

MEASURING PROGRESS:
USING SOCIAL INDICATOR DATA TO ADVANCE SOCIAL EQUITY

by
Angela Kline

A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Urban Affairs & Public Policy

Fall 2017

© 2017 Angela Kline
All Rights Reserved

MEASURING PROGRESS:
USING SOCIAL INDICATOR DATA TO ADVANCE SOCIAL EQUITY

by
Angela Kline

Approved: _____
Maria P. Aristigueta, D.P.A.
Director of the School of Public Policy and Administration

Approved: _____
George H. Watson, Ph.D.
Dean of the College of Arts and Sciences

Approved: _____
Ann L. Ardis, Ph.D.
Senior Vice Provost for Graduate and Professional Education

I certify that I have read this dissertation and that in my opinion it meets the academic and professional standard required by the University as a dissertation for the degree of Doctor of Philosophy.

Signed:

Maria P. Aristigueta, D.P.A.
Professor in Charge of Dissertation

I certify that I have read this dissertation and that in my opinion it meets the academic and professional standard required by the University as a dissertation for the degree of Doctor of Philosophy.

Signed:

Harvey White, Ph.D.
Member of Dissertation Committee

I certify that I have read this dissertation and that in my opinion it meets the academic and professional standard required by the University as a dissertation for the degree of Doctor of Philosophy.

Signed:

Bahira Sherif Trask, Ph.D.
Member of Dissertation Committee

I certify that I have read this dissertation and that in my opinion it meets the academic and professional standard required by the University as a dissertation for the degree of Doctor of Philosophy.

Signed:

Susan T. Gooden, Ph.D.
Member of Dissertation Committee

TABLE OF CONTENTS

| | |
|------------------------|------|
| LIST OF ACRONYMS | vii |
| LIST OF TABLES..... | viii |
| LIST OF FIGURES | ix |
| ABSTRACT | x |

Chapter

| | | |
|-----|--|----|
| 1 | INTRODUCTION | 1 |
| 1.1 | Statement of the Research Question | 4 |
| 1.2 | Research Rationale | 4 |
| 1.3 | Chapter Outline..... | 6 |
| 2 | LITERATURE REVIEW | 7 |
| 2.1 | Terminology | 7 |
| 2.2 | Development of Social Indicators | 9 |
| 2.3 | Development and Evolution of Social Indicators | 10 |
| 2.4 | Types of Indicators | 17 |
| 2.5 | Example of Social Indicator Project | 21 |
| 2.6 | Social Indicator Landscape | 24 |
| 2.7 | Social Equity..... | 26 |
| 3 | METHODOLOGY | 35 |
| 3.1 | Part One: Database Development | 35 |
| 3.2 | Part Two: Case Studies..... | 37 |
| 3.3 | Case Study Selection | 46 |
| 3.4 | Importance of Research | 50 |
| 3.5 | Strengths and Weaknesses of Research | 53 |
| 3.6 | Addressing Research Obstacles | 55 |
| 3.7 | Ethical Concerns..... | 57 |
| 3.8 | Contributions | 58 |
| 4 | BALTIMORE | 61 |
| 4.1 | Background..... | 61 |

| | | |
|-----|---------------------------------------|-----|
| 4.2 | Data in Baltimore..... | 67 |
| 4.3 | Utilization of BNIA Data | 73 |
| 4.4 | Geography of BNIA Data | 86 |
| 4.5 | Equity Measures in Baltimore | 90 |
| 4.6 | Key Findings..... | 95 |
| 5 | CHICAGO | 97 |
| 5.1 | Background..... | 97 |
| 5.2 | Data in Chicago | 101 |
| 5.3 | Utilization of CMAP Data | 106 |
| 5.4 | Geography of CMAP..... | 110 |
| 5.5 | Equity Measures in CMAP | 112 |
| 5.6 | Key Findings..... | 114 |
| 6 | DETROIT | 116 |
| 6.1 | Background..... | 116 |
| 6.2 | Data in Detroit | 122 |
| 6.3 | Utilization of D3's Data | 126 |
| 6.4 | Geography of D3 | 132 |
| 6.5 | Equity Measures of D3 | 135 |
| 6.6 | Key Findings..... | 138 |
| 7 | NEW YORK..... | 139 |
| 7.1 | Background..... | 139 |
| 7.2 | Data in New York..... | 145 |
| 7.3 | Utilization of Data in New York | 149 |
| 7.4 | Geography of New York | 153 |
| 7.5 | Equity Measures in New York | 155 |
| 7.6 | Key Findings..... | 160 |
| 8 | ANALYSIS & DISCUSSION..... | 162 |
| 8.1 | Characteristics of Organizations..... | 178 |
| 8.2 | Coding Data..... | 182 |
| 9 | FINDINGS & CONCLUSION..... | 184 |
| 9.1 | Data Culture..... | 184 |
| 9.2 | Continuity Imperative | 188 |
| 9.3 | Types of Data Organizations | 193 |
| 9.4 | Commonalities and Differences | 196 |

| | | |
|------------------|--|-----|
| 9.5 | Implications for Measuring Social Equity | 198 |
| 9.6 | Recommendations | 200 |
| 9.7 | Future Research | 204 |
| REFERENCES | | 205 |
| Appendix | | |
| A | INTERVIEW PROTOCOL | 219 |
| B | CODING THEMES | 222 |
| C | INSTITUTIONAL REVIEW BOARD STATUS | 224 |

LIST OF ACRONYMS

BNIA – Baltimore Neighborhood Indicators Alliance

CEO – Center for Economic Opportunity

CIC – Community Indicators Consortium

CIDI – Center for Innovation through Data Intelligence

CMAP – Chicago Metropolitan Agency for Planning

D3 – Data Driven Detroit

L3Cs – Low-profit Limited Liability Company

NNIP – National Neighborhood Indicators Alliance

MPC – Metropolitan Planning Council (Chicago)

MPO – Metropolitan Planning Organization

YMI – Young Men’s Initiative

LIST OF TABLES

| | |
|---|-----|
| Table 2.1 Quality of Life Indicators Guided by the Social Justice Concept | 18 |
| Table 2.2 NNIP Partners..... | 24 |
| Table 3.1 Social Equity Cultural Audit | 43 |
| Table 3.2 Baltimore & Detroit..... | 48 |
| Table 3.3 Chicago & New York City | 49 |
| Table 4.1 Sustainable Development Goals in Baltimore | 66 |
| Table 8.1 Research Questions | 162 |
| Table 8.2 Case Indicators | 165 |
| Table 8.3 Case Comparison..... | 180 |

LIST OF FIGURES

| | |
|--|-----|
| Figure 4.1 Baltimore's CitiStat Room | 68 |
| Figure 5.1 CMAP Committee Structure | 99 |
| Figure 7.1 Disparity Report | 159 |
| Figure 8.1 Codes..... | 183 |
| Figure 9.1 Data Organizations | 195 |

ABSTRACT

This dissertation examines whether social equity is incorporated into the administrative practices of social indicator projects. A database was designed which will classify dimensions of the social indicator projects including data sources, indicator types, funding, and administration practices. Case studies were developed of social indicator projects in four cities in the United States. The case studies were selected using a purposive sample which includes two cities with government administered data initiatives and two cities with non-governmental administered data initiatives. Sources of data for the case studies include semi-structured interviews with social indicator project administrators, participant observation, and document review, among other sources. The findings of this research include the importance of a community's data culture in measuring social indicators, the imperative nature of continuity regarding tracking social indicators, and the diversity of functions among organizations that track social indicators. Included in these findings are a review of social equity indicators from the four case studies as well as a proposed framework for understanding data organizations.

Chapter 1

INTRODUCTION

The purpose of this research is to explore whether social indicator projects incorporate social equity indicators into community-based social indicator initiatives. Social indicator projects strive to enable citizens, public administrators, and elected leaders to plot a course for a community and track its progress. Social equity, as a value, is concerned with advancing the equitable provision of public goods and services and equitable participation among citizens. Social indicator projects are being used as a means to fuel evidence based policy, yet these institutions' framework and guiding values are unspecified and vary across communities. Social indicator projects and the value of social equity are fundamentally about progress. Looking at social indicator projects through the lens of social equity will inform the development of indicator projects as they expand their role in evidence based policy.

The database included in this research compares social indicator initiatives to understand how data is constructed, funded, and administered across communities. The diversity of these initiatives is demonstrated through the database. While there are clear differences among the four cities, the database compares the nuanced characteristics of social indicator projects, including indicator classification and data

sources. Providing insight into how these initiatives organize data is an important supplement to the case studies.

The context for this research is four cities that have varying forms of social indicator projects. Specifically, two of the cities (New York City and Chicago) have social indicator initiatives administered by local government. Two additional cities have social indicator projects (Baltimore and Detroit) were selected for this study because their data initiatives are administered by non-governmental entities. These cities share some demographic similarities. This case study research will provide an in-depth analysis of these four social indicator projects and explore how the concept of social equity is measured and which indicators are used across the case studies.

According to the National Academy of Public Administration, social equity is the “fair, just and equitable management of all institutions serving the public directly or by contract, and the fair and equitable distribution of public services, and implementation of public policy, and the commitment to promote fairness, justice, and equity in the formation of public policy” (2000). Historically, social equity was discussed in terms of race, gender, and class; present-day scholars of social equity include sexual orientation, religion, region, disability status, immigration status, veteran’s status, and language of origin (Wooldridge & Gooden, 2009). The areas under the umbrella of social equity may broadly include additional disenfranchised social groups.

Frederickson proposed that equity hold the same importance for the practice of public administration as economy and efficiency. Frederickson pointed out that public

administrators have not devoted the same concern to “the issue of variations in social and economic conditions” (1990, p. 228). The term of “variations” implies that public administrators have the ability to measure, track, and compare performance data about social conditions in a community. While variations in social conditions are generally discussed in social equity literature, the empirical measurement of social equity variation has largely been overlooked in performance management literature.

This research will focus on two aspects of social indicator projects: the administration of social indicator projects in the four case study cities and how social indicator projects include equity in the classification of social life in a community. Frederickson’s definition of social equity challenged public administrators to question, “Does this service enhance social equity?” (1980, p. 6). Social equity as defined by Frederickson “emphasizes government services, [...] responsibility for decisions and program implementation for public managers, [...] change in public management, [...] [and] responsiveness to the needs of citizens rather than the needs of public organizations” (1980, p. 6).

Social indicator projects report on quantifiable data to describe life in communities. These reports provide understanding about the effectiveness, outputs, and outcomes of community services, but it is unknown how they incorporate the measurement of equity within a community. Many social indicator projects derive data from government sources, but there is an important distinction of social indicators and government performance data. Government performance measurement assesses qualities like outputs, outcomes, efficiency measures, and personnel information.

Greenwood posits that social indicator projects are community-driven and concentrate on local conditions (2008). Given the descriptive nature and community focus of social indicator projects, this research will incorporate how these initiatives incorporate community feedback and facilitate citizen participation.

1.1 Statement of the Research Question

1. How are social indicator projects administered in the four case study cities?
 - a. Where are they housed and how are they administered?
 - b. Are social indicator projects tracking social equity?
 - c. If so, what types of indicators are they tracking (What types of social indicators are used to measure social equity)?
2. How do social indicator projects incorporate the construct of social equity in their data-gathering processes?
 - a. How do social indicator projects incorporate the construct of social equity in their decision-making processes?
3. How does social equity influence social indicator project administrators?

1.2 Research Rationale

This research project will provide the contribution of a classification system for social indicator projects as well as identify social indicator projects that incorporate social equity in their work. This topic was selected because there is no

uniform structure for social indicator projects. The diversity with which social indicators projects operate provide a rich research environment for investigating the contextual environment and comparison of administration. In addition to the increase of social indicator projects in the U.S., their work is growing in importance in the public and nonprofit sectors. Competition among nonprofits for funding opportunities requires organizations to demonstrate community-wide outcomes and impact due to their work. The availability of data provided by community based social indicator projects enables the nonprofit sector to identify problems and focus their work toward solutions. Social indicator projects make these data available for nonprofits to advocate, apply for funding and adjust the organization's strategy based on movement in the data.

There are many unknown parts to investigating social equity within social indicator projects because there is limited, but growing, research in this field. Professional organizations including the International City/County Management Association (ICMA), National Academy for Public Administration (NAPA), and the American Society for Public Administration (ASPA), as well as the Government Accountability Office (GAO), have supported research regarding the measurement of social equity. This is a timely opportunity to investigate the social indicator projects and their incorporation of social equity into their work. There are several current initiatives related to social equity, however, none of the aforementioned organizations are approaching it from the perspective of social indicator projects. This research will

complement the work conducted by social equity scholars while contributing the unique perspective of organizations that collect community-level social data.

1.3 Chapter Outline

Chapter 1 introduces the research topic, including the rationale for choosing the topic and timeliness of the subject. Chapter 1 states the research questions. Chapter 2 reviews relevant literature and clarify terminology related to the research subject. Chapter 3 discusses the theoretical framework and methodology used for this research. Chapters 4 through 7 explore the four case studies included in this research. The case study section includes background information, selected interview data, examples of documents, and other pertinent data from the organizations. Chapter 8 discusses the comparison of the four social indicator projects and identify themes among the cases in the study. Included in this Chapter is discussion about the specific types of indicators that projects collect. Chapter 8 also include the coding scheme for the analysis process of the components of the case studies, such as the interview data, document review, and observation field notes. Chapter 9 reviews the findings and implications of this research as well as conclusions. This concluding chapter includes a section about possibilities for future research.

Chapter 2

LITERATURE REVIEW

2.1 Terminology

To ensure the terminology used in this research is clear, the following section will review definitions established by social indicator and data scholars. This section will also address the use of terminology around social equity and citizen participation in community based initiatives.

Social indicators: “statistics, statistical series, and all other forms of evidence – that enable us to assess where we stand and are going with respect to our values and goals, and to evaluate specific programs and determine their impact” (Bauer, 1966, p. 1). The United Nations defines social indicators as “statistics that usefully reflect important social conditions and that facilitate the process of assessing those conditions and their evolution. Social indicators are used to identify social problems that require action, to develop priorities and goals for action and spending, and to assess the effectiveness of programs and policies” (United Nations; Noll, 2002, p. 4). In more recent research about the topic, Borders, Edwards, and Miller define social indicators as “a *system* of measures designed, developed, and analyzed by community members to provide neighborhood-level information for community-building and policymaking. Indicators are seen as increasingly important measures, providing policymakers with

information to address essential questions related to health and well-being of the overall population as well as for certain subgroups” (2013, p. 15).

Performance measures: “focus on specific government activities, inform management decisions, and enable the public and policy makers to hold agencies accountable for program efficiency and effectiveness. Agencies and programs do not have a lot of control over social conditions and outcomes; therefore, social indicators should not be used to hold programs accountable but rather used to inform the public” (Aristigueta, Cooksy, & Nelson, 2001, p. 255).

Program Evaluation: “the application of systematic methods to address questions about program operations and results. It may include ongoing monitoring of a program as well as one-shot studies of program processes or program impact. The approaches used are based on social science research methodologies and professional standards” (Newcomer, Hatry, & Wholey, 2010, p. 5-6).

Data: “is comprised of the basic, unrefined, and generally unfiltered information;” Data are “recorded symbols and signal readings. Symbols include words, numbers, diagrams, and images, which are the building blocks of communication. Signals include sensor and/or sensory readings or light, sound, smell, taste, and touch” (Liew, 2007, p. 1, 4).

Information: “a message that contains relevant meaning, implication, or input for decision and/or action. Information comes from both current (communication) and historical (processed data or reconstructed picture) sources” (Liew, 2007, p. 4).

There is an additional set of vocabulary that will be explained in this section regarding the terminology of citizen participation, specifically the decision to use public participation as part of the process of defining and tracking indicators.

2.2 Development of Social Indicators

Social indicators can be used as a tool for advancing social equity. Utilizing a social indicator project in a community enables residents, organizations, and leaders to track and measure social life. Without a social indicator project providing social measures, it would be challenging for an organization or leader to make claims about neighborhood safety, education, or health issues in a community.

Scholars from diverse fields have contributed to the understanding of social indicators. The vocabulary of this field of study includes terminology like “social accounting for social planning” (Gross, 1966), “systematic-trendspotting for social health” (Kahn, 1969, p. 89) and that social indicators are “measurements of social phenomena whose movements indicate whether a particular problem is getting better or worse relative to some common goal” (Lauffer, 1978, p. 149).

Indicators are simply quantitative information, or data, tracked over time. In the context of community indicators projects, they are quantitative information about what has often been considered a qualitative subject: the well-being of communities.

(Besleme, Maser, & Silverstein, 1999, p. 1)

Communities have adopted various titles for their programs to track and measure indicators. Titles of these initiatives include “State of the Community, State of the City Report, State of the Region Report, Quality of Life Report, Sustainability Report, Community Well Being Report, Vital Signs, Report Card, Indicators for Life, and Healthy Community Report” (Maclaren, 2001, p. 277). As Maclaren points out, some of these initiatives may place greater emphasis on health indicators or vary in their geographical scope, but they share in the common purpose of community reporting (2001).

2.3 Development and Evolution of Social Indicators

The simple origin of social indicator projects may be our collective aspiration for progress. Progress “...with its connotations of destiny and inevitability, has become almost the ‘meta narrative of history’ (McLintock, 1992) – legitimating political power, elevating those who define and interpret it, and providing a unifying theme for the policies of nations” (Salvaris, 2000, p. 4). In the 1930s, President Hoover commissioned the report *Recent Social Trends in the United States* of which the goal was “to interrelate the disjointed factors and elements in the social life of America, in the attempt to view the situation as a whole rather than as a cluster of parts” (President’s Research Committee on Social Trends, 1933, p. xii-xiii). Ogburn, the leading author of the report and an early champion of social science, asserts that “with better measurement we shall attain fuller knowledge of what is happening to us

and where we are going” (1929 as cited in Land, 1983, p. 11). These early examples of social indicator research share characteristics with their modern manifestations; they monitor changes in society to encourage informed decision making for the future.

Modern social indicator projects evolved from economic measurements like gross domestic product when scholars recognized that data about a locality’s economy may not capture the well-being of the residents. These aggregate economic measures do not represent the diversity of lifetime experiences that residents may experience even within the same city. Social indicator research was initially developed as a possible social equivalent to a country’s economic indicators, but there is no simple way to quantify the complexity of social life (Veenhoven, 1996).

Scholars in the 1960s envisioned the measurement of social indicators as a new way to engage data for social planning and community change (Besleme, Maser, & Silverstein, 1999; Lauffer, 1978). During this era, sociologists sought a way to understand social structures by applying scientific methods. Raymond Bauer, Albert Biderman, and Bertram Gross led the initiative for the National Aeronautics and Space Administration (NASA) and their primary task was to investigate unintended consequences of the space program (Cobb & Rixford, 1998). As Mills writes, “Neither the life of an individual nor the history of a society can be understood without understanding both” (1959, p. 3). The social indicators movement experienced in the 1960s is attributed to NASA and their partnership with the American Academy of Arts and Sciences which sought to “detect (evaluate) and anticipate (assess) the nature and

magnitude of the second-order consequences of the space program for American society” (Land, 1983, p. 2).

After sociologists established the desire to understand society through systematic measurement of social indicators, Rivlin proposed that this system could assist in government decision making and increase funding effectiveness (1971). Rivlin’s work advanced the social indicator agenda from merely collecting social information to utilizing the data for the betterment of society. Rivlin proposes questions for using social indicators to inform social programs: “What would do the most good? How do the benefits of different kinds of programs compare? How can particular kinds of social services be produced most effectively?” (1971, p. 7). Rivlin’s questions for determining the “most good” and “most effective” allude to the social values that guide quality of life measurement. These questions are still relevant for present-day social indicator projects and their stakeholders who use their data to inform decisions.

The modern practice and inquiry of social indicators has changed because of increased technology, open data in communities, and learning from established frameworks. Additional lessons on the administration and study of social indicators can be derived from failed measurement initiatives. The following literature outlines how scholars have adapted their understanding from these innovations in data management and community participation. Included in this literature is a discussion that differentiates subjective and objective indicators and an explanation of why both types of indicators are necessary in a productive social indicator project.

In many communities across the United States, measurement of social indicators is considered as a tool for changing policies, targeting investments and strategies, and empowering communities (Hendey, Cowan, Kingsley, & Pettit, 2016). The social indicator movement has been in practice for too long for it still to be considered a passing trend. Existing social indicator projects are growing in their scope of indicators they are tracking and new social indicator projects are being created to assess how a community is thriving. “Indicators are calculated for multiple points in time and multiple locations so that comparisons can be made. To be useful in communities, indicators need to have some relationship to the perceptions and aspirations of community residents and organizations and to be revealing of where the community stands relative to itself and other communities” (Coulton & Korbin, 2007, p. 351)

In considering social indicator literature, there is tension between prescribed guidelines that strictly define topics, indicators, and goals and allowing every community to develop an independent indicator project. Comparability is needed across communities to foster learning with peer communities. However, the framework must be broad and flexible to allow for the infusion of each community’s unique goals and vision for the future.

The historical development of the United Nation’s framework of indicator measurement mirror the field’s changing attitudes concerning social measurement. In 2000 the UN proposed suggested guidelines for developing nations to track

development. The leaders from 189 countries signed the United Nations Millennium Declaration which publicly demonstrated each nation's commitment to working on behalf of the goals and measuring their progress (Saith, 2006). While there are many weaknesses of the UN's framework, their institutional prominence and ability to leverage resource brought attention to indicator measurement. Specifically, the UN encouraged indicator measurement internationally to track progress on its Millennium Development Goals (MDGs). Early iterations of the framework for the MDGs can be traced back to the World Summit for Children in 1990. The initial set of goals were concerning infant, children, and material mortality, education attainment, adult literacy, malnutrition, safe water, and sanitation (Hulme, 2009). This initial project was expanded in 1995 when development professionals from the OECD Development Assistance Committee collaborated on planning a framework for the next millennium (Devarajan, Miller, and Swanson, 2002). "Subsequently, a series of expert group meetings jointly sponsored by the OECD, United Nations, and the World Bank, and including representatives from developing countries, NGOs, and United Nations funds and programs helped to establish quantified targets for each goal and identified a set of 21 indicators for measuring progress" (Devarajan et al., 2002, p. 4).

One early conflict in the selection of which goals will be included and how indicators will be tracked was regarding the issue around reproductive health. As Hulme explains, "Roman Catholics and conservative Christians and Muslims were concerned that explicitly and/or implicitly feminists and liberals were arguing for women's right to abortion" (2009, p. 10.) This is just one example of what Saith

describes as the UN's assertion of its universal values on diverse nations (2006).

Agreeing upon which goals to adopt and selecting indicators to appropriately measure those goals is no easy task. Poverty is frequently cited as being difficult to conceptualize. "We wish to reduce poverty. How shall we define it? This definition then has to be converted into an indicator that can be specified numerically" (Saith, 2006, p. 1172).

The discussion of values in selecting goals can be broadened to consider contextual characteristics of the nations adopting MDGs. A frequent criticism of the MDGs is its bias towards western and developed countries (Beja, 2013).

Vandemoortele specifies two reasons for why it is unwarranted to compare regions like Africa to the MDG goals (2009). Vandemoortele's criticisms are that MDGs are global targets which were based on extrapolation of global trends per the previous 25 years of data and that they are expressed in relative terms 2009. As Vandemoortele explains, "proportional changes tend to inversely related to the initial level from which the country starts, because of the size of the denominator" (2009, p. 359). In other words, it is harder for a country like Afghanistan to halve its infant mortality rate than Australia (Vandemoortele, 2009).

Other scholars have criticized that the MDGs did not consider the resource gap among participating nations and entrench developing countries' dependence on international aid instead of building internal capacity (Beja, 2011). Before the proposed expiration of the MDGs in 2015, the UN announced a revised framework with the Sustainable Development Goals (SDGs) (Department of Economic and Social

Affairs, 2015). The new set of goals recognize the need for sovereign nations to identify and quantify goals within their borders that are sensitive to their norms and cultures. The UN report announcing the SDGs explains, “[...] developed countries’ participation and accountability should not be limited to goals and targets related to the global partnership, but also to the other development goals, adjust to their national contexts as appropriate” (Department of Economic and Social Affairs, 2015, p. 6). The latest iteration of the UN’s approach to international development, goal identification, and indicator selection concedes the importance of localized definition of the parameters. This administrative value of considering location and incorporating context is echoed among domestic leaders in social indicator administration.

