



Equity, Opportunity and the Regional Planning Process:

Data and Mapping in
Five U.S. Metropolitan Areas

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Executive Summary

Metropolitan areas across the country increasingly have utilized a wealth of demographic and spatial data to create equity and opportunity atlases or maps. These maps can serve as reference points for community groups and activists to show how inequality is spatially distributed across cities and regions. They also hold the possibility of helping to push regional planning and policy toward a more equitable distribution of housing, transportation, and environmental costs and benefits.

This paper investigates how equity and opportunity maps have been integrated into planning processes in regions across the country. Specifically, we ask how regional equity and opportunity maps have been useful in catalyzing engagement on equity issues, making the case for local and regional policy changes, and adopting meaningful equity-oriented planning and policy changes.

We employ a case study approach to assess the effectiveness of equity and opportunity mapping efforts in five metropolitan areas: Portland (Oregon), Atlanta, Denver, Minneapolis–St. Paul and Seattle. In each of these regions, we conducted semistructured interviews with key stakeholders involved in mapping, community engagement, advocacy, planning and policy.

Our findings show that equity and opportunity mapping have stimulated new conversations, local actions and regional plans. Many regions, however,

are still struggling to adopt policies that have a meaningful impact in shifting their landscapes of equity and opportunity by decreasing social inequality and segregation. The conclusion suggests ways in which community-based groups, activists, planners and policymakers can better use equity and opportunity mapping to push for regional change.

Lessons learned include advice for management of opportunity and equity map data collection and development at the metropolitan level, which requires significant planning and resources. We also stress the importance of stakeholder and community engagement from project start to policy development and implementation and review successful engagement tactics utilized across heterogeneous metropolitan areas. Finally, we review some successful policy endeavors that already have come out of the still—politically speaking—young process of planning for metropolitan equity with opportunity and equity data.



I. Introduction

The concepts of equity and opportunity increasingly have become part of the American metropolitan planning landscape. Under the administration of President Barack Obama, these efforts were promulgated through the Department of Housing and Urban Development's (HUD) affirmatively furthering fair housing (AFFH) mandate and its Sustainable Communities Regional Planning Grant (SCRPG) program. Equity planning initiatives also have arisen from community-based efforts.

Whether driven by federal policy or grassroots activism, such initiatives increasingly have made use of publicly available geospatial data as a centerpiece of their planning efforts. In metropolitan regions across the country, communities have created what commonly have become known as opportunity maps or equity atlases. Equity atlases are databases—often including maps—of demographic, socioeconomic, public health, environmental and other information that pertains to issues of metropolitan equity. Similarly, opportunity maps display composite indices of equity-related data to illustrate where various kinds of opportunities are located throughout a metropolitan area. These efforts, whether public or private, often have involved community engagement at various stages, from data collection to ground-truthing of maps and generating ideas for policy changes. Furthermore, these products—whether in the form of an online map or database—have been used to push for policies to address the uneven access that disadvantaged groups have to various kinds of educational, employment, housing and other opportunities. For equity and advocacy planners who have long argued for the need to address issues of equity and opportunity at the regional scale, the growth of such trends, backed by an ever-increasing wealth of spatial data, marks an exciting moment (Orfield, 1997; powell, 1999).

Several decades of research on neighborhood effects and regionalism suggest that communities' use of data and planning efforts has the potential to result in better outcomes for disadvantaged populations. A

wide body of research from the 1980s through the 2000s cataloged the negative effects of concentrated poverty neighborhoods on the life chances of residents and the failure of public policy to transform conditions within these communities (Galster and Sharkey, 2017; Ellen and Turner, 1997). Research also has long shown that while economic, social and environmental challenges are not contained within municipal jurisdictions (Pastor et al., 2009), solving those challenges is complicated by fractured municipal governance (Rusk, 1999; Orfield, 1997). Drawing on the work of George Galster and Sean Killen (1995), scholars have given increased attention to the landscape of "metropolitan opportunity," or the markets, institutions and systems in metropolitan areas that affect people's health, incomes, social networks, and economic mobility, as well as other aspects of their life and well-being, both in the short and the long run. They also have increasingly argued for a more equitable distribution of and access to opportunity across metropolitan areas, such that one's life chances are not inequitably limited or advanced by the neighborhoods or cities in which they were born and have lived (Dawkins, 2017).

In this report, we investigate how efforts to map and measure spatial opportunity and equity have been incorporated into regional planning processes and used to engage communities, along with the effect that these efforts have had on public policy. How are equity and opportunity maps constructed, and do they accurately reflect conditions of neighborhood equity and opportunity on the ground? How have residents and other stakeholders been engaged in creating and

interpreting data and maps? And to what extent have opportunity and equity mapping processes shifted conversations and advocacy around equity issues and guided local or regional planning or policy changes? We analyze these questions through case studies of five metropolitan areas that have made use of opportunity and equity maps in recent years: Atlanta, Denver, Minneapolis–St. Paul, Portland (Oregon) and Seattle. In each of these regions, we conducted semistructured interviews with key stakeholders and analyzed secondary documents related to mapping processes, stakeholder and community engagement, and policy outcomes.

We find that the proliferation of equity and opportunity mapping has been a useful tool for metropolitan planning organizations, local governments and community-based organizations. Equity and opportunity maps have helped communities better visualize multiple social, economic and other disparities that exist across metropolitan regions. Although broad community engagement in the mapping process and data has not been the norm, stakeholder engagement in many regions has resulted in broader community buy-in to the process, varying perspectives on the stories that maps tell about communities and the region, and data that are more readily used and accessible to community-based organizations. Such maps have been useful in focusing planning and policy conversations on addressing longstanding inequities. They have given community-based organizations an effective tool to make the case for policies that can produce more equitable outcomes and increase access to opportunity for all residents.

However, such maps and the processes that produce them have not been particularly useful in charting a clear path forward toward more equitable regional policymaking. In some communities, efforts have renewed longstanding debates over the benefits of people-based versus place-based policies to alleviate poverty. In others, they have led to ambitious regional plans that have yet to be realized. These plans have laid the groundwork for potential investments and new policy frames.

However, the barriers to equitable regional planning are longstanding and robust (Finio et al., 2018). Overcoming them takes not only good planning, but also time, engagement and coordination across different sectors and municipalities, funding, and lots of political will.

Our findings underscore that opportunity maps and equity data are not tools that alone can mitigate longstanding issues of regional inequality. Rather, they add to the strategies that community-based groups, planners, and policymakers can employ to push for change. Without broad community engagement in the process of mapping and plan creation, sustained grassroots advocacy and collective political will, regional equity and opportunity maps rarely contribute to significant planning and policy changes. Furthermore, the process of creating, updating and maintaining the maps can be a time- and resource-intensive process. For equity and opportunity maps to be useful in creating more equitable regions, the processes that produce them need to be undertaken with broad community and stakeholder engagement as a key part of the process, with policy change as the key goal.

This report begins with a review of literature on regional equity planning, community engagement in the context of such efforts, opportunity and equity mapping, and the connections among these separate but linked trends. We then present our research methods and provide a brief overview of the case study sites and their efforts to map issues of equity and opportunity. Next, we analyze the cases related to the three core themes—the mapping process, community and stakeholder engagement, and policy outcomes. We then offer a discussion about the proliferation of equity and opportunity data and mapping and their use to foster more robust engagement in planning processes and promote regional policies designed to address issues of equity and opportunity. We conclude with lessons learned from the case studies for activists, planners and policymakers seeking to use opportunity and equity mapping to push issues of spatial equity at the regional level.

II. From Regional Equity Planning to Opportunity Mapping: A Review of the Literature

Recent advances and trends in regional equity and opportunity mapping are grounded in decades of scholarship, community advocacy and planning that has extended from the local to the federal level. Equity planning has its roots in the work of early advocacy planners who aimed to influence public opinion, mobilize underrepresented communities and groups, and advance plans, programs and policies that redistributed municipal resources to economically and socially marginalized groups (Metzger, 1996). In the 1960s and 1970s, equity planning was promulgated in several U.S. cities under the leadership of progressive or populist mayors. The first and best-known example was in Cleveland, where in 1967 the newly elected Carl Stokes, the city's first black mayor, hired Norman Krumholz as planning director. Influenced by such scholars as Paul Davidoff (1965) and Herbert Gans (1968), Krumholz (1982) advised Cleveland planners to play a more political role in the redistribution of public resources to disadvantaged social and economic groups.

