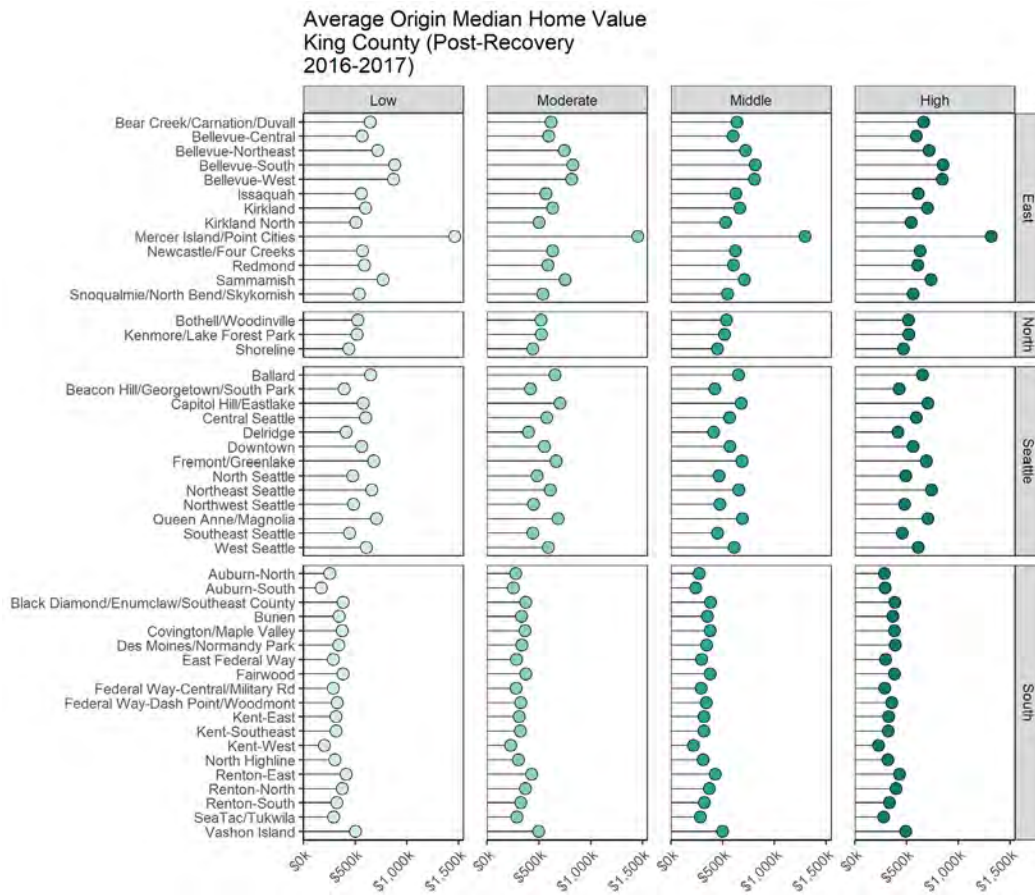
Figure 18. Change in Average Median Home Values (2002-2017)

Change in Average Median Home Value between Origin and Destination King County (2002-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650–749, High = 750+

Figures 19. Destination Median Home Values, Post-Recovery (2016-2017 Only)

Average Destination Median Home Value King County (Post-Recovery 2016-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