The National Neighborhood Indicators Partnership (NNIP) is a research arm of the Urban Institute and serves as an umbrella organization for social indicator projects in the United States. NNIP provides support and best practices to members in its network. As 2016, NNIP had 30 organizations administering social indicator projects in the US. Mirroring the UN’s shift, “for funders and civic leaders, NNIP experience demonstrates the benefits of investing in locally embedded data organizations to support data collection and analysis for place-based initiatives and broader local capacity for informed decision making” (Pettit, Kingsley, and Hendey, 2015, p. 5). NNIP defines their partners’ work as using “administrative data on many topics to create indicators that capture the dynamics of a place and the characteristics of the people who live there” (Hendey, 2016, p. 1).

2.4 Types of Indicators

Among scholars of social indicator projects, there is contested discussion regarding the inclusion of objective and subjective indicators. Objective indicators are measures that track topics such as infant mortality, doctors per capita, and homicide rates. Early definitions of objective social indicators classify them as “societal measures that reflect people’s objective circumstances in a given cultural or geographic unit” (Diener and Suh, 1997, p. 192). Despite the prevalence of objective indicators throughout the early indicator movement, current scholars recognize the normative character of defining objective indicators across cultures (Ryff and Singer, 2006; Maridal, 2016). In the interest of incorporating academic research and learning from existing indicator projects, Stiglitz, Sen, and Fitoussi identified eight key dimensions that are critical in designing a social indicator initiative (2009). “At least in principle, these dimensions should be considered simultaneously: 1) Material living standards (income, consumption and wealth); 2) Health; 3) Education; 4) Personal activities including work; 5) Political voice and governance; 6) Social connections and relationships; 7) Environment (present and future conditions); 8) Insecurity, of an economic as well as physical nature” (Stiglitz et al., 2009, pp. 14-15).

This combination of subjective and objective indicators is echoed in Spilsbury, Korbin, and Coulton study in which the researchers investigated the congruence, or lack thereof, of indicators related to community safety (2012). By comparing administrative data with perspectives from parents and children living in the neighborhood, the lived experience of the neighborhood residents was often different

than the measures captured in the objective indicators from the administrative data (Spilsbury, Korbin, and Coulton, 2012). While this study reaffirms the need to align both subjective and objective indicators, it also raises the methodological issues of what constitutes as data and how data is collected.

This research is not the first to consider the juxtaposition of equity and social indicators, there is limited research assessing the practice of incorporating equity into the measurement framework. As Sirgy explains, “Many community planners and indicator researchers develop community indicator projects guided by the implicit notion that community quality of life is a community in which its members enjoy a high level of social justice” (2010, p. 10). In applying Rawls’ concept of equality, Sirgy proposes a framework for developing measures of justice.

Table 2.1 Quality of Life Indicators Guided by the Social Justice Concept

| Equality in basic rights and duties | Inequality to benefit the least advantaged |
|---|---|
| <i>Right to meet basic needs</i> (e.g., % of population below poverty line; government entitlement programs directed to the poor and equitable appropriations within a community) | <i>Children</i> (e.g., under five mortality rate, one-year olds fully immunized against tuberculosis and measles; teen pregnancy rate, low-birth weight infants, underweight children under age five) |
| <i>Right to safety</i> (e.g., crime rate; government programs and expenditures to combat community crime and equitable appropriations in a community) | <i>Women</i> (e.g., ratio of females graduating high school to males; ratio of females unemployed to males; ratio of median wage of females to males; educational scholarships available to females relative to males; job training and assistance programs available to females relative to males) |
| <i>Right to employment</i> (e.g., unemployment, educational attainment; literacy; job skills; job training programs and equitable appropriations within a community) | <i>Minorities</i> (e.g., ratio of minorities graduating high school to non-minorities; ratio of minorities unemployed to non-minorities; |
| <i>Right to a healthful environment</i> (e.g., air pollution, water pollution, | |

| | |
|---|--|
| land pollution, noise pollution; incidence of disease; government programs to combat environmental pollution and equitable appropriations within a community) | ratio of median wage of minorities to non-minorities; educational scholarships available to minorities relative to non-minorities; job training and assistance programs available to minorities relative to non-minorities) |
| <i>Duty to pay taxes</i> (e.g., % of undeclared work; government programs to reduce tax evasion within a community) | <i>The Poor</i> (e.g., educational scholarships available to the poor relative to the non-poor; job training and assistance programs available to the poor relative to the non-poor; government expenditures to the poor relative to the non-poor) |
| <i>Duty to vote</i> (e.g., % of eligible voters voting; government programs to increase voter turnout within a community) | <i>The Disabled</i> (e.g., ratio of disabled graduating high school to non-disabled; ratio of disabled unemployed to non-disabled; ratio of median wage of disabled to non-disabled; educational scholarship available to the disabled relative to the non-disabled; job training and assistance programs for the disabled relative to the non-disabled; government expenditures to the disabled relative to the non-disabled) |

(Sirgy, 2010, p. 11).

Similar to Sirgy (2010), Stiglitz et al., state in their recommendations to designers of social indicator initiatives that measures should assess inequalities in a comprehensive way (2009).

Inequalities in human conditions are integral to any assessment of quality of life across countries and the way that it is developing over

time. Most dimensions of quality-of-life require appropriate separate measures of inequality, but, [...] taking into account linkages and correlations. Inequalities in quality of life should be assessed across people, socio-economic groups, gender and generations, with special attention to inequalities that have arisen more recently, such as those linked to immigration. (Stiglitz et al., 2009, p. 15).

In its work with national partners, NNIP places the importance of incorporating equity into the measurement framework for advocacy purposes. NNIP favors a social justice lens to demonstrate the need for policy changes. “By looking at disadvantaged neighborhoods through an equity lens, the focus shifts from individual deficits to an understanding of fundamental determinants of disparities in human well-being” (Kingsley, Coulton, and Pettit, 2014, p. 221). Developing measures of social equity enables communities to move from addressing social problems at the individual level to advocating for systemic changes that affect the collective society. Given the emerging literature addressing the need to incorporate justice and equity in the measurement of social indicators, this research is addressing a gap in the research about the application of this research

If collective action is considered as a best practice of social indicator projects, then upholding democratic principles is critical for the administration of these initiatives. NNIP promotes the democratization of data among its network of indicator projects. Prior to the technology available to facilitate open data, NNIP worked on democratizing information since the mid-1990s (“NNIP Concept”). The importance of

democratizing information is to “give residents and community organizations a stronger voice in improving their neighborhoods” (“NNIP Concept,” n.d., p. 1). Social indicator projects can infuse democratic principles in every component of its administration: problem definition, indicator selection, and reporting, among others. “Community indicators are a potentially powerful mechanism for enhancing democratic engagement, setting strategic priorities for public policy and service delivery, measuring progress towards a healthy and sustainable community, and encouraging social and behavioral change” (Ryan & Hastings, 2015, p. 41).

Engaging the public in an indicator project also encourages the administration to incorporate indicators that are meaningful to the community. More than simply consultation, training and outreach are necessary practices to ensure that communities have the technical capacity to utilize the data. “Indicator frameworks need to do more than re-package data available elsewhere to avoid being labelled ‘irrelevant’, and that having too many indicators stops the framework being workable and meaningful” (Moore, 2013, pp. 298-302; Ryan & Hastings, 2015, p. 39).

2.5 Example of Social Indicator Project

To clarify the meaning of a social indicator project, the example of Oregon Shines will be discussed in the following section. While Oregon Shines is considered one of the early examples of a social indicator project, the initiative closed because of some common pitfalls of similar organizations. Exploring a closed indicator project

provides insight for other organizations to follow their closure. This section will review a short history of the development of Oregon Shines, the measures they tracked, funding sources, and a discussion of why the initiative failed. Included in this section is a comparison of Oregon Shines to NNIP's recommendations for best practices. Oregon Shines was not under the umbrella of NNIP, but the lessons learned from both institutions have similarities.

Oregon Shines originated in the late 1980s under Oregon Governor Neil Goldschmidt. The premise for Oregon Shines was to develop an integrated strategic plan that would help state leaders address problems holistically. Fostering economic prosperity for the state was the impetus for starting Oregon Shines, but the initiative assessed economic growth through broad quality of life measures. To ensure the widespread adoption of the plan, the Oregon legislature formed the Oregon Progress Board which "was charged with establishing and tracking a set of benchmarks that would measure progress toward the goal of better: better jobs, better quality of life" (Williams, 2007, p. 22). Oregon Shines was a governmental initiative, but the Board included external input through community consultations (Ryan & Hastings, 2015).

Despite the much-anticipated debut of Oregon Shines, Williams points out that the initiative may have been better known outside of the state as the plan was difficult to implement (2007). Gail Achterman, director of the Institute for Natural Resources at Oregon State, points out, "The report in 1989 was very silo-ed. That's not the way the world works. Nobody has a forestry problem; it's more complex than that. The

historic silo approach isn't working. Water and land-use planning: They're completely disassociated now. It makes no sense" (as cited by Williams, 2007, p. 23).

Upon a budget crisis in 2009, the State of Oregon did not fund Oregon Shines and disbanded the Oregon Progress Board. Additionally, Oregon ended state and county-wide tracking of social indicators (Ryan & Hastings, 2015). It was challenging to sustain Oregon Shines despite efforts made by Board Director, Jeff Tryens, to find external funding.

The latest iteration of an indicator project in Oregon is a partnership between the Oregon Community Foundation and the Oregon State University's Rural Studies Program. It has been rebranded as the Tracking Oregon's Progress (TOP) and many of the previous indicators have been changed. As of the 2014 report, TOP included 88 indicators related to the main themes of Healthy Economy, Healthy People and Communities, and a Healthy Environment ("Tracking Oregon's Progress," 2014).

Oregon Shines' position as a government provided it access to data and resources. However, in Moore's analysis of the failed project, its position as a governmental initiative is also to blame for its demise (2013). Scholars who have assessed the failed project point out the tension between maintaining a bipartisan measurement system which is led by elected and appointed government officials (Moore, 2013; Ryan & Hastings, 2015). Regardless of the reason for its closure, Oregon Shines provides a rich example of common challenges and issues faced by similar projects. While Oregon Shines is being used as an example for clarification,

there are many other models and developmental approaches for different social indicator projects.

2.6 Social Indicator Landscape

There is currently no research that assesses all social indicator projects or how projects are administered. NNIP and CIC produce research which addresses the partners' in the respective networks, but these networks are not inclusive of all indicators projects. Furthermore, both NNIP and CIC networks contain projects that are no longer funded and are not actively measuring indicators. Because there is no inclusive research of all indicator projects, the following section will review NNIP partners.

Table 2.2 NNIP Partners

| City | Type | Year | Lead Partner |
|-----------|------------|--------|--|
| Atlanta | NGO | 2009 | Neighborhood Nexus |
| Austin | NGO | 2008 | Children's Optimal Health |
| Baltimore | NGO | 2000 | Baltimore Neighborhood Indicators Alliance |
| Boston | NGO | 1997** | The Boston Foundation |
| Charlotte | Government | 1993 | The City of Charlotte/ Mecklenburg County |
| Cleveland | NGO | 1988 | Case Western Reserve University, The Center on Urban Poverty and Community Development |
| Columbus | NGO | 2000 | Community Research Partners |
| Dallas | NGO | 2008 | University of Texas at Dallas, Institute for Urban Policy Research |
| Denver | NGO | 1991 | Shift Research Lab, The Piton Foundation |
| Detroit | L3C | 2008 | Data Driven Detroit |

| | | | |
|------------------------|------------|----------------|--|
| Grand Rapids | NGO | 1990 | Grand Valley State University, Community Research Institute |
| Houston | NGO | 2010 | Rice University, Kinder Institute for Urban Research |
| Indianapolis | NGO | 1989 | Indiana University - Purdue University Indianapolis, The Polis Center |
| Kansas City | NGO | 1994 | University of Missouri - Kansas City, Center for Economic Information |
| Los Angeles | NGO | 2011 | University of Southern California, Sol Price Center for Social Innovation |
| Memphis* | NGO | closed in 2013 | University of Memphis, Center for Community Building and Neighborhood Action |
| Miami | Government | late 1980s | Miami - Dade County, The Children's Trust |
| Milwaukee* | NGO | closed in 2015 | IMPACT, Inc. |
| Minneapolis - St. Paul | NGO | 1968 | University of Minnesota, Center for Urban and Regional Affairs |
| New Haven | NGO | 1992 | Data Haven |
| New Orleans | NGO | 1997 | The Data Center |
| New York | NGO | 1995 | New York University, Furman Center for Real Estate and Urban Policy |
| Oakland | NGO | 1987 | Urban Strategies Council |
| Philadelphia | NGO | 2015 | Drexel University, Urban Health Collaborative |
| Pinellas County | Government | 1945 | Juvenile Welfare Board of Pinellas County |
| Pittsburgh | NGO | 1972 | University of Pittsburgh, Center for Social and Urban Research |
| Portland | NGO | 1992 | Portland State University, Institute of Portland Metropolitan Studies |
| Providence* | NGO | 2016 | DataSpark RI |
| San Antonio | NGO | late 1990s | Community Information Now |
| Seattle | Government | 2000** | Seattle & King County |
| St. Louis | NGO | 1989 | Rise St. Louis |
| Washington, D.C. | NGO | 2002 | Urban Institute |

| | | |
|---------------------------------|--|--|
| *Initiative Closed | | |
| ** Date of Indicator Initiative | | |

Of the 32 NNIP partners, there are only four indicator projects that are administered by a government entity. While NNIP denotes the projects that are closed, there are additional projects that have not officially closed, but the organization has not updated materials in several years. It is unclear what attributes determine which indicator project model a community will implement. Furthermore, there have been several cities that have had social indicator projects that closed due to challenges of administration and funding. In cases like Memphis and Chicago, discussed in Chapter 5, NNIP has assisted alternative organizations to transfer data activities. This transition may result in changes in administration type across nonprofit, government, or hybrid, as was the case in Chicago when the nonprofit organization closed due to lack of funding. The

2.7 Social Equity

The conceptual framework for this research is social equity within the field and practice of public administration. The underlying foundation of social equity will be addressed through a discussion of Rawls' Theory of Justice and Hobbes' Social Contract Theory. As Frederickson is a forefather in the study of social equity in public administration, this section will draw heavily on his scholarship from the last half-century. Because many social indicator projects report on measures of effectiveness, efficiency, and economy within a community, the normative construct of the pillars of

public administration will be reviewed in this section. Following a review of the pillars of public administration, this section will address the concept of evidence based policy which has affected the proliferation social indicator projects in the United States.

As stated earlier, NAPA defines social equity as “The fair, just, and equitable management of all institutions serving the public directly or by contract; the fair, just and equitable distribution of public services and implementation of public policy; and the commitment to promote fairness, justice and equity in the formation of public policy” (2000). This definition extends to equity in “a variety of public contexts, including, but not limited to: education, policing, welfare, housing, and transportation” (2000). NAPA’s emphasis on fairness and justice echoes Rawls’ Theory of Justice.

Rawls’ Theory of Justice is “the way in which the major social institutions distribute fundamental right and duties and determine the division of advantages from social cooperation” (1999, p. 6). Rawls elevates justice as “the first virtue of social institutions” (1999, p. 3). Rawls continues that “laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust” (1999, p. 3). Rawls considers justice to be a right for all citizens and held it in higher regard than that of efficiency. The Theory of Justice supports “[...] that in a society, all members have the same basic rights of liberty and thus resources should be distributed to provide the greatest benefit to the least advantaged” (Norman-Major, 2011, p. 239). Rawls’ “veil of ignorance” is a concept where individuals imagine how to make judgements and allocate resources without knowing our own position in society.

Under Rawls' "veil of ignorance" individuals would make a just decision because of the chance they will occupy a lower position in society. Justice, under Rawls' model, is an innate understanding that individuals possess. While Rawls advanced the concept of justice generally within a society, the theory was vague in which it could be applied as a theory of societal change because one could never fully adopt Rawls' veil of ignorance.

The consideration of social equity within the study of public administration is credited to the Minnowbrook I Conference in 1968. Minnowbrook I convened scholars including Dwight Waldo, and H. George Frederickson who began discussing the role of public administrator's in advancing justice, fairness, and social equity. The political and social changes in the 1960s catalyzed the Minnowbrook I scholars and affirmed their position for advancing social equity in American society (Gooden & Portillo, 2011). Minnowbrook I is credited by many scholars like Frederickson and Waldo as the beginning of a consciousness of the importance of social equity among public administrators. Waldo helped begin Minnowbrook I after experiencing "old men talking to old men about irrelevancies" at another conference for public administration academicians (as cited by Thoman, 1972, p. 620). In examining the history of social equity, Schaefer and Schaefer write,

As one might expect, the political events of the late 1960s made a dent in the value-neutrality of public administration scholarship, just as in other areas of the social sciences. [...] A few years later, the Watergate "crisis" provided a further stimulus to ethical reflection by

administrative scholars, provoking in some cases a striking, if not surprising rejection of traditional administrative doctrines. (1979, p. 267)

The years that followed Minnowbrook I produced increased social equity scholarship and discussion among the participants of the conference and other public administrators. Following Minnowbrook I, Frederickson outlines New Public Administration which includes the value of social equity for public provision of goods and services (1980). Frederickson explains that in addition to public administrators asking:

“(1) how can we offer more or better services with available resources (efficiency)? Or (2) how can we maintain our level of services while spending less money (economy)? New public administration adds this question: Does this service enhance social equity?” (1980, p. 6)

Another early scholar of social equity, Chitwood, finds the standards for measuring social equity in a community to be lacking. Chitwood questions how administrators are to appraise service delivery if there are no standards for assessing social equity (1974). Chitwood’s questions bring to focus the reality that administrators may not know how they are performing with regards to social equity without a systematic measurement tool.

As a way of building the theory of social equity, Frederickson dissects the subject into six parts: “(1) as the basis for a just, democratic society; (2) as influencing the behavior or organization man; (3) as the legal basis for distributing public services; (4) as the practical basis for distributing public services; (5) as operationalized in compound federalism; and, (6) as a challenge for research and analysis” (1990, p. 229).

Of the four pillars of public administration, economy, efficiency, effectiveness, and equity, equity has struggled to develop a practical definition to be considered as a balanced pillar among the other three (Norman-Major, 2011). Svava and Brunet provide the following components of an operational definition of social equity: procedural fairness, distribution and access, quality, outcomes, and related responsibilities or citizen participation (2005). Svava and Brunet’s inclusion of outcomes demonstrates that social equity requires measurement and accountability of public administrators (2005).

Social equity was selected for this research because it is now commonly accepted as good public administration (Guy & McCandless, 2014), but the measurement of social equity remains elusive in practice. As a theoretical concept, scholars have explored the meaning of social equity, but less emphasis has been placed on the application of social equity in real-life situations. “Public administrators solve problems, ameliorate inequalities, exercise judgment in service allocation matters, and use discretion in the application of generalized policy” (Frederickson, 1990, p. 236).

In examining social equity in the context of social indicator projects, this research will further the application of social equity and advance the understanding of social equity from a theory to practical knowledge. Additional support for advancing social equity in public administration is Frederickson's claim that "Justice, fairness, and quality have everything to do with public administration" due to the applied nature of public administrators' work (2010, p. 51).

This research is unique in that it will examine social equity across diverse organizations: nonprofit, public, and hybrid institutions. The distinction of social indicator projects that are nonprofit, public, and hybrid will be considered in this research because of the increased role of alternative organizations in traditional government service delivery. As government agencies contract, outsource, privatize, and develop public-private partnerships, the nonprofit sector is increasing its presence in public service delivery (Light 2008; Pettijohn, Boris & Farrell, 2014).

Social equity was selected for this research because there is limited research that incorporates the value of social equity in the dialogue of public administration and social indicator measurement. This research is contributing to a growing literature regarding social equity in public administration. Specifically, this research will contribute to practitioners' understanding of how to incorporate the value of social equity into their work. Academic and practitioner organizations have developed best practices (International City and County Managers Association), sponsored fellowships (National Academy of Public Administration), and facilitated networking among government officials (Governing for Racial Equality); all the initiatives had an

unambiguous emphasis on advancing social equity. In the process of reviewing current research and dialogues of prominent scholars, the issue of social equity is of interest to both scholars and practitioners. In a broader setting, this research will be useful to communities that are trying to advance social equity and understand citizen protests of inequity.

Literature addressing the practical application of social equity has increased. Whereas most of the previous research about social equity has been theoretical and speculative on ways to incorporate social equity into the practice of public administration, modern scholars are identifying practical ways of advancing equity in policy and administration. In recent years, the dialogue around social equity has shifted to call scholars to expand the definition of social equity to address social and political challenges. Part of the challenge of social equity application can be attributed to its subjective and difficult to measure nature. Institutions including the Center for Accountability and Performance (CAP) and the Local and Regional Government Alliance on Race and Equity (GARE) have commissioned equity research in recent years. The results of these efforts include case studies, best practices and how-to manuals for government and organizations to learn how to implement strategies to advance equity. GARE's Racial Equity Action Plan outlines a process for engaging community partners and establishing measurable results (Curren, Nelson, Marsh, Noor, & Liu, 2016). GARE outlines several components as important to the process of advancing equity including:

Community indicators are the means by which we can measure impact in the community. Community indicators should be disaggregated by race. [...]

Performance Measure [is a] quantifiable measure of how well an action is working. different types of measures include 1) Quantity—How much did we do? 2) Quality—How well did we do it? 3) Impact—Is anyone better off?

(Curren et al., 2016, p. 5).

GARE's Action Plan begins with a visioning process whereby community stakeholders utilize a racial equity framework. GARE's research highlights several cities that have adopted racial equity strategies. Using GARE's strategies, the City of Portland adopted three equity goals of

1) We will end racial disparities within city government, so there is fairness in hiring and promotions, greater opportunities in contracting, and equitable services to all residents. 2) We will strengthen outreach, public engagement, and access to City services for communities of color and immigrant and refugee communities, and support or change existing services using racial equity best practices. 3) We will collaborate with communities and institutions to eliminate racial inequity in all areas of government, including education, criminal justice, environmental justice, health, housing, transportation, and economic success. (Curren et al., 2016, p. 7)

The Racial Equity Plan includes templates to facilitate the measurement process of the actions. Each goal contains community indicators, outcomes and actions, timeline, accountability, performance measure, and progress report (Curren et al., 2016).

GARE's Racial Equity Plan represents one example of practitioner-focused research designed to advance an equity agenda.

Chapter 3

METHODOLOGY

This research consists of two phases: (1) the development of a database of the four case study cities' social indicator projects and (2) multiple case study approach using a purposive sample of four cities in the United States. The following section will outline each phase of this research.

3.1 Part One: Database Development

Collecting and analyzing the database of the four cities' social indicator projects provides a broad picture of trends and patterns in the field. There currently is no comprehensive database that identifies or compares social indicator projects (Stoecker, 2006). As of 2004, Redefining Progress identified approximately 200 social indicator projects (Dluhy & Swartz, 2006). While NNIP and CIC have a database that their organizations operate, the social indicator projects included are only the organizations that work within their network as project partners. The social indicator project database can be used to drive future research and updated as new initiatives are started. The four social indicator projects that will be included are nonprofit,

government, and hybrid organizations. The four that will be included in this research include members and nonmembers of NNIP and CIC.

The database of these four social indicator projects located in Chapter 8 was developed through a systematic review of publicly available material. This database was assembled through content analysis of secondary sources which includes websites, periodicals and other documents. The framework of the database consists of the types of indicators, category, measure definition, data source, geographic unit, and years of available data. Constructing this database served as an important first step to be able to analyze the landscape of social indicator projects. The purpose of the database is not to provide a comprehensive record of these four initiatives, but to compare the types of measures included in their project.