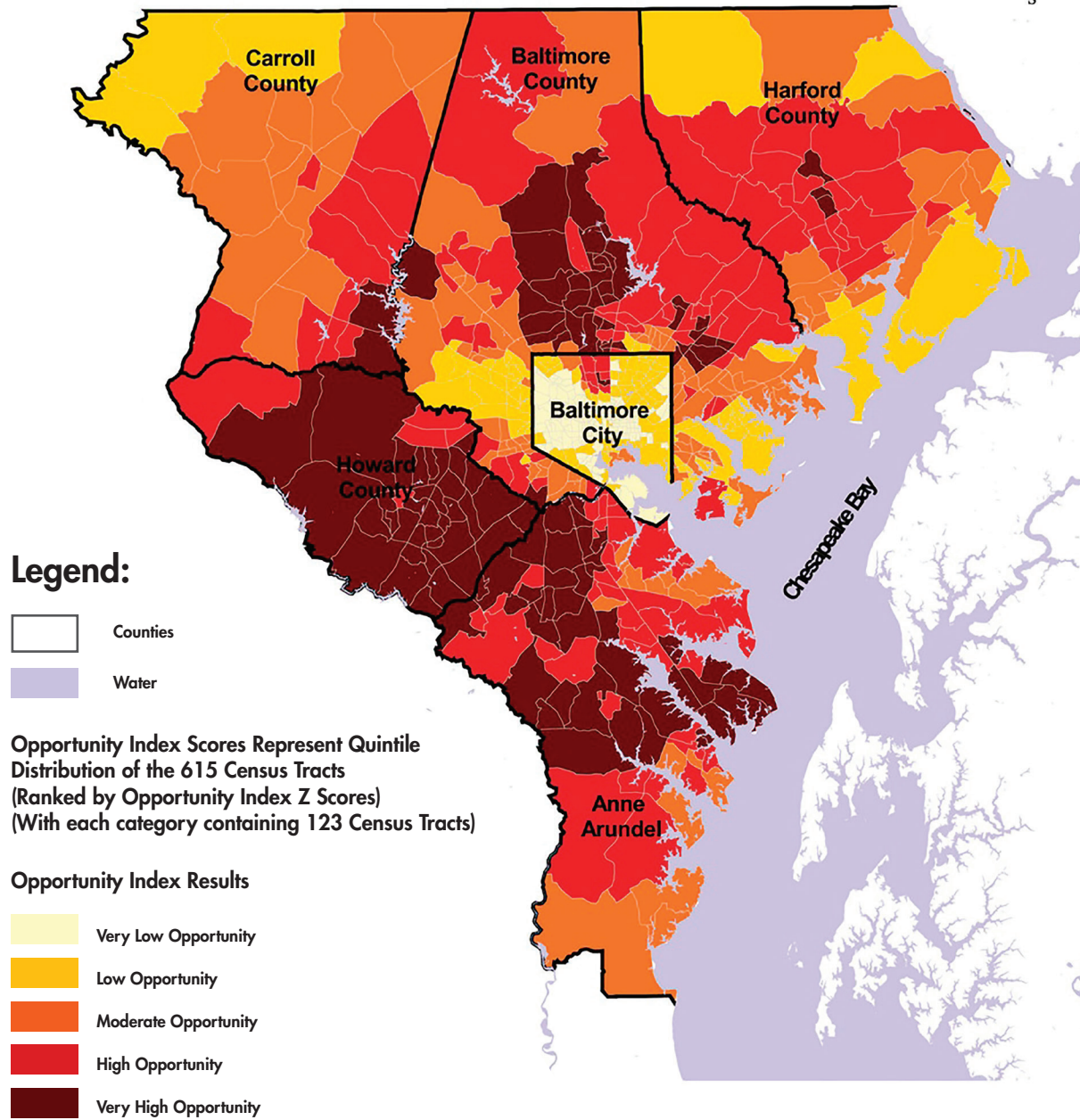
In the 1980s and 1990s, decentralized, small-government policies helped to steer state and federal planning away from such overt focus on equity (Chapple and Goetz, 2011). Such policies redirected federal fiscal and economic resources away from equity-focused planning in ever more fragmented and segregated metropolitan areas (O'Connor, 2008).

A new branch of equity planning, however, emerged in the 1990s with a distinctly regional focus. These efforts were influenced by scholars—such as David Rusk (1999), Myron Orfield (1997), and John A. Powell (1999)—who argued that spatial inequalities were produced by economic and institutional processes at the regional level that had negative consequences for both disadvantaged communities and entire regions. Their contributions included an emphasis on the region as an important geographical focus for equity planning efforts and on the need to measure and map regional equity. By

the early 2000s, regional equity planning had found its way into various on-the-ground regional planning efforts. Ideas for regional equity planning were widely shared among metropolitan areas, from tax-base sharing to fair-share housing requirements and transit system funding (Brookings Institution, 2007).

Concurrently with these innovations, opportunity mapping was introduced by John Powell, who served as director of the Kirwan Institute at the Ohio State University from 2003 to 2012. Powell's "opportunity maps" (see Figure 1) were the key to success in the fair housing lawsuit in Baltimore, *Thompson v. HUD* (2001), which led to increased provision of public housing and a regional housing voucher mobility program, among other settlements. The opportunity maps illustrated how the Baltimore region's project-based housing and voucher recipients were disproportionately located in the region's lowest opportunity areas.

"Communities of Opportunity" Comprehensive Opportunity Index for the Baltimore Region



Prepared by: Kirwan Institute for the Study of Race & Ethnicity
Date Prepared: 06.29.2005

Figure 1. john a. powell's (Kirwan Institute) opportunity map, submitted as written testimony in *Thompson v. HUD*. Reproduced from "Remedial Phase Expert Report of john powell in *Thompson v. HUD*," by j. powell, 2005, p. 3.



Under the presidency of Barack Obama in the late 2000s, the focus on regional equity and opportunity became a national policy priority. The Partnership for Sustainable Communities—a first-term Obama administration collaboration involving HUD, the Environmental Protection Agency and the Department of Transportation—set the foundations for the federal government’s extended role. The appropriation of hundreds of millions of dollars in 2010 and 2011 through the Partnership’s SCRPG program was the most substantial federal support for metropolitan planning since at least the 1990s (Knaap and Lewis, 2011). The grants also were the first major federal program that explicitly aimed to advance social equity, inclusion and access to opportunity by supporting metropolitan and multijurisdictional cross-sector planning. SCRPG funds were designated for regional plans that integrated housing, land use, economic and workforce development, and transportation and infrastructure investments (HUD, 2016). To promote equity, recipient regions were instructed to focus on improving life outcomes for racial and ethnic minorities and the poor. The SCRPG program was focused on traditional planning issues, such as transportation and the environment, but it encouraged coordination of those policies with fair housing and “equitable land use planning” (Zapata and Bates, 2016, p. 413).

Additionally, the SCRPG was used as a testbed for HUD’s new AFFH regulations. Finalized in 2015, these regulations required cities and regions to document and assess barriers to fair housing and access to opportunity through data and maps. The regulations were designed to clarify fair housing obligations for recipients of HUD funds, toward the goal of promoting fair housing and equal opportunity.

Further expanding SCRPG’s scope beyond the use of equity and opportunity data in regional planning efforts, grant recipients also were required to engage local communities in the planning process (Krumholz, 2015). Non-profit organizations that could effectively engage with diverse communities traditionally underrepresented in planning processes were required to be a part of SCRPG recipient consortia (Zapata and Bates, 2016). Zapata and Bates’ (2015) assessment of several SCRPG processes led them to conclude that successful regional equity planning requires shared goals and visions among diverse stakeholders.

While the SCRPG program provided robust support for regional equity planning, some communities were taking matters into their own hands. Such locally based initiatives often have used access to data on

regional equity provided by non-profits with national reach, such as the Kirwan Institute and PolicyLink, as well as generating their own databases to create equity atlases and maps. These efforts often have been inspired by the advocacy efforts of community-based organizations, which have gathered and analyzed regional and local equity data and created their equity maps to advance causes.

Thus, in the early years of the 21st century, data-driven regional equity planning efforts were underway across the country, many of which incorporated the ideals of robust community engagement. Most studies of these diverse efforts have focused on SCRPG processes and relationships built among agencies and other stakeholders to address regional equity issues. In an investigation of SCRPGs in California, Frick et al. (2015) observed that the grants had the potential to deepen existing divisions or create new planning silos. In a review of all SCRPG projects, Zapata and Bates (2016) found that although the grants provided a venue for policymakers and activists to signal commitment to regional equity, capacity to act was often lacking. Arias et al. (2017) noted that although the grants were successful in breaking down planning silos and advancing equity conversations, communities and activists in three SCRPG grantee regions viewed regional equity planning efforts skeptically and struggled to arrive at a shared definition of equity. In northeast Ohio, Hexter and Kaufman (2017) found that a failure to achieve buy-in from the political and business communities limited the success of SCRPG in building the intergovernmental cooperation needed to advance a regional equity agenda.



Only a limited number of studies have looked at the impact of regional equity planning efforts outside of the SCRPG processes and as they relate to planning and policy outcomes. There also has been little evaluation of the extent to which community engagement in the process of regional equity planning matters to planning outcomes, effectiveness or perceived value. Furthermore, although the wide dispersion of opportunity and equity data in planning processes can help push regional equity planning agendas forward, few studies exist of their successes and failures, especially outside of studies focused on SCRPG grants. This study begins to fill these gaps by analyzing how opportunity and equity maps were produced, how communities were engaged in the process and how they were used to adopt planning and policy changes in five major metropolitan areas across the United States.