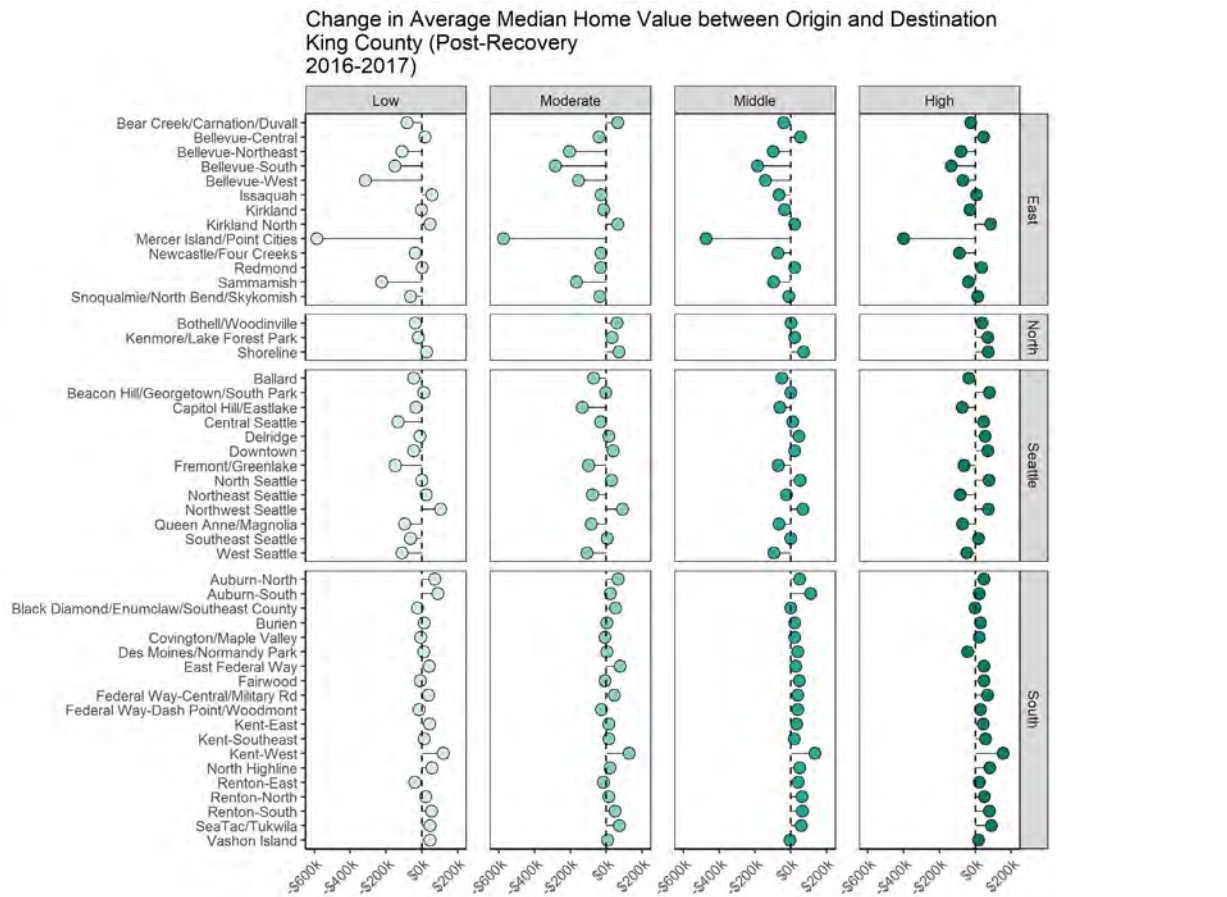## Figure 20. Origin Median Home Values, Post-Recovery (2016-2017 Only)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

