

What's changed since the DEIS?

Appendix M is new to the FEIS, and contains some discussion of findings previously in the DEIS (as noted in Section 3.1 Housing and Socioeconomics)—this includes DEIS Exhibits 3.1–29 and 3.1-30.

APPENDIX M

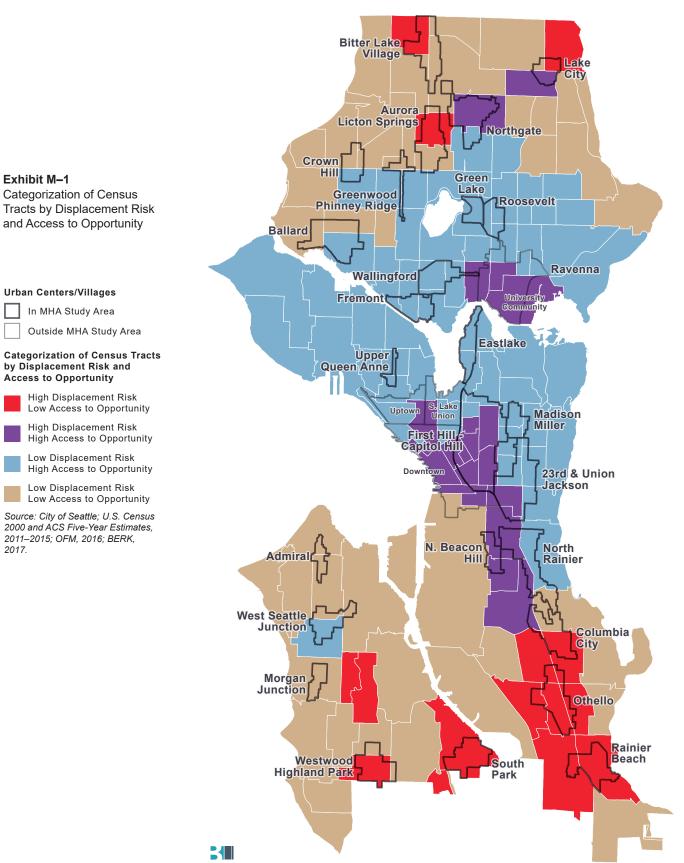


CORRELATION BETWEEN NEW HOUSING DEVELOPMENT AND VARIOUS HOUSEHOLD GROUPS.

Section 3.1 Housing and Socioeconomics presents an analysis comparing housing development with demographic and socioeconomic changes at a neighborhood (Census tract) scale between roughly 2000 and 2015. This appendix presents the technical data and maps underlying this analysis. This includes a series of statistical correlations to measure the strength and direction of relationships between housing development and other variables of interest. More details about the analysis methodology is presented in Section 3.1 Housing and Socioeconomics.

For each comparison, the results appear first as a map of new housing units overlaying household or population change by census tract. Every dot on these maps represents 20 housing units; their density reflects housing production in each census tract, but their location within the tract is random. On the following page, the results appear as a scatterplot comparing housing development on the horizontal axis and changes in households or population on the vertical axis. Each dot on the scatterplot is a census tract, positioned according to housing development and changes in households or population in that census for the given period. The large scatterplot presents all Seattle census tracts, followed by four smaller scatterplots that categorize census tracts according to their relative level of displacement risk and access to opportunity, as measured in the Seattle 2035 Growth and Equity Analysis (Appendix A). A map illustrating this categorization is included in Exhibit M–1.







The appendix is organized in two sections: (1) Housing Development and Change in Low-Income Households; and (2) Housing Development and Change in Racial and Ethnic Minority Populations.

HOUSING DEVELOPMENT AND CHANGE IN LOW-INCOME HOUSEHOLDS

This section presents data measuring the relationship between new housing production and the change in number of households, by income level (Exhibit M–2 through Exhibit M–28 on the following pages).

Several income groups relative to Area Median Income (AMI) are tested. including 0 to 50 percent, 50 to 80 percent, 0 to 80 percent, and 80 to 120 percent. For each level of income, two separate correlations are presented. "All housing" compares total new housing units built to total change in households, by income level. "Market-rate only" compares the number of new market-rate units built to an estimate of the change in the number of households living in market-rate units. This estimate is calculated by subtracting the net change in subsidized units from the net change in households, by income level. Information about level of income served for each subsidized housing unit is not available. Therefore the 50 to 80 percent market-rate only correlation very likely over accounts for the number of households in subsidized housing, since many of the units are likely to be reserved for households at lower income levels. As a result, the market-rate only correlations for this income level may be less reliable and more difficult to interpret. The "market-rate only" comparison is not provided for middle- or upper-income households (80 to 120 percent of AMI, >80 percent of AMI, or >120% of AMI), as these households typically do not qualify for housing subsidies.

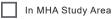
HOUSING DEVELOPMENT AND CHANGE IN RACIAL AND ETHNIC MINORITY POPULATIONS

This section presents data measuring the relationship between new housing production and change in population among major racial and ethnic categories (Exhibit M–29 through Exhibit M–49 on page M.22–page M.35).



Change in the Number of Households with Income ≤50% AMI by Census Tract, 2000 to 2010–2014, and Net Housing Production, 2000 to 2012

Urban Centers/Villages



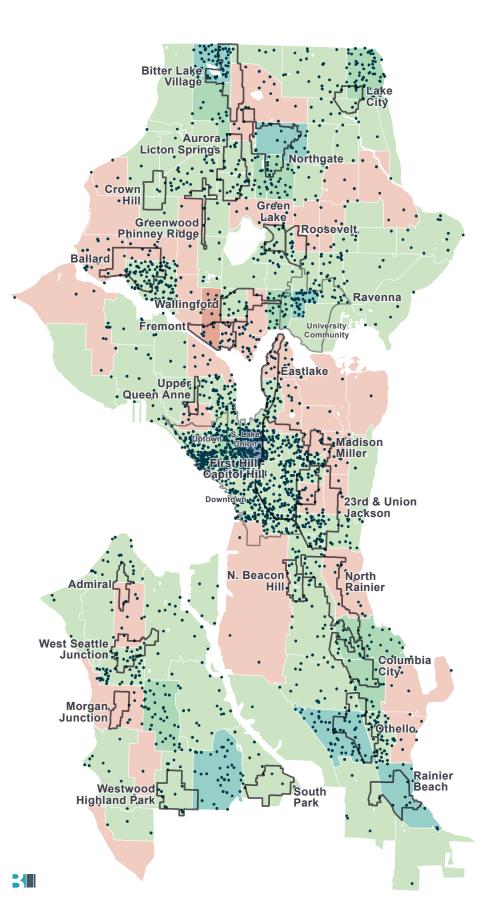
Outside MHA Study Area

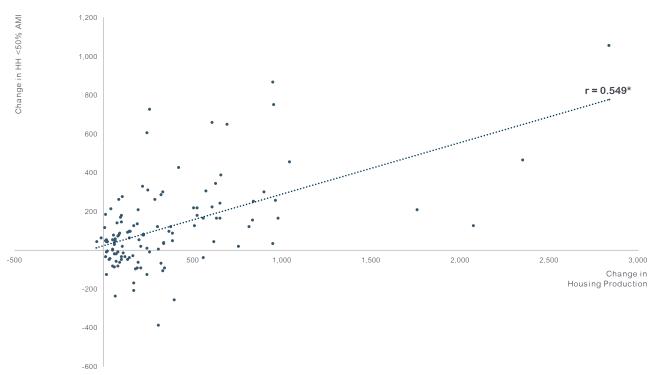
Housing Production (Net Change in Housing Units 2000–2012)

