The Geography of Opportunity
Mapping to Advance Racial and Social Equity in Portland, OR

Matthew Martin
Research Associate

Samir Gambhir
Senior Research Associate

Jillian Olinger
Research Associate

Jason Reece
Senior Research Associate

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Kirwan Institute
For the Study of Race and Ethnicity
The Ohio State University
Staff Contributors

Liz Colombo, Graduate Research Associate
So-Young Lee, Graduate Research Associate
Melissa Lindsjo, Graduate Research Associate
Craig Ratchford, GIS/Demographic Analyst

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[1] Introduction
Since the early 1970s, the Portland region has been setting the pace in environmental sustainability policy. What began with the institution of urban growth boundaries under the leadership of Governor Tom McCall and the support of local farm, environment, and urban advocates, has progressed into a system of development patterns and multimodal transportation infrastructure that promotes stewardship of the region’s environmental resources in an unparalleled manner. This track record of success would not have been possible without the coalition building that took place across the narrow interests of stakeholders representing various concerns related to the natural and built environment. It is this same key to success that Portland must draw on by realizing a shared vision for the environment, the economy, and social equity, in order to develop a comprehensive sustainability policy structure, and continue to be a model of regional health and prosperity.

As local advocates continue to grow in their understanding of the need to build strong opportunity structures, and about the concept of having regional goals with strategies targeted towards the needs of particular community needs, the region will develop a greater appreciation for what sustainability consists of. This paradigm shift has been a ground-breaking catalyst for collaboration in the region’s sustainability movement over the past year. As equity and environmental leaders have come to see that their causes are linked and that neighborhood equity matters, the challenges to working together have been slowly diminishing, allowing for a more cooperative approach to planning for the future health of Portland’s communities and residents.

The spatial analysis represented in this report is designed to be a starting point for more discussion about equity sustainability, and to be a tool that will foster more collaboration around establishing policies that place all people in the region in the context of a rich network of opportunity.

A number of research projects and reports emerged over the past three years which have helped to point out the racial disparities in the region, and the need to incorporate equity policies and programs into the greater sustainability movement.¹ This bedrock of work has revealed the student achievement gap and the disproportionality in the State’s child welfare system, and has also painted a picture of the condition of Oregon’s African American community. The findings from such reports call attention to the inequities which exist in Portland and surrounding areas, and together represent an invaluable body of research that supports the planning efforts in the region.

A plethora of research shows that community conditions play a significant role in life outcomes of residents.² Though individual characteristics are an important aspect of success in society, the range of choices afforded to individuals is often determined by the social and economic environment in which

¹ See Appendix A of this report for a list of research upon which the Opportunity Community framework and indicators are based.
they are situated. For many communities, the value of individual decisions and characteristics is diminished by poor access to the housing, educational, and employment opportunities which are essential elements of a healthy context for personal and community development. Much of the recent equity research that has been done in the Portland region touches on several of the issues related to disparities in the opportunity environment.

This research adds to these previous works by further unpacking the geographic distribution of regional inequity, and by helping to explain why achievement disparities exist. Though the opportunity map provides a valuable way to view the regional landscape, perhaps even more valuable is the opportunity framework for understanding the vital ingredients for community health and success. By reframing social and racial inequity in the context of access to opportunity, policy makers, program practitioners, and community organizers are equipped to develop solutions that are targeted towards particular needs, but in a way that also promotes the wellbeing of the entire region.

Not only is the opportunity mapping a useful analytical policy tool, but it can also be a valuable alliance-building structure. This has already been exemplified among advocates in the region, as environmental groups and equity groups have begun to come together around pursuing sustainability through building strong opportunity structures that support the concerns of both groups simultaneously. Washington County, Oregon has already adopted the Opportunity Communities model and methodology developed by the Kirwan Institute, and has become an example of how useful these mapping tools can be for the community-building process.3

[3] Portland’s Opportunity Landscape

The opportunity mapping framework is a way to comprehensively understand the quality-of-life environment across a region. By incorporating data related to education, housing, neighborhood quality, transportation, and environmental health, these maps are able characterize the important “levers” of opportunity vital to successful life outcomes. This composite layer of information also frames regional wellbeing in the context of both environmental and equity standards, further linking these key elements of Portland’s sustainability initiative.