III. Methodology

In this article, we apply case study methods in five metropolitan areas—Portland (Oregon), Atlanta, Denver, Minneapolis–St. Paul and Seattle—all of which have made extensive use of opportunity or equity mapping data in the process of regional planning. Our selection of regions was based on the goal of drawing key lessons in regional equity planning from diverse regions across the United States. All are large and growing metropolitan areas that range in population from approximately 2.4 million in Portland to 5.7 million in Atlanta (Figure 2), but face unique equity challenges. Our selections also were driven by a desire for geographic diversity and include metropolitan areas in the Midwest, South, Mountain West, and Pacific Northwest. Finally, the cases offer a diverse range of processes around the key areas of interest—data collection and mapping, community engagement, and policymaking.

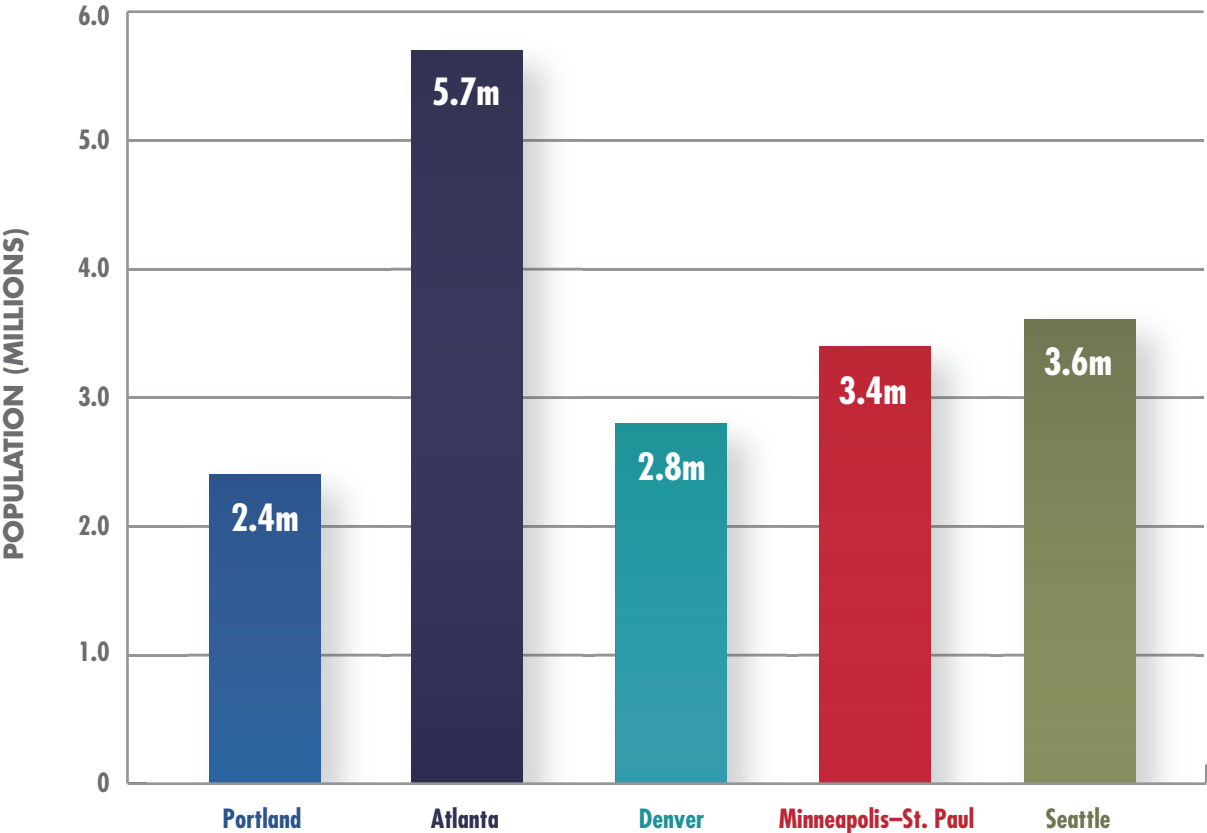


Figure 2. Estimated populations of the five metropolitan areas.

Challenges and regional planning efforts differ across the sites. Denver, Seattle, Portland and Minneapolis have invested heavily this century in transportation designed to improve regional accessibility. Seattle, Portland and Denver are enduring the effects of a strong housing market and related affordability crisis. Atlanta, Minneapolis and Denver have burgeoning immigrant communities that present unique challenges for public service provision. All regions have strong networks of nongovernmental organizations (NGOs), including a diverse array of community-based and regional organizations working on community development, housing, transit and other equity issues, as well as local and national foundations and philanthropies. Furthermore, each region highlights a unique approach to this type of planning.

In each case study region, we conducted semistructured interviews with key stakeholders involved in equity planning processes. Our interviews included a total of 29 key informants across the different regions. Participants were selected via a snowball sample that began with key players identified by a review of primary documents, such as regional reports and plans. These interviewees then referred us to others who were key to the process. In each region, we aimed to interview the main parties responsible for creating the equity and opportunity maps, conducting community or stakeholder engagement, and implementing key aspects of the plan. In most regions, this involved discussions with leaders from the metropolitan planning organization (MPO) or regional council of governments (COG); local planning agencies; NGO, non-profit and advocacy organizations; and academic institutes,



research institutes or private consultants (Figure 3). We also spoke with researchers from the Kirwan Institute, an interdisciplinary research center at the Ohio State University, who have consulted on opportunity mapping projects throughout the country, before, during and after the SCRPG process.

The interviews included questions about participants’ roles, the opportunity or equity mapping process, community and stakeholder engagement, plan implementation and effectiveness, and key lessons for other communities. Each was conducted over the phone and lasted approximately one hour. Interviews were recorded, transcribed and coded in Dedoose—a qualitative analysis software package—to locate connected themes among interviewees on issues of mapping, engagement and plan outcomes. Our analysis was further supplemented by content analysis of primary and secondary documents produced during the planning processes. These included opportunity and equity maps, reports on the community engagement processes, regional plans, and evaluations of plans and planning outcomes.

Region	MPO/COG	Local Gov.	NGO	Academia/Consulting	Total
Portland	1	1	2	1	5
Atlanta	2	0	2	1	5
Denver	2	0	4	0	6
Minneapolis–St. Paul	2	0	1	3	6
Seattle	2	1	2	2	7

Figure 3. Number of interviewees, by region, employer category and total.



IV. Background on Case Studies

In this section, we provide key background information on each of the five case study sites. This includes information about the impetus for the planning effort, the composition of the body or partnership that led the effort, the community engagement process and the final products of the planning efforts.

A key difference among the case studies is the origin of their planning efforts. Three of the metropolitan areas—Denver, Minneapolis–St. Paul and Seattle—were recipients of HUD SCRPGs. In each of these regions, the grant process required the acquisition of opportunity and equity data. The remaining metropolitan areas, Portland and Atlanta, did not

receive SCRPGs (Figure 4). Instead, their equity planning efforts were driven by community-based non-profits and other advocates across the region. In SCRPG recipient regions, as required by HUD, planning efforts were led by MPOs, which led consortia of NGOs and government agencies.

Region	Name of Equity Planning Effort	Linked to SCRPG?
Portland	Regional Equity Atlas 1.0/2.0/3.0	No
Atlanta	Metro Atlanta Equity Atlas	No
Denver	Denver Regional Equity Atlas	Yes
Minneapolis–St. Paul	Choice, Place, and Opportunity	Yes
Seattle	Equity, Opportunity, and Sustainability	Yes

Figure 4. Case study metropolitan areas, their regional equity planning effort and SCRPG status.



Among the case studies, Portland was the first region to adopt a regional equity atlas. In 2007, the Coalition for a Livable Future (CLF), which comprised more than 100 organizations and hundreds of individuals, mapped the “distribution of resources and opportunities across the region and the extent to which the benefits and burdens of growth are shared equitably by different demographic groups and neighborhoods” (CLF, 2012). Published as a book, those maps and a corresponding analysis became one of the nation’s first regional equity atlases (PolicyLink, 2014). That atlas was then expanded, redesigned and published as an online mapping tool in 2012.

The impetus for this expansion and redesign, which was called Equity Atlas 2.0, came out of the impact of the original atlas in shaping public discourse and policy decisions in the region. Portland Metro (the regional MPO) and Portland State University worked in partnership with CLF to build the Atlas 2.0.

The main product of the effort was the online atlas, which was a web-based, publicly accessible mapping

tool composed of a range of equity indicators. Supporting materials also were provided, including photos and videos of “equity stories” showing how diverse communities across the metropolitan region were affected by the disparities shown in the maps. These materials were accompanied by white papers and other publications that used the equity data and maps to analyze and highlight such issues as education disparities in the region.

CLF used robust participatory processes that included focus groups composed of their diverse members to provide input on the data that would be most valuable to include in the atlas; an advisory committee developed the final list of indicators using the input provided by the focus groups. After initial stakeholder data gathering and acquisition, CLF took the atlas on a “roadshow” to organizations representing various interest groups, such as neighborhood organizations and housing and transportation advocates. While communities were not actively involved in pulling together much of the data sources and the most recent atlas, CLF raised



Atlanta: The Metro Atlanta Equity Atlas

some funds to work with communities to develop equity stories, supplementing the quantitative data with real-life stories of human experience.