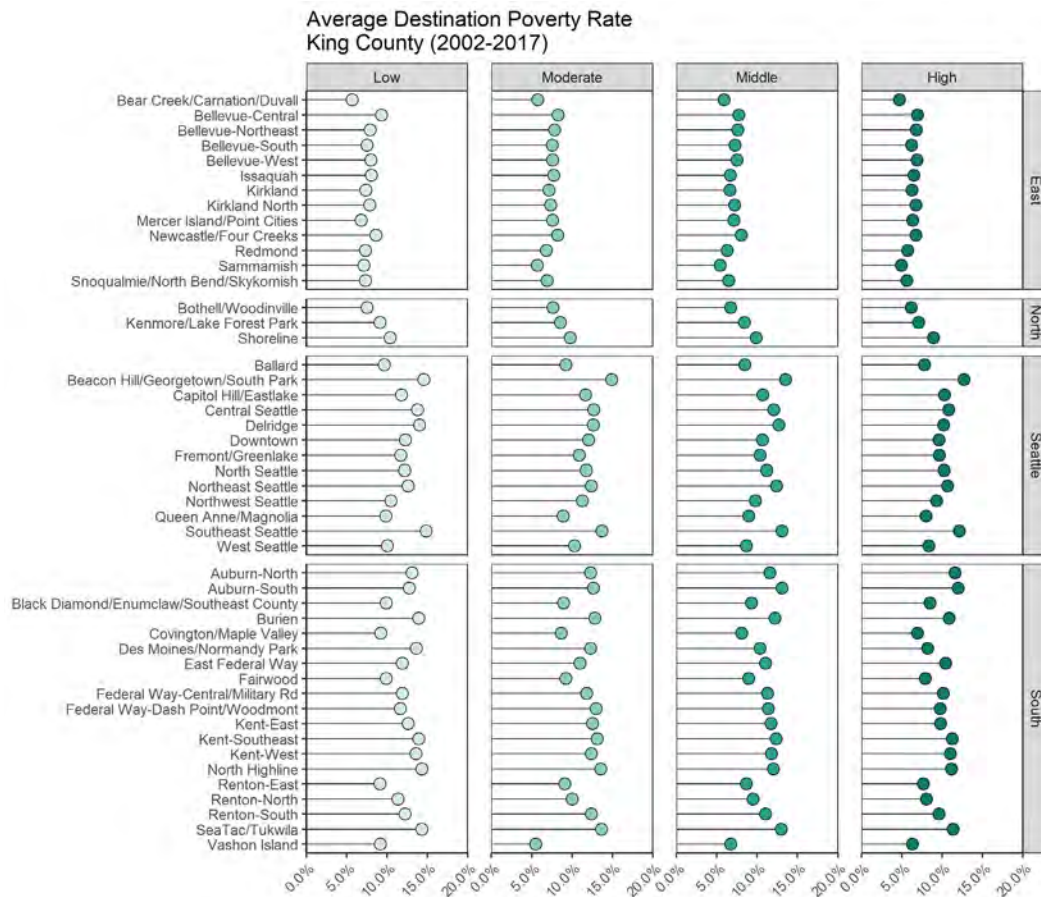Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580-649, Middle = 650-749, High = 750+