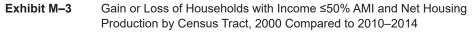
• 1 Dot = 20 Units

Change in Households with Income ≤50% AMI, 2000 to 2010–2014









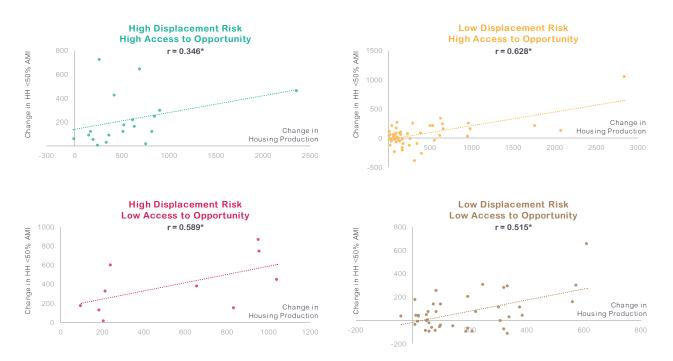
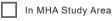


Exhibit M–4 Gain or Loss of Households with Income ≤50% AMI and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Change in the Number of Households Living in Market-Rate Units with Income ≤50% AMI by Census Tract, 2000 to 2010–2014, and Net Market-Rate Housing Production, 2000 to 2012

Urban Centers/Villages

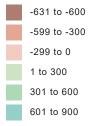


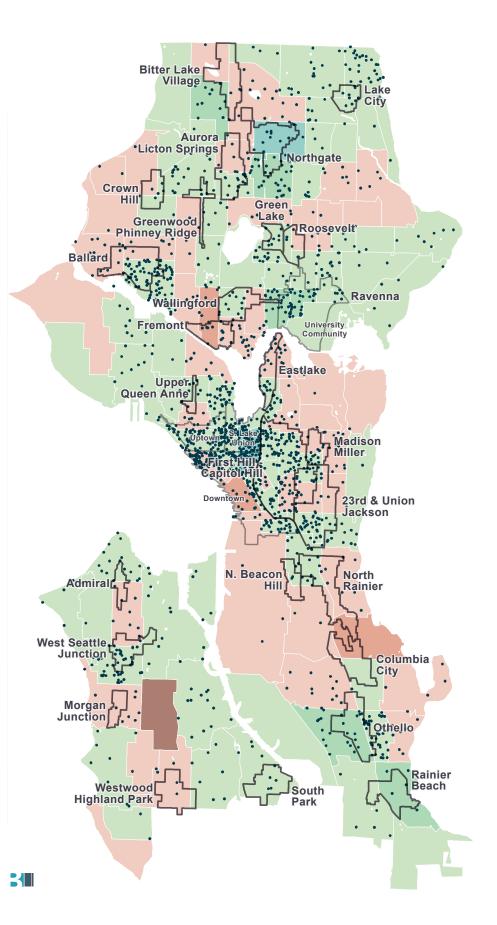
Outside MHA Study Area

Market-Rate Housing Production (Net Change in Market-Rate Housing Units 2000–2012)

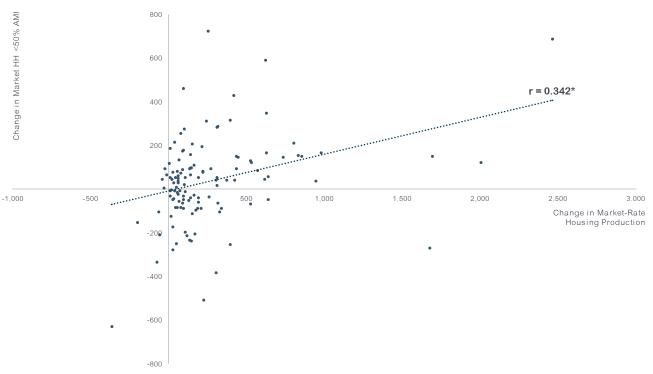
• 1 Dot = 20 Units

Change in Households Living in Market-Rate Units with Income ≤50% AMI, 2000 to 2010–2014









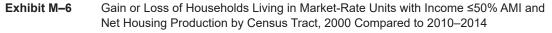




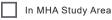
Exhibit M–7 Gain or Loss of Households Living in Market-Rate Units with Income ≤50% AMI and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Exhibit M–8

Change in the Number of Households with Income ≤80% AMI by Census Tract, 2000 to 2010–2014, and Net Housing Production, 2000 to 2012

Urban Centers/Villages

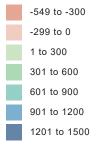


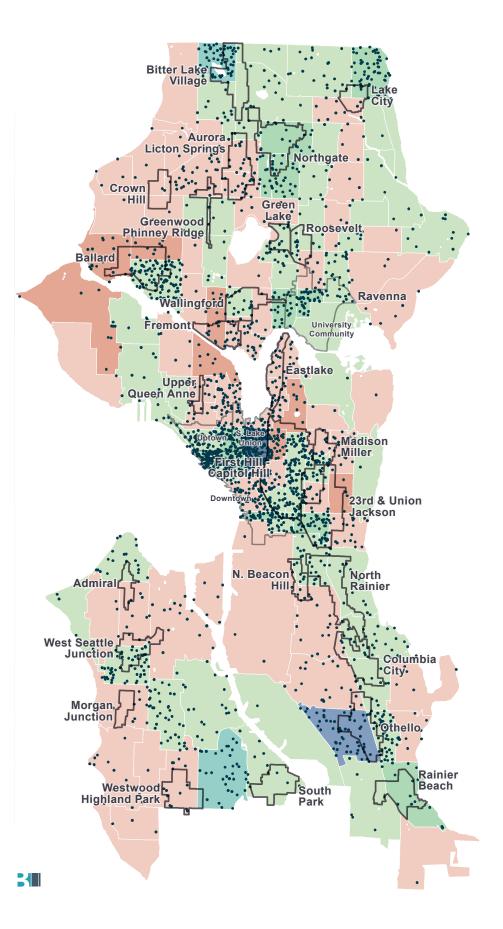
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2012)

• 1 Dot = 20 Units

Change in Households with Income ≤80% AMI, 2000 to 2010–2014





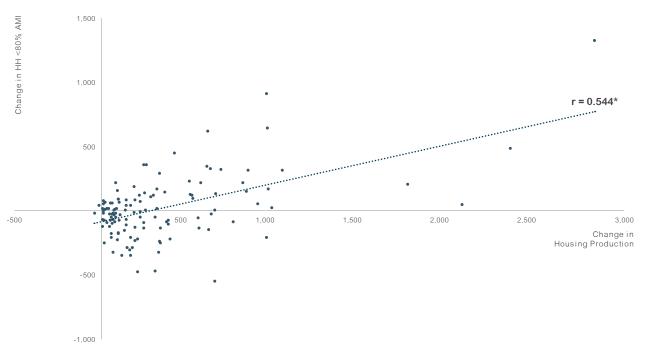


Exhibit M–9 Gain or Loss of Households with Income ≤80% AMI and Net Housing Production by Census Tract, 2000 Compared to 2010–2014

Source: City of Seattle; HUD CHAS (based on U.S. Census 2000 and ACS Five-Year Estimates, 2010–2014); OFM, 2016; BERK, 2017.

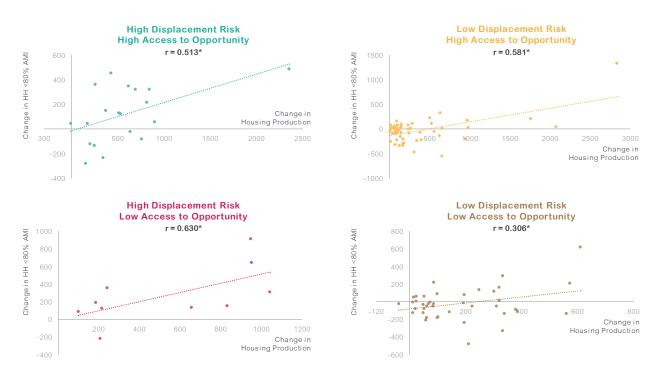


Exhibit M–10 Gain or Loss of Households with Income ≤80% AMI and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014

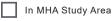
Source: City of Seattle; HUD CHAS (based on U.S. Census 2000 and ACS Five-Year Estimates, 2010–2014); OFM, 2016; BERK, 2017.