Portland was the first metropolitan area in the United States to create an equity atlas that attracted national attention, and its efforts inspired similar efforts elsewhere, including Atlanta. In the early 2010s, staff and leadership in Atlanta's Partnership for Southern Equity (PSE), an equity-focused, capacity-building non-profit, learned about Portland's atlas and began organizing the construction of a similar tool. PSE was the lead organization for a body of regional partners, including the MPO (the Atlanta Regional Commission), Emory University, the Annie E. Casey Foundation, the Federal Reserve Bank of Atlanta, and other non-profit organizations focused on housing, public health and immigration. These organizations worked together from 2011 to 2013 to build the Metro Atlanta Equity Atlas (MAEA), which was released as a website with more than 200 maps covering Atlanta's 28-county region. The

maps focused on eight categories of "community well-being," namely demographics, economic development, education, environment, health, housing, public safety and transportation. A report that utilized the data, figures and tables to describe and analyze the region's disparities was released as part of the MAEA.

In Atlanta, PSE played a large role in engaging the community to promote the atlas. Community engagement around the equity atlas occurred at the end of the mapping process and involved a series of presentations across the region to describe the final document to organizations representing various interest groups. PSE went to four of the biggest counties in the region and hosted community conversations about the findings to learn if the maps correlated with residents' perceptions of equity issues. Their mapping process was not designed to incorporate community feedback into the development of the atlas, but only to make groups aware of it.



Denver: The Denver Regional Equity Atlas

In 2011, Reconnecting America, a national non-profit that advises cities and leaders on community development, and the Piton Foundation, a private foundation dedicated to improving the lives of Colorado's low-income children and families, founded the Denver Regional Equity Atlas. Both organizations were leaders within a non-profit collaborative known as Mile High Connects, which was organized in response to the region's unprecedented investment in its "FasTracks" transit system. Mile High Connects' goal was to ensure the new investment benefitted all communities, especially socially and economically disadvantaged groups. Members of the collaborative included numerous local and national foundations, regional housing advocacy groups, and transit advocates.

Denver's initial equity atlas, published in 2012 by Mile High Connects, was a 100-page report that included numerous maps and an analysis of five key issues: demographics, access to housing, access to jobs and economic development, access to education, and access to health care and health

facilities. Contemporaneously, the Denver Regional Council of Governments (DRCOG) led a consortium of more than 80 organizations to successfully apply for a HUD SCRPG grant. Funds were used in partnership with Mile High Connects to help transition the data and maps from the original atlas into an interactive online atlas. Mile High Connects remained the project leader, but the DRCOG joined as a key partner. Data collected for their online atlas figured prominently in the final SCRPG report, which focused on the relationship between affordable housing and transit access considering FasTracks investments.

Community engagement efforts were guided by the SCRPG process, as all SCRPG grantees were required to allocate at least 10 percent of funds toward engagement, particularly with groups historically underrepresented in planning processes. As in Atlanta, there was no engagement during the mapping process. Instead, DRCOG and Mile High Connects acquired the equity and opportunity data and, during the creation and after the launch of the



Minneapolis–St. Paul: Choice, Place and Opportunity

site, hosted workshops and trainings with several community groups to teach them how to use the application effectively.

Unlike Denver, Minneapolis' opportunity mapping process began with the region's receipt of an SCRPG grant. The Minneapolis–St. Paul Metropolitan Council led the grant application, and the "Corridors of Opportunity"—a consortium of advocacy groups, government leaders, foundations and academics—administered the grant. The initiative utilized SCRPG funds to support community engagement, transit corridor planning and development strategies, demonstration projects, technical support, and research, all of which were "focused on accelerating the build of the region's transit system while promoting adjacent development that advances economic vitality and benefits people of all incomes and backgrounds." (Metropolitan Council, 2014b, p. 5).

Data collection for the grant informed the Fair Housing Equity Assessment, a report required of all SCRPG recipients that analyzed the region's geography of opportunity. Specifically, the report analyzed data on housing, access to schools, jobs, neighborhood crime and safety, and demographics, as well as "racially concentrated areas of poverty"¹ and "opportunity clusters."² The consortium also produced several regional plans and reports that focused on strategies to increase equity and opportunity in the region, especially via transit investment.

Community engagement efforts in Minneapolis–St. Paul were also guided by the SCRPG process. Part of SCRPG money was used for regranteeing to local community organizations to conduct outreach. Three organizations assisted with the community engagement: Nexus Community Partners, Alliance for Metropolitan Stability and Minnesota Center for Neighborhood Organizing.

¹ As defined by HUD, these are areas in which 50 percent or more of residents are nonwhite and 40 percent or more have family or individual incomes that are less than 185 percent of the federal poverty level.

² This term refers to the Metropolitan Council's analysis of opportunity data, which—instead of using a traditional opportunity index—grouped neighborhoods by different opportunity "clusters" based on access to jobs and social services, school performance, and exposure to pollutants and crime.



Seattle: Equity, Opportunity and Sustainability

Seattle's equity planning efforts followed a similar process to that of Minneapolis. Led by the Puget Sound Regional Council (PSRC), the greater Seattle region's MPO, the Puget Sound region applied for and was awarded an SCRPG in 2011. The PSRC brought together a coalition known as "Growing Transit Communities," which consisted of local jurisdictions, regional government agencies, housing developers and financiers, and environmental and equity advocacy organizations. The effort centered on mapping the region's geography of opportunity in ways that illustrated where opportunity-rich communities existed, identified who had access to those neighborhoods, and could lead to potential remedies to address the concerns of opportunity-poor neighborhoods. PSRC contracted with the Kirwan Institute to gather and analyze data and produce the region's opportunity maps.

As in Denver and Minneapolis–St. Paul, Seattle's equity and opportunity maps illustrated regional disparities and formed a basis for developing strategies for increasing the provision of new affordable housing units and protection of existing

affordable housing, given anticipated future transit investment. The opportunity maps were published as online interactive maps. Community residents, organizations and others used the ArcGIS web application to change geographic scale and view different map layers, such as existing and proposed transit. The main product of Seattle's SCRPG process was a regional equity, opportunity and transportation plan.

As they had been in Denver and Minneapolis–St. Paul, community engagement efforts in Seattle were guided by the SCRPG process. Grant money was used to hire a full-time equity manager and create a small grant program that funded grassroots organizations engaging in the planning process for the regional light-rail system. Meetings included a series of different stakeholder engagements, including meetings to review preliminary data (neighborhood measures) and to offer input and opinions on the plan. Like the process in Atlanta, the plan, once finalized, was presented to interested parties throughout the region.

V. Analysis

In this section, we consider the successes, pitfalls, and constraints of gathering and analyzing equity data and making it publicly available in online maps and databases. We also analyze the extent and effectiveness of community or stakeholder engagement in the process. We pay particular attention to the extent to which equity and opportunity maps reflected community concerns and conditions on the ground. Finally, we evaluate how these equity and opportunity maps and databases have shifted conversations and advocacy around equity issues, as well as how they have guided local or regional policy changes and decision-making processes. In some regions, opportunity maps and equity atlases have played a significant role as a tool for telling narratives about neighborhood and regional inequities and making the case for planning and policy changes. In other regions, however, the extensive mapping work and community engagement processes have not yet resulted in substantial changes in planning and policymaking around equity issues.

Building Equity and Opportunity Databases and Maps

The process of creating and publishing maps faced various challenges and achieved varying levels of success across the different regions. Common challenges centered on issues with data literacy, curation and fatigue, as well as limitations in data availability, accuracy and scale. Common successes lay in the ability of NGOs, government organizations and individuals to use the online mapping data and interactive tools to effectively show the expansive reach of inequities across regions.

The buildout process for the various equity and opportunity maps was relatively similar across the different metropolitan areas. After an initial push from non-profit funders or a federal grant, an organization was usually charged with gathering secondary opportunity and equity data. The organizations in charge of data acquisition ranged from local universities (e.g., Portland State) and non-profits (e.g., the PSE) to contractors (e.g., the Kirwan Institute) and regional MPOs or COGs (e.g., the



Puget Sound Regional Council). Those responsible for acquiring the data had staff with mapping expertise, especially knowledge of Geographic Information Systems (GIS) software.

The data acquired through this process usually included socioeconomic and demographic data from the U.S. Census, with public health, safety, transportation and environment data coming from other state or local sources. Geographic boundaries for data acquisition generally followed U.S. Census Metropolitan Statistical Area (MSA) lines, which



tend to align with MPO and COG boundaries. Data generally were collected at a scale as small as possible, usually the census tract.

Many metropolitan areas, however, faced challenges fitting the data scale to their needs. In Atlanta, PSE attempted to include exurban and rural counties because it believed the reach of equity challenges does not stop at MSA boundaries. However, one interviewee with a housing non-profit noted the trouble they had accessing neighborhood-level public health and education data from both the federal and state government. “It’s very hard to get data at the neighborhood level from them,” she noted. “There’s a much richer story that we could be telling if we have better access to data, especially in health, [and] education too” (Anonymous, phone interview, September 18, 2017).