To classify social indicator projects as a non-profit, government, or hybrid organization, definitions of the types of organizations were used for developing the database. Nonprofit organizations are classified for those social indicator projects that have been recognized as tax-exempt by the Internal Revenue Service (IRS). Government organizations are classified for social indicator projects that receive a minimum of 80% of its funding from a government source, either local, state, or federal government. Additional evidence of this classification was derived from the staffing, location, and reporting activities of social indicator projects. The hybrid organization are classified for social indicator projects where it is either unclear of primary responsibility of the project or a case of split responsibility between two types of organizations.

As well as type of organizational structure, the database notes if they are affiliated with national social indicator initiatives like the Community Indicator Consortium or the National Neighborhood Indicators Project. The database lists significant funding streams including private or community foundations or government sources. The number of and types of indicators collected by each project are identified in the database. For example, many indicator projects focus on indicators around community health and concentrate their work around measuring indicators related to issues like diabetes and obesity. Other criteria of the database include relevant historical events, geographic scope, and the size of the staff. Additional criteria from the social indicator projects emerged as the data is collected. These data were used to make comparisons across the social indicator projects and understand how each project operates internally.

3.2 Part Two: Case Studies

The second part of this research consists of conducting two case studies of cities that have government administered indicator projects and two case studies of cities with non-governmental social indicator projects; these four case studies examine how the social indicator projects' measurement of social equity are developed and how community feedback is cultivated and incorporated. Yin defines a case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and

context are not clearly evident” (2009, p. 18). The subjects of the case studies were identified through a purposive sample from cities that have social indicator projects with varying administration types. New York City and Chicago’s social indicator projects are initiatives out of city and regional government agencies. Baltimore and Detroit are non-governmental initiatives operated by organizations outside of government. Baltimore’s Baltimore Neighborhood Indicators Alliance is a self-funded research center within the Jacob France Institute of the University of Baltimore. Detroit’s Data Driven Detroit has evolved the operations since its inception in 2008. The administration of Data Driven Detroit developed from their affiliation with Detroit’s philanthropic community into an independent nonprofit and most recently in 2015 as a limited Low-Profit Limited Liability Company (L3C). A database of the four initiatives included in this research to explore funding sources, administration, organizational outputs, and other dimensions.

The case studies are exploratory and follow a linear-analytic structure. As explained by Yin, a linear-analytic structure is a “standard approach for composing research reports” and is commonly used in journal articles (2009, p. 176). Yin provides the example, “an exploratory case may cover the issue or problem being explored, the methods of exploration, the findings from the exploration, and the conclusions” (2009, p. 176). In this research, the exploratory case examines if and how social indicator projects in the U.S. consider social equity in their work.

The two parts of this research plan are complementary in that “mixed methods research can permit investigators to address more complicated research questions and

collect a richer and stronger array of evidence than can be accomplished by any single method alone” (Yin, 2009, p. 63). The database provides contextual information to compare the four cities and triangulate the findings from the qualitative research. Using thick description of qualitative research with the database strengthens the analysis of social indicator projects.

Conducting the case studies of social indicator projects looks in depth at examples to explore the context in which these organizations function. Case study research utilizes many methods for collecting data and consists of providing in-depth description of the case and its setting (Creswell, 2007). There are six main ways for conducting case study research, all of which may be used for the proposed research. Sources of evidence for case study research are documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts (Yin, 2009).

This research employs semi-structured interviews with stakeholders of the selected organizations operating the social indicator projects. Semi-structured interviews as a data collection method enable the same topics to be covered by each interviewee (Corbin & Strauss, 2015). “After the questions on the list have been covered, participants are free to add anything else to the interview that they might feel is relevant to the discussion” (Corbin & Strauss, 2015, p. 39). Interviews were conducted over the phone, in person, and through the online video conferencing software, Skype. The number of interviews at each site varied depending on project staff and availability for meetings. For example, the number of interviews conducted

for the Baltimore case study was fewer than the New York City case because BNIA has a much smaller staff and budget compared to the New York City Mayor's Office of Operations. Because there is no ideal number of interviews for case study research, the number of interviews was determined by the emergence of reoccurring themes (Corbin & Strauss, 2015). This research captured in depth interviews with several stakeholders and representatives from each social indicator project. The criteria for selecting interviewees for this research was stakeholders who were involved in the funding or administration of the social indicator project and includes board of directors, executive directors, data managers, research associates, and other staff members. Additional interviews were conducted with funders from the philanthropic community and community based organizations that utilize the data produced by the indicator projects. Interviews with national umbrella organizations, National Neighborhood Indicators Partnership and the Community Indicators Consortium, were conducted for contextual information. A total of thirty-five semi-structured interviews were conducted across the four case studies and three board or advisory meetings were included for additional data. The New York City case includes fourteen interviews and the Chicago case includes eight interviews and a board meeting. The Detroit case includes seven interviews and the Baltimore case includes six interviews and two advisory meetings. The level of access to interviewees was greater in the government administered cases. Additionally, the staff size in the nongovernmental cases was much smaller which made scheduling interviews more challenging than the governmental counterparts. Interviews and participant observation of the board and

advisory meetings occurred during May 2016 to December 2016. Interviews and meeting proceedings were transcribed and analyzed throughout the data collection process. Data were coded using Dedoose. Open codes were used and refined throughout the coding process. This iterative process enabled common themes to emerge across the data (Corbin & Strauss, 2015). Table 8.4 provides an outline of the codes, categories and themes. See Appendix B for the properties of the codes.

This research was approved and ruled exempt by the University of Delaware Institutional Review Board in April 2016. In addition, the interview protocol was tested and adapted during June – August 2015. The interview protocol, included in Appendix A, includes a description of the research which was shared with interview participants as well as an explanation of how the individual is associated with the organization. The interview protocol served as a guide as the research employed semi-structured interviews. The broad categories of questions are employment information, organization information, social indicators, users of organizational resources, values, and concluding remarks.

Document review is another method that was utilized to collect data for this research. Documents are important for doing case study research as “documents serve as substitutes for records of activity that the researcher could not observe directly” (Stake, 1995, p. 68). Examples of documents collected for document review may include “newspapers, annual reports, correspondence, minutes of meetings” among others (Stake, 1995, p. 68). Specific examples of secondary sources for this research included social indicator projects annual reports, like BNIA’s Vital Signs or Chicago’s

GO TO 2040. Additional examples of secondary sources for this research include Form 990s for those social indicator projects that are non-governmental organizations and state and local government reporting requirements for the government classified social indicator projects.

Finally, participant observation was used as part of these case study organizations. Through observation, the researcher “lets the occasion tell its story, the situation, the problem, resolution or irresolution of the problem” (Stake, 1995, p. 62). Observation as a research endeavor is accomplished through using thick description that captures the complexity of the situation (Geertz, 1973).

The following framework provided structure for analyzing data for the case studies. While this was the initial framework for this research, it was adapted throughout the data collection process as there were aspects of this research that were inappropriate for the framework. For example, the framework identifies the “regular” occurrence of behaviors whereas this research did not collect ongoing data from the workplace. However, the aspect where this framework was useful for this research was the “example gap.” Concerning the social indicator projects, there are several “example gaps” that are explored in the case study chapters. The main aspect of the framework that was utilized for this research was the “policies, procedures, and structures” as that is most closely aligned with the research questions.

Table 3.1 Social Equity Cultural Audit

| Culture | What to look for | Example Gaps |
|--|---|--|
| Physical Characteristics and general environment What do the physical components of the department say about its racial equity? | Wall hangings Symbols and logos Program website Brochures Agency reports | Website contains racially diverse photos, but very limited mention of racial equity goals or outcomes in agency reports |
| Policies, procedures, and structures What do the agency's policies, procedures, and structures say about the importance of racial equity? | Mission statement Units within the agency where racial equity work occurs Linkage of these units to agency at large Routinization of racial impact analysis of agency procedures and policies | Units within the agency where racial equity work occurs are marginalized within the agency. The same units receive limited financial resources. Racial impact analysis of agency procedures does not formally occur. |
| Socialization What regular behaviors and expectations are in place that affect the culture relative to racial equity? What impact do these have on the clients the agency serves? Is consideration of racial equity a norm or priority within the agency? How are employees socialized to think (or not think) about the racial impact of public services provided? | Presentation of racial equity data by program area Presentation of racial equity client data through statistics, audit studies, mapping, and interviews/focus groups Clear relationship between racial equity data and agency action Formal and informal agency rules and norms that foster racial equity analysis | Limited presentation of racial equity data. Racial equity analysis not required by agency. Results from racial equity analysis do not impact actions and practices of agency – data is informational only. |
| Leadership behavior What level of priority do agency leaders give to racial equity? How does this impact culture? | Articulation of organizational justice values Allocation of personnel and budgetary resources to racial equity work | Priority of racial equity work within agency is sporadic and varies by leader. No sustained racial equity initiatives over time. |

| | | |
|---|--|--|
| Are senior leaders who value racial equity respected? | | No positions or units expressly dedicated to equity/justice work. |
| Rewards and recognition How are reductions in racial inequities acknowledged and rewarded? How does this impact culture? Are racial equity champions recognized and respected? What are the typical circumstances under which racial equity champions exit the organization, and how are they treated when they leave? | Administrator and employee performance reviews Types and quantity of rewards offered Types of formal and informal recognition within the agency | No formal or informal recognition of racial equity-related work Employees engaging in racial equity work typically become “casualties”. Such employees are either forced out or burn out. Limited or no mention/recognition by organization of racial equity work when racial equity champions leave the organization. |
| Discourse How are messages regarding racial equity formally and informally communicated? How is the agency’s history relative to racial equity understood and communicated? Do employees speak up on the importance of racial equity? | Conversations about racial equity in the provision of public services commonly occur within the organization Organization’s history and commitment to racial equity are displayed prominently on the agency website Racial equity analysis is a routine component or program evaluation and assessment Conversations about racial equity are progressive in nature; employees can articulate racial equity work with analytical depth | Conversations about racial equity in the provision of public services are sporadic. Employees are reluctant to discuss areas of racial inequity. Employees who do discuss areas of racial inequity are not generally respected or are viewed as “troublemakers.” Agency’s historical and current record in terms of racial equity is largely unknown and not discussed. |

| | | |
|--|---|---|
| Learning and performance What is the agency's reputation regarding racial equity? Does the organization demonstrate innovation in racial equity approach? How does the organization's performance of racial equity work compare to leading governmental organizations that are engaged in this work? | Organization supports and encourages racial equity analysis Employees are encouraged to seek out and adopt "best practices" in racial equity work Organization routinely receives requests from other agencies about its racial equity work Organization's racial equity work receives external recognition from peers | Agency not viewed as a leader in racial equity work among peers. Agency's racial equity performance is not routinely assessed, evaluated, or reported. |
|--|---|---|

(Gooden, 2014; Inspired by Testa & Sipe, 2011)

The case study approach is utilized because it provides a process for collecting, analyzing and reporting on contextual data which are key considerations for understanding how organizations operate. Developing a social indicator database and case studies will provide usable knowledge for organizations doing similar work. Other methodologies would not be appropriate for this research due to the complexity of social measurement. Furthermore, the topic of social equity requires consideration of the human element and contextual data. "Social equity draws attention to the human factor in terms of economic fairness and advantage" (Guy & McCandless, 2012, p. S6). This human factor of social equity makes this research appropriate for a case study to capture the context of social indicator projects. In the pursuit of producing usable knowledge, a multi-site case study provides examples of administration for other social indicator projects. The multi-site case study explores the differences in the

administration and attention paid to social equity in the social indicator projects among the four cities.

Previous social equity research was approached through the philosophical underpinnings and historical development, both of which are necessary for understanding the present-day research regarding social equity. This research intends to identify the praxis of social equity in the administration of institutions that measure social indicators. The results provide practical knowledge for these organizations or other social service entities concerned with advancing equity in society.

3.3 Case Study Selection

The first two cities of Chicago and New York City were selected because the cities have social indicator initiatives administered by city and regional government agencies. New York City's Mayor's Office of Operations administers the social indicators project in collaboration with the City's Center for Innovation through Data Intelligence, the NYC Center for Economic Opportunity and the Mayor's Young Men's Initiative. The Chicago Metropolitan Agency for Planning serves as the region's administrator of social indicators. The second set of case studies examining social indicator projects in Baltimore and Detroit were selected because they are administered by non-governmental entities. The Baltimore Neighborhood Indicators Alliance (BNIA) operates as a self-funded research center within the Jacob France Institute at the University of Baltimore. BNIA had formerly been an independent

nonprofit and incubated by the Baltimore philanthropic community. Data Driven Detroit (D3) established a low-profit limited liability company (L3C) in 2015 after operating as a nonprofit organization since 2008.

The following section will explain some of the demographics in the four case studies. While the population and demographics are not germane to the selection of the case studies, it provides contextual information about the communities in which the initiatives work.

Baltimore and Detroit, Chicago and New York City have social indicator projects with differing operations, measurement frameworks, and indicators. The following tables show the cities for understanding of the measurement scale of the indicator projects.

Table 3.2 Baltimore & Detroit

| City | Baltimore, MD | Detroit, MI |
|---|--|---|
| Social Indicator Project | Baltimore Neighborhood Indicators Alliance (BNIA) | Data Driven Detroit (D3) |
| Administration | Non-Governmental Organization | Low-profit Limited Liability Company |
| Population (2015) | 621,849 | 677,116 |
| White alone, percent, 2010(a) | 29.6% | 10.6% |
| Black or African American alone, percent, 2010 (a) | 63.7% | 82.7% |
| American Indian and Alaska Native alone, percent, 2010 (a) | 0.4% | 0.4% |
| Asian alone, percent, 2010 (a) | 2.3% | 1.1% |
| Native Hawaiian and Other Pacific Islander alone, percent, 2010 (a) | Z | Z |
| Two or More Races, percent, 2010 | 2.0% | 2.2% |
| Hispanic or Latino, percent, 2010 (b) | 4.2% | 6.8% |
| White alone, not Hispanic or Latino, percent, 2010 | 28.0% | 7.8% |
| Median Household Income 2010-2014 | \$41,819 | \$26,095 |
| Per capita income in past 12 months, 2010-2014 | \$25,062 | \$14,984 |
| Z Value greater than zero but less than half unit of measure shown | | |

(U.S. Census Bureau, 2015)

Table 3.3 Chicago & New York City
City

| | Chicago | New York City |
|---|---|-------------------------------------|
| Social Indicator Project | Chicago Metropolitan Agency for Planning (CMAP) | NYC Mayor's Office of Operations |
| Administration | Local Government | City Government |
| Population (2015) | 2,720,546 | 8,550,405 |
| White alone, percent, 2010 (a) | 45.0% | 44.0% |
| Black or African American alone, percent, 2010(a) | 32.9% | 25.5% |
| American Indian and Alaska Native alone, percent, 2010 (a) | 0.5% | 0.7% |
| Asian alone, percent, 2010 (a) | 5.5% | 12.7% |
| Native Hawaiian and Other Pacific Islander alone, percent, 2010 (a) | Z | 0.1% |
| Two or More Races, percent, 2010 | 2.7% | 4.0% |
| Hispanic or Latino, percent, 2010 (b) | 28.9% | 28.6% |
| White alone, not Hispanic or Latino, percent, 2010 | 31.7% | 33.3% |
| Median Household Income 2010-2014 | \$47,831 | \$52,737 |
| Per capita income in past 12 months, 2010-2014 | \$28, 623 | \$32,459 |
| Z Value greater than zero but less than half unit of measure shown | | |

(U.S. Census Bureau, 2015)

There are obviously differences among these cities regarding the unique cultural and geographic influences. This research explores these differences through the case study and explain the inherent challenges of comparing cities.

Academicians and practitioners may find value in this research because it is original and looks at the current practice of measuring social indicators through the lens of social equity. While the literature about performance measurement data and social indicators is extensive, it is uncommon to incorporate values, like social equity, into the research approach. While social equity is not the only focus for this research, it serves to focus the scope and select the criteria for the cities that selected for the case study. Most importantly, exploring social indicator projects in cities is a practical way of contextualizing the issue of social equity.

3.4 Importance of Research

This research is important because social indicator projects are providing the data to fuel decisions and policies in many communities. The connection between social indicator projects and evidence-based policy will be explored in the following section and identify the ways in which indicator data may be used in a community. Evidence-based policy is “the search for usable and relevant knowledge to help address and resolve problems” (Head, 2008, p. 2). The premise of evidence based policy is that “reliable knowledge is a powerful instrument for advising decision-makers and for achieving political success” (Head, 2010, p. 78). For evidence based

policy to be feasible in a community, there must be a political culture that supports a transparent and rational approach to policy and a “research culture [that] will encourage and foster an analytical commitment to rigorous methodologies for generating a range of policy-relevant evidence” (Head, 2010, p. 79). Social indicator projects serve a central role in this scenario by encouraging transparency through the collection, centralization, and distribution of data and as the data analyst for the community.

The connection between social indicator projects and evidence based policy originated in the 1980s when New Public Management called upon government institutions by the public “for greater accountability and a shift toward outcome-oriented measurement” (Rural Development Institute, 2013, p. 7). This shift to outcome-oriented measurement catalyzed many communities to create social indicator projects for “enhanced monitoring of social outcomes” (Rural Development Institute, 2013, p. 7).

Social indicator projects make data available to policy makers which can be used as the justification for policy. While the social indicator project movement has experienced times of ebb and flow, there is currently a growing movement across the country to measure, report, and use performance data and social indicators (Greenwood, 2008). Researching the values behind these initiatives is necessary for understanding the social indicator projects’ motivations for their work. Social measurement is not a value-free endeavor; administrators infuse their values in the selection, identification, and reporting of indicators. “The whole point of community

indicators is to encourage and enable improvement over time in whatever is being measured, whether it is the incidence of teenage pregnancy, voter participation, local air quality, or the local employment rate” (Greenwood, 2008, p. 55).

Scholars have questioned the objective and rational premise of the evidence based policy movement. Any evidence used to support a policy is based on multiple interpretations with respect to meaning, relevance, and importance; “it encompasses the idea of objective information bearing some relationship to a reality that is independent of the observer” (Jennings & Hall, 2012, p. 246). Moynihan elaborates that performance measures are “in fact ambiguous: selected, interpreted, and used by actors in different ways consistent with their institutional interests” (2008, p. 9).

The emphasis for this research is how social indicator projects in the four case studies include or omit social equity in the communities that they measure.

Researching the context for the inclusion of equity into social indicator projects may provide insight for community members who feel disenfranchised from defining, measuring, and tracking community quality of life. The comparison of these four case studies includes the type of administration and funding sources for the social indicator project. The comparison also examines how the social indicator project administrators understand and incorporate or omit social equity. These data were gathered through the interviews, participant observation, and document review.

The information resulting from this research may benefit the many existing social indicator projects and community organizations trying to start a social indicator

project. The Community Indicators Consortium (CIC) and the National Neighborhood Indicators Partnership (NNIP) are organizations that provide organizational support and networking opportunities for social indicator projects. As the two-main social indicator umbrella organizations, the CIC and NNIP may benefit from this research because it will be the first comprehensive examination of social indicator projects through the lens of social equity. This research provides a baseline for developing guidelines for enhancing social equity in other social indicator projects. Additionally, this is the only research that is examining social equity among social indicator projects with varying administration.

Most importantly, this research has the potential to impact those who have been omitted in the construction and administration of social indicator measurement. The purpose of social indicator projects is to report on the effectiveness, outputs, and outcomes of the provision of public services and goods which contributes to a community's quality of life. However, a report on quality of life is incomplete without consideration for social equity within a community.

3.5 Strengths and Weaknesses of Research

The following section will discuss the possible limitations of this research approach and how these limitations will be mitigated throughout the research. This specific research design is balanced in that it utilizes data from both primary and secondary sources. Utilizing both primary and secondary sources provides

triangulation for the analysis process. In qualitative research, triangulation is achieved through several ways including presenting uncontested description and methodological triangulation. The methodological triangulation occurs when the researcher increases confidence in the study through using interview data and reviewing documents or through direct observation and old records (Stake, 1995). Interview data has the limitation that it is based on an individual's perception of a phenomenon and what that individual is willing to share with the researcher. Any findings from the interview data are fortified with data from the secondary sources mentioned in the previous sections including meeting minutes, budgets, and strategic plans.

Among the limitations of case study research include the lack of statistical representativeness and challenges with generalizing the findings (Martinson & O'Brien, 2010). Case study research does not strive for the same cause and effect explanation as other research may attempt to demonstrate (Stake, 1995).

However, given the nuances of the subject matter, these limitations do not preclude the research from utilizing the case study approach. Given the goals of this research, developing case studies is appropriate as "[t]he function of research is not necessarily to map and conquer the world but to sophisticate the beholding of it" (Stake, 1995, p. 43).

Case study research enables the researcher to gain understanding of "a process, program, event, or activity" where the goal "is to develop a comprehensive understanding of a case, or complex bounded system, including the context and

circumstances in which it occurs” (Martinson & O’Brien, 2010, p. 163-164). Because the unit of analysis is focused on a specific subject, multiple-case designs enable comparison across cases. “Evidence from multiple-case designs is often considered more compelling and the findings more robust” (Yin, 2003; Martinson & O’Brien, 2010, p. 171).

3.6 Addressing Research Obstacles

There were three main challenges for carrying out this research. The first issue was comparing the data of the four social indicator projects, the second issue was accessibility of case study interview participants, and, lastly, there were events that occurred during this research that affected the operations of the case study organizations. The following section will address these concerns and outline strategies used to confront the issues.

Several systems have been developed to classify indicators (Kingsley, 1998, 1999; Land 1983). These systems are not easily transferable to all social indicator projects because they are shaped by their communities and occupy different organizational roles within those communities. The dimensions of the data comparison are being shaped through input from Kingsley’s and Land’s previous work as well as an iterative process of comparing the social indicator projects under review. An additional resource for this process is Dluhy and Swartz’s study which identified community-based projects and classified them to compare administration, history, and

types of indicators that they track (2006). To overcome the challenge of classification of different social indicator projects, the data comparison of this research was consulted with the social indicator umbrella organizations and other experts in data-related initiatives.

The second issue of accessibility is not a new challenge for case study researchers. Making introductions, asking for and scheduling interviews with the potential interviewee requires time and flexibility. To expedite this process, the NNIP was used as a resource to make introductions with their partners. NNIP was utilized during several stages of the research project and was helpful with expediting access to social indicator projects. Cresswell offers additional challenges of conducting qualitative research of “unexpected participant behavior, [...], phrase and negotiate questions, deal with sensitive issues, and do transcriptions” (2007, p. 140).

Finally, as the world continues while research is happening, there were events that occurred in the four case study cities that interfered with the operations of the indicator projects. These events include turnover among staff or leadership, and change in government or philanthropic funding. These events were addressed through maintaining contact with staff members and scheduling interviews with several staff members within different departments in each indicator project.

3.7 Ethical Concerns

Ethical considerations are always a concern when conducting social science research. The following section will discuss ethical considerations and the way in which they can be addressed in the research. Specifically, there are ethical concerns regarding the methodology, as well as the subject matter. For qualitative research conducting interviews, Cresswell explains that researchers must ask themselves if they got the story right. However, Cresswell's point is that there is not one single story to "get right," rather multiple stories within the context. The ways in which a researcher can ethically conduct social science research and capture these multiple stories include using rigorous data collection procedures and documenting the steps of collecting research throughout the study (Cresswell, 2007).

The ethical concerns that are intrinsic to social indicator projects were addressed throughout the study. Because there is no uniform format or approach for social indicator implementation, many communities borrow strategies from established indicator projects. These newer communities may falter as they adapt these strategies. To move past this confusion, Rivlin suggests a strategy of "random innovation" through which "individual communities or schools or health facilities are encouraged to try new approaches and see how they work" (1971, p. 87). While there are ethical challenges with the trial and error approach, Rivlin advocates for this strategy because it is adaptive to a community's context. There is no easy, replicable solution for implementing changes to society (Rivlin, 1971). There are many scholars

who address the ethical challenges of the work including defining well-being or quality of life from the privileged position of a social science researcher (Rivlin, 1971; Dolan & White, 2007; Bleys, 2012).