* Indicates a weak, moderate, or strong correlation. All values under ±0.3 indicate no meaningful statistical relationship.



Change in the Number of Households Living in Market-Rate Units with Income ≤80% AMI by Census Tract, 2000 to 2010–2014, and Net Market-Rate Housing Production, 2000 to 2012

Urban Centers/Villages

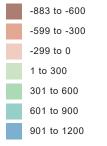


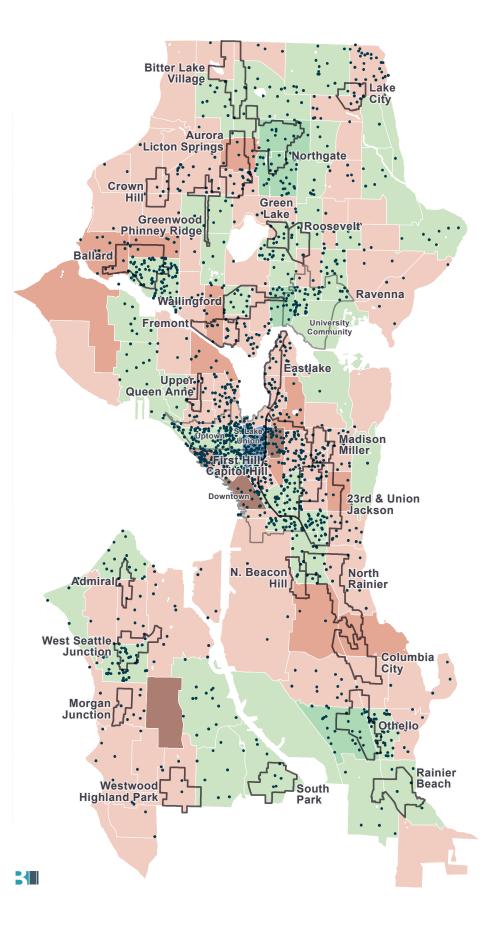
Outside MHA Study Area

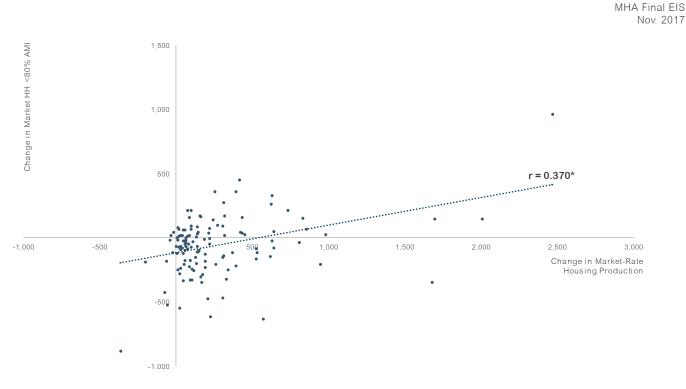
Market-Rate Housing Production (Net Change in Market-Rate Housing Units 2000–2012)

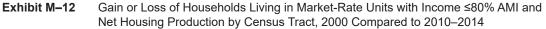
• 1 Dot = 20 Units

Change in Households Living in Market-Rate Units with Income ≤80% AMI, 2000 to 2010–2014









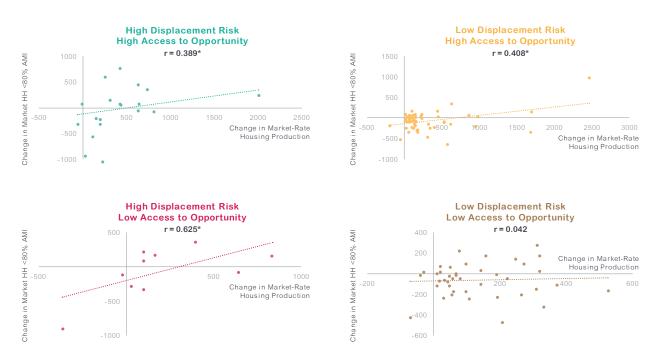


Exhibit M–13 Gain or Loss of Households Living in Market-Rate Units with Income ≤80% AMI and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Change in the Number of Households with Income 50–80% AMI by Census Tract, 2000 to 2010–2014, and Net Housing Production, 2000 to 2012

Urban Centers/Villages



Outside MHA Study Area

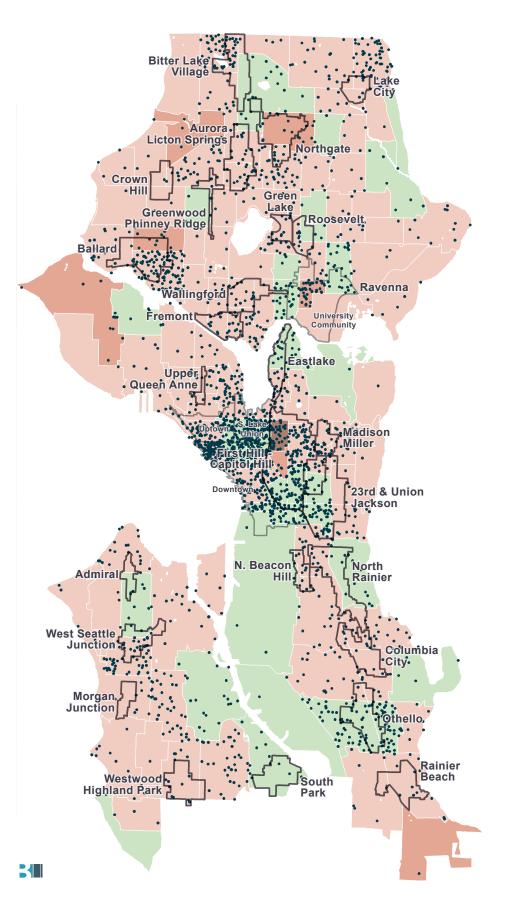
In MHA Study Area

Housing Production (Net Change in Housing Units 2000–2012)

• 1 Dot = 20 Units

Change in Households with Income 50-80% AMI, 2000 to 2010–2014







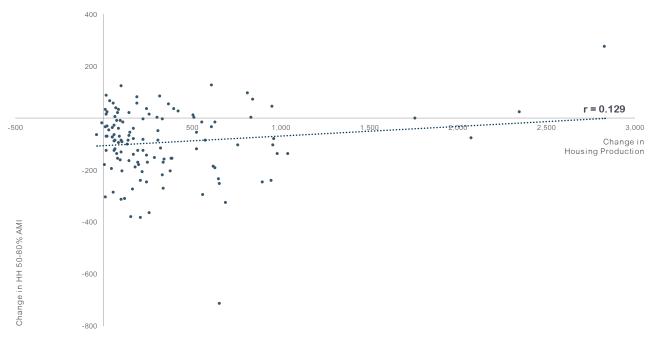


Exhibit M-15Gain or Loss of Households with Income 50–80% AMI and Net Housing
Production by Census Tract, 2000 Compared to 2010–2014

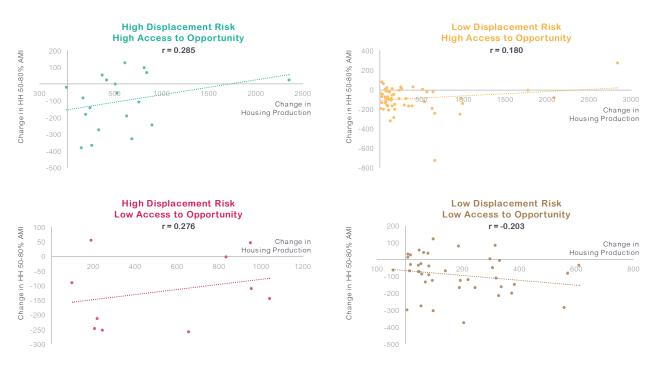
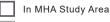