Many regions encountered issues other than access to data, including the amount and the quality of available data. In some places, data were voluminous, while in others many important indicators were not available. For example, in Portland, one interviewee involved in creating the atlas noted that data that described well-paying jobs and family incomes were “just not adequate to really get to the heart of the equity questions” at the

neighborhood level (Anonymous, phone interview, April 21, 2017).

Data quality issues included the availability of updated and recent data on a detailed scale. In Denver, one interviewee with Mile High Connects noted that some data sets that are granular and real-time “are either not available, or they are available for a fee” (Anonymous, phone interview, April 19, 2017).

“Indicator fatigue” also was an issue for many data teams. In Portland, the project’s lead consultant noted that the large amount of spatial data had to be trimmed down to a high-priority list and that the large body of stakeholders could not agree on a manageable priority list (Anonymous, phone interview, April 11, 2017). In Denver, one equity map architect noted the difficulties that this large amount of data presented for users. She described the atlas as “a massive data pile” that was “really hard for users to use around an equity frame” (Anonymous, phone interview, April 25, 2017).

Interviewees also noted that having large equity databases can be hard to maintain. Several said that there was always more data to gather and that expanding an atlas to include many issues and



variables makes updating it much more challenging. Several interviewees also discussed the problem of “stale” or outdated data. “By the time we had mapped [the indicators],” explained one interviewee, “the data started to be stale very quickly” (Anonymous, phone interview, April 11, 2017).

Another common concern was the need for staff time and money to keep maps updated. Data sets are continuously updated and made available across varying geographies. Often, however, funding for maintaining or enhancing equity atlases or databases is lacking. In Portland, Denver and Atlanta, interviewees underscored that the construction of online equity atlases involved significant technical investments and staff time. One interviewee with the regional MPO in Atlanta reflected, “We have a beautiful tool caught in amber, because the resources were not there [to update it] ... [or] even to keep a skeletal staff thinking about it” (Anonymous, phone interview, April 28, 2017).

Portland faced particularly difficult technological challenges. Its Equity Atlas 2.0 used Microsoft Silverlight to host its maps, but that platform is no longer available on new web browsers. One interviewee in Portland noted that “we invested significant time and resources to create Equity Atlas 2.0 and then faced the challenge of securing even more resources to keep the data updated and transfer the mapping tool to a different platform” (Anonymous, phone interview, April 11, 2017).

Perspectives on the usefulness of online equity maps and data differed, but were generally positive. Many interviewees agreed that maps were an effective way to tell a story and appreciated having access to the data. In contrast to the complicated indices of equity and opportunity available on online platforms, several interviewees—particularly community-based and advocacy organizations—highlighted the need for simple, straightforward maps of such indicators as poverty, rent and public transportation. Even for larger regional organizations and governments, however, the simplest data often were the most useful. In Portland, an interviewee with the regional MPO noted, “We had all these bells and whistles that we thought people would be utilizing, but they never did.... What we found is that the individuals that were really needing the tool were just there to make very simple, simple things” (Anonymous, phone interview, April 25, 2017). However, interviewees generally agreed that the maps were useful in helping people understand what they are seeing in their neighborhoods through a visual data representation that linked their experiences to broader spatial and structural issues.

Using Equity and Opportunity Data to Engage Diverse Communities

While regional stakeholders were gathering and building their equity and opportunity atlases and data, they often engaged with community groups and other stakeholders to gather feedback on the maps, data or atlases. The extent and quality of engagement varied substantially across the cases and often was pursued for different purposes. In some cases, communities were engaged in the process of acquiring data and developing databases or maps. At this stage, engagement was often used to “ground-truth” or validate neighborhood data with individuals who live in those neighborhoods. In other cases, regional stakeholders involved leadership and stakeholder organizations that would potentially use the equity and opportunity maps. The goals of these engagements varied from simply introducing them

to the maps to training them to use databases to construct their own maps.

The stakeholders involved varied across the case studies, but they usually included regional and local government representatives and individuals from a variety of non-profits, including housing developers and advocates, community development corporations, transportation advocacy groups, community-based organizations, immigrant rights organizations and faith-based organizations. In Denver, Seattle and Minneapolis–St. Paul, community engagement efforts were guided by HUD’s requirements for SCRPG grantees that focused on underrepresented groups.

There were significant differences among the case study regions about how, and even whether, they engaged community stakeholders in determining which data went into the atlas or maps. Although some presented the data to different communities and groups, others did not engage residents as part of the map creation process at all.

In Portland, community-engaged efforts around map creation went further than the other metropolitan area efforts. The CLF organized a lengthy and deep constituent engagement process that involved recruiting their diverse members to provide input on what data would be most valuable to include in the atlas. The results of these focus groups were organized and presented to an advisory committee tasked with developing the final list of indicators. The advisory group was diverse, including representatives from each of the counties in the region, stakeholders from issue areas highlighted in the atlas, and diverse racial and ethnic communities. Despite the seeming success of this process, however, not everyone was happy with the outcome. The lead consultant (and project manager) on the Equity Atlas 2.0 explained that “[T]here are stakeholders who are critical [of] or disappointed in the Equity Atlas, and who feel that their priorities were not reflected in the final product, despite our efforts to make the Atlas as responsive to stakeholder input as we could” (Anonymous, personal communication, April 11, 2017).



For many, engagement around mapping and data collection efforts complemented broader community engagement efforts around equity issues. “This mapping exercise is not a substitute for just talking to the community and identifying what their priorities are,” noted one City of Portland employee involved in the housing portion of the Equity Atlas 2.0 (Anonymous, phone interview, May 30, 2017). In Portland and Minneapolis, the architects of the equity atlases and opportunity maps expressed the need for outreach and engagement about the final maps to communities and government agencies. In some cases, such outreach was done through direct contact with stakeholders; in others, it was conducted via social media.

Interviewees in Portland, Atlanta and Denver all stressed the importance of building and engaging broad coalitions of stakeholders responsible for producing the maps in order to build trust and legitimize the mapmaking processes and other outcomes. Partnerships between local communities, academic institutions, and local and regional government provided a strong foundation for collaboration and a strategic division of labor. Partners tended to bring a diverse skillset to the table, such as technical skills, research expertise and community-based knowledge. One planner with the MPO in Portland noted that the inclusion of diverse voices in the process “allows all regional players, communities, jurisdiction staff to ... feel some sort

of reliability in the data that are being presented to them.... If there is one thing I think we did right, it was that" (Anonymous, phone interview, April 25, 2017).

In Atlanta, an academic echoed the importance of broad and diverse stakeholder participation. To construct a legitimate process and shared workload, he noted, "[A] collaborative endeavor that involves

the government, the non-profit sector, the community sector and universities is absolutely critical" (Anonymous, phone interview, May 23, 2017). Generally, the more diverse and inclusive the group that compiled the data, the greater the perception among interviewees that the process was trusted and that the data and atlases were reliable.