Maps are valuable tools for data analysis and communication. They can convey information in an instant in ways that words and even charts cannot. These maps were created by developing a “Z Score” for each Census Tract in the Metropolitan Statistical Area (MSA), and taking the average of each score for all of the 20 different indicators that were used.4 The following series of maps shows the geographic location of a variety of regional opportunities, and further analysis reveals that access to these assets is most limited in Portland’s communities of color.

3 http://www.co.washington.or.us/CommunityDevelopment/Planning/consolidated-plan-2010-2015-opportunity-maps.cfm
4 See Appendix B of this report for a complete list of indicators and data sources. It is also worth noting that, while tract-level data typically represents neighborhood conditions well, in the case of larger, rural tracts like those on the edges of the Portland metro, Census tract data may be too broad to adequately represent opportunity accessibility. In these areas, a more local analysis would supplant these findings.
**Map 1** represents the access to educational opportunity throughout the region. Based on fourth grade proficiency, student to teachers ratios, student poverty, teacher qualification, adult educational attainment, and promotion rate data for schools across the region, this map shows which neighborhoods that have the greatest access to quality primary and secondary educational resources.

**Map 2** is a composite map of economic opportunity across the region.\(^5\) It is based on local job growth from 2005 to 2009, as well as on the proximity of employees, businesses, population on public assistance, unemployment rate, and mean commute-to-work time for each Census Tract. This map highlights the impacts of Oregon's system of urban growth boundaries, as the greatest access to economic and transportation assets is, for the most part, limited to the core of the region, unlike many other regions across the country.\(^6\)

**Map 3** symbolizes access to housing and neighborhood opportunity in the region. This layer contains data on crime,\(^7\) home ownership, residential vacancy, neighborhood poverty rate, proximity to toxic waste sites, and proximity to parks and open space. Based on these indicators, the areas of highest opportunity tend to be around the region's perimeter, while the core neighborhoods have less access to opportunity amenities.

The comprehensive Opportunity Map, **Map 4**, is a compilation of all three of the previous maps, and represents overall neighborhood health and access to opportunity.\(^8\) Although no weighting is applied to the value of any indicators, the final Opportunity Map clearly shows how the indicators from each of the three categories balance one another out to provide a broad representation of the landscape.

One way of using the Opportunity Map is as a research tool. By looking at the geographic distribution of factors such as race, subsidized housing, subprime lending, and foreclosure, in relation to opportunity accessibility, a deeper understanding of successful life outcomes can be gained.

Chart 1 represents how the general population of the region is situated in relation to opportunity. The chart shows that a large share of residents (43%) lives in areas with “High” and “Moderate” access to opportunity, and that the share of the population living with “Very Low” access to opportunity is a little more than a third of the total population.

5 A more robust analysis of access to transportation opportunity, based on local data, will supplement this map as a policy-making tool.

6 For a comparison of opportunity mapping in other regions, see [http://kirwaninstitute.org/research/projects/index.php](http://kirwaninstitute.org/research/projects/index.php)

7 PCensus Dbx data, by Tetrad Computer Applications Inc., was used for this indicator; though it represents rough estimates of crimes per tract, it was substituted for local crime data because of its regional coverage and consistency.

8 This map is intended to be a catalyst for further discussion about access to opportunity in the region. Mapping and analyzing these characteristics with more local-level data will be an important part of the comprehensive sustainability planning process.
However, as Map 5 and Chart 2 show, these trends do not represent how all communities are situated in relation to opportunity. While the majority of the region’s Asian and White populations live in “High” or “Very High” opportunity areas, more than half of all American Natives, African Americans, and Latinos are located in areas with “Low” or “Very Low” opportunity. Less than one in four American Natives and African Americans live in areas with high access to opportunity.

These findings underscore an important message for local advocates, representing the need for an approach that creates access to opportunity for everyone. In the effort to see that the majority of the region’s residents live in areas with high access to opportunity, targeted strategies will need to be developed based on how various groups are currently situated, and the long term value of this endeavor cannot be understated.

Maps 6-8 provide further context for understanding how people living in low opportunity are marginalized. These maps show where housing characteristics such as subsidized units, subprime mortgage loans, and foreclosures are in relation to opportunity. Chart 3 represents the distribution of these within each opportunity class, and shows how concentrated they tend to be in areas with little access to opportunity. For example, 64% of the region’s subsidized housing units are in areas with limited opportunity, and while these areas contain only 32% of the region’s mortgages, they represent 42% of the subprime loans and 43% of the foreclosures in the region.