Exhibit M–16 Gain or Loss of Households with Income 50–80% AMI and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Change in the Number of Households Living in Market-Rate Units with Income 50–80% AMI by Census Tract, 2000 to 2010–2014, and Net Market-Rate Housing Production, 2000 to 2012

Urban Centers/Villages

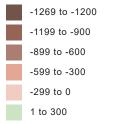


Outside MHA Study Area

Market-Rate Housing Production (Net Change in Market-Rate Housing Units 2000–2012)

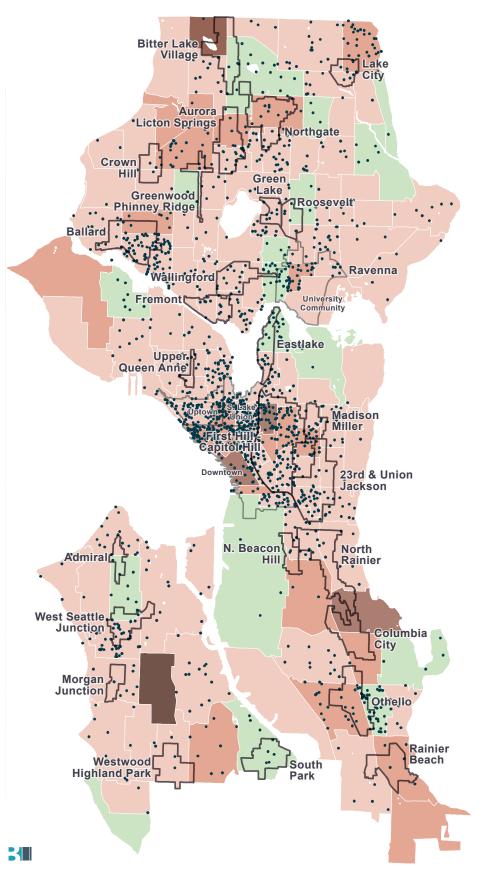
• 1 Dot = 20 Units

Change in Households Living in Market-Rate Units* with Income 50-80% AMI, 2000 to 2010–2014

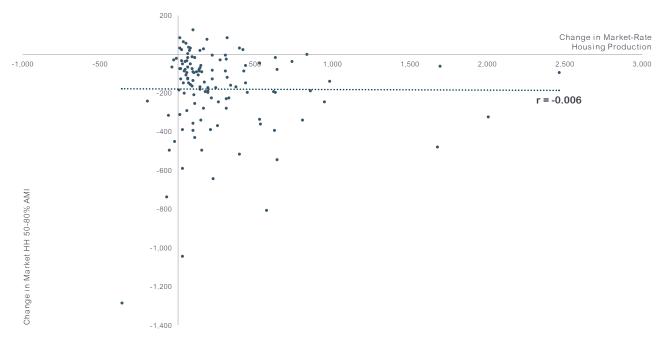


*This estimate is calculated by subtracting the net change in subsidized units from the net change in households by income level. Information about level of income served for each subsidized housing unit is not available. Therefore, the 50-80 percent market-rate only correlation very likely over accounts for the number of households in subsidized housing, since many of the units are likely to be reserved for households at lower income levels.

Note: Information about level of income served for each subsidized housing unit is not available. Therefore the 50-80 percent marketrate only correlation very likely over accounts for the number of households in subsidized housing, since many of the households in subsidized units are likely to have income levels below 50 percent AMI. As a result, the marketrate only correlations for this income level may be less reliable and more difficult to interpret.







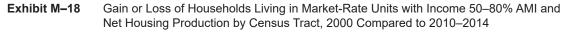




Exhibit M–19 Gain or Loss of Households Living in Market-Rate Units with Income 50–80% AMI and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Change in the Number of Households with Income 80–120% AMI by Census Tract, 2000 to 2010–2014, and Net Housing Production, 2000 to 2012

Urban Centers/Villages



Outside MHA Study Area

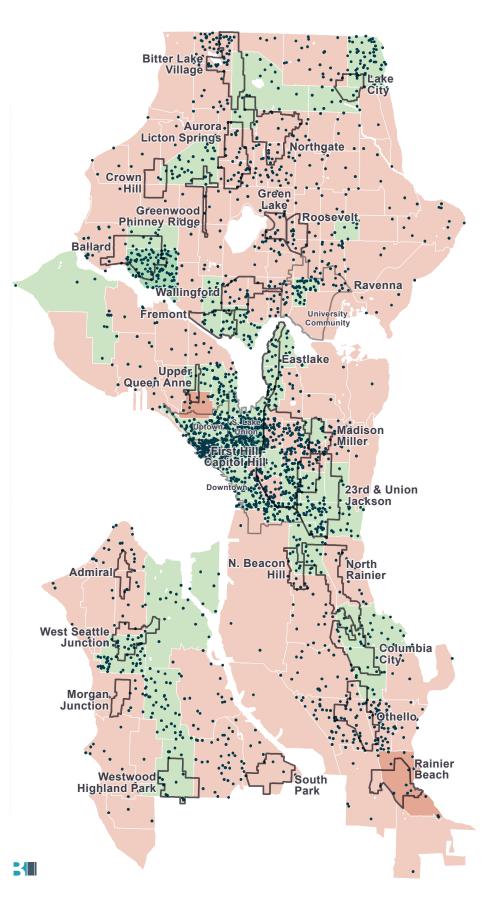
In MHA Study Area

Housing Production (Net Change in Housing Units 2000–2012)

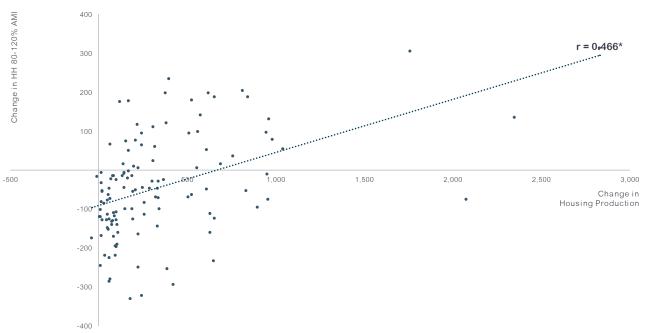
• 1 Dot = 20 Units

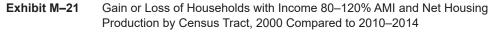
Change in Households with Income 80-120% AMI, 2000 to 2010–2014

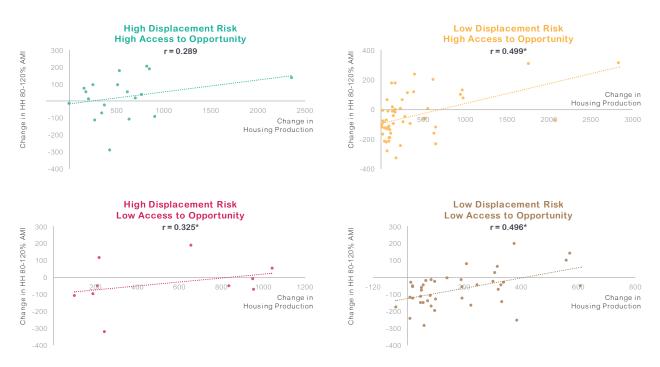


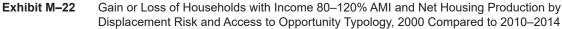








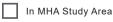






Change in the Number of Households with Income >80% AMI by Census Tract, 2000 to 2010–2014, and Net Housing Production, 2000 to 2012