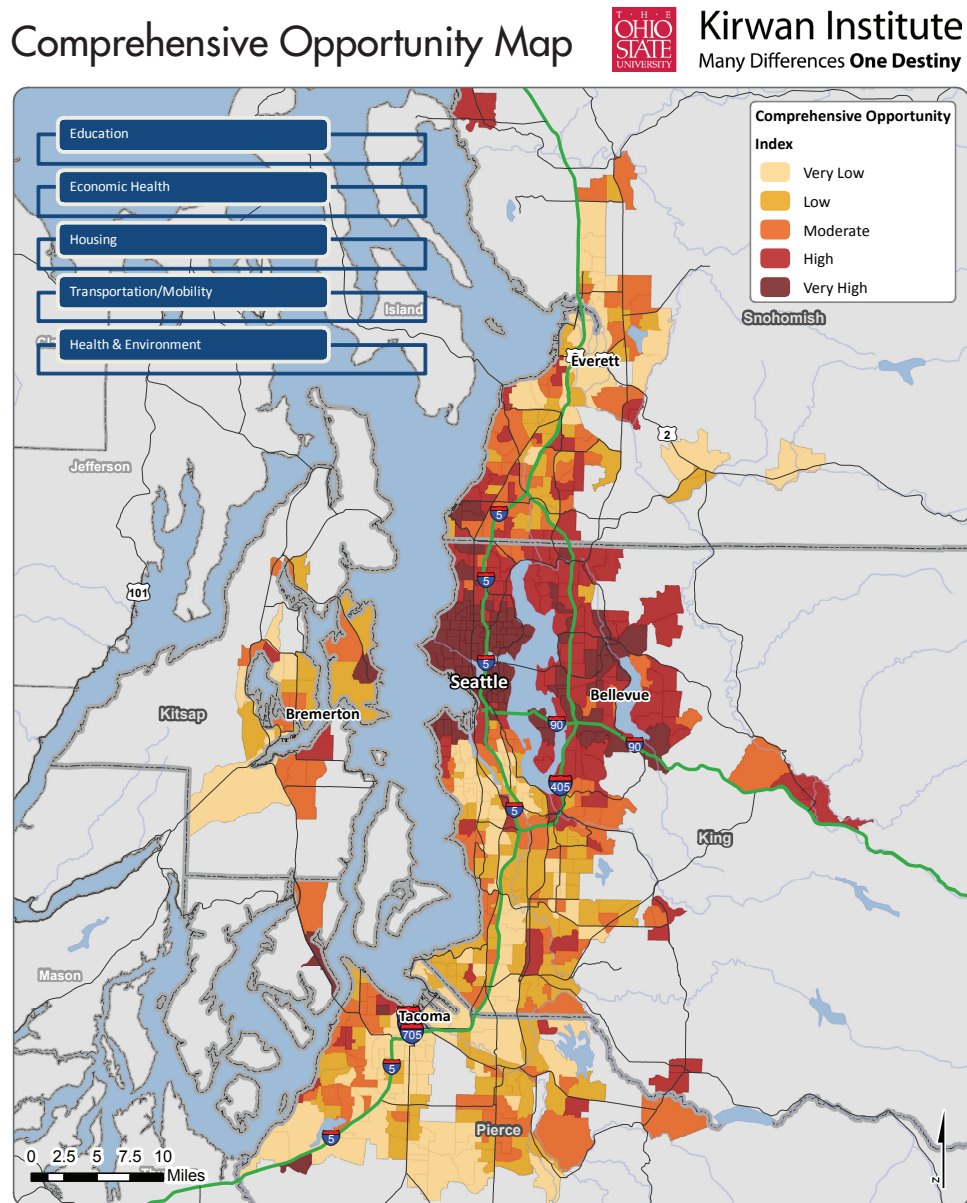


Figure 5. Comprehensive Opportunity Map, Seattle Region. Reproduced from "Opportunity Mapping Fact Sheet," Puget Sound Regional Council and Kirwan Institute for the Study of Race & Ethnicity, 2012. Retrieved from <https://www.psrc.org/sites/default/files/opportunitymap.pdf>.

Engaging communities around opportunity as it can be displayed on a map resulted in additional debates. Some opportunity maps, such as Seattle’s (Figure 5) and those prepared in other cities by the Kirwan Institute, characterize communities on a scale from “very low” to “very high” in opportunity, based on indicators related to education, economics, housing, transportation, health and others. Such measures can be interpreted as characterizing higher-income neighborhoods as better areas for investment than lower-income communities, particularly those of color. Residents and activists in some regions objected to how their neighborhoods were being characterized, noting that the maps did not highlight the community’s assets and strengths.

One interviewee from the Kirwan Institute who worked on Seattle’s maps noted, “Whenever you would start to show these maps to members or representatives

of low-income communities, a lot of times you have this negative reaction.... It was always a tough conversation [about the maps] to have” (Anonymous, phone interview, September 25, 2017).

In Minneapolis–St. Paul, community members feared that categorization as low opportunity could discourage further investment and perpetuate stereotypes. According to one academic, residents understood that the opportunity landscape of the region was shaped by decades of disinvestment, institutional racism and economics, and that mapping opportunity “without providing historical context is not really helping the problem” (Anonymous, phone interview, May 19, 2017). Residents feared that characterizing already disadvantaged neighborhoods as low opportunity would discourage, rather than galvanize, residents and outside investment toward positive change.

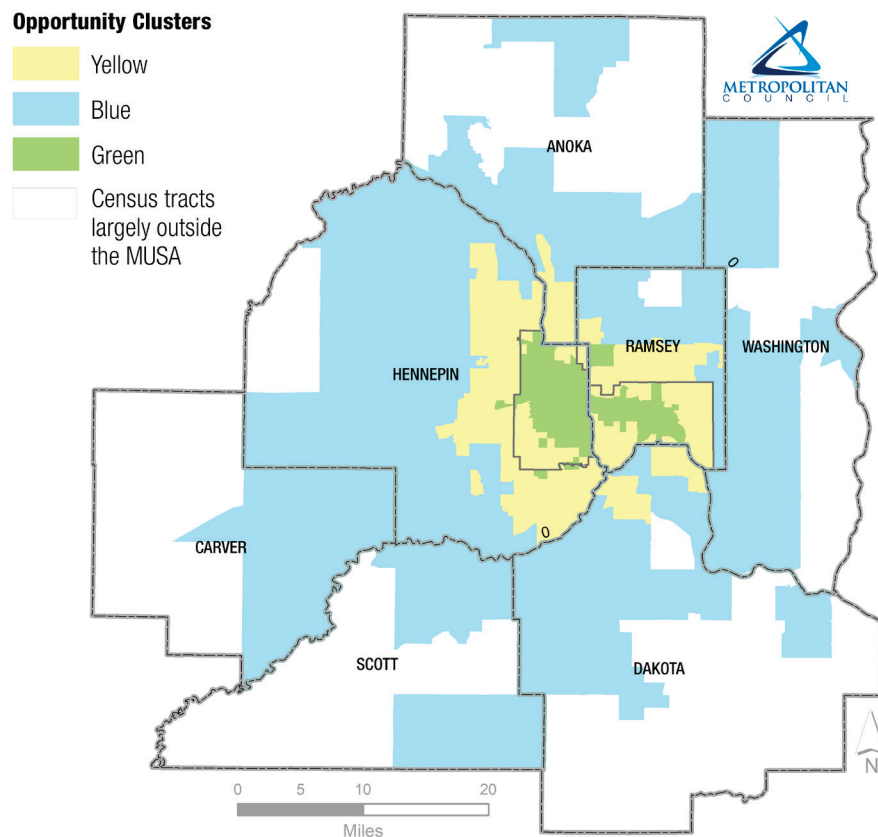


Figure 6. Opportunity Clusters, Minneapolis–St. Paul region. Reproduced from “Choice, Place and Opportunity: An Equity Assessment of the Twin Cities Region—Executive Summary,” by Metropolitan Council, 2014a, p. v.



In Minneapolis–St. Paul, this feedback led planners to a different mapping strategy. After reviewing available equity-related data, the Metropolitan Council developed a simpler, three-type opportunity analysis (Figure 6). Under this new categorization, neighborhoods were placed in three clusters that indicated accessibility to five place-based opportunities: jobs, high performing schools, safety, environmentally clean neighborhoods, and access to social services and basic necessities. Green cluster neighborhoods had higher access to jobs and social services, but lower-performing schools and higher crime. Yellow neighborhoods had moderate access to a range of services and amenities. Blue clusters had the best schools, lowest crime rates, and low environmental hazards, but low proximity to jobs and social services.

In the Minneapolis framework, both a neighborhood’s assets and its challenges were highlighted, without ranking one neighborhood higher or lower than another. As one Metropolitan Council employee noted, “Different places in our region have different types of opportunity” (Anonymous, phone interview, June 3, 2017). Minneapolis planners also used these maps to talk with communities about the types of opportunity

they had, as well as the kinds of opportunities they wanted to improve their quality of life. Even with the new typology, however, critics remained. One academic, for instance, noted that the maps still “come very close to the typical kinds of metro maps that you see opportunity in the outlying areas, then all sorts of problems in the core” (Anonymous, phone interview, May 22, 2017). Simply changing the colors and names of opportunity clusters did not fundamentally change the facts on the ground, but focusing on a community’s assets along with its challenges changed the calculus for finding solutions.

The debate over how to categorize and map opportunity has stimulated new approaches. Enterprise Community Partners’ OPPORTUNITY360 (www.opportunity360.org) presents a new framework to bring opportunity mapping closer to the realities and concerns of everyday communities and improve people’s lives by offering a 360-degree view of any U.S. neighborhood. The measurement tool enables users to assess a neighborhood on key dimensions of opportunity—such as housing stability, education, health and well-being, economic security, and mobility—and includes several indicators that generally have not been embedded in opportunity indices. The framework is intentionally multifaceted

and does not rank neighborhoods on a single high-to-low scale, acknowledging that there are many different pathways to opportunity. See Knaap (2017) for a more conceptual elaboration of this approach.

Engaging Equity and Opportunity Data in Planning and Policymaking

After the equity and opportunity maps and databases were produced, the challenge for many regions was to figure out how best to use them to promote planning and policy changes on the ground. In this section, we discuss the extent to which the maps have affected regional policy and planning around equity issues in the various case study regions. We show that, in many cases, they have been useful in bolstering advocacy around equity issues, such as public health and affordable housing. To a lesser extent, maps have been engaged in organizational planning, grant making and scholarship, and thereby have helped to make the case for local and regional policy changes and have guided decision-making processes and plans. But in only a limited number of cases have the maps been used to guide new policy outcomes. Robust or systematic use of the equity and opportunity maps in regional and municipal planning processes has yet to emerge and inform substantive shifts in regional equity planning.

Community-based organizations have frequently used the equity databases and atlases in advocacy campaigns. In Portland, an MPO representative discussed how a local non-profit working on environmental justice issues used the data to make the case for reduced traffic in a neighborhood with a high concentration of asthma rates and particulate matter from diesel emissions (Anonymous, phone interview, April 25, 2017).

Another community-based organization in Portland used the atlas to argue for stricter licensure of tobacco retailing in areas experiencing public health risks from high rates of tobacco use, which were largely low-income communities of color



(Anonymous, phone interview, April 11, 2017).