Over the past 40 years, Portland has established itself as a region that celebrates and protects its natural resources. Becoming a trendsetter in development policy and environmental sustainability, the area has built a progressive culture that is willing to adopt promising approaches to regional challenges. In light of the challenges associated with social and racial inequity, as well as with building organizational alliances around the various elements of sustainability, the region will need to draw on the strengths of its political will, and learn to apply the observations from this and previous research.
The following strategies are based on findings from the opportunity mapping analysis:

- **Improve access to good credit for all residents of the region**
  
  One of the findings from the opportunity analysis was that the access to safe credit products has been limited to certain parts of the region. This is evident by the overrepresentation of subprime mortgages in some parts of the region, particularly among communities of color. In order to help build economic opportunity throughout the entire region, these communities will need targeted credit programs. Successful implementation of this recommendation would mean improved access to housing and economic opportunities, allowing more residents to build wealth, own homes, and start successful entrepreneurial endeavors.

- **Increase and improve affordable housing options**
  
  Another important observation from the opportunity maps is that the region’s affordable housing options are most commonly found in areas with the lowest access to opportunity. If these housing products are going to become transitional opportunities for working families, they need to be in closer proximity to the educational and economic opportunities that help promote development and prosperity.

- **Leverage compact development patterns and transportation infrastructure to create stronger linkages between people and places**

  Two of the significant assets that have been developed in Portland over the past several decades are the compact nature of urban development, and the integrated transportation system. These are resources that must be further leveraged in order to better connect all people throughout the region to the opportunity structures that exist. In order to compliment the investments which are aimed at building opportunity in places where it is currently limited, the region’s existing assets can be used to link under-resourced residents to places of promise.

- **Use the Opportunity Map to perform an Equity Audit of the proposed Portland Plan**

  A lasting and large-scale impact of using this work would be to use the Opportunity Map and framework as an overlay, while performing an Equity Audit of the Portland Comprehensive Plan update that is currently underway. This plan will be driving policy and investment for the next three decades, and will help shape the region for years beyond that. By making sure that the comprehensive plan contains a comprehensive approach to sustainability, and has strong equity-building measures in place, the region will be preparing its systems for lasting health and prosperity.

Confronting the challenges revealed by this work will not be easy. Continuing the cause of collaboration among advocacy groups after the initial spark of interest has waned will be tedious at times. However, as the cover art of this report suggests, genuine sustainability requires building bridges across particular organizational interests, and involves caring for the health of the social and economic environment, as well as that of the natural and built environments. It also suggests that investing in our human capital will be a crucial part of the enduring wellbeing of the region, and that all communities must be represented in the effort to shape Portland’s future. If this work continues, the region will not only remain a model of sustainability, but will also be a place of health and opportunity for generations to come.
Appendix A:
The Impact of Neighborhood Conditions – Additional Literature and Resources

For general information, see:

For examples of education impacts, see:

For examples of economic and employment impacts, see:
For examples of health, environmental justice and transportation impacts, see:


For examples of crime and safety impacts, see:

Appendix B:

Opportunity Indicators and Source Data

Education
- Reading Proficiency Scores (09-10); Oregon, Washington Depts. of Education
- Math Proficiency Scores (09-10); Oregon, Washington Depts. of Education
- Student-to-Teacher Ratio (08-09); National Center for Education Statistics (NCES)
- Student Poverty Rate (pct. Receiving Free or Reduced Price Lunch)(08-09); National Center for Education Statistics (NCES)
- Adult Educational Attainment (% of age 25+ with at least a bachelor’s degree, 2009); ESRI Business Analyst
- Highly Qualified Teachers (2005-2006); Oregon, Washington Depts. of Education
- Retention Rate (08-09); Oregon, Washington Depts. of Education

Economics & Mobility
- Number of Jobs located within 5 miles of tract centroids (2009); ESRI Business Analyst
- Change in number of jobs (between 05-09) within 5 miles of tract centroids; ESRI Business Analyst
- Business creation (from 05-09) within 5 miles of tract centroids; ESRI Business Analyst
- Percentage of Population on Public Assistance (2000); U.S. Census
- Unemployment Rate (2009); ESRI Business Analyst
- Mean commute to work time (2000); U.S. Census