Urban Centers/Villages

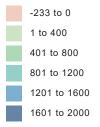


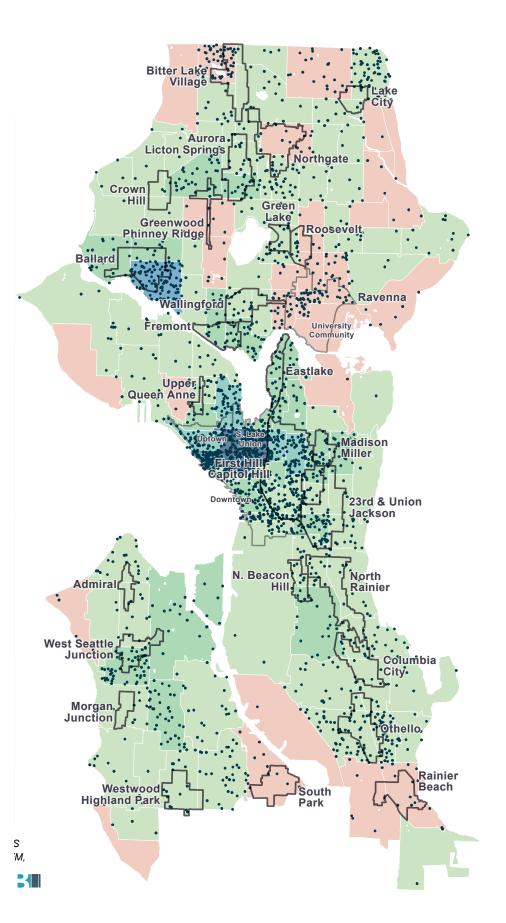
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2012)

• 1 Dot = 20 Units

Change in Households with Income >80% AMI, 2000 to 2010–2014





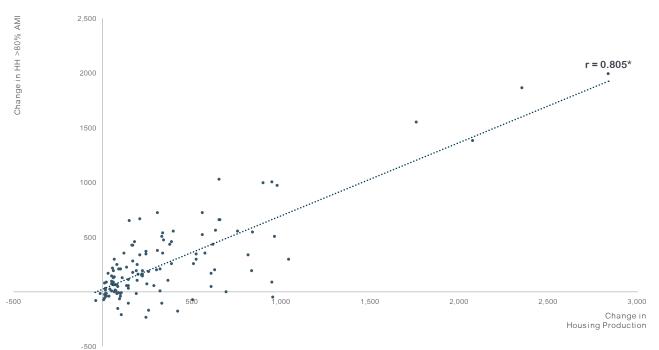


Exhibit M–24 Gain or Loss of Households with Income >80% AMI and Net Housing Production by Census Tract, 2000 Compared to 2010–2014

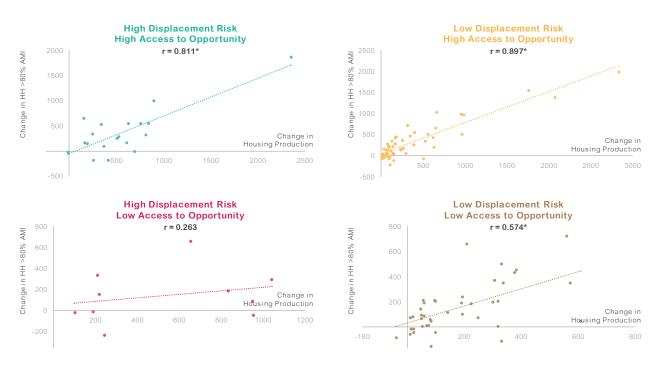


Exhibit M-25Gain or Loss of Households with Income >80% AMI and Net Housing Production by
Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Change in the Number of Households with Income >120% AMI by Census Tract, 2000 to 2010–2014, and Net Housing Production, 2000 to 2012

Urban Centers/Villages

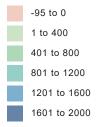


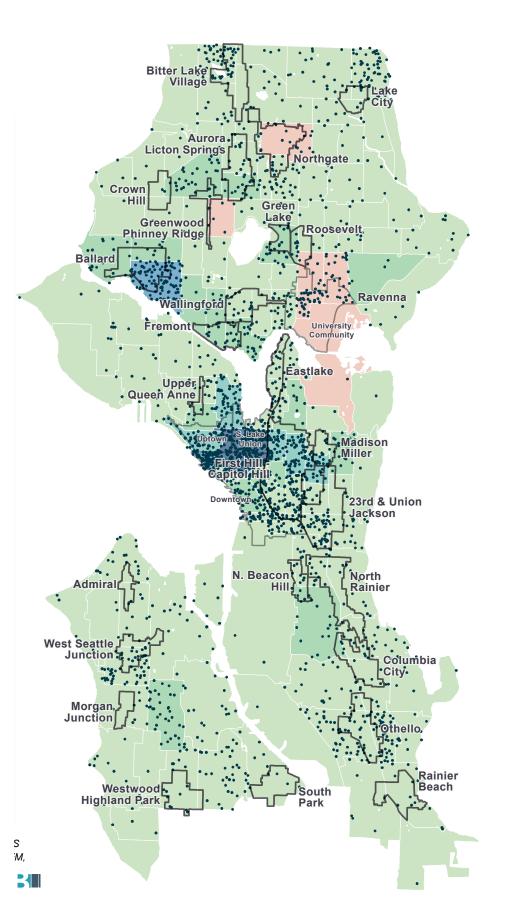
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2012)

• 1 Dot = 20 Units

Change in Households with Income >120% AMI, 2000 to 2010–2014







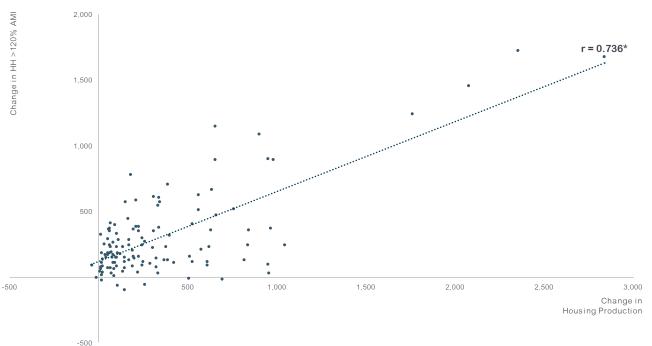


Exhibit M–27 Gain or Loss of Households with Income >120% AMI and Net Housing Production by Census Tract, 2000 Compared to 2010–2014

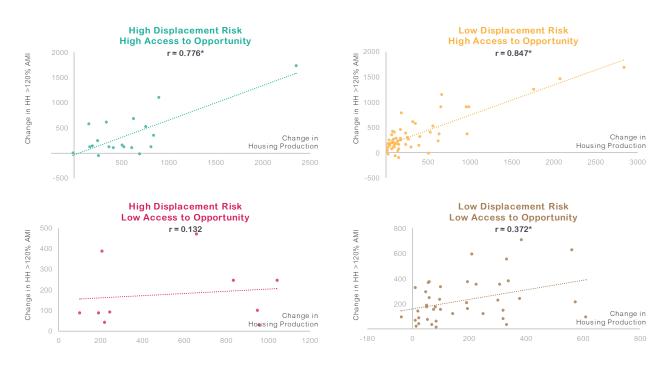
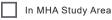


Exhibit M-28Gain or Loss of Households with Income >120% AMI and Net Housing Production by
Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2010–2014



Change in Black/African American Population by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

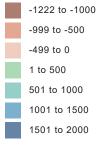


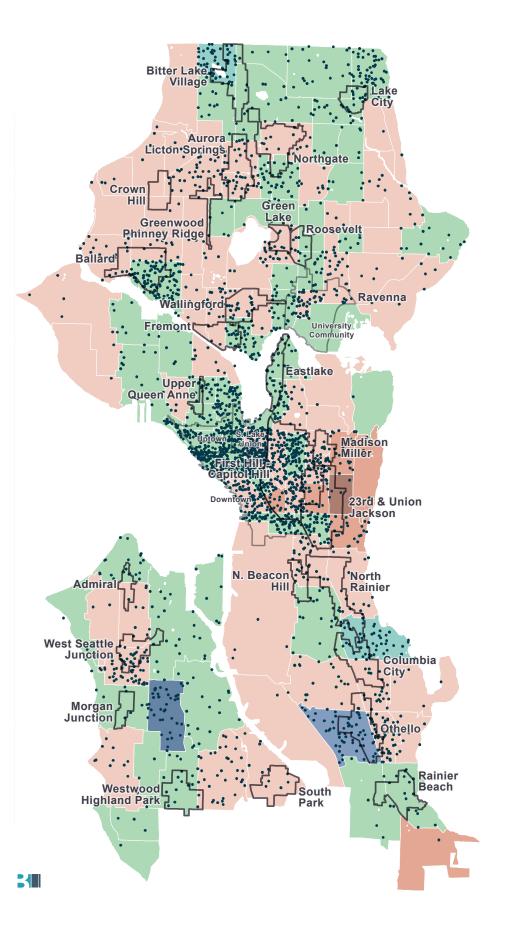
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