3.8 Contributions

The use of social indicators has ebbed and flowed over the past 60 years. The periods during which social indicators were appreciated and expanded by communities coincided with times of significant social change (Bauer, 1966). Similar to the social indicator movement, the value of social equity has been appreciated to varying degrees since its formal birth during the 1960s (Frederickson, 1990). To reiterate an earlier statement, social indicator projects and the value of social equity are fundamentally about progress. These subjects are concerned with changing and measuring social phenomena.

In looking at the dialogue from scholars of social equity and social indicators, there are important questions to guide the future discussions. Frederickson's famous equity questions of "To say that a service may be well managed and that a service may be efficient and economical, still begs these questions: Well managed for whom? Efficient for whom? Economical for whom?" (1990, p. 228). Social indicator scholars (Cobb & Rixford) strengthen these questions to ask, "why do these questions exist?" (1998, p. 2). Social indicator projects may advance social equity because they can measure and track indicators of importance to the community.

Progress for the future of social indicator projects is developing the discussion from simply government effectiveness and efficiency to include equity for all community members. Elevating practical solutions for incorporating social equity in administration is necessary for progress. Part of the impetus for an academic approach to social equity is summarized by Waldo's concern of public administration becoming "old men talking to old men about irrelevancies" while the rest of the world is talking about equity (as cited by Thompson, 1982, p. 620).

As national events concerning social equity are growing in prominence, this research provides a framework for addressing organizations that are looking for applied and feasible example of social equity in practice. Social indicator projects encourage the democratization of data which enables community members to participate and be engaged with policy, planning, and governing in a community (Sawicki & Craig, 1996). Leading scholars affirm that the power of social indicators come from its utilization and that is not enough to simply measure and track statistics (Rivlin, 1971; Bauer, 1967; Swain & Hollar, 2003).

Frederickson writes,

"I respect those who are working on social equity indicators, social equity benchmarks, and other forms of statistics, but the prospects of such labor for success seem to me to be limited. Furthermore, statistics and data lack passion and smother indignation. It does the cause of social equity little good to be able to know exactly how poor the poor are" (Frederickson, 2005, p. 37).

This research utilizes methods to explore the nuances of trying to measure equity for the purpose of change and progress.

It is uncertain the societal impacts that this research may have. The goal of this research is to further inform social indicator projects in their work and advance and elevate the value of social equity in public administration. In the interest of progress, the purpose of this research is to contribute not only to the dialogue about social equity, but to offer practical ways to act upon it.

Chapter 4

BALTIMORE

This chapter will review the development of the Baltimore Neighborhood Indicators Alliance (BNIA) into the present-day organization. Included in this chapter is a discussion of BNIA's relationship to national data systems and local nonprofit organizations that utilize BNIA's data. Data regarding BNIA were derived from participant observation, document analysis, and semi-structured interviews conducted in 2015-2016 with BNIA's staff and community stakeholders. BNIA's position as a nonpartisan research center enables the organization to strategically contribute to community dialogues while maintaining an independent reputation in the Baltimore community. This chapter examines how BNIA conceptualizes social equity in its data work in Baltimore and how the organization adapted to current events in the region. As funding is an important consideration for data organizations, this chapter will review BNIA's funding sources and discuss how it has influenced its administration. Finally, this section will discuss the impetus and development of equity indicators in BNIA's work.

4.1 Background

This history, structure and funding of BNIA will be briefly discussed. The administration of BNIA has roots in Baltimore's nonprofit sector. In the late 1990s, the Baltimore Area Grantmakers and the Annie E. Casey Foundation supported the

creation of BNIA with the organization's official launch in 2000 (Schachtel, 2001). BNIA used National Neighborhood Indicators Partnership's (NNIP) organizations as the model for their design and joined NNIP in 2000 (Schachtel, 2001). In 2006, BNIA began an institutional collaboration with the University of Baltimore's Jacob France Institute which enabled them to expand (BNIA, 2015b). The Jacob France Institute is a nonpartisan research center at the University of Baltimore which provides information related to government, the private and nonprofit sectors. The Annie E. Casey Foundation provides technical assistance and financial support for BNIA (BNIA, 2015b).

In addition to being an active partner in the NNIP network, BNIA frequently participates in events organized by the Community Indicators Consortium (CIC). BNIA hosted a best-practices webinar with CIC in August 2016. BNIA is also involved with the International Society for Quality of Life Studies and the Urban and Regional Information Systems Association. Locally, BNIA maintains memberships in the Maryland Association of Nonprofit Organizations and the Maryland State Geographic Information Committee (BNIA, n.d.).

BNIA's indicator initiative, Vital Signs, has been published since 2002. Published in 2015, Vital Signs 13 tracks over 150 indicators in 55 Community Statistical Areas (CSAs) within Baltimore. The Vital Signs report provides neighborhood ranking across many indicators and highlights changes in specific indicators using the colors green and red to indicate positive or negative progress. In addition to the Vital Signs report, BNIA maintains an online tool on their website. The website allows users to download data to perform independent analysis or compare indicators for a specific neighborhood. The goal of BNIA is to develop a shared

measurement system to take the pulse of Baltimore's neighborhoods so that the data may be used by community stakeholders (BNIA, 2015b).

Funding limitations are a reality for many organizations. This section will discuss BNIA's funding sources and how funding affects its work. Included in this section is a discussion of the organization's grant activity and relationship with foundations in the community. Because BNIA is classified as a unit within the University of Baltimore's Jacob France Institute, financial information regarding operations was not readily available online. The organization provided limited financial information. BNIA's finances are mixed with the Jacob France Institute. While neither entity files an independent form 990, BNIA and the Jacob France Institute can accept tax-deductible donations through the University of Baltimore Foundation. The number of tax-deductible donations specified to BNIA is not publicly available on the University of Baltimore Foundation's form 990.

The University of Baltimore provides an institutional home for BNIA, but does not provide operational funding. The University provides funding for 20% of the Associate Director's position, but the rest of the staff are funded through external grant projects. Iyer sees the organization's reliance on external grant funding as a positive aspect for driving the work; "If the data [we collect], if the work we do is not relevant, no one is going to fund us to do any work and no one would get paid. We would cease to exist" (Personal communication, August 19, 2016).

BNIA has three main funding streams: foundational, internal primary research, and data services to external partners. The Annie E. Casey Foundation provides annual funding that is allocated to the production of Vital Signs. Part of the investment from the Annie E. Casey Foundation is reserved for ensuring that Vital Signs is utilized by

community members through technical assistance, data access, and maintaining the online database (S. Iyer, CIC Webinar, August 26, 2016). The Annie E. Casey Foundation funds state-wide data projects through its Kids Count initiative. The staff produce primary research based on their researchers' agendas. BNIA has capitalized on their extensive knowledge of parcels in Baltimore. Researchers examining issues in Baltimore can pay BNIA for specific datasets not included online. Other funding generated through external research has included doing program evaluations and assisting with grant applications for nonprofit organizations.

BNIA's celebrated position in Baltimore and within the NNIP network presents the organization with opportunities to share from its experience in convening data for community organizations and expand its data capacity. In 2015, the UN selected Baltimore as a model city to localize the Sustainable Development Goals. New York City and San Jose, California were the other two cities in the United States selected as model cities for the Sustainable Cities Initiative. Comprised of local experts in Baltimore, the Sustainable Development Goals Executive Team (SDGET) was tasked with advancing this global agenda and applying the framework to Baltimore. Organizations represented on the SDGET include the University of Baltimore, the University of Maryland National Center for Smart Growth, Communities without Boundaries International, and the Baltimore Neighborhood Indicators Alliance. Throughout 2016, SDGET met to develop a list of "feasible" and "quantifiable" targets to be included in future plans (Ruckstul, 2016). Because of BNIA's established record of organizing data for Baltimore, BNIA and the University of Baltimore was selected to serve as the anchor institution. The anchor institution is a regional steward for the process of localization of the SDGs.

The international SDGs framework consists of 17 goals that are designed to incorporate local priorities. The 2030 Agenda for Sustainable Development alludes to the termination of the previous MDGs to adapt the framework for regional differences. The new goals which became effective on January 1, 2016 state, “We acknowledge [...] the importance of the regional and subregional dimensions, regional economic integration and interconnectivity in sustainable development. Regional and subregional frameworks can facilitate the effective translation of sustainable development policies into concrete action at the national level” (United Nations, 2015, p. 10).

The adaptation of the SDGs for a city like Baltimore includes a process of an inclusive community dialogue where participants articulate clear and compelling goals that are “specific to the city, yet aligned with the global SDGs” (USA-SCI, 2016, p. 1). The SDGET will operationalize the goals so that the SDGs can move beyond the MDGs from identifying problems to tracking effective solutions. The model cities in New York, Baltimore, and San Jose are piloting this process for cities to adopt the SDGs in the future.

Across the model cities, the framework is supported by the four pillars: “end poverty in all its forms; ensure social inclusion; address the environmental agenda, including biodiversity, climate change and oceans; and governance to support the first three goals” (Benson-Wahlen, 2012, p. 1). The model cities have adopted all the following SDGs, but add the name of the City to the end of the goal.

Table 4.1 Sustainable Development Goals in Baltimore

| | | | |
|---|--|---|---|
| 1. No Poverty in Baltimore | 2. Zero Hunger in Baltimore | 3. Good Health and Well-Being in Baltimore | 4. Quality Education in Baltimore |
| 5. Gender Equality in Baltimore | 6. Clean Water and Sanitation in Baltimore | 7. Affordable and Clean Energy in Baltimore | 8. Decent Work and Economic Growth in Baltimore |
| 9. Industry, Innovation and Infrastructure | 10. Reduced Inequalities in Baltimore | 11. Sustainable Cities and Communities in Baltimore | 12. Responsible Consumption and Production in Baltimore |
| 13. Climate Action in Baltimore | 14. Life Below Water in Baltimore | 15. Life on Land in Baltimore | 16. Peace and Justice Strong Institutions in Baltimore |
| 17. Partnerships for the Goals in Baltimore | | | |

(Sustainable Cities Initiative, 2015)

BNIA has contributed to the process of adapting the SDGs to Baltimore as one part of its outreach to the community. BNIA continues to maintain its database of indicators and produce the *Vital Signs* report annually. Seema Iyer, Associate Director of BNIA, explains,

I'm not sure if we could say that we adopted [the revised goals]. We went through a process to see what it would mean if those seventeen goals were to be realized here in Baltimore. [...] What would be relevant in Baltimore around each one of these things. Sustainable communities in Baltimore is going to be different than sustainable communities in Johannesburg or [...]

Sydney, Australia. (Personal Communication, August 19, 2016)

In working with Baltimore's SDGs, BNIA was able to expand the type of data that the organization typically collects. Whereas BNIA is committed to track data at the CSA

or neighborhood level, the SDGs are focused on Baltimore as a City. BNIA participated in the Baltimore SDGs because of the staff's expertise on indicators, but the SDGs included indicators outside of BNIA's database.

4.2 Data in Baltimore

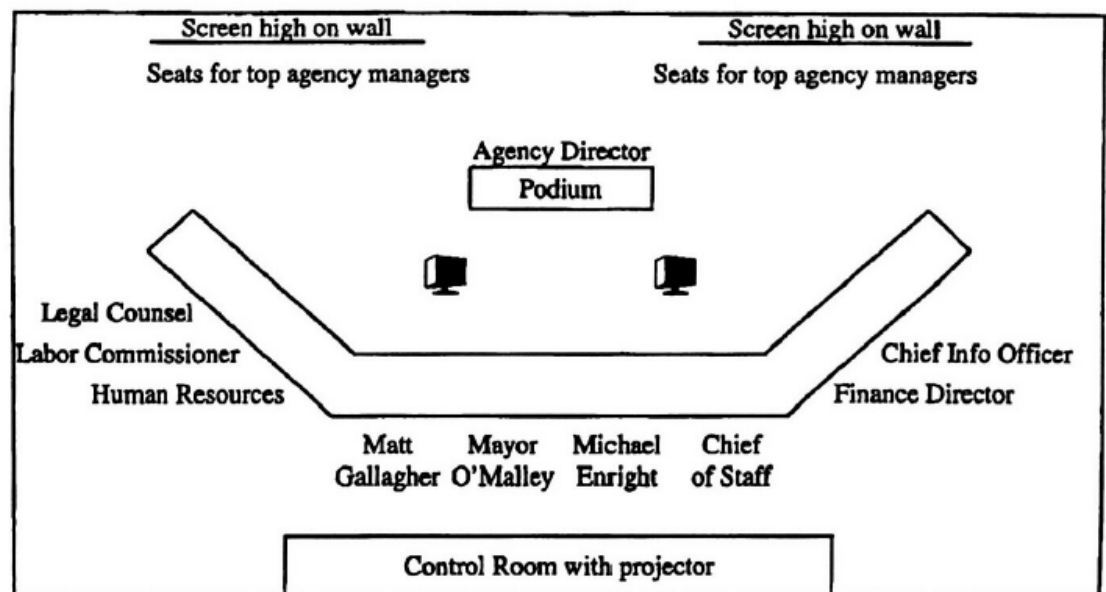
The culture in Baltimore regarding data availability and use is notable given the City's longstanding relationship with providing data to the public. This section will discuss the historical evolution of open data in Baltimore – from CitiStat to Baltimore Open Data – as these functions were important precursors to BNIA. Other topics reviewed in this section are Baltimore Data Day which contributes to the regional culture around data availability. These functions and events across the City of Baltimore contribute to the availability of data for BNIA. This section will also discuss the sources of BNIA's data including how the sources were identified and how the data are maintained and used.

CitiStat was started under the administration of Mayor Martin O'Malley in 2000 to reduce waste and improve efficiency across Baltimore City services. "CitiStat is a data-driven management system designed to monitor and improve the performance of city departments in real-time" (Perez and Rushing, 2007, p. 3). Based on New York City's Compstat, CitiStat applied similar performance measurement functions across all of Baltimore's departments. Compstat was created in the early 1990s to improve the performance of the New York City Police Department. Deputy Commissioner Jack Maple designed Compstat and assisted Mayor O'Malley develop Baltimore's CitiStat. The fundamental theory of Compstat and CitiStat was "accurate and timely intelligence" to guide decision making (Schachtel, 2001, p. 254). Following the success of CitiStat, officials from city governments across the United States replicated

and adapted Baltimore's model. Prominent examples include Atlanta's ALTStat and King County, Washington's KingStat (Behn, 2006).

In the years following the creation of CitiStat, scholars have studied its components to create similar projects across the country. Behn identified six visible features of CitiStat as 1) the room, 2) the meetings, 3) the data, 4) the maps, 5) the technology, and 6) the questioning (2005). The room is a critical component to CitiStat because it allows the City's leadership to view screens as they discuss issues. The CitiStat room serves as the headquarters for key officials to interface with data.

Figure 4.1 Baltimore's CitiStat Room



(Behn, 2005, p. 297).

Behn points out that the room layout is the least important feature of CitiStat but it is the most commonly replicated component by other cities "if only because it is the easiest to observe and reproduce" (2006, p. 333). Another symbolic benefit to making

a specific room for CitiStat activities is that it demonstrates support by the City's administration for the initiative.

Part of CitiStat's appeal in its early years was the relatively low cost of the program. "For all its success, the CitiStat program cost the city very little to implement" (Perez and Rushing, 2007, p. 4). In addition to using the Microsoft Office Suite which the City already owned licenses across agencies, CitiStat purchased ESRI's ArcView software for geographic information system (GIS) mapping. Other setup costs included renovating the CitiStat room and hiring and training the staff which cost approximately \$285,000 in 2000 (Perez and Rushing, 2007).

Upon CitiStat's inception, the staff were limited by what data was available. The CitiStat staff cultivated data sources during its years of tracking data across Baltimore. CitiStat began by telling city agencies, "bring us whatever data you have" which was often financial and personnel data because it was already being collected for administrative purposes (Behn, 2006). Eventually CitiStat incorporated data from Baltimore's 311 service which enables citizens to report problems in their neighborhood. This data is generated through Baltimore's CitiTrak database through assigning a tracking number to the complaint which allows the resident to track progress on its status. A frequent example of a 311 complaint is regarding fixing a pothole (Behn, 2006).

While CitiStat has been lauded as the preferred strategy for performance management, residents, local media, and government officials have questioned if CitiStat is improving accountability. Under the administration of Mayor Stephanie Rawlings-Blake, the budget of CitiStat doubled from 2011 to more than \$1 million in 2014 despite losing data analysis staff and regularly cancelling CitiStat public

meetings (Donovan & Puente, 2015b). “In 2014, the agency lost data analysis staff, failed to publish any department reports and canceled a third of the meetings that were the backbone of a process still being replicated in other U.S. cities (Donovan & Puente, 2015a, p. 1). The overall disappointment of CitiStat in recent years is the lack of accountability of the agency’s internal operations (“Time for CitiStat-Stat”, 2015).

It is important to make the distinction between initiatives like CitiStat and BNIA. CitiStat, as a performance measurement strategy for the city’s services, was inwardly focused and interested in reducing government waste. BNIA serves as a library for data and organizes ways in which community members can use the data to address issues in Baltimore. While these two initiatives have different missions, both CitiStat and BNIA contribute to the data culture in Baltimore. BNIA regularly receives data from CitiStat as one of the data sources for *Vital Signs*. Another important distinction between these two operations is the administrative continuity. As explained in the previous section, CitiStat thrived under Mayor Martin O’Malley’s administration, but struggled under the leadership of Mayor Stephanie Rawlings-Blake. BNIA, as an independent entity, has maintained stable leadership regardless of political changes.

Founding BNIA director, Odette Ramos explains the distinctions between CitiStat and BNIA as, “[Baltimore] had these two data driven kinds of initiative going on at the same time. One being about performance of city services and work that the city does and one around indicators for neighborhood change” (BNIAJFI, 2012b). As data is the essential component for BNIA’s work, the organization strives to maintain updated and secure datasets. As of 2016, BNIA convened data from 54 different data providers, most of them being from administrative data sources (Nancy

Jones, Personal Communication, August 19, 2016). This includes more than 120 data sets which are updated every year. BNIA has two secure servers for these data – the first server stores raw data and then is transferred to a different server once the data has been cleaned. Normalizing the data set allows staff to search the secure servers for specific data requests from community partners (Nancy Jones, Personal Communication, August 19, 2016). BNIA's position in Baltimore is as the region's data library; they "specialize in integrating data from a variety of sources and package information about Baltimore's communities in one place" (Kachura as cited by "Vital Signs 10...", 2012, p. 1).

The open data initiative in Baltimore, Open Baltimore, began in January 2011 under the administration of Mayor Stephanie Rawlings-Blake. Open Baltimore serves as a data repository where individuals and organizations can upload and share datasets. Because websites like Open Baltimore are not curated and require minimal staffing, "there was speculation in the technology community that the launch of Open Baltimore was nothing more than a political ploy – a hollow not to the calls from local developers for open data and a good way to shore up the Rawlings-Blake Administration's record on transparency" (Headd, 2011, p. 1). Other perspectives credit the Rawlings-Blake administration for the shift in publicly available data in Baltimore. Burnstein and Iyer state, "Until the late 2000s, the city's longtime Chief Information Officer maintained protocols for limited data-sharing opportunities to protect data security for the city. [...] when the city leadership changed in 2010, the new mayor – Stephanie Rawlings-Blake – took steps to transform the city into a national leader in open government" (2014, p. 1).

Open Baltimore operates using the Socrata platform which hosts many national open data websites across the country. Socrata is fee-based, proprietary software (Burnstein and Iyer, 2014). Software platforms like Github and CKAN are examples of open source alternatives to fee-based platforms. Open Data initiatives in New York, Boston, and San Francisco have opted to use the open source platforms.

Open data initiatives like Baltimore do not occupy the same space in the community as a social indicator project. Whereas social indicator projects like BNIA collaborate with community members and organizations to ensure the applicability and relevance of their data, open data initiatives “promotes transparency in government decisions and actions” (Pettit, Hendey, Losoya, & Kingsley, 2014, p. 8). The open data movement and social indicator projects are often complementary in that they strive to publicize non-sensitive data. Open data “advocates view government data as a public good that should be available to the taxpayers who funded its creation” (Pettit et al., 2014, p. 8). Per BNIA’s Strategic Plan,

BNIA-JFI will continue to serve as a “comprehensive” indicator site, providing cross-cutting data on a wide-variety of quality-of-life issues; however, with the proliferation of Open Data portals and other web-mapping sites (including Policy Map, American Factfinder, etc.) we aim to focus attention on information that is “hyper-local” and available for the 55 Community Statistical Areas with at least an annual frequency. (2012c, p. 2).

BNIA has benefited from Open Baltimore through an increased awareness of the need for having open data sets derived from public services. BNIA still relies on the relationships it has cultivated with City agencies. When searching for a new data source, BNIA’s data manager, Nancy Jones explains,

[BNIA will] seek out the actual originator of the data. [...] If it's going to be from Baltimore City, we would check Open Baltimore, [...]. However, our general finding is that the data we get from there is often missing fields or content that we need for our project. So, we don't rely on that. Instead we would go to the department that created it. (Personal Communication, August 19, 2016)

Continuity of indicators across editions of *Vital Signs* is critical for the comparability of the data. BNIA will seek data from the agency of origin rather than Open Baltimore to ensure that the updated data set contains the same fields as previous years. BNIA's work requires greater detail than the datasets provided on Open Baltimore. Jones says,

So, what happens is, we have these established relationships, and we go in and say, "We'd like this year's data set." And they say, "Well, just go to get it on the open portal." Then we go to the Open Portal, and we find that the Open Portal only has six fields and we need, like, three other fields that they always gave us. Or they changed the geography. (Personal Communication, August 19, 2016)

Open Baltimore has contributed to the environment of data availability in Baltimore, but BNIA still relies on the relationships that they have built with partners across city government agencies, organizations, and other sources of data. Despite the abundance of open data through Open Baltimore, BNIA serves the purpose of convening, organizing, and analyzing data.

4.3 Utilization of BNIA Data

To ensure that their data is utilized in the community, BNIA organizes many outreach functions including the Advisory Committee and Outreach Committee.

BNIA's Advisory Committee is comprised of community stakeholders including individuals from nonprofit organizations, government agencies, the Baltimore City School District, and philanthropic partners. This committee works with BNIA to suggest data that would be useful to working in the community. BNIA's staff designs classroom curricula, conducts data trainings in the community, and convenes Baltimore's Data Day, an annual data sharing event. The utilization of and efforts to increase utilization of BNIA's data through outreach activities will be discussed in this section.

Part of BNIA's mission is producing actionable quality of life indicators for Baltimore's neighborhoods in the name of progress for a better quality of life (BNIA, n.d.). Actionability is an important consideration for BNIA's work. Scholars in performance measurement literature have pointed out that it does not help citizens to know how many potholes are on their street unless the city is doing something to fix it. Similarly, it is not enough to know the rate of vacant and abandoned housing unless BNIA is encouraging and facilitating use of the data. The following section will discuss how data from BNIA is used and how BNIA has shifted its activities to ensure greater data use across community stakeholders. A review of BNIA's outreach efforts will be covered in this section.

In the organization's position as a self-support unit and affiliation with the University of Baltimore, limits the advocacy activities they do in the community. BNIA describes itself as a nonpartisan research center that maintains a neutral position on policy issues. While the staff maintain external neutrality, the staff repeated the sentiment that BNIA uses data to tell the story. Iyer provided an analogy on BNIA's stance on advocacy in the community:

We are not an advocacy organization. So, it also gives people some sense of neutrality that we're nonpartisan, non-advocacy, but sometimes the data are like the bullets, other people have the guns. Sometimes you do have to feed the bullets to the people with the guns. And that doesn't have to be terribly public. That could just be conversations that you show people data, like, here's what the data is telling us. And you can give recommendations, but they're the ones that actually have to pull the trigger. (Personal Communication, August 19, 2016).