Housing & Neighborhoods
- Crime Rates (total crimes per 1000 persons, 2006); PCensusDbx
- Home Ownership Rates (2009); ESRI Business Analyst
- Residential Vacancy Rates (September 2010); HUD User, U.S. Postal Service
- Neighborhood Poverty Rates (2000); U.S. Census
- Number of Toxic Waste Sites per tract (2009); Environmental Protection Agency
- Level of Hazardous Release within 2 miles of Toxic Waste Sites(2009); Environmental Protection Agency
- Proximity to Parks and Open Space (percentage of tract area that is park or green space, 2010); ESRI Business Analyst
Map 1: Educational Opportunity

This map is a tract-level model of access to educational opportunity in the Portland metropolitan region. Based on proficiency scores, student-to-teacher ratios, student poverty, teacher qualifications, adult educational attainment, and promotion/retention rates, the map shows the level of opportunity across the region, from least to greatest.

Sources: ESRI Business Analyst 2009, National Center for Education Statistics (NCES), Oregon Department of Education, Washington Department of Education
Map 2: Economic Opportunity

This map is a tract-level model of access to economic and transportation opportunity in the Portland metropolitan region. Based on proximity to employment, job and business change from 2005-2009, percentage of population on public assistance, unemployment rate, and mean commute to work time, the map shows the level of opportunity across the region, from least to greatest.

Sources: ESRI Business Analyst 2009, U.S. Census 2000
Map 3: Housing & Neighborhood Opportunity

This map is a tract-level model of access to housing & neighborhood opportunity in the Portland metropolitan region. Based on crime rates, home ownership rates, residential vacancy, neighborhood poverty rate, and proximity to toxic waste sites and chemical release, the map shows the level of opportunity across the region, from least to greatest.
Map 4: Comprehensive Opportunity

This map is a tract-level model of access to opportunity in the Portland metropolitan region. Based on educational, economic, transportation, housing, and neighborhood data, the map shows the level of opportunity across the region, from least to greatest.

This map shows the relationship between the non-White population of the region and access to opportunity. While 34% of the region’s people of color live in areas with high or very high access to opportunity, 46% live in areas with low or very low access to opportunity. However, sub-analysis by race shows that while over 50% of Asians live in areas with high opportunity, more than 50% of American Natives, African Americans, and Latinos reside in parts of the region with limited access to opportunity.

This map shows the relationship between subsidized housing throughout the region and access to opportunity. 64% of the region’s subsidized units are located within areas with low or very low access to opportunity.
This map shows the relationship between high cost HMDA loans throughout the region and access to opportunity. While 32% of the region’s mortgages are located within areas with low or very low access to opportunity, these areas contained 42% of the region’s subprime loans in 2007.

Map 7: Opportunity & Subprime Lending

Map 8: Opportunity & Foreclosure

This map shows the relationship between high cost HMDA loans throughout the region and access to opportunity. Though only 32% of the region’s mortgages are located within areas with low or very low access to opportunity, these areas contained 43% of the region’s foreclosures in 2007.
Map 9: Opportunity & Development

This map shows access to opportunity in relationship to the Urban Growth Boundaries (2009) in the region.


Legend:
- **Growth Boundaries**
- Interstate
- Major Highway
- MSA Boundary
- County Boundary
- Portland MSA Tracts
- Very Low Opportunity
- Low Opportunity
- Moderate Opportunity
- High Opportunity
- Very High Opportunity

[Map showing access to opportunity in relationship to the Urban Growth Boundaries (2009) in the region.]

[Map showing various geographic regions including Portland, Hillsboro, Beaverton, Clackamas, Clark, Skamania, Yamhill, and Multnomah.]

[Map scale with increments of 0, 2.5, 5, and 10 Miles.]
NORTHWEST AREA FOUNDATION
The mission of the Northwest Area Foundation is to support efforts by the people, organizations and communities of our eight-state region to reduce poverty and achieve sustainable prosperity. We do this by using our resources to support, collaborate with and build on the work of proven or promising change agents, including organizations, public health officials, communities and other foundations who are committed to addressing systemic causes of poverty.

KIRWAN INSTITUTE
A university-wide interdisciplinary research institute, the Kirwan Institute generates and supports innovative analyses of the dynamics that underlie racial marginality and undermine full and fair democratic practices in the United States and throughout the global community. Its work informs policies and practices to produce equitable change.