• 1 Dot = 20 Units

Change in Black/African American Population, 2000 to 2011–2015







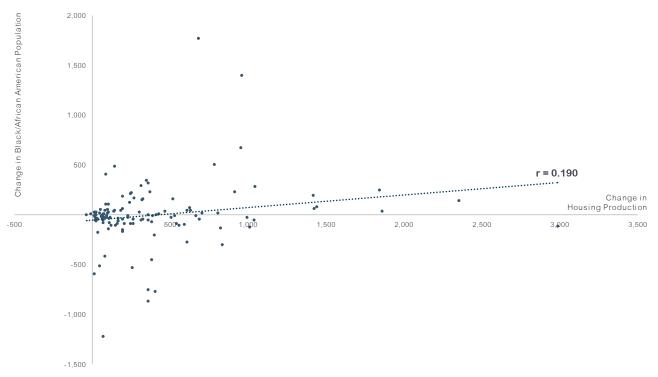


Exhibit M-30Gain or Loss of Black/African American Population and Net Housing
Production by Census Tract, 2000 Compared to 2011–2015

Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.

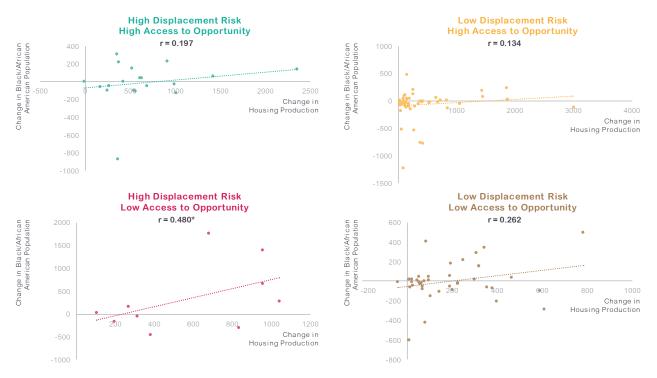


Exhibit M-31Gain or Loss of Black/African American Population and Net Housing Production by
Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2011–2015



Exhibit M–32

Change in Population of Color by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

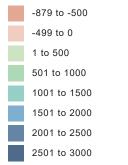


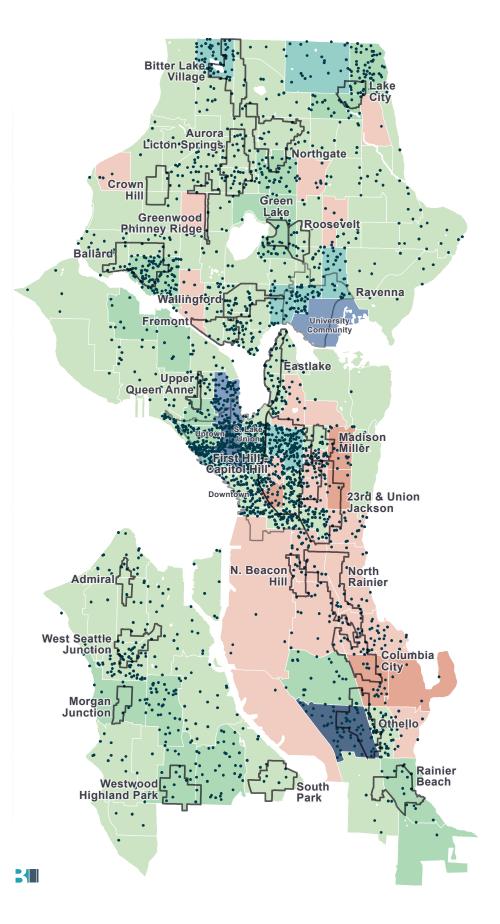
In MHA Study Area Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

• 1 Dot = 20 Units

Change in Population of Color, 2000 to 2011–2015







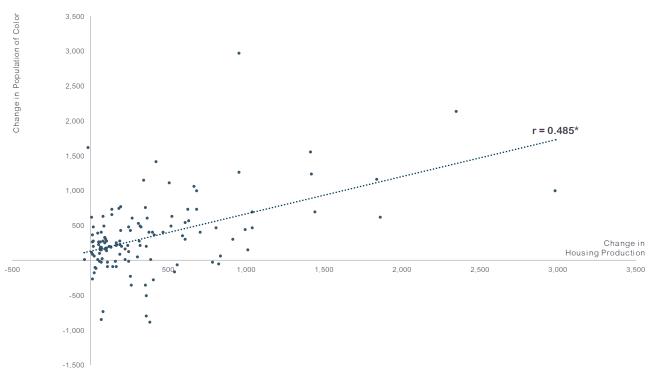


Exhibit M-33Gain or Loss of Population of Color and Net Housing Production
by Census Tract, 2000 Compared to 2011–2015

Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.



Exhibit M–34 Gain or Loss of Population of Color and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2011–2015



Exhibit M–35

Change in Hispanic/ Latino Population by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

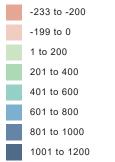


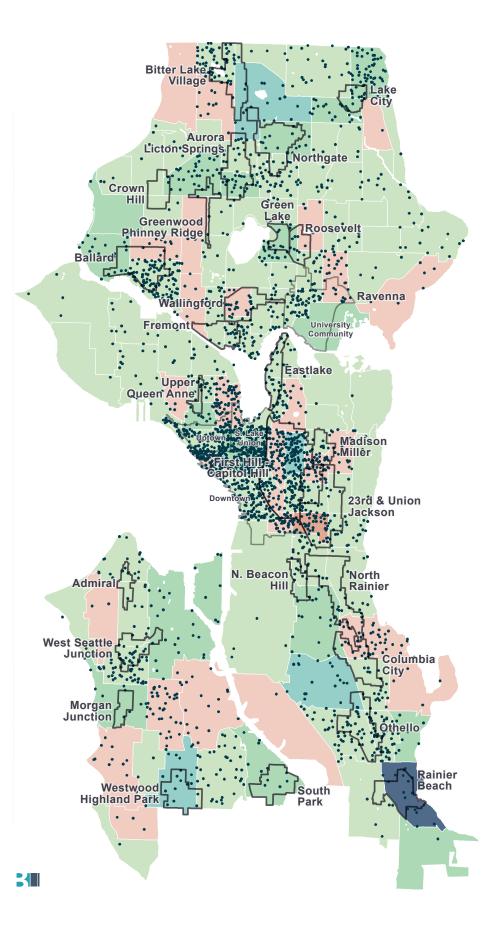
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

• 1 Dot = 20 Units

Change in Hispanic/ Latino Population, 2000 to 2011–2015







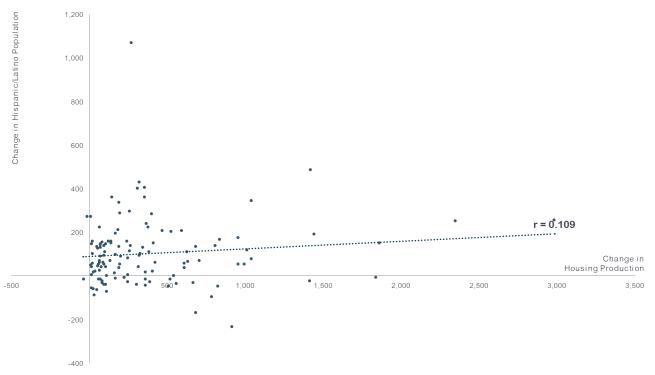


Exhibit M–36 Gain or Loss of Hispanic/Latino Population and Net Housing Production by Census Tract, 2000 Compared to 2011–2015

Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.