Figure 21. Change in Average Median Home Value, Post-Recovery (2016-2017 Only)

Change in Average Median Home Value between Origin and Destination King County (Post-Recovery 2016-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+
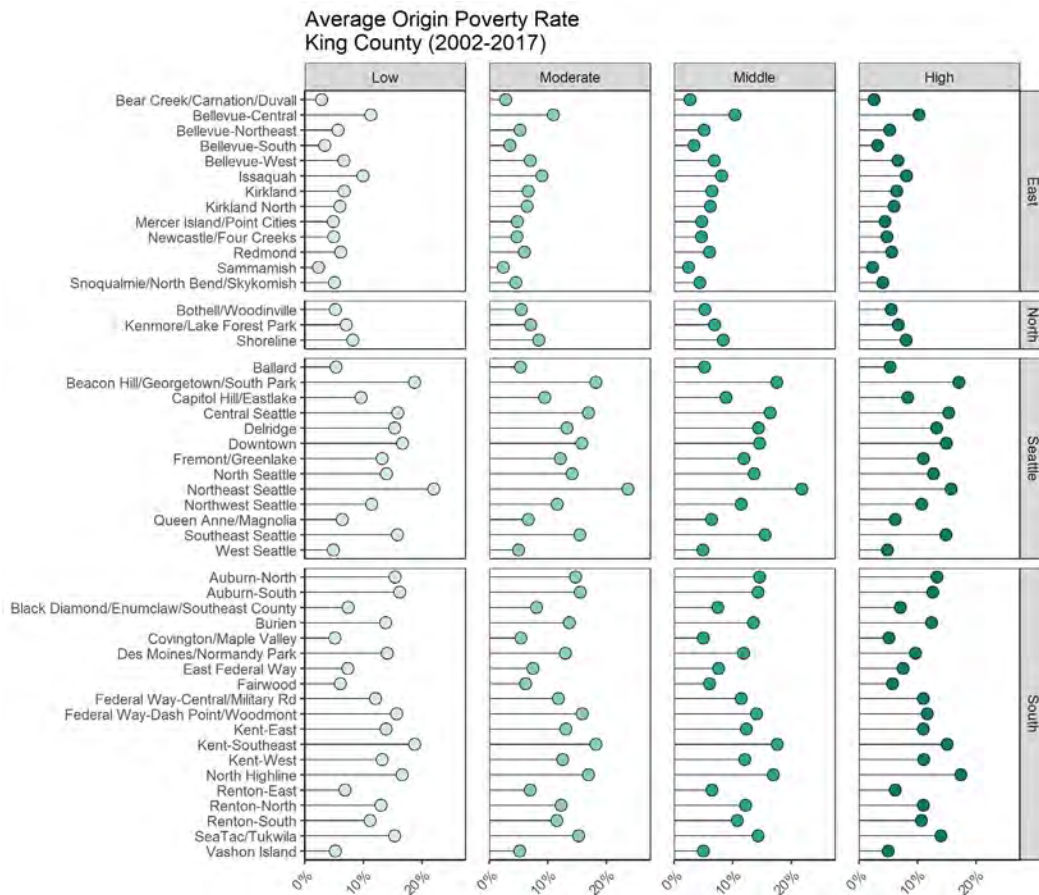
Figure 22. Destination Average Poverty Rate (2002-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+
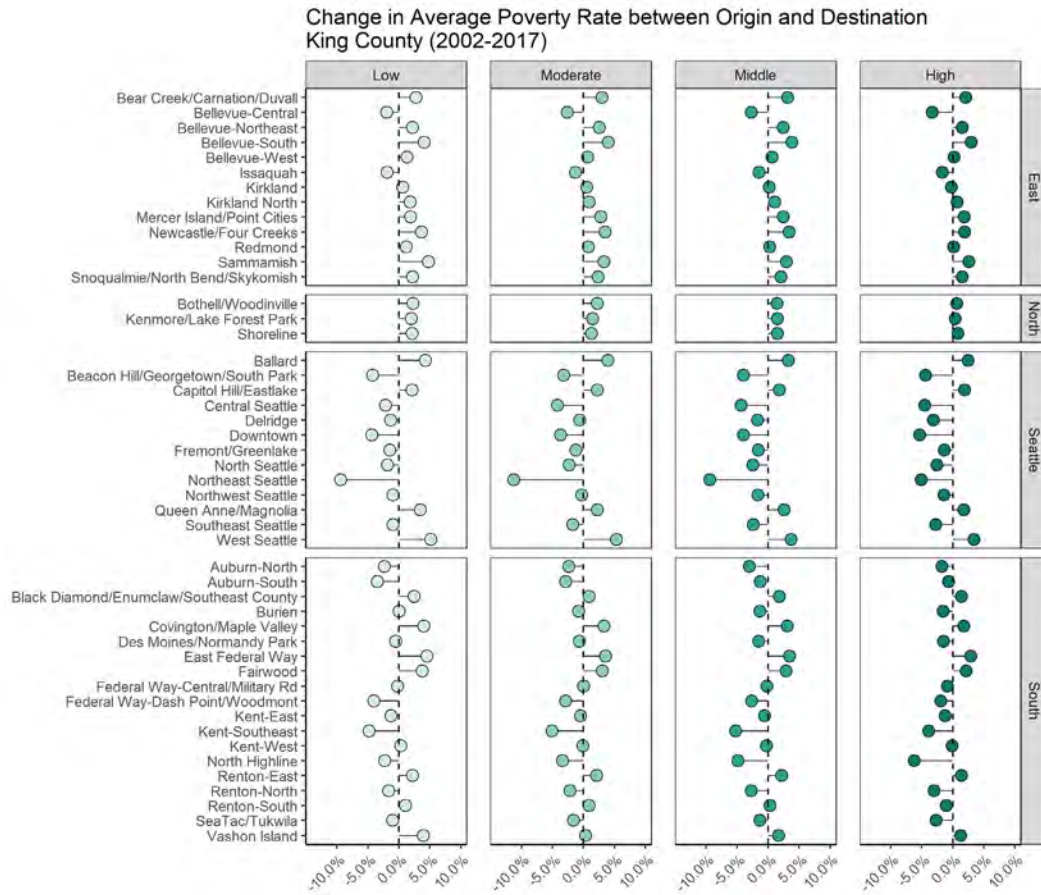
Figure 23. Origin Average Poverty Rate (2002-2017)

Average Origin Poverty Rate
King County (2002-2017)