This analogy was repeated during interviews with other BNIA staff members. “Our role is really to just provide [...] the ammunition for people who want to go out there and want to do the advocacy work (Cheryl Knott, Personal Communication, June 17, 2016).

BNIA’s nonpartisan position limits the type of advocacy activities the organization can do, but they utilize the relationships among community partners. Determining the necessary indicators for advocacy activities among their partners drives BNIA’s decisions regarding indicator selection. This is another example of BNIA’s process of utility and relevance driving indicators. “... [O]ur steering committee will give us ideas for an indicator, because they're in an advocacy group. [...] [O]ur job isn't to advocate. Our job is to be the data analysts for the city, frankly. For the community groups in the city, and so we're not out there advocating [for] really anything. We're just providing good data output” (N. Jones, Personal Communication, August 19, 2016). Community based organization not represented on BNIA’s steering committee will contact the organization to request for specific indicators outside of the database. Iyer attributes the addition of kindergarten readiness

to Vital Signs to community organizations interested in moving a policy agenda. Through a coalition of early childhood education partners in Baltimore, they worked with BNIA to add the kindergarten readiness indicator to its database (Iyer, CIC Webinar, August 26, 2016).

The utilization of BNIA's data expanded to national and international media sources following the uprising in 2015. The series of events around the police encounter with Freddie Grey influenced BNIA's work in the months succeeding the uprising. A summary of the Freddie Gray incidents will be discussed for context.

The City of Baltimore in Maryland experienced widespread community protest following events in April 2015. Freddie Gray, a Baltimore resident, died as a result of injuries sustained during his arrest by the Baltimore Police Department and transport to Baltimore Central Booking. Gray was in a coma and died one week after his arrest. Baltimore Police Commissioner Anthony W. Batts revealed, "We know he was not buckled in the transportation wagon as he should have been. [...] We know our police employees failed to get him medical attention in a timely manner multiple times" (as cited in Broadwater, 2015). Following this announcement, some of the protests became violent and caused Maryland Governor, Larry Hogan, to declare a state of emergency and call in the National Guard to support the Baltimore Police Department ("Freddie Gray's arrest", 2015). While the Freddie Gray incident with the police served as a catalyst for the uprising, many of the protests were in response to broader concerns with the Baltimore Police Department.

There were six police officers involved with the arrest and transportation of Gray who were charged with several counts of second-degree depraved heart murder, involuntary manslaughter, second degree assault, manslaughter by vehicle (gross

negligence), manslaughter by vehicle (criminal negligence), misconduct in office, and reckless endangerment (“List of Charges...”, May 21, 2015). Following the acquittal of three of the officers, Baltimore city prosecutors dropped all charges for the remaining three officers in July, 2016 (Sung and Shoichet, 2016).

Following the widespread media attention on the uprising in Baltimore, BNIA found its data quoted in many national and international news sources. Many of the news sources focused on data points concerning Gray’s neighborhood, Sandtown-Winchester. To contribute to the community conversation happening around the uprising and increased media coverage, BNIA released a series of articles examining the larger context of data concerning neighborhoods like Sandtown-Winchester. In addition to increasing the media attention to BNIA’s work, Gray’s death and uprising events increased attention to inequity across Baltimore.

[...] when the uprising happened, late April and early May, there was a lot of national press coverage and [...] a high number of journalists would call us and they published our data in newspapers and blogs throughout the country. [...] we were the resource for a lot of that, because they wanted to know about crime, they wanted to know about lead [...] And even though they can go to the state for that, because we put it out in like a simple to understand way and it was immediately available on our website, that was a common request about elevated blood lead level, because Freddie Gray had that [...]. And then once we have a conversation with the person seeking the data, I would suggest they speak to the primary provider of that data if they want to get their story completely accurate, depending on how deep they want to go. (N. Jones, Personal Communication, August 19, 2016).

The concern regarding if media sources are accurately using BNIA's data was echoed in other staff interviews. Because media were using BNIA's data to tell the story of Freddie Gray, the staff wanted to help tell a well-researched and comprehensive story about life in Baltimore's neighborhoods. To exemplify a time that the media used BNIA's data inappropriately, Knott shared that a media source compared the infant mortality rate in Sandtown-Winchester to that of a third world country. When speaking about this comparison, Knott said,

It became tricky because on one hand, technically, yes, the numbers themselves are correct, but there was no discussion whatsoever about how the numbers were calculated, and what the even birth rates were, so, it just became very tricky that these statistics were put out there, and [we] want people to use them, but people weren't really understanding what the numbers actually meant. And so, it was just almost sensational click bait and that was frustrating. (Personal Communication, June 17, 2016).

Among the many media stories highlighting the divisions in Baltimore, BNIA worked on developing a simplified message to convey community deterioration. The organization realized that media sources and many community members may not look through all their 150 indicators or read the Vital Signs report. Through BNIA's long-term analysis of indicators, the organization began emphasizing one measure for indicating community health: population decline. The media coverage on the Gray case and uprising served as the impetus for emphasizing population decline as the most important of all BNIA's indicators.

Then all our data was pushed out and then for better or worse our data was all over the news to talk about the fact that this was a neighborhood that 51%

unemployment, 33% vacant and abandoned homes, but what we found was that it became extremely sensationalist. [...] And we wanted to do is instead of being sensationalist is provide some actionability based on our data so we put a little bit of emphasis specifically on population decline. We think that is the number one indicator across of all of the 150 indicators we provide. If you track just to know if people are moving into a neighborhood or if a population is staying stable that means that somebody is moving in. [...] Not all neighborhoods declined even though the city as a whole declined. [...] [Sandtown-Winchester] lost 2,600 people in the last decade and most people think this is attributable in the media to crime or poor education, but what we found was that that's actually more of a symptom than a cause. (Iyer, CIC Webinar, August 26, 2016)

Focusing on population decline enabled BNIA to reclaim the narrative around the health of a community within the city and distill complex data for a broad audience.

The organizational desire to inform media outlets about Baltimore's neighborhoods with stories grounded in data echoes the staff members' personal investment in the organizational mission as natives and residents of Baltimore. Knott states, "we collect so many of these data points and so many of these metrics, but ultimately at the end of the day, a data table isn't a neighborhood" (Personal Communication, June 17, 2016). To emphasize the importance of the people living Baltimore, Iyer states,

When you go to the doctor's office and you get your vital signs, you need to know your blood pressure, your temperature and your hemoglobin level, those

things are not who we are, but they reflect our physiology. And the neighborhood does the same thing for us. (S. Iyer, Annual Report, 2016)

In BNIA's goal to incorporate the lived experiences of residents, the organization includes "data stories" in Vital Signs. These data stories unpack several indicators and tell about the broader context in specific neighborhoods. Examples of the data stories from Vital Signs 14 include "Geography Should Not Be Destiny" and "Providing Creative Space for Entrepreneurs" (2016).

Connected to the organization's investment to telling a data-driven story of Baltimore, BNIA's administration have been guided by a long-term perspective. Through interviews, webinars, and publications, the organization's agenda is guided by a long-term perspective. BNIA's long-term or farsighted approach is reflected in their decisions regarding indicator selection, funding sources, and relationship cultivation. Sustainability of a data source is a consideration for the organization when considering the inclusion of a new indicator or the acquisition of new data in their portfolio. BNIA has declined data from sources if the staff thought that the data could not be tracked over time.

BNIA's funding has limited the inclusion of new indicators for the annual publication of Vital Signs. BNIA's Vital Signs is funded mostly by the Annie E. Casey Foundation. Knott explains, "that's a set dollar amount that we get every year. So, we unfortunately can't spend hundreds of hours trying to build a new indicator. We would love to do that if we had the funding in place" (Personal Communication, June 17, 2016). The sustained investment by the Annie E. Casey Foundation has allowed the organization to maintain a long-term perspective on its mission of measuring indicators in Baltimore City.

Despite BNIA's efforts to maintain consistency in its operations, external changes in Baltimore have affected the database and Vital Signs. BNIA has had to discontinue an indicator because of changes in the way that data was collected. The organization discontinued it because of the importance of comparability over time (C. Knott, Personal Communication, August 19, 2016).

Following the changes in census tracts in 2010, the organization decided to continue using the CSA unit. As an organization, consistency of the indicators for analysis of long-term trends was critical for maintaining its database. Because the organization's mission is to drive change with numbers and track change in the community, it does not benefit BNIA to change the way in which they develop indicators or assemble its database (C. Knott, Personal Communication, August 19, 2016). BNIA has the capability to provide data at a different geographic unit, but it is considered as part of the organization's fee-for-service data. BNIA's structure for funding its operations will be discussed in the subsequent section.

BNIA's outreach activities have been used as a model for best practices across the NNIP network. As the availability of data has increased since the opening of Open Baltimore, community members have sought out assistance from BNIA. The increased interest in data, mapping, and visualizations has created outreach and funding opportunities for BNIA. Beginning in 2012, BNIA received multi-year funding from the US Department of Justice (DOJ) to provide technical assistant to residents, leaders, and community programs in McElderry Park (C. Knott, Personal Communication, June 19, 2016). Through the DOJ's Byrne Criminal Justice Innovation Program, BNIA engaged with community partners to implement "place-based crime strategies" (BJA-2016-9200, 2016, p. 5). The purpose of this program is to fund "the

development of practitioner-researcher partnerships that use data, evidence, and innovation to create strategies and interventions that are effective and economical” (BJA-2016-9200, 2015, p. 5). BNIA worked with programs in the McElderry Park neighborhood to define measurable performance indicators “that most directly addressed evidence based practices for crime reduction” (Iyer, Knott, & Cantora, 2016, p. 27).

One of the deliverables from this funding was the creation of the McElderry Park Data Portal through which residents, organizations, and stakeholders can map assets in the neighborhood. BNIA conducted focus groups with the University of Baltimore’s School of Criminal Justice to hear local opinions about how to allocate funding for crime reduction. Examples of fund allocation included workforce development programs, legal assistance, and youth mentoring programs (Iyer, Knott, & Cantora, 2016). Upon the ending of this funding, the residents “are excited and they are forming data collaborate to take over and take ownership of all the things [BNIA’s] been doing there” (C. Knott, Personal Communication, June 19, 2016). BNIA’s work in McElderry Park demonstrates the organization’s commitment to working with the community.

Community engagement has been discussed throughout BNIA’s work, but there are additional activities that BNIA organizes to stay connected to the neighborhoods in Baltimore. Community engagement activities not only provide a service to Baltimore, but provide insight to inform BNIA’s work. “Indicators are calculated for multiple points in time and multiple locations so that comparisons can be made. To be useful in communities, indicators need to have some relationship to the perceptions and aspirations of community residents and organizations and to be revealing of where the

community stands relative to itself and other communities” (Coulton & Korbin, 2007, p. 351). BNIA strives to engage community members and include their feedback in Vital Signs. The two main examples of BNIA’s community engagement are the periodic meetings to discuss new indicators and the community trainings.

In addition, the input received from BNIA’s steering committee, community members are asked to provide suggestions for new indicators through roundtable meetings. This process occurred during the formation of the organization in the late 1990s. “BNIA [...] facilitated a process where City Government, and community groups, and funders and representatives from local universities really came together to get a shared set of indicators on what was important to the city. I think that was first time that people had really looked at the indicators across these various sectors” (A. Sherrill as cited by BNIA, 2012b). This roundtable process was repeated during the 10th anniversary in 2011-12. BNIA hosted five roundtable organizations with 10-25 participants for each meeting (BNIA, 2012c). The feedback provided during the roundtables was incorporated into BNIA’s revised set of indicators and informed the strategic plan (BNIA, 2012c). Iyer explained that they solicit input from community members on a smaller scale more frequently and will plan to replicate the roundtable meetings for the organization’s 20th anniversary in 2021. BNIA balances the amount of changes it can make due to the intervals with which Vital Signs is released and the organization’s need for indicator continuity.

An example of a new indicator being generated from a member of BNIA’s Advisory Committee occurred in 2012. A librarian from the Enoch Pratt Free Library (Pratt Library) attended an Advisory Committee meeting and BNIA started building a relationship with the Library to understand if there were opportunities for potential

collaborations. BNIA's Executive Director, Seema Iyer, stated that BNIA's relationship with the Pratt Library is an example of how the organization is "always on the prowl for a data set that's sustainable to collect and means something to neighborhoods" (Personal Communication, August 19, 2016). BNIA's reputation for securing confidential data and position within an academic institution enabled the Pratt Library to release member data. Iyer explains that she believes that BNIA is the only NNIP site "to collect library membership data because it is very classified information, but we can take private information here because we are a university. We know how to deal with confidential information, and we have IRB controls over any research that we do" (Personal Communication, August 19, 2016). The Pratt Library provides membership data to BNIA to understand rates of library membership by neighborhood. In addition to collecting library data to understand neighborhood characteristics of membership, BNIA considers this data as useful for its connection to early childhood education and workforce development. When the City of Baltimore organized a campaign for reading proficiency by third grade, BNIA utilized the library data to understand how the City could target their efforts to specific neighborhoods. BNIA associates library membership data to the issue of workforce development because many individuals who are unemployed use the library to search and apply for jobs online.

An additional activity that engages the public is data trainings with community residents and nonprofit organizations. Training stakeholders in how to pull data from BNIA's website enables the staff to understand which data sets are most frequently used and fulfill its mission of providing relevant data. Per BNIA staff member, "We

always try to be around for data trainings and to show different ways that data can be used, and how it can be visualized, and how it can be integrated into so much. It's just been really exciting" (C. Knott, personal communication, June 19, 2016). BNIA conducts training activities through informal means like email requests and formal events around capacity building. In 2011, the organization responded for more than 250 requests for data, information, and maps (BNIA, 2012c).

Conducting community trainings not only promotes the use of BNIA's data, but it builds the capacity of residents. BNIA's staff conducts trainings to teach residents how to use Excel and Geographic Information System mapping software. BNIA developed opportunities for residents "to learn how to use Excel, and to learn how to do some online mapping so they can help out with community evaluations. They can take some of these skills and have that advantage when they go to college" (C. Knott, Personal Communication, June 16, 2016).

Another outreach activity supported by BNIA is the development of curricula that uses their data. These curricula include materials for lectures, in-class exercises, and homework assignments for students across disciplines. Using this data in the classroom provides a learning opportunity for students and helps local students understand their community. The University of Baltimore Foundation supported the development of BNIA's curricula as the University of Baltimore works to become a Carnegie designated Engaged University (The Jacob France Institute, 2013).

To encourage collaboration and discussion regarding data in Baltimore, BNIA began organizing Data Day in 2010. Data Day is a one-day conference to "help communities expand their capacity to use technology and data to advance their goals"

(BNIA, 2013, p. 2). The interactive workshop format enables community organizations to attend Data Day to understand how to access data and how data can be actionable for their work. Data Day highlights speakers from government, community based organizations, universities, and hospitals. BNIA's organization of Data Day contributes to their community mission of democratizing data for Baltimore. In addition to the workshop, all previous Data Day presentations are archived on their website.

Through BNIA's training outreach, the organization stresses the importance of considering people and place when addressing policy issues. Other activities including the annual Data Day, Steering Committee, and community grant projects were discussed in previous sections, but also contribute to BNIA's portfolio of community engagement.

4.4 Geography of BNIA Data

The CSAs were designed by the Baltimore City Department of Planning and the Baltimore Data Collaborative. Per BNIA, the four guidelines for making the CSAs are:

CSA boundaries had to align with Census Tracts; CSAs would consist of 1-8 tracts, preferably with total populations in the range of 5,000 to 20,000; CSAs would define a relatively demographically homogenous areas; CSAs should reflect the City planners' understanding of residents' and institutions' perceptions of the boundaries of the community. (BNIA, n.d., p. 2)

The decision to track data by Baltimore's CSAs was carefully considered by BNIA. "Neighborhood lines often do not fall along CSA boundaries, but CSAs are representations of the conditions occurring within those particular neighborhoods"

(BNIA, 2012, p. 2). BNIA had to adjust its CSA boundaries following the 2010 Census. The organization considered adopting a new geographic unit prior to the 2010 Census, but decided to continue using the CSAs due to the minimal changes in the new boundaries and for data continuity and comparability for long-term analysis. Adhering to the CSA unit may limit the type of data that BNIA can include in its portfolio, but the organization has developed proxy measures for data that is unavailable at the CSA level. BNIA explains the importance of collecting data at the CSA level as critical to understanding the different perspectives within the city. Looking at the city aggregately disguises the neighborhood and community experiences. For example, the first ten years of Vital Signs reported that the median household income increased by \$8,268 and that the median value of homes sold increased by \$50,000 (BNIA, 2012). Similarly, educational outcome across the city improved including a decrease in the rate of chronically absent middle school students and a decrease in the high school drop-out rate. “However, these overall City improvements hide the fact that not all of the City’s neighborhoods have benefited equally. In the City’s most distressed neighborhoods, the compounding effects of population loss, increases in vacancies and foreclosures, recent increases in crime rates, and increases in unemployment and poverty continue to affect the lives of thousands of residents” (BNIA, 2012, pp. 1-2).

The local geographic focus of BNIA was demonstrated across the organization’s work. The geographic unit is a strong influence on many of the organizational decisions – from indicator selection and data sources to securing funding. In looking at the media studies literature, the concept of localism can be applied to BNIA’s work in

tracking Baltimore data. The similarities between disseminating media and data include focusing on a geographic space in which to develop content. Spatial localism defines localism as where we live and is determined by market forces (Ali, 2016). Broader definitions of localism include the spatial component – “based on traditional geographic notions of community – to a social conception in which community is defined in terms of shared interests, tastes, and values” (Stavinsky, 1994, p. 19).

To highlight the parallel of media and data production, Stavinsky explores the evolution of public radio. Many public radio stations operate guided by spatial localism with parameters of geographic cities, counties and regions while some public radio stations use social localism “defined by shared interests, tastes, and values” (Stavinsky, 1994, p. 19). Similarly, BNIA and other partners in the NNIP network distinguish themselves from state-run indicator initiatives like Oregon Shines or the Annie E. Casey Foundation’s Kids Count. Iyer of BNIA paraphrased that they are like the local weatherman providing the local forecast and initiatives like Kids Count provide the National forecast for weather (Personal Communication, August 19, 2016). BNIA supports the Maryland Kids Count through social media posts, but the two organizations do not share the same scale of collecting and tracking indicators. Maryland Kids Count collects data that BNIA cannot track at the CSA level and BNIA has indicators in its portfolio that would not be feasible to gather at the state level.

BNIA has a “hyper-local focus” within the neighborhoods of Baltimore. BNIA attributes its relationships with data providers as a significant reason for maintaining its “hyper-local focus” within Baltimore. The organization receives requests to gather data outside of the City limits, but largely maintains its focus to data within Baltimore (Iyer, CIC Webinar, August 26, 2016).

When considering adding new indicators, Iyer states that BNIA must “make sure that the indicators can scale, so [the organization] can put your neighborhood into some kind of context” (Personal Communication, August 19, 2016). BNIA’s GIS analyst, Cheryl Knott, explains that the scale for their current indicators is appropriate as it allows them to identify trends over several years. BNIA’s work as the City’s convener of data provides the service of analyzing and organizing data. Knott states that even though community members can pull data about their specific block from Open Baltimore, their analysis may not be accurate because it does not consider the neighborhood and historic trends in the area (Personal Communication, June 17, 2016).

BNIA maintains datasets from which they derive the indicators for *Vital Signs* for public consumption. These data sets can be used by anyone through their website. In addition to providing the raw data, BNIA develops neighborhood profiles in conjunction with the *Vital Signs* publication. Each of the 55 neighborhood profiles review data from the last five years across a select set of indicators. The geographic unit of CSAs has helped maintain the organization’s consistency of its data. When the organization was formed in the late 1990s, the CSA unit was agreed upon by BNIA’s early stakeholders and the City. The CSA unit has been useful to BNIA and the city and there is agreement on continuing with that scale (N. Jones, Personal Communication, August 19, 2016).

In addition to the formal work of BNIA, several of the staff members expressed concern for how their work can improve the city. Several staff members disclosed that they live in Baltimore without prompting. The shared affinity for living in Baltimore was repeated throughout interviews with staff and other stakeholders.

One staff member shared, “I live in Baltimore City, and it's tough going to some of these communities. I don't live in that East Baltimore community that I'm working in, but I still feel like they're my neighbors” (Cheryl Knott, Personal Communication, June 17, 2016). Another staff member shared that they have a vested interest in the wellbeing of the City because their family is from Baltimore. Other interview participants shared that they lived in the city for more than 20 years and try to support local businesses in their neighborhood. Another interview participant said, “I'm a local too, so [...] I grew up here and feel very strongly. And my parents grew up here so I have like generations before me in my family that lived all over the city so even though I never lived in that part of the city that's near and dear to my heart. So, I guess I care about [it], I'd hate to see it just all crumble” (Nancy Jones, Personal Communication, June 17, 2016). This repeated personal disclosure of where individuals lived and motivated their passion for their work was not expressed in other case study cities. Interview participants in Baltimore across the data collection period wanted to share their personal experience and excitement for the city.

4.5 Equity Measures in Baltimore

During its history, BNIA has changed the way it includes and discusses the topic of equity. The organization has adapted the way in which it measures and tracks equity indicators from being implicit and assumed to formalized and publicized. The following section will discuss key events that influenced the organization's administration, the evolution of BNIA's participation in equity measurement, and BNIA's partnerships to advance their equity agenda. Included in this discussion are unique aspects of BNIA's operationalization of equity and the incorporation of environmental measures.

As discussed previously, Freddie Gray, a man from the Sandtown-Winchester neighborhood of Baltimore, died while in police custody. The events following Gray's death included protests across the city, some of which resulted in rioting, looting, and destruction of property (Berlinger, 2015). Following the destruction and fire of a pharmacy, Maryland Governor Larry Hogan declared a state of emergency and activated the National Guard to help disburse the crowds. Baltimore Mayor Stephanie Rawlings-Blake instituted a week-long curfew and public schools were closed in the city (Berlinger, 2015). The unrest in Baltimore attracted widespread media attention from national and international news outlets. Many media sources cited BNIA's data when discussing the Freddie Gray case (Jacobs, 2015).

Following the death of Freddie Gray and the riots in Baltimore, BNIA increased its focus to understanding equity by neighborhood measures. The Freddie Gray incident served as the catalyst for BNIA to formalize its work around equity. In addition to publicizing measures around neighborhood opportunity, BNIA released a series of articles addressing neighborhood equity and highlighted equity in Vital Signs 14.

It was during this time following Gray's death that BNIA began focusing on a select set of indicators to provide a snapshot of life in Gray's neighborhood, Sandtown-Winchester. Through articles and presentations, BNIA focused on the almost 15% population decline in Sandtown -Winchester from 2000 to 2010 ("What's next...", 2016). Additionally, BNIA emphasized accessibility of the Sandtown-Winchester neighborhood relative to workplace commuting. The Sandtown-Winchester CSA had the highest rate at 34.1% of residents who reported traveling more than 45 minutes to work. The overall rate for Baltimore City is 20.2% of

residents who report commuting more than 45 minutes (“What’s next...”, 2016).

BNIA stresses the importance of work accessibility because “long commute times are a major barrier to truly achieve regional equity for everyone in every neighborhood” (“What’s next...”, 2016, p. 7).

The work accessibility issue is an example of BNIA providing data for community organizations to advocate on behalf of a policy. BNIA’s stance is “access to information by itself doesn’t change people’s minds; [BNIA] needs to present the data in a compelling way” (“What’s next...”, 2016, p. 7). BNIA repeated the work accessibility indicator across their media platforms. In 2016, Governor Hogan withdrew state funding for a light rail project on the Red Line that would have connected East and West Baltimore in favor of increasing connections to the Washington DC Metro system and a highway widening project (Campbell, 2016). “The [Red] line would have run through some of Baltimore’s poorest communities and provided access to major employment centers. For residents of West Baltimore, the Red Line provided hope that it could revitalize their communities” (Citizens Planning and Housing Association, 2015, p. 4). Following the announcement of the cancellation of the Red Line, grassroots groups like the Baltimore Transit Equity Coalition developed to advocate on behalf of reinstating funding for the light rail expansion. The Baltimore Transit Equity Coalition is part of larger transportation advocacy coalitions like the regional Action Committee for Transit (Campbell, 2016). The Baltimore Transit Equity Coalition utilizes BNIA’s data in their advocacy work on behalf of the Red Line project.