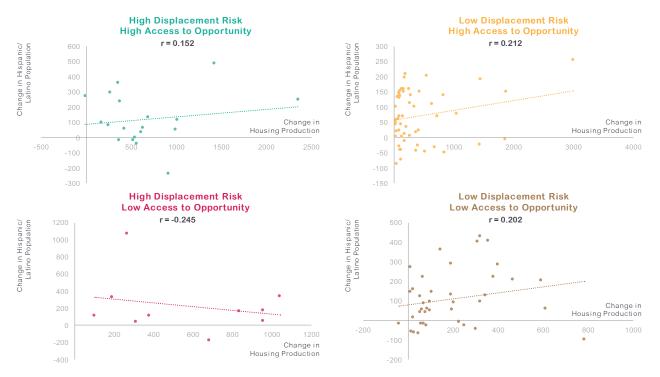
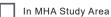


Exhibit M–37 Gain or Loss of Hispanic/Latino Population and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2011–2015



Change in Asian Population by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

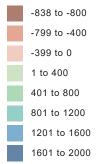


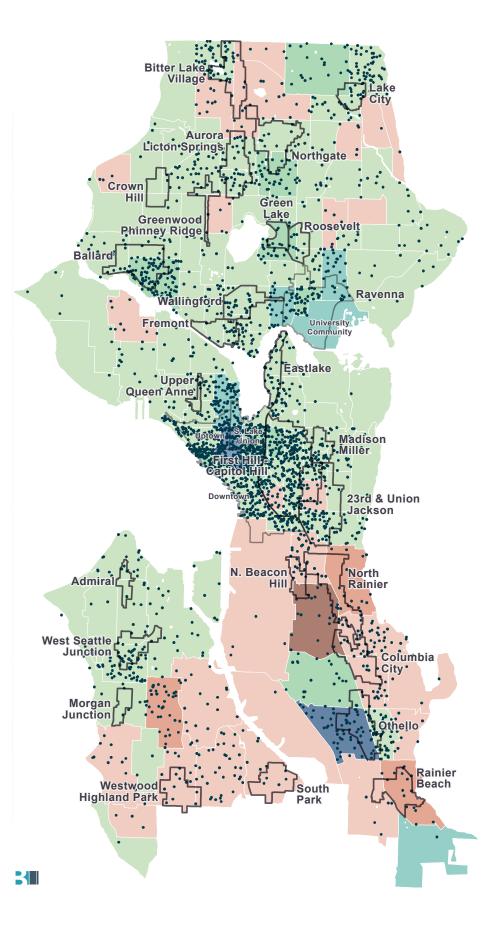
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

• 1 Dot = 20 Units

Change in Asian Population, 2000 to 2011–2015







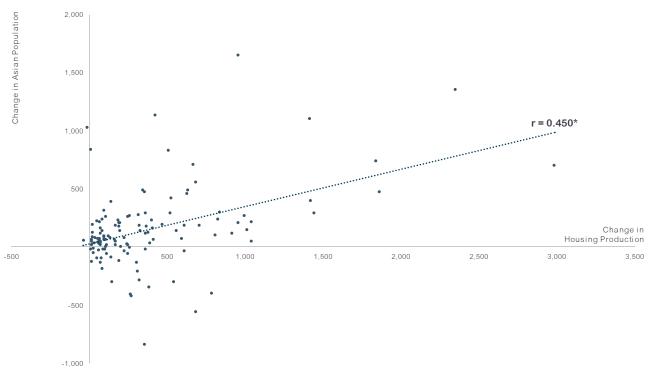
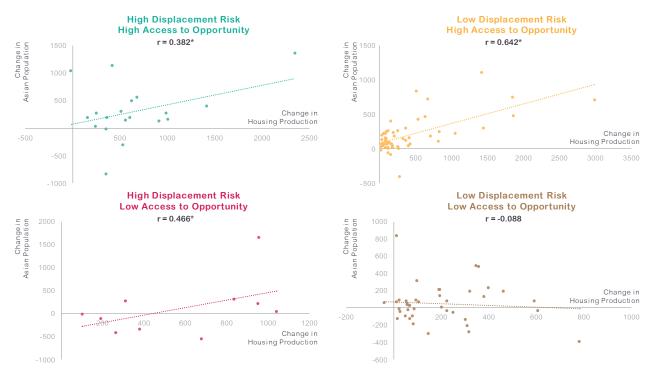
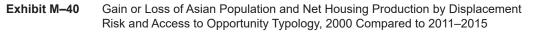


Exhibit M-39Gain or Loss of Asian Population and Net Housing Production by
Census Tract, 2000 Compared to 2011–2015

Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.



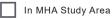


* Indicates a weak, moderate, or strong correlation. All values under ±0.3 indicate no meaningful statistical relationship.



Change in American Indian/ Alaska Native Population by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

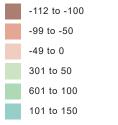


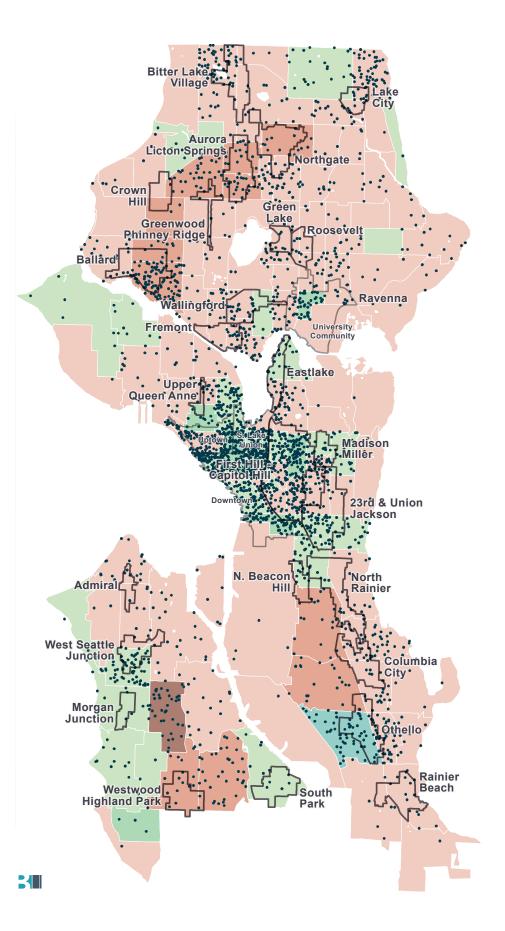
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

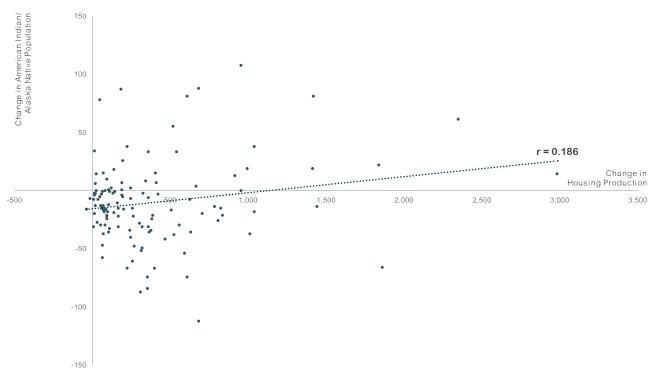
1 Dot = 20 Units

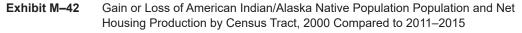
Change in American Indian/ Alaska Native Population, 2000 to 2011–2015



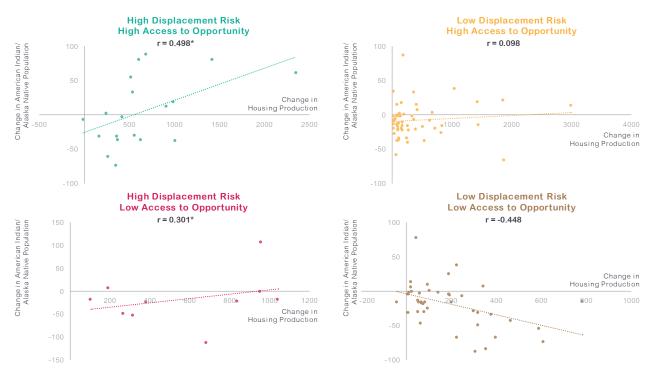


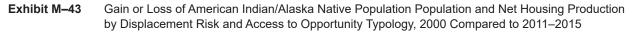






Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.