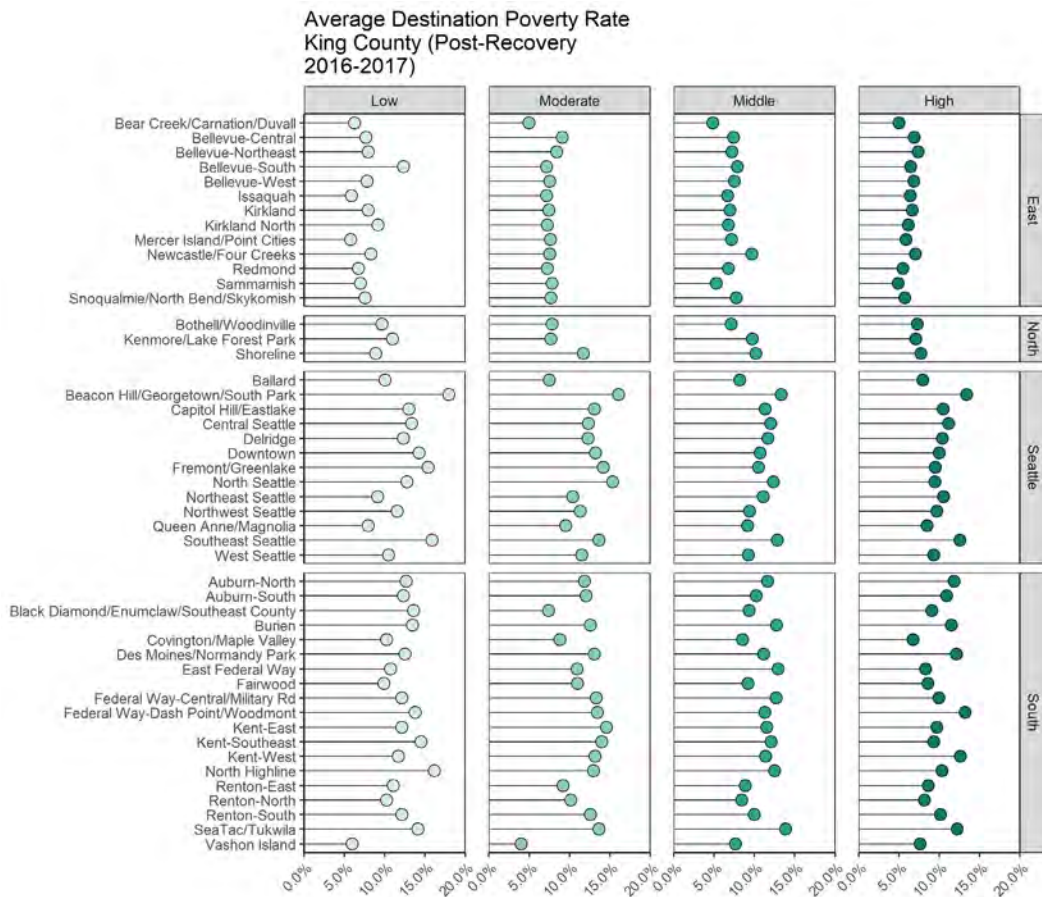*Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.*

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+

Figure 24. Change In Average Poverty Rate between Origin and Destination (2002-2017)

Change in Average Poverty Rate between Origin and Destination
King County (2002-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+
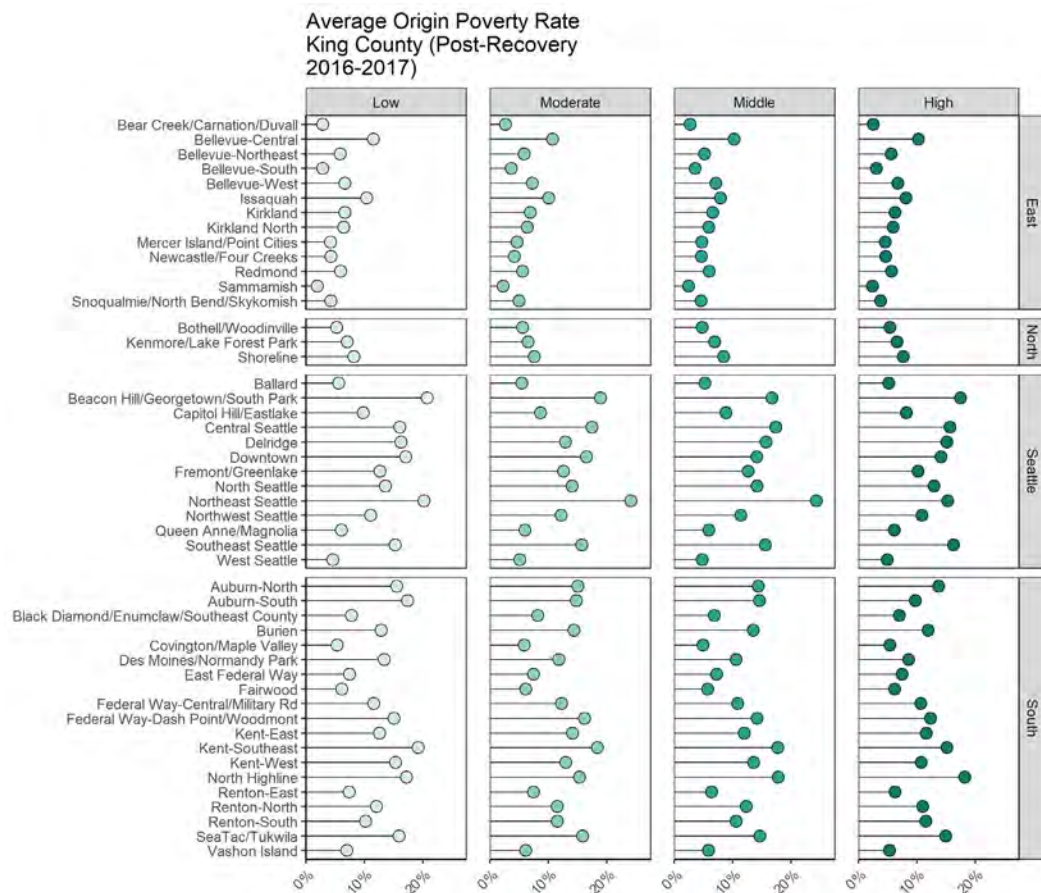
Figure 25. Average Poverty Rate, Post-Recovery (2016-2017 Only)