In highlighting issues of equity, BNIA highlights their selected indicator of vacant and abandoned housing. This emphasis on the rate of a neighborhood’s vacant

and abandoned housing was a new focus for BNIA. The organization explains in *Vital Signs*,

When thinking about issues of justice, vacant and abandoned housing does not immediately rise to the top of most people's consideration. However, they represent the physical vestiges of population decline and their negative consequences rest on the shoulders of the people who currently deal with that loss every single day. (BNIA, 2016, p. 6)

As of the most recent data available, the CSA that includes Sandtown-Winchester and Harlem Park had the highest rate of vacant and abandoned housing at 35% in 2014 compared to the overall city at 8.1% (BNIA, 2016). The distribution of vacant and abandoned housing is not equitably distributed across Baltimore City. *Vital Signs* reports that as of 2014, there were 15 CSAs in Baltimore that had less than 1% vacant and abandoned housing. "Vacant and abandoned housing is an environmental justice issue that disproportionately impacts vulnerable populations" ("What's next...", 2016, p. 7).

The organization changed the way in which it discussed issues of equity in *Vital Signs 14*. In addition to acknowledging the importance of Freddie Gray's death and subsequent unrest, *Vital Signs* confronts the serious situation in specific Baltimore neighborhoods. *Vital Signs* focuses on

disparities across neighborhoods on educational, economic and social outcomes. Long standing spatial patterns show that for Baltimore's most distressed neighborhoods, there are many issues that may seem intractable. For communities like Sandtown Winchester/Harlem Park, *Vital Signs* shows the confluence of compounding negative effects that

result from low employment, high housing vacancy, and high incarceration. [...] (BNIA, 2016, p. 6)

With the organization's new emphasis on addressing equity through a select set of indicators, BNIA announced three goals that it believes can improve quality of life in neighborhoods. These three goals and associated indicators serve as an abbreviated way to discuss BNIA's work. "1. Increase housing diversity in every neighborhood; 2. Reduce or maintain vacant and abandoned housing below 4% in every neighborhood; 3. Reduce the percentage of households traveling more than 45 minutes to get to work" (BNIA, 2015c, p. 12).

Related to BNIA's equity work, the organization collaborated with Baltimore's public radio station WYPR to develop content and supply. With funding provided by local and national foundations including the Baltimore Community Foundation and the Associated Black Charities, BNIA developed a series of maps for WYPR's year-long exploration of inequality in Baltimore ("The Lines Between Us," n.d.). "The Lines Between Us" was a multi-media project that examined inequity and topics including educational attainment, imprisoned Baltimoreans, crime, debt, and police surveillance, among others.

While the organization has articulated a strategy to advance equity, BNIA is unexperienced in developing indicators about justice. Iyer stated that BNIA does have "indicators right now that you could qualify as being justice-related. And obviously, given all of the work and all of the unrest in the last year and a half now, BNIA should do something around justice-related indicators" (Personal communication, August 19, 2016). As this is a new area for BNIA, the staff have cultivated strategic partnerships across Baltimore, including with other units in the University of Baltimore. BNIA and

the Maryland Access to Justice began the indicator development process to determine what data is feasible to collect long-term and be meaningful to the community.

BNIA's staff worked with the Maryland State Attorney's office to negotiate data access around the issue of bail. Individuals who commit misdemeanor crimes who do not have money for bail remain in jail for the pre-trial period. BNIA is working on accessing data regarding low-income, pre-trial offenders as the "criminalization of poverty" (S. Iyer, Personal Communication, August 19, 2016). Partnerships with academic departments at the University of Baltimore provide topical expertise for developing the indicator.

4.6 Key Findings

The key findings from the Baltimore case study are the strong data culture, BNIA's long-term partners and funders, and the clear, concise approach to providing data to the Baltimore community. Additionally, BNIA's staff with personal commitment to their work and the city of Baltimore are assets for the organization. The Baltimore case study has the most stable indicator project and the consistent funding has enabled BNIA to maintain a strict focus on its mission and avoid expanding the organization's scope in pursuit of funding. BNIA's established position in the Baltimore community has enabled the organization to acquire new sources of data and cultivate partners with different expertise. Despite the availability and supportive culture around open data in Baltimore, BNIA's value is its ability to organize data and empower residents to utilize data to affect change at the neighborhood level. While BNIA has the capacity to distribute a broad set of indicators, the organization's strategy of publicizing two indicators has maintained a consistent focus of BNIA's message. There was not duplication of data efforts in

Baltimore as experienced by other case studies which may be attributed to BNIA's tenure of providing data to the Baltimore community.

Chapter 5

CHICAGO

This chapter will discuss the historical background of Chicago's use of social indicators, review the current situation of community data use in Chicago, and outline the institutions and values that influence the current data initiatives. Data regarding data use in Chicago were derived from document analysis, participant observation, and semi-structured interviews conducted in person and over the phone during 2016. This section includes a brief discussion of how CMAP approaches social equity as well as the issues of funding the initiative, regionalism, and community outreach. As CMAP is publicly funded, a discussion of the organization's commitment to neutrality and transparency will be included in this section.

5.1 Background

CMAP was formed in 2005 through the Illinois General Assembly requiring the integration of the land use and transportation planning functions. The Illinois General Assembly designated CMAP to oversee planning in Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will Counties as well as 284 municipalities ("CMAP Annual Report" 2015). CMAP's footprint expanded MCIC's geographic region to include the addition of Lake County which borders Wisconsin to the north of Chicago. CMAP has been tasked with organizing plans regarding transportation, housing,

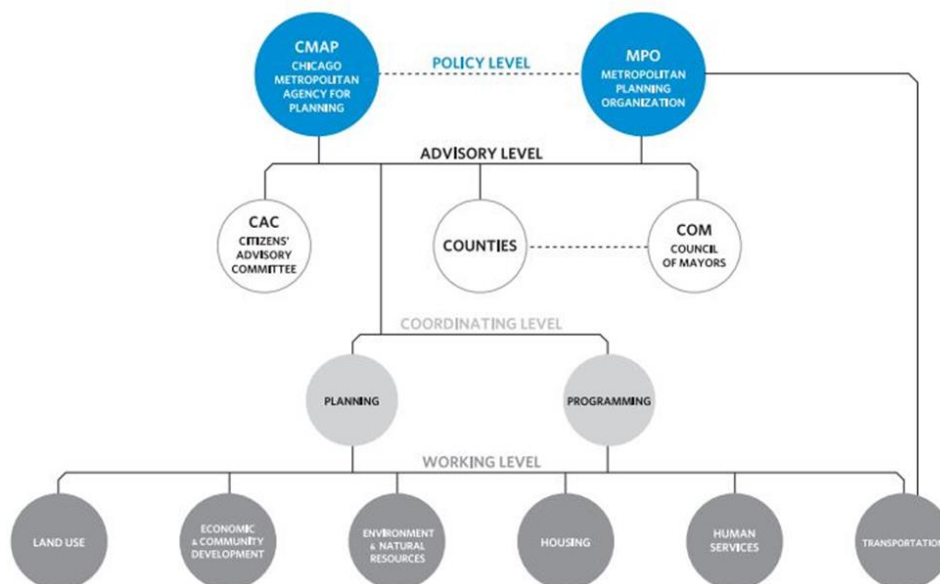
economic development, open space, environment, and quality-of-life issues (“GO TO 2040” 2010).

CMAP published the GO TO 2040 in 2009 as the first comprehensive plan in 100 years. The plan pays tribute to Daniel Burnham and Edward Bennett’s 1909 Plan on Chicago. Commissioned by the Commercial Club of Chicago, the 1909 plan claimed,

It is not to be expected that any plan devised while as yet few civic problems have received final solution will be perfect in all its details. It is claimed for the plan herein presented, that it is the result of extended and careful study of the needs of Chicago, made by disinterested men of wide experience, amid the very conditions which it is sought to remedy; and that during the years devoted to its preparation the plan has had the benefit of varied and competent criticism. The real test of this plan will be found in its application. (Burnham & Bennett, 1909, p. 1-2)

CMAP as the Metropolitan Planning Organization receives funding from federal and state agencies. Due to this funding arrangement, CMAP is accountable for different functions for both levels of government. For example, CMAP currently has two boards which direct their work for the state and federal government (S. Weil, personal communication, June 7, 2016).

Figure 5.1 CMAP Committee Structure



(“GO TO 2040...” 2010)

CMAP’s dual structure presents challenges to the operations of the organization. As the designated Metropolitan Planning Organization (MPO) for the region, CMAP is the designated entity for providing transportation planning and receives federal funding to do so. The MPO policy committee of CMAP contains representatives from federal agencies who participate in guiding the organization in transportation-related policies. Per 23 USC § 134, MPOs are

- (1) to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic

growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes identified in this chapter; and (2) to encourage the continued improvement and evolution of the metropolitan and statewide transportation planning processes by metropolitan planning organizations, State departments of transportation, and public transit operators. (Metropolitan Transportation Planning, 23 USC § 134, 1994).

Prior to 2005, Chicago's MPO operated independently from the region's land use planning agency. The broader CMAP Board is comprised of appointees from each geographical entity in the region based on population. The City of Chicago has five appointees due to its dense population whereas the less densely populated Kane and Kendall Counties share one political appointee to the board (CMAP, 2016a; S. Weil, personal communication, June 7, 2016).

Per federal regulations for planning assistance and standards, an MPO "means the policy board of an organization created and designated to carry out the metropolitan transportation planning process" (S450.310). The CMAP Board and the MPO policy committee signed a Memoranda of Understanding in 2007 shortly after the creation of CMAP to determine each entities responsibility and outline collaboration strategies. The MOU states:

CMAP – as stated in the Regional Planning Act, the board shall be responsible for developing and adopting a funding and implementation strategy for an integrated land use and transportation planning process for the northeastern

Illinois region. CMAP is also responsible for the development of an integrated comprehensive regional plan. Policy Committee – as stated in federal legislation, the metropolitan planning organization, in cooperation with the state and public transportation operators, shall develop long-range transportation plans and transportation improvement programs for the metropolitan area. (CMAP, 2007, p. 1)

The CMAP MOU provides a framework for integrating the functions of the organizations, specifically around transportation, land use, environment, and economic prosperity.

CMAP is mandated by both the state of Illinois and the federal government to develop plans for the region. To adequately prepare regional plans, CMAP recognized the need for reliable, comprehensive data to inform their work. The following section will discuss the main data projects in Chicago: Metro Pulse, GO TO 2040, GO TO 2050, CMAP's Community Profiles, and a broad discussion of open data in Chicago.

5.2 Data in Chicago

The data landscape in Chicago has undergone acute transformation during the last decade. It thrived under periods of investment from diverse stakeholders and has struggled to sustain resources or longevity in an institutional home. Chicago's data environment has included data initiatives in the philanthropic and nonprofit sectors and, most recently, through government. Scholars have studied the iterations of Chicago's data initiatives trying to understand why the region has not been able to sustain a data initiative across any sector (Pettit and Kingsley, 2013; Pettit, 2014, J. Lewis, Personal Communication, June 9, 2016). CMAP's assumption as the region's data intermediary is contestable, but is explicable given the dearth of collaborators or

competitors willing to assume their community data functions. The following section will review the evolution of data organizations in Chicago.

Chicago had a robust source of community level data through the Metropolitan Chicago Information Center (MCIC) which closed in 2012. MCIC operated as an independently from government or educational affiliation which made the initiative dependent upon philanthropic funding sources. Founder Dr. D. Garth Taylor established MCIC in 1989 through grants from the McCormick Tribune Foundation, John D. and Catherine T. MacArthur Foundation, and the Community Trust. The Community Trust continued to work with MCIC throughout the life of the organization and still partners with the Chicago Metropolitan Agency for Planning. During its operation, MCIC focused on research from Cook, Lake, Will, DuPage, Kane and McHenry Counties (Blewett, 1995). MCIC's purpose was to collect and track data on "social policy and human needs on a regular basis in order to create a more complete picture of the seven county metropolitan Chicago region, thereby empowering the nonprofit sector with critical information to make better strategic development decisions" (O'Neill, 2011, p. 1).

After more than 22 years of providing data to metropolitan Chicago, MCIC closed due to lack of operational funds (Shropshire, 2012). Following the economic recession of 2008, MCIC's primary data client, nonprofit organizations, did not have funding to pay for MCIC's services. Virginia Carlson, President of MCIC's Board of Directors, stated, "Data infrastructure is a tough sell for a donor. We are hearing more that donors were choosing direct service organizations" (as cited by Shropshire, 2012, p 1). Funding from philanthropic sources including the MacArthur Foundation and the Sprague Foundation was not sufficient to sustain operations of MCIC.

Upon the closure of MCIC in 2012, CMAP continued to assemble and disseminate community level data. MCIC worked with CMAP to administer its data projects following the termination of the organization. While the focus of CMAP's data efforts differed from MCIC, many functions of CMAP provide data to inform policy and making decisions for local groups and government agencies (Pettit & Kingsley, 2013). Specifically, CMAP absorbed the responsibility of tracking data within the categories of regional environment, transportation, housing, and economic development (Pettit & Kingsley, 2013). Included in these broad categories are data concerning public capacity, health and safety, educational attainment, and state and local tax policy ("Metro Pulse", n.d.).

CMAP designed Metro Pulse to "allow public officials, business people, and residents to get the best available real-time regional and local data – and to measure progress – across more than 200 quality-of-life variables addressed by GO TO 2040" ("GO TO 2040" 2010, p. 219"). Metro Pulse was designed as a joint initiative of CMAP with the Chicago Community Trust to be the main source of data for Chicago. The main categories of the Metro Pulse indicators are Health and Safety, Workforce, Economic Development, and Education, Housing and Homelessness, Disabilities, Public Capacity and Equity, Art, and Sustainable Development.

While Metro Pulse started as a data intermediary for the region, the original website was not sustained and has not been updated since 2013. The original Metro Pulse included an interactive data tool with mapping capability. Several staff members involved with Metro Pulse attribute its collapse to design flaws in the platform's infrastructure. These flaws included a lack of searchable terms which fail to direct users to Metro Pulse upon an internet search of Chicago data (J. Lewis, personal

communication, June 9, 2016). Staff members associated with Metro Pulse accredit its non-user friendly platform and lack of internal capacity to maintain the system (J. Lewis personal communication, June 9, 2016; Z. Vernon, personal communication, November 21, 2016). The staff from CMAP and the Chicago Community Trust could not easily make software adjustments to Metro Pulse because they used external contractors for constructing the system. The initiative had resources for creating Metro Pulse, but encountered challenges in sustaining funding past the initial start-up plan.

Following the reduction of resources for Metro Pulse, CMAP developed Community Snapshots which are profiles of the region's 284 municipalities based on the most frequently requested data. The Community Snapshots are maintained internally by CMAP's staff and updated every 6 months (Z. Vernon, Personal Communication, November 21, 2016). The Community Snapshots engage a broader audience as the information has been distilled by the CMAP staff. This format enables users without technical skills to compare data across communities, but does not have the same interactive features as Metro Pulse. The Community Snapshots include data on topics including housing, educational attainment, household income, and other population characteristics ("Metro Pulse, Community Data Snapshots," n.d.).

The main data product generated by CMAP is the GO TO 2040 plan which has been subsequently updated to the GO TO 2050 plan. Included in the GO TO series is an online, interactive database through which users can look at indicators in a specific Chicago neighborhood as it is geographically divided into 284 municipalities or 77 larger community areas. These online neighborhood resources are updated every two to three years. In addition to the comprehensive plans in the GO TO 2040 and GO TO 2050, the documents provide detailed data to contextualize the plan and inform users

of the status of their indicators. From educational attainment to available commercial properties, CMAP's data covers diverse issues for various audiences across the region.

The Chicago region has benefitted from the data initiatives due in part to the Illinois State Government's support of open data across state and local government. In 2011, the State of Illinois launched the Illinois Data Portal with 48 datasets (Pettit, 2014). As of 2016, the Illinois Data Portal has more than 663 datasets available on the portal (Jennifer Schultz, Personal Communication, November 22, 2016).

Open Data Chicago was launched in September 2011 by Cook County. Despite Open Data Chicago's abundance of data sets, CMAP is limited in the number of data sets it can use from this source as the geographic focus is limited to Cook County. As of 2017, City of Chicago's Open Data Portal hosts more than 200 datasets on topics including, but not limited to, public safety, building violations, problem landlords, food inspection, FOIA requests, 311 service requests, and lobbyist data ("Chicago Data Portal," 2016).

Daniel O'Neill, Executive Director of the Smart Chicago Collaborative, partially attributes the development of the City of Chicago's Open Data Portal to MCIC. The Illinois Data Exchange Affiliates (IDEA) was a collaboration among nonprofit organizations and local government agencies working with community-level data. Included in Idea was the Center for Neighborhood Technology, Chicago Metropolis 2020, the City of Chicago, the Cook County Assessor, and CMAP. MCIC was involved in founding IDEA and remained active until its closure in 2012. The partners in IDEA developed a set of core principles which guided their data work in the region. The IDEA core principles are:

- Society works best when information is generally available;
- Government works best when information is shared across divisions;
- Web technology given unprecedented opportunities for making data available;

Ensuring access to public data requires clear guidelines on how, when and with whom data is to be shared; Therefore, we seek to advance the coordination of and access to public information. (O'Neill, 2011, p 2).

Despite IDEA's presence and influence during the early years of metropolitan Chicago's open data initiatives, IDEA does not currently meet nor does it have an active online presence.

Among national data collaboratives, Chicago is not a robust example of sustaining data initiatives compared to the other cities under review. As a former member of NNIP, CMAP no longer participates as a partnering organization. CMAP decided to leave NNIP in 2013 (Pettit, 2014). CMAP's data predecessor, MCIC, participated in NNIP and CIC activities until its dissolution in 2012 (Pettit, 2014). As of 2016, the Chicago region is not represented in NNIP or CIC. Despite CMAP's lack of representation on these national data collaboratives, the organization is the Chicago region's main source of local data pertaining to the broad categories of livable communities, human capital, efficient governance, and regional mobility (CMAP, 2016b).

Metropolitan Chicago does not suffer from a lack of parties interested in open data or tracking social indicators. Because there are no leading organizations that can organize the various nonprofit organizations, government agencies, and businesses, data initiatives are duplicating services, missing pieces compared to national data peers, and operating under differing agendas for long-term social indicator tracking in metropolitan Chicago.

5.3 Utilization of CMAP Data

CMAP's position as the recipient of federal and state funds requires them to perform outreach activities. To encourage utilization of data resources, CMAP

facilitates Local Technical Assistance (LTA) across the region. CMAP received funding through a multi-year federal grant of \$4.25 million through the Department of Housing and Urban Development (HUD). Upon the expiration of the HUD funding, CMAP continued LTA through cultivating alternative funding sources from other state and federal sources including The Chicago Community Trust and the MacArthur Foundation (CMAP, 2015). As of June 2016, CMAP had completed over 120 different LTA projects. Examples of the LTA projects include updating zoning ordinances to creating comprehensive plans for the region's municipalities (Simone Weil, Personal Communication, June 7, 2016).

CMAP's community outreach efforts include a formalized Citizens Advisory Committee (CAC) which helps "promote public awareness of CMAP plans and programs, and encourages participation by citizens and other interested parties" ("Citizens Advisory Committee," n.d.).

As a public body, CMAP is required to advertise all meetings and provide members of the public copies of meeting agendas and minutes. CMAP archives all of the meeting agendas and minutes dating back to the agency's inception in 2005. With more than a decade of historical documents regarding contracts, budgets, and workplans, members of the public can track the progress of CMAP's work.

In preparation for CMAP's GO TO 2050 plan, staff members conducted more than 100 community outreach events. These events included workshops and presentations to community groups across the seven-county region. CMAP reports working with 240 organizations and more than 7,000 residents during the community engagement process (CMAP, 2016a). CMAP staff members spoke with elementary school students to obtain their opinions about their communities. CMAP translated

outreach materials and additional outreach was conducted among Spanish speakers (J. Grover, personal communication, June 7, 2016). The highlight of the organization's outreach efforts was a forum conducted by CMAP in partnership with The Chicago Community Trust in June 2016. The goals of the forum included engaging organizational partners and discussing issues concerning the future priorities in the region (CMAP, 2016b).

In preparing to transition from implementing the 2040 to developing the 2050 plan, CMAP began the process by speaking with their Council of Mayors. They solicited feedback regarding which community groups with which CMAP should engage as part of the planning process. The CMAP requested opportunities to conduct their ON TO 2050 workshops with community organizations across the region. ON TO 2050 workshops lasted 15 to 90 minutes depending on the participants' availability. The outreach staff of CMAP utilized technology during these workshops including online surveys and audience response systems, as well as flip chart paper (B. Vallecillos, personal communication, June 8, 2016). CMAP staff utilized the audience response system was utilized with larger workshops by posing general questions about challenges faced by the region with which they identify. Then, the staff shares the results from the audience responses to start a group conversation and allow them to explain why they voted for an issue (B. Vallecillos, personal communication, June 8, 2016). Many of CMAP's outreach efforts have been in conjunction with existing meetings for community groups as opposed to independent meetings of residents.

The results of the ON TO 2050 workshops, of which there were more than 100 conducted during 2016, were compiled and analyzed for dominant themes. CMAP staff gathered additional feedback from over 7,000 stakeholders through their website.

The online and workshop input were merged and analyzed by CMAP staff to identify priorities across the region. The results enabled the CMAP staff to revisit and classify the priorities from the GO TO 2040 initiative as topics CMAP should continue, refine, or explore new topics.

CMAP's position as a publicly funded government office requires careful positioning of policy recommendations based on their data. The GO TO 2040 Plan includes a supplemental document that explains their methodology for each indicator and the process for reviewing each indicator. In addition to its own public transparency, CMAP added a recommendation area for the GO TO 2040 plan update to track regional government transparency. "The intent is to measure access to government information in an objective way" (CMAP, 2014, p. 45). The regional government transparency index rates accessibility on information including Freedom of Information Act (FOIA) online requests, links to public notices, government officials and staff directory, and Requests for Proposals among others (CMAP, 2014). These items are ranked on a scale based on how many clicks it takes the user to find the information.

Internally, CMAP is limited in the types of planning recommendations it can make to its board. As one partner involved in establishing CMAP and Metro Pulse articulated, "CMAP envisioned it [Metro Pulse] much more of a warehouse and they didn't want to editorialize because they're a public body and felt like they couldn't do that" (J. Lewis, Personal Communication, June 9, 2016). While overt advocacy is not practiced by CMAP, staff used terms like filtering and nuanced when describing CMAP's role in making policy recommendations. An additional asset to CMAP's ability to advance a regional agenda was their partnership with the Metropolitan

Planning Council (MPC), an independent nonprofit organization in Chicago. CMAP and MPC do not share a policy agenda for the region, but have similar organizational missions.

We have very aligned interests [with Metropolitan Planning Council] and [they] can push the envelope in ways in which we can't always. It's not like we're coordinating and in cahoots, but they have very similar goals on you know they've been coordinating a campaign to discuss the incredible gap and available funds in infrastructure. (S. Weil, Personal Communication, June 7, 2016).

5.4 Geography of CMAP

The selection of data which CMAP will track and include in their database is dependent upon available data at the regional level. CMAP has a running list of indicators that the organization would like to include in their portfolio but cannot due to the limited geographic scope of the dataset.

As the regional provider of data to other local government entities, the end user motivates CMAP's decisions around data. Their position as the region's MPO mandates the organization to operate on a large scale which covers 7 counties. CMAP provides technical assistance to municipalities in the region. The following statement demonstrates the organization's approach to providing data to local municipalities.