In Seattle, a non-profit legal aid organization used the opportunity data to argue for more affordable housing through new policies, such as inclusionary zoning. According to a consultant at the Kirwan Institute, the data were effective in helping the organization “really move dialogue” around the issue (Anonymous, phone interview, October 3, 2017).

Equity atlases helped many community-based and other nongovernmental organizations write grant applications. In Atlanta, the PSE designed its MAEA with this goal in mind. The community groups and non-profits that PSE engaged frequently highlighted needs or inequities that they were working to address by including premade maps that illustrated inequities in the region in their grant applications. According to one staff member at MAEA, it allowed them to “tell what [they] wanted to tell in a compelling way beyond just anecdotal stories” (Anonymous, phone interview, September 28, 2017). In Portland and Denver, numerous non-profit groups interested in equity issues also used an equity atlas in their grant applications.

Equity and opportunity data also were incorporated into regional and municipal planning processes. In Seattle, a consultant on the opportunity mapping portion of the project noted that the opportunity maps “play[ed] a pretty big role” in the identification of strategies for the regional plan produced as part

of the SCRPG process, particularly strategies for preservation of affordable housing (Anonymous, phone interview, October 3, 2017).

In Denver, an equity atlas leader noted that many municipal governments in the area, specifically those with smaller planning departments, reported that the equity atlas was a useful resource for their staff (Anonymous, phone interview, June 29, 2017). Given a lack of time and other resources, such readily available data proved useful to many municipal agencies, particularly when the atlas incorporated the most up-to-date data.

Few new policy outcomes came from opportunity or equity maps and data, but the success stories that emerged may have far-reaching impact, particularly on housing issues. In Portland, CLF successfully advocated for the city to redirect a portion of its tax increment financing toward the construction of affordable housing. According to the Equity Atlas 2.0's lead consultant, equity atlas maps that identified neighborhoods experiencing gentrification and displacement were essential in persuading city policymakers to institute its new regulation (Anonymous, phone interview, April 11, 2017).

In Seattle, the opportunity maps produced for the SCRPG have since been used by the PSRC as part

of a set of ranking criteria for transportation capital projects throughout the region. Furthermore, the Washington State Housing Finance Commission uses the opportunity maps to allocate additional "points" in high-opportunity areas within the Puget Sound Region.³ Points are used to evaluate the merit of low-income housing tax credit (LIHTC) projects and allocate tax credits.

Although cities and regions could identify specific tangible outcomes that stemmed from the production of equity and opportunity maps and databases, these outcomes were limited in number and extent, particularly around new policy initiatives. One staff person at Denver's Mile High Connects explained that the limited impact relates to the nature of the tool itself. He noted that although multiple people expressed that the maps were a great tool to help understand problems and potential policy implications, they had little power to facilitate policy adoption, which was a far more political process (Anonymous, phone interview, June 29, 2017). Instead, the maps and databases appeared to be most helpful in furthering community-based organizations' agendas and filling in the data gaps in low-resourced organizations and governmental agencies.

³ Points also are allocated for special-needs populations, funding availability, development costs, transit-oriented development, projects at risk for conversion, historic properties and many other factors. <http://www.wshfc.org/mhcf/9percent/2017application/c.policies.pdf>

VI. Lessons Learned and Recommendations

Our conversations with the diverse body of those involved in the various projects offered a few clear lessons. Some of these are derived from common experiences, positive and negative, in different case study regions. Others are unique to a region but can offer lessons for other metropolitan areas struggling to use opportunity and equity data and maps to promote greater regional equity.

Opportunity and Equity Data and Mapping

Equity and opportunity maps and data sets—whether they exist as online applications, books, reports or maps—have the potential to serve as effective regional equity planning tools that can inform planners, policymakers and community-based organizations about the challenges and opportunities in their regions. They offer an accessible means of compiling and analyzing complex, metropolitan-scale data across a wide range of equity-related issues.

As a regional equity planning tool, however, these maps and data sets also present several challenges and limitations, including the reliability and quality of the data itself. Often, maps do not accurately reflect the complexity of conditions on the ground, particularly as they are perceived and experienced by residents. They may contain measurable indicators of neighborhood quality and health, such as education or poverty levels, which skilled experts can map and condense into metrics that comprise opportunity or equity indices. However, they may ignore data that cannot be easily mapped, such as residents' sense of place, community, and use and perceptions of space. Moreover, even common indicators may be unavailable, particularly at the neighborhood scale, in a form that is updated frequently enough to be useful and accurately depict conditions on the ground in diverse communities. In



most of these regions, the equity and opportunity maps and data stand as point-in-time resources, reflecting a snapshot of communities, many of which are rapidly changing.

To overcome many of these challenges, we suggest the following:

- **Prior to beginning an equity or opportunity mapping project, establish guaranteed funding and expertise of staff, availability of technology, and engagement at the MPO or COG level.** The experience of the case study regions indicates that such projects require at least one full-time project manager and at least one full-time technical data and mapping expert for 12 to 18 months. Additional staff time will be necessary to support

community engagement, data acquisition and development, and other data needs. At least one staff member needs to have technical expertise in data acquisition, mapping and web development. Funds also are needed for website development and database management; the amount necessary can vary significantly, depending on the final features of the website.

- **Give early consideration to the desired geographic scale of data acquisition, because it affects both data availability and cost.** These considerations should be based on a clear understanding of what kind of stories can be told with the maps and data and who their primary audience(s) are.
- **Consider alternative ways to share life experiences and stories about equity and opportunity that communicate the experiences of communities beyond data.** Many data points cannot be measured and intersect in ways that are difficult to capture on a map. Allowing residents and communities to tell their stories complements maps and data in ways that are useful to both interpreting them and understanding their limitations. One promising approach is “story mapping” (www.enterprisecommunity.org/resources/engaging-communities-around-opportunity-through-story-mapping-toolkit-20388), a technique that integrates GIS analysis with the qualitative narratives of community residents to highlight the shared values and meanings of local places. Such techniques also offer a robust means of engaging communities as part of the data-collection effort. Visual assessments using such technologies as Google Street View also are useful for quantifying features of the built environment and understanding how spaces are used and perceived by neighborhood residents (Hwang and Sampson, 2014).
- **Recognize that maps and data do not speak for themselves.** Prior to delivering a final product, evaluate the most interesting or relevant data or stories. Reducing the total amount of data presented through an atlas or database can help

reduce the oft-cited problem of indicator fatigue. End users favor simplicity over complexity in most mapping applications.

- **Begin with the end in mind.** The longevity and maintenance of the equity or opportunity data after the final deliverables are made available should be considered during their development. Organizations must consider funding, resources and capacity to support an intensive, long-term effort. A long-term vision of the life of the effort, beyond the final deliverable, is essential to sustain momentum for future related endeavors.

Stakeholder and Community Engagement

Robust stakeholder engagement offers the opportunity both to overcome some of the constraints of the mapping processes and generate broad-based support for using the maps to generate long-lasting planning and policy changes. In Portland, planners and consultants involved in data collection and mapping tailored their maps and data in response to feedback from community-based organizations and residents, leading to maps and processes that were widely viewed as accurate and legitimate. The maps helped residents see their communities in different ways and led to productive discussions about how to change the landscape of opportunity in communities and around the region. For planners, the maps provided an effective vehicle for both generating and eliciting stories about neighborhoods and the region that were helpful in framing future plans and goals. Such robust engagement, however, was the exception and not the rule in the various case study regions.

To address some common limitations of stakeholder engagement in opportunity and equity mapping, we suggest the following:

- **Conduct community engagement and stakeholder coordination at each step of the process, from map development and vetting to policymaking.** Local communities and community-based organizations

should be engaged in the selection of data. Once data have been compiled, the maps generated should be vetted with communities to ensure the data accurately portray the reality of residents' lived experience. In Portland, equity data were vetted throughout the process, first through focus groups with stakeholder non-profits and agencies and then through an advisory committee of select members of that group, who had been tasked with selecting the final list of indicators. Equity atlas and opportunity mapping efforts also should be coordinated with the work of regional planners, advocacy organizations, and non-profit foundations that are concerned with equity issues in more narrowly defined policy domains, such as housing, transportation or environmental policy.

- **Approach communities from an assets-based perspective.** Opportunity and equity maps have the power to reinforce negative stereotypes and ideologies about poor communities and their residents in ways that promote further marginalization and underinvestment. On the other hand, taking an assets-based approach to community resources can help reframe conversations about the potential for reinvestment and strategies that both invest in place and foster access to opportunities for low-income residents across regions.

Moving from Maps to Policy Outcomes

Though the equity and opportunity databases and maps provided rich tools for visualizing problems and engaging communities in decision making about potential solutions, they offer no clear guide to policymaking or planning. Routine use of the equity and opportunity tools by municipal planning agencies was rare—and even less so than at the regional level. More commonly, the tools have helped resource-strapped municipalities and community-based organizations advocate for such issues as fair and affordable housing. At the regional level, however, MPOs were not incentivized to act

without the continued engagement and advocacy of broad and diverse coalitions of stakeholders. Even where such broad coalitions existed, a clear path to policy that would help build a more equitable region failed to emerge.