Average Destination Poverty Rate
King County (Post-Recovery 2016-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+

Figure 26. Average Origin Poverty Rate, Post-Recovery (2016-2017) Only

Average Origin Poverty Rate
King County (Post-Recovery
2016-2017)

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.
SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+
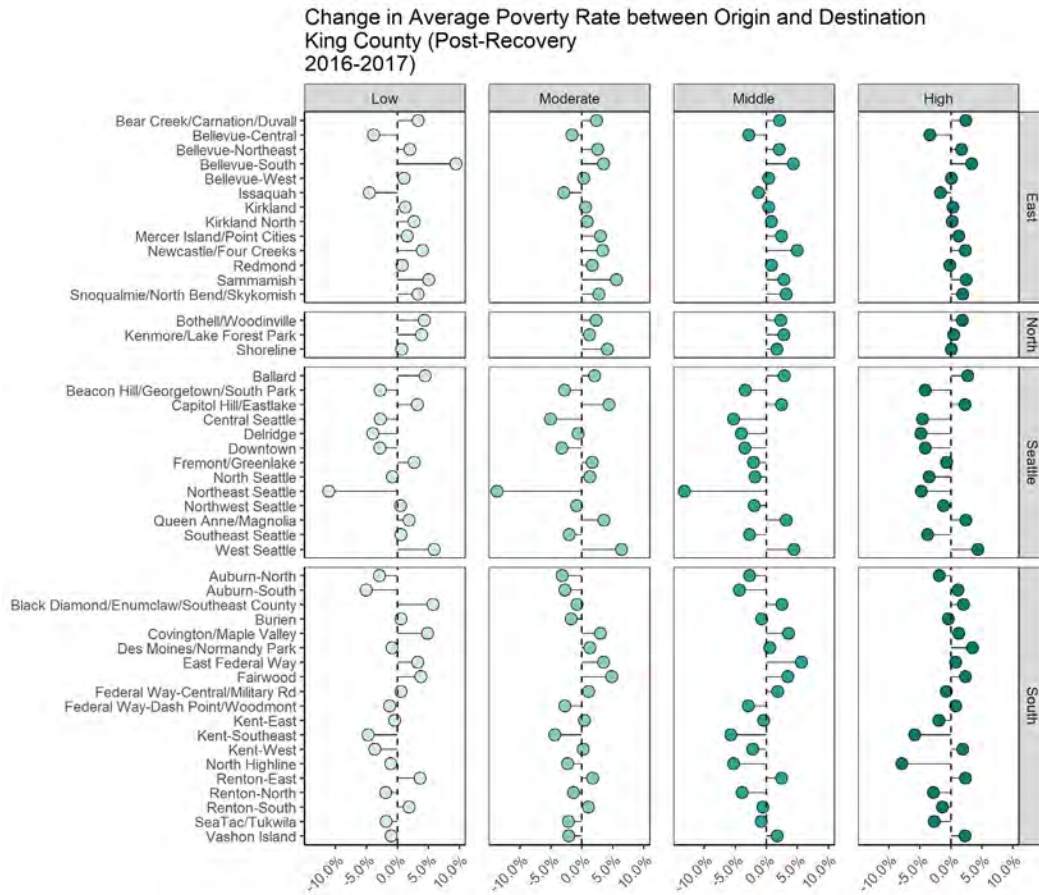
Figure 27. Change In Average Poverty Rate between Origin and Destination, Post-Recovery (2016-2017) Only

Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data.

SES Ranges by Equifax Risk Scores: Low = missing or <580, Moderate = 580–649, Middle = 650–749, High = 750+

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