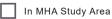






Change in Native Hawaiian/ Other Pacific Islander Population by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

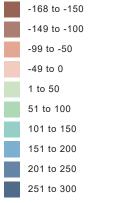


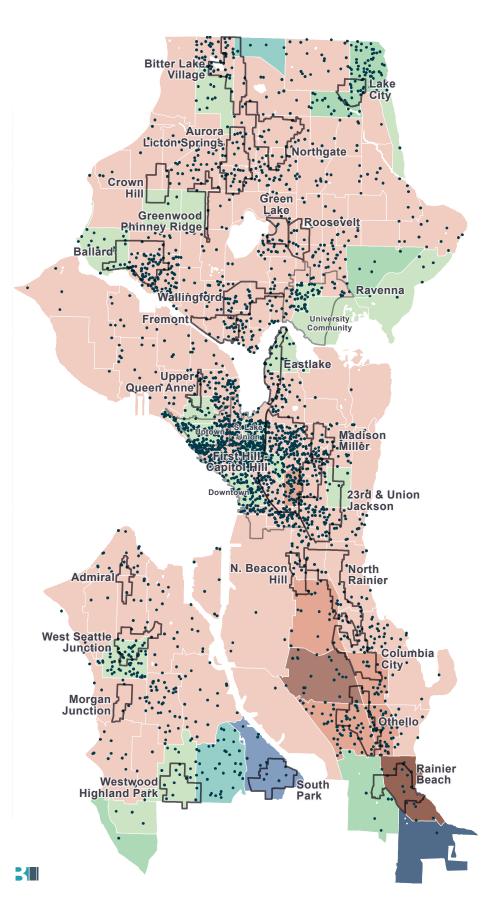
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

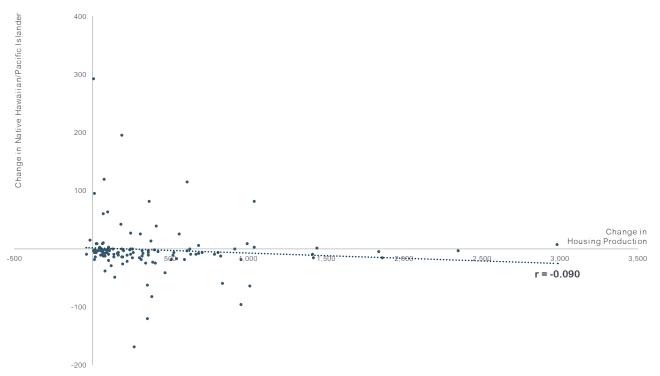
• 1 Dot = 20 Units

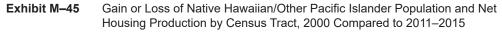
Change in Native Hawaiian/ Other Pacific Islander Population, 2000 to 2011–2015











Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.

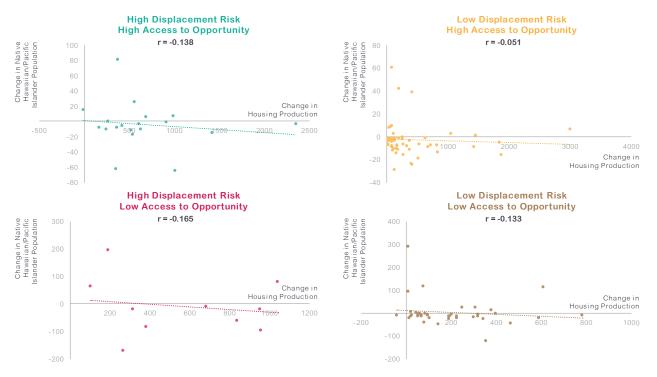
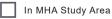


Exhibit M–46 Gain or Loss of Native Hawaiian/Other Pacific Islander Population and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2011–2015



Change in Non-Hispanic White Population by Census Tract, 2000 to 2011–2015, and Net Housing Production, 2000 to 2013

Urban Centers/Villages

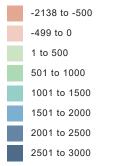


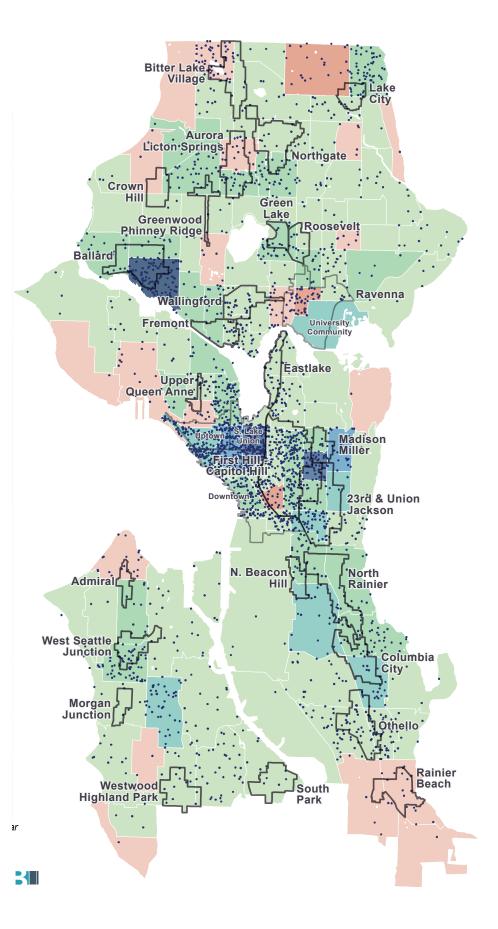
Outside MHA Study Area

Housing Production (Net Change in Housing Units 2000–2013)

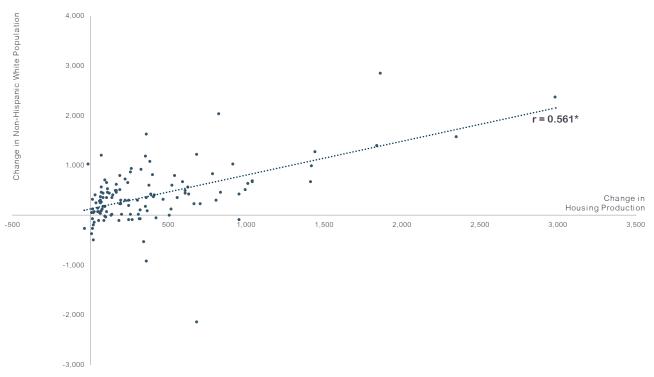
• 1 Dot = 20 Units

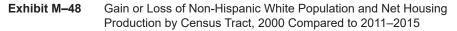
Change in Non-Hispanic White Population, 2000 to 2011–2015











Source: City of Seattle; U.S. Census 2000 and ACS Five-Year Estimates, 2011–2015; OFM, 2016; BERK, 2017.



Exhibit M–49 Gain or Loss of Non-Hispanic White Population and Net Housing Production by Displacement Risk and Access to Opportunity Typology, 2000 Compared to 2011–2015



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