To help to overcome these issues, we recommend the following:

- **Build strong and diverse coalitions to push for change.** Portland's success in advancing policy seemed to hinge largely on the fact that not only did the impetus to create the maps stem largely from within community-based and advocacy groups, but also these groups were actively engaged in creating the maps and pushing for policy changes. Without strong community-based networks, many regions will face significant barriers to change.
- **Get political buy-in early and build political will throughout the process.** The main obstacle toward integrated regional equity planning remains political. Without powerful regional planning bodies, such as Metro in Portland, implementation of equity policies is left to individual municipalities across regions. See Finio et al. (2018) for a more in-depth study of this issue in the Baltimore region.
- **Advocate for federal appropriation for regional planning coordination.** From the mid-1960s through the early 1980s, HUD provided federal funding for the regional coordination of housing and transportation planning through Section 701 of the Housing Act of 1954. HUD funding for coordinated regional housing and transportation planning was renewed during the Obama administration with the SCRPG, but the future of this program is uncertain. Federal funding programs such as these are an important ingredient in the creation and maintenance of regional equity atlases and opportunity maps, particularly for small to mid-sized MPOs and COGs that often lack the staff capacity and resources to undertake new regional planning initiatives.

- **Advocate for statutes and regulations that require equity data monitoring at the municipal and regional level.** Several state and federal planning regulations provide a framework for integrating equity atlases into regional planning processes. For example, Maryland’s Qualified Allocation Plan, required for the allocation of the state’s share of federal LIHTCs, awards additional points to LIHTC-financed projects located in “communities of opportunity” that provide “reasonable access to jobs, quality schools, and other economic and social benefits” (Maryland Department of Housing and Community Development, 2016, p. 51). Washington State similarly considers high-opportunity areas for the location of affordable housing projects. HUD’s AFFH planning requirements, which require recipients of HUD funds to consider the impacts of housing policies and programs on patterns of segregation and access to opportunity, also provide a useful structure for integrating equity atlases into regional housing planning processes.

Efforts to continue to push regional equity planning forward remain ongoing. In some regions, the SCPRG grant process has helped to institutionalize regional equity planning. MPOs, municipalities and transit planning agencies now routinely use equity data to orient their planning decisions. In other places, strong networks of non-profits have helped move planning conversations in the direction of equity.

The remaining years of this decade and the 2020s will see this story continue to play out. Future equity research should continue to document the trajectory of equity planning—and the effects on the opportunity and equity landscape—within local and regional planning efforts. Such research should focus on how the now-established focus on opportunity and equity data is making a difference in both local and regional plans.

References

- Arias, J.S., Draper-Zivetz, S., & Martin, A. (2017). The Impacts of the Sustainable Communities Initiative Regional Planning Grants on Planning and Equity in Three Metropolitan Regions. *Cityscape*, 19, 93–113.
- The Brookings Institution, Metropolitan Policy Program. (2007). *Blueprint for American Prosperity: Unleashing the Potential of a Metropolitan Nation*. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/prospectus_bp.pdf.
- Chapple, K., & Goetz, E. (2011). Spatial Justice through Regionalism? The Inside Game, the Outside Game, and the Quest for the Spatial Fix in the United States. *Community Development*, 42(4), 458–475.
- Coalition for a Livable Future. (2012). *Regional Equity Atlas 2.0 Project: Indicator Selection Process Summary*. Portland, Oregon.
- Davidoff, P. (1965). Advocacy and Pluralism in Planning. *Journal of the American Institute of Planners*, 31(4), 31–37.
- Dawkins, C. (2017). Putting Equality in Place: The Normative Foundations of Geographic Equality of Opportunity. *Housing Policy Debate*, 6, 897–912.
- Ellen, I.G., & Turner, M. (1997). Does Neighborhood Matter? Assessing the Recent Evidence. *Housing Policy Debate*, 8(4), 833–866.
- Finio, N., Lung-Amam, W., Knaap, G., Dawkins, C., & Knaap, E. (2018). *Metropolitan Planning in a Vacuum*. Manuscript submitted for publication.
- Frick, K.T., Chapple, K., Mattiuzzi, E., & Zuk, M. (2015). Collaboration and Equity in Regional Sustainability Planning in California: Challenges in Implementation. *California Journal of Politics and Policy*, 7(4), 1–25.
- Galster, G. C., & Killen, S. P. (1995). The Geography of Metropolitan Opportunity: A Reconnaissance and Conceptual Framework. *Housing Policy Debate*, 6, 7–43.
- Galster, G., & Sharkey, P. (2017). Spatial Foundations of Inequality: A Conceptual Model and Empirical Overview. *The Russell Sage Foundation Journal of the Social Sciences*, 3(2), 1–33.
- Gans, H. J. (1968). *People and Plans: Essays on Urban Problems and Solutions*. New York, New York: Basic Books.
- Hexter, K.W., & Kaufman, S. (2017). Planning without Agency: Vibrant NEO 2040. *Cityscape*, 19, 135–159.
- Hwang, J., & Sampson, R.J. (2014). Divergent Pathways of Gentrification: Racial Inequality and the Social Order of Renewal in Chicago Neighborhoods. *American Sociological Review*, 79(4), 726–751.
- Knaap, E. (2017). The Cartography of Opportunity: Spatial Data Science for Equitable Urban Policy. *Housing Policy Debate*, 27(6), 913–940. doi:10.1080/10511482.2017.1331930
- Knaap, G. & Lewis, R. (2011). Regional Planning for Sustainability and Hegemony of Metropolitan Regionalism. In *Regional Planning in America: Practice and Prospect*, E. Seltzer and A. Carbonell, eds. Cambridge, MA: Lincoln Institute of Land Policy.
- Krumholz, N. (1982). A Retrospective View of Equity Planning: Cleveland 1969–1979. *Journal of the American Planning Association*, 48(2), 163–174.
- Krumholz, N. (2015). An Optimistic Comment. *Journal of Planning Education and Research*, 35(3), 343–346.
- Maryland Department of Housing and Community Development. (2016). *Multifamily Rental Financing Program Guide: Attachment to Maryland Qualified Allocation Plan for the Allocation of Federal Low-Income Housing Tax Credits*. Lanham, Maryland.

Metropolitan Council. (2014a). *Choice, Place and Opportunity: An Equity Assessment of the Twin Cities Region, Executive Summary*. St. Paul, Minnesota.

Metropolitan Council. (2014b). *Final Narrative Report: HUD Sustainable Communities Regional Planning Grant to Metropolitan Council, Corridors of Opportunity: Connecting People, Places and Prosperity*. Minneapolis, Minnesota.

Metzger, J. (1996). The Theory and Practice of Equity Planning: An Annotated Bibliography. *Journal of Planning Literature*, 11(1), 112–126.

O'Connor, A. (2008). Swimming against the Tide: A Brief History of Federal Policy in Poor Communities. In J. DeFilippis & S. Saegert (Eds.), *The Community Development Reader* (pp. 9–27). New York, New York: Routledge.

Orfield, M. (1997). *Metropolitica: A Regional Agenda for Community and Stability*. Washington, D.C.: Brookings Institution Press.

Pastor, M., Lester T. W., & Scoggins, J. (2009). Why Regions? Why Now? Who Cares? *Journal of Urban Affairs*, 31(3), 269–296.

PolicyLink. (2014). "Portland's Regional Equity Atlas: Institutionalizing Equity Since 2006." Blog post. Retrieved from <http://www.policylink.org/blog/portland-equity-atlas>.

powell, j. (1999). Race, Poverty, and Urban Sprawl: Access to Opportunities through Regional Strategies. *Forum for Social Economics*, 28(2), 1–20.

powell, j. (2005). "Remedial Phase Expert Report of John Powell in *Thompson v. HUD*." Retrieved from <http://kirwaninstitute.osu.edu/my-product/remedial-phase-expert-report-of-john-powell-in-thompson-v-hud/>.

Puget Sound Regional Council and Kirwan Institute for the Study of Race & Ethnicity. (2012). Opportunity Mapping Fact Sheet. Retrieved from <https://www.psrc.org/sites/default/files/opportunitymap.pdf>.

Rusk, D. (1999). *Inside Game/Outside Game: Winning Strategies for Saving Urban America*. Washington, D.C.: Brookings Institution Press.

Thompson v. HUD. Amended Complaint, Civil Action No.: MJG 95–309. (2001).

U.S. Department of Housing and Urban Development. (2016). Office of Sustainable Communities: Sustainable Communities Initiative. Accessed October 6, 2016. <http://portal.hud.gov/hudportal/HUD?src=/hudprograms/sci>.

Zapata, M., and Bates, L. (2015). Equity Planning Revisited. *Journal of Planning Education and Research*, 35(3), 245–248.

Zapata, M. and Bates, L. (2016). Equity Planning or Equitable Opportunities? The Construction of Equity in the HUD Sustainable Communities Regional Planning Grants. *Journal of Planning Education and Research*, 36(1), 1–14.



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