We found that you can provide some pretty exotic measures, you can index things, but most of our municipal partners just need basic data. You can provide a lot of like really fancy data but they're just asking us basic questions so we've just made it a practice that each year we update the annually estimates and provide those for communities and they seem to use them. (S. Weil, Personal Communication, June 7, 2016)

While this statement highlights CMAP's utility to municipalities, it underlines the tension of how the organization incorporates input from their public participation processes. Despite the organization's emphasis on soliciting citizen feedback and hosting outreach events, CMAP is constrained by the type of data they can gather through geography, topic area, and utility.

An additional way that CMAP's regionalism is demonstrated is through their research in state and local tax systems. In the previous plan, CMAP explained,

State and local tax systems in Illinois and the metropolitan Chicago region often fail to satisfy the most important principles of good tax policy: efficiency, equity, and transparency. State and local tax policies should encourage local decisions that make effective use of land, generate good jobs, and trigger sustainable economic activity. ("GO TO 2040..." 2010, p. 17)

In working with its municipal and business partners, CMAP is working on changing their thinking to a regional scale. This part of their outreach activities is working to educate diverse stakeholders on the benefits of working collaboratively within the region. For example, CMAP is starting to see progress in working with businesses in understanding that it is "not a net gain for the region when a business moves from the suburb to the city" (S. Weil, Personal Communication, June 7, 2016). Similarly, CMAP's work with municipalities includes trying to encourage collaborative service delivery on services like snow removal or consolidating a police district (B. Vallecillos, Personal Communication, June 8, 2016).

The staff discovered similar tensions expressed by residents during outreach events. Frustrations about regional taxes was a frequent topic during CMAP's outreach meetings. Specific topics raised by participants were their perception of over-

reliance on property taxes and high tax rates in disadvantaged communities (B. Vallecillos, Personal Communication, June 8, 2016).

5.5 Equity Measures in CMAP

CMAP's organizational mandates, funding, and governance structure positions the organization to understand data as a regional planner. This means that the organization can collect data on topics like education, arts, and health, but staff must connect these data to overall livability of the region. Staff of CMAP draws connections across various data issues to the economic wellbeing of metropolitan Chicago. CMAP produces and analyzes social equity data through the lens of economic development as inclusive growth. According to the GOTO 2040 plan,

One of our greatest and most intransigent challenges involves equitable access to opportunity. Large portions of the region remain highly segregated, and there are stark differences between racial and ethnic groups in terms of income, educational attainment, health, rates of incarceration, and many other measures. These inequities are not only an issue of fairness, but compromise our economic future. People without the needed education or skills to hold productive employment may not fully contribute to our economy. (Chicago Metropolitan Agency for Planning, 2010, p. 48)

The theme of using the plan to advance equity in the Chicago region was repeated during interviews with staff. Staff discussed inclusive growth in terms of access to affordable housing and metropolitan tax sharing arrangements.

“...[S]o inclusive growth is the one that I and a number of my colleagues are co-managing. That's the idea that more inclusive regions have more sustained economic growth. So how do we become more inclusive? So, it's this hook that

it's not really, it's not a social imperative to improve equity; it's also an economic imperative. So, that's our hook, and then, with that comes, you know the analysis of how much can, how much economic growth do you get from improving inclusion? So, what is the evidence there? And, uh, so from there also developing sort of the common definition and a shared idea for what an inclusive region is, shared principles for how to create inclusion or what inclusive region should be, and then strategies. So, how do we get there? (Jacki Murdock, Personal Communication, June 9, 2016)

The CMAP staff have developed a case for supporting inclusive growth programs by promoting the overall benefit to the region. Because CMAP covers several counties with diverse populations, the shared benefits of inclusive growth have been advertised to their constituents. CMAP's Director of Governmental Affairs, Simone Weil explains how the organization supports the inclusive growth approach as pointing to growing interest and expanding research "the lack of competitiveness of regions that are segregated by income or by race. It's a problem that folks continue to point out about our region and it's pretty obvious if you look at a map of racial distribution that we are a particularly segregated region" (Personal Communication, June 7, 2016). Simply stated by a Policy Analyst at CMAP, "more inclusive regions have more sustained economic growth. So, how do we become more inclusive?" (J. Murdock, Personal Communication, June 8, 2016). Across the organization, CMAP has positioned the topic of equity as an economic issue for the region.

The CMAP staff tasked with soliciting feedback from residents of the region reiterated that inclusive growth was a new direction for CMAP's work and that the staff was eager to incorporate inclusive growth in their work. Through the work of

framing inclusive growth as an economic issue, the staff could garner support among the board members. The outreach staff at CMAP stressed inclusive growth as an economic issue to affluent neighborhoods where residents may not immediately understand the rationale of promoting inclusive growth. CMAP's Policy Analyst in charge of the organization's inclusive growth initiative stated, "It's because white or wealthy areas will similarly be disproportionate, will similarly be held [back] because of a lack of inclusion. And so, this is sort of like a rising tide. Everyone's in this together. It's not just those communities versus these communities. It's really how we are doing as a region" (J. Murdock, Personal Communication, June 9, 2016). The organization's decision to adopt a regional outlook is understandable given their funding sources and data included in their initiative.

5.6 Key Findings

This section reviewed the development and major themes of data in Chicago. Chicago is a unique case in that the City has not been able to gain traction in a long-term, independent social indicator project. While the region is rich in data opportunities, there has been limited funding available for sustaining initiatives. In the absence of an independent data initiative, CMAP has tried to fill the need for data services for planning purposes. CMAP's organizational mandates and funding sources has constrained the data it can measure and track. CMAP's internal capacity is limited in its technical abilities to maintain an online presence and reliance on contracted website developers has stymied the organization's ability to evolve its data platform. However, their stable funding sources enables CMAP's staff to focus on advancing the organization's mission of advancing a regional plan that is grounded in data. CMAP's

regional focus is an asset for its planning and collaborative activities with municipalities, but constrains the availability of regional data CMAP can measure. CMAP's position as a public body mandates its transparency and neutrality which facilitated inquiry in their operations.

The key findings from the Chicago case study are the challenges within the data environment, the framing of current indicators, and the structures of current initiatives. There were challenges of sustaining data initiatives of MCIC and Metro Pulse, as well as CMAP ending its affiliation with NNIP. These challenges have contributed to duplicated initiatives that do not have a consistent approach to measuring indicators. The current work by CMAP is promising in that it has a stable funding source, but their economic framing requirements may limit the scope of the type of indicators it can track. Additionally, CMAP's structure as a metropolitan planning organization may limit the data to be included as CMAP is required to only include data for the seven-county region.

Chapter 6

DETROIT

This chapter will discuss Detroit's social indicator project, Data Driven Detroit (D3). Part of this discussion will consider D3's evolution from a 501c3, nonprofit organization, to its present status as a low-profit limited-liability company. This chapter will review relevant literature regarding L3Cs to provide context for the organization. D3 is active in national data sharing initiatives, including NNIP and CIC. Included in this chapter is a discussion of the availability and culture of open data. Data from D3 as a case were derived from participant observation, document analysis, semi structured interviews, and emails in 2016-17.

6.1 Background

The genesis of D3 can be traced to the early 2000s when representatives from various Detroit organizations came together to form the Detroit Data Partnership. Among these interested parties was City Connect Detroit which was established as a nonprofit organization in 2001 to "help Detroit-area nonprofits and governments work together to solve local problems, and to mobilize funding in support of their work" ("About Us," n.d., p. 1). In 2002, City Connect Detroit was appointed as the fiduciary and lead organization for the Detroit Data Partnership.

In 2008, the data initiative received funds from the Kresge Foundation (Kresge) and the Skillman Foundation (Skillman). The investment by Kresge and

Skillman was a three-year, \$1.85 million grant to begin the data initiative. City Connect Detroit, as the incubator of the project, established the Detroit Area Community Information System (D-ACIS) (“12 Questions...,” 2009). While there were attempts to establish a functioning data initiative during the incubation years at City Connect Detroit, the 2008 investment from Kresge and Skillman triggered broad interest in community level data.

The Kresge Foundation is a private, national foundation that focuses on grant making in the arts, education, environment, health, human services, and community development in Detroit. Kresge concentrates its investments to American cities, but the foundation is headquartered in Detroit and emphasizes grant funding in southeast Michigan.

The Skillman Foundation is a Detroit-based foundation that funds projects that address issues related to poverty in Detroit. Within Skillman’s focus on poverty, the foundation funds education, safety, neighborhoods, community leadership, and youth development.

Data Driven Detroit Executive Director, Erica Raleigh, attributes the economic recession of 2008 as catalyzing the region’s foundations in aligning their grant making. Raleigh explains that,

“[a]s the foreclosure crisis was brewing and I think a lot of the foundations recognized that they were going to have some steep decreases in their portfolios and therefore lessen their ability to grant. They were having conversations around if we are giving out fewer resources to grantees, how do we make sure that we're steering funds towards grantees that are having more impact” (Personal Communication, August 17, 2016)

This conversation among Detroit's organizational leaders continued and lead to the Kresge and Skillman joint grant to invest in a data resource that would enable community organizations to determine how programs were having an impact. The joint grant required that D-ACIS and later D3 would secure funding to sustain the operation after 3 years.

The original D-ACIS under the City Connect umbrella opened in 2008 under Executive Director, Kurt Metzger (Metzger, 2013). The organization under Metzger's leadership adopted the philosophy that their role was to be an "independent, objective clearinghouse that would provide information to the community at large. There would be no formal affiliations so that there could be no turf issues" (Metzger, 2013, p. 1). Metzger's vision was that the organization could contribute to the data culture in the region to address traditional fractioned data in the city (James, 2009). According to Metzger,

My ultimate goal is for D-ACIS to be a one-stop center, a central clearinghouse, where accurate and complete data and information can be accessed that ultimately moves this region forward. This is an outstanding opportunity for Detroit and the region. It's an opportunity to show that the Detroit region can develop a culture of data sharing, which will allow us to tackle the "data silos" in which we tend to operate. (Metzger as cited by James, 2009, p. 1)

The purpose of incubating D-ACIS with the organizational support of City Connect included chief activity of developing a data hub and build internal capacity of the new initiative. The latter function proved to be more difficult than anticipated (E. Raleigh, personal communication, August 17, 2016). D-ACIS initially struggled with

the functions like determining personnel needs and hiring appropriately, dealing with contracts, and establishing employee benefits like payroll (E. Raleigh, personal communication, August 17, 2016). Due to the lack of clarity, D-ACIS encountered challenges regarding the organization's internal structure. As D3 executive director, Erica Raleigh, explains, D-ACISs "initial plan was to have four staff, [and] by the end of that first year we had over 25" (Personal communication, August 17, 2016). The name of D-ACIS was intended as working title for the beginning of the initiative. In 2010, D-ACIS rebranded to Data Driven Detroit and refined the organization's strategic plan.

Following the end of Data Driven Detroit's start-up funding from the Kresge and Skillman Foundations, the organization found a new institutional home in 2012. D3 determined that the organization still needed support with back office resources and left City Connect Detroit for the Michigan Nonprofit Association. The leadership of D3 attributes wanting to reach a broader audience for the reason behind the move (E. Raleigh, Personal Communication, August 19, 2016).

D3 was considered a program of the Michigan Nonprofit Association with an independent advisory council. Upon the initial move to the Michigan Nonprofit Association, D3 had 18 employees (Welch, 2012). The affiliation with the Michigan Nonprofit Association gave D3 engagement opportunities across its state-wide network and assistance with securing additional philanthropic grants. In 2013, D3 secured operating funds from the Skillman Foundation, Kresge Foundation, and the W.K. Kellogg Foundation (Welch, 2012).

After more than 3 years under the umbrella of the Michigan Nonprofit Association, Data Driven Detroit left the partnership to establish the organization as a low-profit limited liability company or L3C in 2015 (Halcom, 2015). The change in organizational status allowed D3 to seek new investment opportunities and bid for new projects. “We can work with a wider range of partners on a broader range of projects that can have real impact. But our core mission is exactly what it’s always been for seven years, and that’s important” (Raleigh as cited by Halcom, 2015, p. 1).

The L3C movement began in the United States when Vermont enacted the first statute in 2008. Seven states, including Michigan, passed similar statutes in 2009 enabling the creation of L3Cs (Kleinberger, 2010). According to Kleinberger,

The central premise of an L3C’s operation is its use of low-cost capital in high risk ventures and its ability to allocate risk and reward unevenly over a number of investors, thus ensuring some a very safe investment with market return. As is appropriate under the program related investment structure, foundations could assume the top risk at very low return, making the rest of the investment far more secure. (2010, pp. 883-884)

Legislation concerning L3Cs are being considered by many states as a way to fill the gap between a non-profit organization and a for-profit entity. “Private foundations can make [program related investments], which are loans or investments for charitable or educational projects, even if they are run by for-profit entities” (Reinhart, 2011, p. 1). Some proponents of L3Cs characterize them as a “for profit with the nonprofit soul” and credit its ability to coalesce investments from diverse sources (Reinhart, 2011, p. 1). Criticisms of L3Cs include unclear expectations regarding monitoring to “ensure

that profit remains a secondary purpose and for-profit investors do not receive an improper benefit” (Reinhart, 2011, p. 2). Additionally, opponents of the L3C criticize the creation of this structure as “unnecessary” as an operating agreement could have filled the same function as an L3C (Reinhart, 2011, p. 2).

The L3C structure falls under the general designation of companies as social enterprises. This type of company adopts a mission-driven for-profit orientation which has varying options for incorporation depending on the state law. While Vermont was the first state to pass legislation permitting L3C in 2008, many states have passed similar laws in the subsequent years. As of 2016, there are 8 states in the United States that have approved the formation of L3Cs and 35 states that have enacted a legal statute regarding the creation of social enterprise (Vinueza & Hiensch, 2016). Because there are varying state laws regarding social enterprise companies, many states have embraced different business models. Among the possible classifications of social enterprise companies, there are Benefit Corporations, Social Purpose Corporation, Public Benefit Corporation, General Benefit Corporation, Specific Benefit Corporation, Low-Profit Limited Liability Company, and Benefit LLC (Vinueza & Hiensch, 2016).

As a social indicator project, D3 is unique because it evolved from a nonprofit organization to a low-profit limited liability corporation. The D3’s position as an L3C enables the organization to occupy a unique space in the Detroit community where they work among government, business, and nonprofit institutions as an outsider and innovator.

6.2 Data in Detroit

Detroit has experienced growth among data initiatives during the past five years. The following section will discuss the overall data environment in Detroit with the creation of Open Data Detroit by Mayor Mike Duggan, for-profit initiatives Rock Ventures and Loveland Technologies. Included in this section is the Detroit Digital Justice Coalition, a group of Detroit community stakeholders interested in increasing transparency and accountability in Detroit.

Within the NNIP network of social indicator projects, Detroit was the last host-city to establish an open data portal. Through a grant from the Socrata Foundation, Open Data Detroit was launched in February 2015. Mayor Duggan signed an executive order establishing a city-wide open data policy in conjunction with the unveiling of the portal. The executive order not only provided the resources to launch the open data portal, but also established a new department within the Detroit City government, the Department of Innovation and Technology. This new department is the lead office responsible for administering the Open Data Detroit Portal.

The launch of Open Data Detroit and the Department of Innovation and Technology occurred in March 2015, just three months after the City emerged from bankruptcy. In July 2013 Detroit filed for bankruptcy which was the largest municipality to file for bankruptcy in US history. The City's debt of more than \$18 billion was exacerbated by an unemployment rate of 16.9 percent in 2013 (Shueh, 2015). Despite the strict rules of the debt restructuring plan, the City established Open Data Detroit as a way to bolster economic development and increase efficiency within the City government (Shueh, 2015).

Prior to the Open Data Detroit Portal, it was difficult to obtain data from sources across the Detroit City Government (AMA Detroit, 2015). Among the difficulties

identified by D3 included the City's dispersed administrative sources which did not facilitate collecting data across departments and the lack of a uniform format. As of 2015, D3 pointed out that some data sources collected by the Detroit City government were still paper-based (AMA Detroit, 2015). Furthermore, in the absence of a centralized data platform, D3 frequently filled data requests within the Detroit City government of other City departments (E. Raleigh, personal communication, August 17, 2016).

Because Detroit lacked a coherent data plan until 2015, city employees were forced to cultivate informal channels to obtain the data they required from other city departments. Director of Open Data and Analysis for the City of Detroit, Joel Howrani Heeres explains, "Basically throughout much of the city's history, access to data and city data has been like very personality driven. [...] It's based on relationships, I know this person in this department, and he's willing to share this data or information with me in this format" (personal communication, August 12, 2016). An additional benefit to codifying the processes and structures of Open Data Detroit is that it "depersonalized" accessing data from the City (J. Howrani Heeres, personal communication, August 12, 2016).

Detroit experienced many years of economic problems in the years before and after the bankruptcy filing. In efforts to rebuild the economy of the City, Detroit has attracted entrepreneurs who want to benefit from the affordability of the city. The entrepreneurial wave has attracted start-ups from international investors, Silicon Valley as well as Michigan businesses ("Can entrepreneurs...", 2015). The greatest private investments have come from Michigan-based Dan Gilbert. As of 2016, Gilbert's companies have invested billions of dollars into Detroit and own more than

80 buildings or 14 million square feet of real estate in Detroit (Gardner, 2016). Rock Ventures LLC of which Gilbert is the CEO serves as the umbrella corporation for Quicken Loans and Loveland Technologies. With offices in San Francisco and Detroit, Gilbert runs Loveland Technologies as a for-profit data company that provides parcel-level data for real estate redevelopment (“Loveland Technologies,” n.d.). According to Loveland Technologies’ website, “We work with governments, developers, neighborhood groups, and passionate individuals together and present information about property in clear, actionable ways. In Detroit our community missions include arming people with information to battle a plague of tax foreclosures and running an ongoing survey of property conditions to help fight blight” (“Loveland Technologies,” n.d., p. 1). D3 also promoted data as a tool for emerging from Detroit’s bankruptcy and economic problems. “We at Data Driven Detroit believe that, true understanding demands the availability of accurate data. Data-driven decisions will be essential to successfully emerging from our current situation” (Metzger, 2011, p. 2)

With a mission that is closely aligned with D3, Loveland Technologies have partnered with D3 on several projects. Most recently, Loveland Technologies worked with D3 on Motor City Mapping Project, a taskforce organized by Mayor Duggan to address blight in Detroit. The Blight Removal Task Force commissioned a \$1.5 million survey to assess blight and develop a plan for addressing blighted parcels (Haimerl, 2014). Funded through the Michigan Housing Development Authority, the Kresge Foundation, the Skillman Foundation, and Rock Ventures, the task force represented a cross-sector approach to developing the technology to address blighted properties. Loveland Technologies collected the data for the survey and D3 cleaned the data and triangulated their data with existing datasets from federal databases

(Haimerl, 2014). Motor City Mapping worked with Detroit city government to layer datasets in the survey. As this initiative occurred prior to Open Data Detroit, D3 and Loveland Technologies had to obtain data from individual departments within the city. The Motor City Mapping project represents a public-private partnership to use data to address the problem of blight in Detroit. The project established a reputation for utilizing data for the benefit of Detroit's redevelopment (Haimerl, 2014).

From an advocacy perspective, the Detroit Digital Justice Coalition was established in 2009 by "people and organizations in Detroit who believe that communication is a fundamental right" ("DDJC," n.d.). The intent of the Coalition was to bridge the digital divide in Detroit through improving the accessibility to broadband across the city and to ensure data was available for grassroots economic development ("DDJC," n.d.). While DDJC has worked with Michigan State and received grant funding to develop technology programs for youth, the group has not been active for several years ("DDJC," n.d.). The DDJC adopted digital justice principles related to access and participation around data and raised awareness across Detroit about using data to inform community work ("DDJC," n.d.).

A notable event in the data landscape of Detroit includes the city's selection as a Code for America site in 2012. With funding from the Knight Foundation, Code for America selected Detroit from an applicant pool of more than 20 local governments. Code for America places fellows in local governments to solve municipal problems through technology. Detroit's application to participate in Code for America in 2012 proposed a program that would help the city identify and address vacant and abandoned housing. According to the Knight Foundation, "Data on vacant properties in Detroit is [...] hard to access and unorganized, so the city lacks a clear picture of

available real estate” (2011, p. 1). Code for America fellows were tasked with developing a solution for vacant property data and they developed LocalData, an app that was designed “to standardize location-based data collected by data analysts and community groups” (Burnstein, 2014, p. 1).

Rock Ventures through Loveland Technologies, Open Data Detroit, Code for America Detroit, and the DDJC do not fulfill the same mission, but these organizations contribute to the overall data landscape of Detroit. Most of the activity around data in Detroit has occurred since 2010 and has been expanding with the influx of entrepreneurs to the region. It is important that these initiatives were operational prior to any similar local government initiatives or the current Open Data Detroit. Data culture in Detroit was developed through the private and nonprofit sector. Open Data Detroit was a late-comer to the data environment relative to its private and nonprofit affiliates. To reiterate, the aforementioned initiatives do not define their work as social indicator projects, but these initiatives contribute to the community understanding of data and overall data culture in Detroit.

6.3 Utilization of D3’s Data

“Numbers are useless unless they help us understand who we are” (“Painting Pictures...,” 2010, p. 1). Because D3’s organizational structure has changed in the last year, the following section will review their community outreach efforts as a nonprofit organization and as a low-profit limited liability corporation. Also addressed in this section is the process by which D3 solicits and includes community members’ voices in its work and the capacity building and training in Detroit. As previous sections addressed D3’s funding partners, this section will review how community partners utilize D3’s data.

D3 provided trainings and capacity-building opportunities with communities during the genesis of the organization as they were working to build a reputation and advertise their services across the City. Specific examples of providing community-based training included the Southwest Counseling Solutions and Community Mapping Program and the North End Neighborhood Strategic Investment Plan. In conjunction with the Skillman Foundation, D3 trained youth in Southwest Detroit about survey methodology in neighborhoods. The training was “designed to give local youths the ability to create change within their neighborhoods while building job skills through interaction with local professionals” (“Annual Report,” 2011). An additional benefit was that this project provided data for D3 to expand its work in the neighborhood through the collection of specialized data. The North End Neighborhood Strategic Investment Plan was a partnership of D3 with Capital Impact Partners, a national Community Development Financial Institution (CDFI), a nonprofit organization that redevelops low and moderate-income communities through mission-driven lending (“A history of impact,” n.d.). During this multi-year collaboration, D3 provided Capital Impact Partners with a community snapshot comprised of “1) demographic and socio-economic characteristics; 2) housing characteristics and market overview; and 3) an inventory of schools in and around the North End Neighborhood” (“Annual Report,” 2011, p. 6). The North End Neighborhood Strategic Investment Plan’s key component was the Woodward Corridor Initiative. The Woodward Corridor is the connecting street that connects neighborhoods from the North End to the Detroit River. D3 worked with residents and stakeholders in the Woodward Corridor to determine the core priorities and determine investable projects (B. Frost, personal communication, August 13, 2016). Of the organizations involved in the re-

densification and redevelopment work involved in the Woodward Corridor, D3 tracked organizational outcomes, project level outcomes, grant dollars, and contract management (B. Frost, personal communication, August 13, 2016).

Beginning in 2011, D3 developed the interactive online tool, D3 Toolbox. As a nonprofit organization, the Toolbox was the main way in which D3 provided data and training to the public. The D3 Toolbox was “envisioned to support communities with the data necessary for them to take action in their neighborhoods” (Dunn, 2013, p. 73). One aspect of the D3 Toolbox is detailed instructions to assist individuals who may not have a technical background. The D3 Toolbox helps individuals use their data to make maps or specific community profiles based on various topics including demographics, economics, housing, and transportation, among many others.

Despite D3’s transition to an L3C, the organization has maintained its original mission of providing “accessible high-quality information and analysis to drive informed decision-making” (“Annual Report,” 2011, p. 3). However, it is important to note that D3 has expanded its outreach and training efforts since becoming an L3C. The opening of the Open Data Detroit Portal is significant because it enabled D3 to divert resources from simply updating datasets to more analytical services and community outreach.

After years of concentrating energies on gathering and disseminating public data, D3 has refocused its efforts on helping people understand it. D3 assists individuals and organizations in asking the right questions, finding the right data, analyzing and visualizing it, and then drawing conclusions from that analysis. (Dunn, 2016, p. 3)

The most visible manifestation of D3's change in the organization's outreach approach is the greater reliance on user-generated data. During the early years of D3, staff grappled with lack of accurate datasets. In working with community based organizations, D3 were challenged in trying to find appropriate and complete data that helped to contextualize their work. For example, many community based organizations and development firms were unable to find accurate and timely real estate data in Detroit. D3 took advantage of this opportunity to engage Detroit citizens while producing a valuable dataset for the community. Motor City Mapping in collaboration with Loveland Technologies engaged more than 120 Detroit citizens to parcel-level real estate records (Dunn, 2016). D3 made an app and trained participants to input data as they walked through every block in Detroit. The participants included residents who were trained in surveying, drivers, and quality-control associates (Flora, 2015). Motor City Mapping is comprised of a catalogue of 380,000 properties and led to the addition of 30 new datasets to D3's portfolio (Flora, 2015). This comprehensive catalogue helps developers identify future projects and a benchmark to assess future real estate development.

D3's involvement in developing new data includes training citizens in data collection and providing support to facilitate the backend of the technology. The Detroit Comprehensive Parcel Survey of 2014 included assessment of lots and gathered data on housing type or vacant lot status (AMA, 2015). The database includes photos and data points on structures regarding use, units, condition, occupancy, open/boarded, and dumping. The survey included questions about vacant lots that addressed use, park/garden/parking, improved/unimproved, maintenance, and

dumping (AMA, 2015). D3 supplied surveyors with tablets to facilitate the data collection process.

The Blexting App allows residents to input property data to the Motor City Mapping database. The Blexting App user takes a photo of the property under review and is prompted to answer the survey questions within the app. The accuracy of the entry is heightened as the app uses the phone's GPS location. D3 trains users in the app's features as well as the protocol for rating the property. The training includes example properties and best practices to improve inter-rater reliability.

In 2016, D3 began the Civic User Testing Group (CUT Group) in collaboration with Microsoft and the City of Detroit's Department of Innovation and Technology to gain input from residents about the best way to design software to access D3's data. Modeled after a similar CUT Group in Chicago, D3 incentivizes Detroit residents to test software. D3 gives testers a \$5 gift card when they sign-up and then a \$20 gift card when the tester completes the test. D3 collects detailed demographic and technical data about the testers including the type of device, primary connection to the internet, age, and ethnicity (I. Morrell, personal communication, August 12, 2016). The first test which occurred in fall 2016 was for an app that assessed commercial properties around Detroit. The testers provided feedback about their experience in using the app and then D3 could make changes to improve the app's functionality (I. Morrell, personal communication, August 12, 2016).

Philanthropy in Detroit has a symbiotic relationship with D3. For example, the Skillman Foundation was one of the first investors of the data initiative that predated D3. Grants from the Skillman and Kresge Foundations continue to sustain D3 projects. The Skillman Foundation utilizes D3's data to guide grant making decisions, including

the selection of investment locations. In 2006 the Skillman Foundation launched Good Neighborhoods, a 10-year project to target neighborhood improvement in six neighborhoods in Detroit. The Skillman Foundation invested more than \$120 million to redevelopment of real estate and social and educational programs. D3 provided maps, data, and technical assistance to the Skillman Foundation to assess Good Neighborhoods' results in relation to benchmarks around children and families (P. Hinojosa, personal communication, August 13, 2016). Senior Program Officer Pati Hinojosa explains, "when I think about the way that we use data, it's really to get an understanding of who [...] is our target [...]; what interventions can you put in place to help?" (Personal communication, August 13, 2016). Upon the completion of the ten-year Good Neighborhoods project, the Skillman Foundation expanded to include other neighborhoods in Detroit to apply effective investing strategies identified in the six neighborhoods.

D3's affirms its values of collaboration, inclusion, and data-driven decision making through promoting data access and organizing trainings for community groups (AMA, 2015). There are two main approaches for increasing the utilization of D3's data. D3 trains individuals to do data analysis using their online tools and simplifies data to discrete visualizations for mass consumption. Executive Director Erica Raleigh explains, "people don't understand spreadsheets, we need to do analysis and visualization on those data to start to building narrative around that" (personal communication, August 13, 2016). Through D3's training and outreach, the organization does workshops, presentations, and skills training to improve data literacy around community data. These trainings are often specific to the organization or community group working with D3. Raleigh explains that D3 is "helping groups

work through what are you actually trying to get to in whatever action you're taking, whatever decision you're making. Now, how can we put metrics to that you can measure close to real time so that if it's not working in the intended [...] direction you can retool before 10 years have passed?" (Personal communication, August 13, 2016).

6.4 Geography of D3

Since becoming a L3C, D3 has focused its activities on developing data at the local level. However, during its time as a nonprofit organization D3 worked on data projects at the state and regional level. This section will review the unit of analysis that D3 adopts in providing data for the community. Because available data from external sources vary in their geographic unit, this section will discuss the process by which D3 decides on an indicator and data source.

Because D3's work is closely aligned with real estate and redevelopment in Detroit, much of D3's data portfolio contains datasets at the parcel level. However, there is great variation in D3's geographic units due to the availability of existing data. There are currently more than 6 geographic units in D3's data portfolio which include parcels, census tracts, precinct, county, zip code, the City Planning Commission's zoning, and text or transportation routes overlays on mapping.

Examples of D3's work at the parcel level include Designated and Eligible Historic Structures which was commissioned by the Detroit Blight Removal Task Force to identify structures of historical significance in Detroit. As the Detroit Blight Removal Task Force works to demolish vacant and abandoned structures, D3 provides insight about structures that can be preserved. D3 helped the City quantify demolition needs that informed demolition strategies. Raleigh explains that this project was developed by parcel because "it helped to quantify the challenge that we face in terms

of blight and opportunities to *not* demo, but rather rehab or reuse or [...] convert in some way or at least lock down. [...] They were able to preserve a bunch of historic buildings that would otherwise have been knocked down, but instead are secure for later reinvestment” (Personal communication, August 13, 2016).

D3 also utilizes Census Block-Group level aggregation. This unit was derived from the Motor City Mapping Survey Data. The data “were derived from aggregating 380,094 parcels to the 2010 Census block group level. Note that to ensure consistency with the Census geography boundaries for Detroit, a very small number of parcels on the city’s border need to be manually assigned to a particular geography” (“Motor City Mapping,” 2014, p. 1).

For data concerning topics like bus routes, grocery stores, and child care centers, D3 uses text descriptions over street view maps. At the state-wide level, D3 maps births by county across Detroit. Whereas, D3 uses the census tracts for state wide data concerning tracking items like employee rate and labor force participation, public assistance, median household income, and education by race (“Motor City Mapping,” 2014).

The diversity of geographic units is reflective of the various external sources that provide data to D3. In addition to producing its data through using residents as surveyors and software testers, D3 receives data from state sources like the Michigan State Housing Development Authority, Michigan Office of Highway Safety and Planning, and the Michigan Secretary of State. Locally, D3 receives data from the Detroit Department of Transportation, Detroit Department of Health and Wellness Promotion, Detroit General Services Department, and the Wayne County Treasurer’s

Office, among others. D3 works with universities and the nonprofit and private sectors to include relevant data in its portfolio.

D3 has grappled with working within the geography of the region. Raleigh explains,

So, you've got [...] 43 municipalities in Wayne County alone and if you have to go and get information from all of them individually it's a challenge which why we bit off a manageable chunk of Detroit which feels good like we've got that under control in a good way. (Personal communication, August 13, 2016)

D3's database has been largely assembled by project-based assignments from contracts or collaborations with community partners. This diversity of partners contributes to D3's ability to be embedded in Detroit and facilitate partnerships, but creates the distinct nature of its data base, in both geography and topic. D3 does

[...] all this project work, every time we take on another project we end up either updating a dataset that we already house and doing all of the processing to it that needs to be done to make it usable for the project or we are grabbing a new dataset in combination with other stuff that we've already processed and we make sure that we build the cost of doing that into the project. If we know that something that's going to come up repeatedly we'll actually spread that cost among projects. [...] I tend to think of every project as being additive to the data warehouse, it's pretty important. So, that's how we can keep it updated even if we're not able to systematically go out and update everything that we know is out there on a regular basis, whether it's monthly, quarterly, annually. (E. Raleigh, Personal communication, August 13, 2016)

The maintenance of D3's data are dependent upon the specific projects that the organization is commissioned to complete. Furthermore, the attributes of the data including geography, update frequency, and measure are determined by the need of the project partner.

6.5 Equity Measures of D3

D3 demonstrates the value of equity through the process of providing data and training individuals to make meaning from those data. This section will review D3's approach for defining equity as an organization. Included in this discussion is the process of including resident voices in D3's work and the topic-based approach to developing equity indicators. As an organization, D3 has communicated an equity focus in its publications, but the organization has adopted a fluid approach to operationalizing equity in its data. Similar to previous discussions, this section will identify changes in the organization's approach to incorporating equity as a nonprofit organization and its current standing as an L3C.

The creation of D3 was driven by the goal of democratizing data for community consumption. From its work in the Detroit Digital Justice Coalition and Motor City Mapping, D3 has assumed a collaborative mindset that works to amplify the voices of Detroit residences. There are many examples of D3 training and utilizing residents to not only tell D3 what data they want, but also to collect the data.

From 2009 – 2014, D3 maintained the One D Scorecard, a dashboard for the region. One D Scorecard “provides a comprehensive look at the status of our region through key data indicators that align to five priority areas: economic prosperity, educational preparedness, quality of life, social equity, and regional transit” (“One D Scorecard, 2014, p. 1). The social equity priority areas were from the US Census

Bureau, American Community Survey 3-year estimates and were comprised of the following indicators: percent population foreign born, Gini Index, income level by quintile, median household income (by race), percent housing owner occupied (by race), and poverty rate of children under 18 (by race) (“One D Scorecard, 2014). It is important to note the racial emphasis of the indicators within the social equity priority area. In developing the One D Scorecard, D3 assembled a coalition of community groups and stakeholders including the Kirwan Institute for the Study of Race and Ethnicity. The Ohio State University’s Kirwan Institute for the Study of Race and Ethnicity is an academic research center that studies equity and inclusion (“About Kirwan,” n.d.). Indicators concerning education, transportation, environment and the justice system were captured in other priority areas. D3’s initial One D Scorecard is no longer updated, but the archives are publicly available. Since the discontinuation of the One D Scorecard, D3 has broadened the indicators in the portfolio concerning social equity outside of this initial framework.

Equity measures for D3 are topically focused; social indicators are separated based on the community issue. This approach to indicators echoes the earlier discussion about the project emphasis within the organization. For example, in 2011 D3 performed an analysis of residential areas in Detroit and identified the following indicators concerning equity: population density, population change, housing condition, housing value, housing structure density, housing occupancy, and percent of parcels with individuals as owners (Long, 2011). In other analyses of equity in Detroit, D3 assumed a food equity approach which includes measures of food affordability and accessibility (Mather, 2015).

Throughout D3's evolution as an organization, there has been several shifts in their work around social equity. Under the leadership of D3 Founder, Kurt Metzger, the creation of the One D Scorecard was a strict framework of specific equity indicators. The One D Scorecard was designed in part by emulating other social indicator projects across the county (E. Raleigh, personal communication, August 13, 2016). Under the leadership of current CEO, Erica Raleigh, D3 is a project-based organization. Because of the differences in organizational leadership, D3 has shifted its indicators accordingly. The latter years of D3 exhibit project-based social equity indicators.

However, this shift from prescribed priority areas to project-based indicators is not to say that the organization places less importance on social equity. Through D3's exhaustive community trainings, many collaboratives, and grassroots data collection, the organization has adopted an equity lens in its processes. Even before D3 started identifying indicators of equity to include in their data sets, the organization demonstrated a process-orientation to the consideration of equitable principles in its work. Specifically, staff from D3 expressed sensitivity to the importance of including diverse voices throughout the stages of fulfilling its mission. According to D3's latest strategic plan, the organization states that it must identify areas of common understanding and shared knowledge. The plan further states that equity includes that "decision making must include the interests of all residents" ("Strategic Plan", 2011, p. 5).

When discussing D3's social equity indicators, Raleigh states, "What I've realized, there's no one set of indicators that is actually right for every purpose. It's just not [...] going to be there. It has to be deeply embedded in the values, and, again,

the outcomes that they want to see. And neighborhoods are so diverse in Detroit” (E. Raleigh, personal communication, August 19, 2016). D3 practices the value of social equity by not prescribing a definition of equity in the communities in which the organization works.

6.6 Key Findings

The key findings from the Detroit case study are D3’s enthusiasm for risk-taking and its embeddedness in the community. It is no small feat that D3 has transformed itself from a nonprofit to an L3C. This willingness to assume the risk of trying a new organizational form means that the other indicator projects across the country will look to D3 as a leader in the field. As an organization, D3 is a product of its environment in Detroit. Throughout its existence, D3 has been defined by its ability to collaborate with diverse partners and its experimental nature. D3’s experiment of attempting to operate as a L3C is appropriate given Detroit’s emergence as an entrepreneurial city. While D3’s partners have strengthened the organization, Detroit’s historical reliance on relationships to share and disseminate data makes the data landscape somewhat challenged for data initiatives to expand the availability of data. D3’s embeddedness in the community is an asset as the organization has been financed and supported by the philanthropy in Detroit. Despite D3’s transition to an L3C, the organization has maintained its prominent community outreach and trainings. A significant challenge faced by D3 will be the organization’s ability to develop a cohesive data portfolio due to its project-based work plan.

Chapter 7

NEW YORK

This chapter will discuss New York City's Social Indicator Project, operated through the New York City Government, Office of the Mayor. Included in this discussion are the political considerations of developing social indicator reports and the government department structure that facilitates the measurement and tracking process. This chapter will review the historical development of New York City's government regarding the production of social indicators. Included in this chapter are also a review of utilization of social indicator projects as well as other initiatives that duplicate social indicator measurement. Because New York City has produced supplemental reports on measuring equity in conjunction with the latest social indicator report, the equity measures were developed concurrently. Data from the New York City case were derived from participant observation, document analysis, semi structured interviews, and emails in 2016-17.

7.1 Background

New York City's charter mandates that the mayor commissions a report and provides to the City Council "analyzing the social, economic and environmental health of the City and proposing strategies for addressing the issues raised in such analysis" ("Social Indicators," 2016, p. 2). This charter mandate was added in 1989 during a charter revision and was "intended to help drive responsiveness to changing demographics" (Arabello, 2016, p. 1). Current staff involved with the Social Indicator

Report were not involved in the annual reports from 1990-2005. Prior to the publication of the Social Indicator Report in 2016, the mandate was not followed since 2005, meaning that the report had not been published since 2005 (“Social Indicators, 2016).

Mayor Michael Bloomberg served as New York City Mayor from 2002 – 2014, the majority of the years during which the report was not published. The Bloomberg administration has been credited as adopting policies that decreased violent crime and encouraged real estate development (Howard Saul, 2013). As Bloomberg earned his personal fortune in media and financial firms, he did not accept campaign contributions. Bloomberg spent an estimated \$260 million of his own money during three mayoral elections (Howard Saul, 2013). New York City Councilperson Brad Lander states, “It appears that the [Bloomberg] administration felt they could take a shortcut without anyone noticing or doing too much protesting. They sought to say they were complying through the mayor’s management report” (as quoted by Abello, 2016, p. 2). Critics of the Bloomberg administration point to his administration’s position on racial profiling during police stops or “stop and frisk” stops which resulted in a Federal Investigation of the New York Police Department (Coates, 2013). Federal Judge Shira A. Scheindlin found the Bloomberg administration in violation of the fourth and fourteenth Amendment due to the targeting of minority men (Coates, 2013). Judge Sheindlin ruled that the city “adopted a policy of indirect racial profiling by targeting racially defined groups for stops based on local crime suspect data” (as cited by Coates, 2013, p. 1). Bloomberg defended his administration’s practice “stop and frisk” police stops and maintained that the practice kept New York safe (Bloomberg, 2013). Critics point to the contradictions

during the Bloomberg administration. Bloomberg cultivated “a City Hall driven by a businessman’s sensibilities, obsessed with data and accountability and armed with almost unlimited resources (Howard Saul, 2013, p. 2), while others point to the lack of transparency around the indicators report (Abello, 2016).

Mayor Bill De Blasio succeeded Bloomberg in 2014 representing a “forceful rejection of the hard-nosed, business-minded style of governance that reigned at City Hall for the past two decades and a sharp leftward turn for the nation’s largest metropolis” (Barbaro & Chen, 2013, p. 1). The De Blasio platform focused on “income inequality, aggressive policing tactics, and lack of affordable housing” (Barbaro & Chen, 2013, p. 1). Mayor de Blasio’s goal is that New York’s policies focused on inequity will serve as an example for the rest of the country, and Mayor de Blasio calls inequity the “crisis of our time” (as cited in Ball, 2015, p. 2). In service to the campaign platform, Mayor de Blasio has established universal prekindergarten in New York, raised the minimum wage, and “created a new ID card that helps undocumented immigrants get access to banks and other services” (Ball, 2015, p. 2). “De Blasio, in other words, is making the city less unequal, little by little, just as he promised to do” (Ball, 2015, p. 2). The publication of the Social Indicators Report and Disparities Report is a key component of Mayor de Blasio’s agenda.

The Disparity Report and Social Indicators Report were released concurrently in the spring 2016. Both reports were released under the Office of the Mayor through the Mayor’s Office of Operations under the Deputy Mayor for Health and Human Services. Specifically, the Center for Innovation through Data Intelligence (CIDI) and the Center for Economic Opportunity, now called NYC Opportunity, and the Young Men’s Initiative (YMI) were the lead agencies tasked with producing the reports.

CIDI was responsible for bringing the data together across the departments of the New York City government. CIDI was founded under the Bloomberg administration during a time when the Mayor was trying to apply business practices to increase efficiency in the city government (Hicks & Koopmans, personal communication, May 11, 2016). CIDI worked with NYC Opportunity to develop policy recommendations included in the report. While CIDI convenes data across the City government, NYC Opportunity focuses on data concerning poverty and evidence-based policies that address poverty in New York City. “CIDI provides data and analytical support to various mayoral initiatives and task forces. CIDI partners with City agencies and service providers through the delivery of technical assistance and guidance to help solve complex problems and address policy issues” (“CIDI,” n.d., p. 1). YMI was also created during the Bloomberg administration as a cross-agency department in the Mayor’s Office of Operations. YMI was “founded in response to the large inequities between Black and Latino young men and their peers in health, developmental, and economic outcomes” (Astone, Gelatt, Simms, Enam, & Monson, 2016, p. 1). YMI invests in community interventions based on the data and provides resources for departments in the City to improve diversity within the city and improve relations between the City and communities of color (W.C. Garrett, Personal Communication, June 16, 2016).

The Social Indicators Report has two purposes: to “provid[e] an overall statistical portrait of the City, providing a clearer understanding of areas in which there are unmet needs, and areas in which progress is being made. Second, this report is meant to help guide the City’s efforts to reduce disparities and advance equity. Presenting data about conditions in disaggregated form can reveal differences that exist among different parts of the City and within specific populations” (“Social

Indicators, 2016, p. 2). To reinforce the City's emphasis of equity and data, the Disparity Report was published by approaching the data from a lens of racial equity ("Disparity Report," 2016, p. 1).

These reports demonstrate the current administration's commitment to using data to advance social equity. Because the availability of data has expanded since the publication of the previous Social Indicators Report in 2005, the Reports are not comparable. The 2005 Social Indicators report was prepared by a different entity within the City government, the Department of City Planning. Also, given the challenges of obtaining real-time data in 2005, the report acknowledges that much of the data is two years old ("Social Indicators," 2005). The 2005 Social Indicators Report fails to include racial data regarding education, employment, and public safety indicators. The only breakdown of racial data in the 2005 Social Indicators Report is within the health indicators. Because of these aggregated data, it is impossible to compare and analyze the 2005 and 2016 reports. Additional problems with the lengthy absence of tracking social indicators are the departmental changes between the reports and the loss of any institutional knowledge about the reports. The indicators, data collection methods, geographic units, and priority areas are so different between the 2005 and 2016 reports that they are not comparable.

The 2016 Social Indicators Report and Disparity Report may serve as a baseline on which to compare future performance. The 2016 Reports demonstrate the lack of continuity in that there is variation among the years of data included in the report. Indicators included in the report vary in the inclusion of previous years' data from 2009 – 2015. While poverty data under review was included from 2009 – 2013, educational data was included from 2013 – 2016. CIDI convened the data across City

departments to determine the best data set for each indicator and maintains data sharing agreements with departments across the City (Hicks & Koopmans, personal communication, May 11, 2016). It was important for the Disparity Report to utilize data that was from the City so that the department or agency had confidence in the validity of the data. According to William Cyrus Garrett, Executive Director of YMI, “We sat down with CIDI for about 3 or 4 months to [...] go back and forth on what’s going to give us the most visibility because there was over 60 different indicators. [...] We wanted to make sure those were a tight 60 [indicators] meaning they should give us a different piece of the puzzle that we can create into one full picture of what’s happening in the city” (Personal communication, June 16, 2016). During the indicator creation process, CIDI and YMI collaborated on appropriate measures for the Disparity Report. CIDI gave YMI guidance and “they basically said, ‘these are some indicators we know in the past have given us a lot of insight into what’s happening.’ We then pushed back and said, ‘what we want to see though is not just what’s happening, but how it’s happening for communities of color” (W.C. Garrett, Personal communication, June 16, 2016).

The format of the Social Indicators Report and Disparity Report is notable. The reports are available online as a PDF and as a printed report available through several departments within the New York City government. CIDI’s social indicator initiative not YMI’s disparity initiative do not include an online platform to accommodate specialized analysis of the data. Many of the indicators in the report are derived from open data sources, but there are several data sets that contain sensitive information and are not publicly available on New York City’s Open Data Portal. Furthermore, there are data contained in the Social Indicators Report and Disparity Report that are not

customarily shared across New York City Departments. Specifically, the City does not include disaggregated health and education data in open data or make available within the City. CIDI's purpose is to provide interagency collaboration for the purpose of coordinating data across departments (J. Raithel, Personal Communication, May 19, 2016).

The New York City charter mandates that the Social Indicators Report is updated every five years and YMI is planning on publishing the Disparity Report at a five year interval (W.C. Garrett, Personal communication, June 16, 2016). YMI is looking to take the Disparity Report "out of the political realm" through publishing it outside of administration term years (W.C. Garrett, Personal communication, June 16, 2016). While CIDI and YMI's plans are to continue this data work, executive directors Maryann Schretzman and William Cyrus Garrett, respectively, are political appointees who were placed in their current positions by Mayor de Blasio. Given the previous gaps in publishing data, it is unclear if this work will continue past the current mayoral administration.

7.2 Data in New York

New York City Government has a varied history regarding making data available to the public. This section will review the history of Open Data in New York City as well as some of the challenges given the unique nature of New York City government in its size. A discussion of similar and duplicate social indicator projects in New York will be included in the section.

Even before open data was established as a concept, New York City ran the Commission on Public Information and Communication (COPIC) which published digital databases on the World Wide Web in the early 1990s (Campbell, 2017). In

2006, the Bloomberg administration established data agencies across the New York City government including Access NYC, DataShare NYC, and NYC Map Launch. These initiatives established the foundation of open data and transparency expectations in New York City. In 2012, the Mayor's Office of Data Analytics (MODA) was established to serve as the lead agency for data within the City government and implement the City's Open Data Law. The de Blasio administration has rebranded the work of MODA under the motto, "Open Data for All" to focus on making it easier for people to find and use data (Neubauer, 2015).

In the interest of expanding the reach of Open Data to more citizens, MODA's mission has evolved from simply promoting data sets to encouraging accessibility of that data to citizens (J. Mollineaux, Personal communication, July 5, 2016). "The ultimate success of the Open Data initiative will not be measured in the number of data sets that are published on the Open Data Portal – it will be in the number of New Yorkers who use Open Data in their daily lives" ("Open Data...", 2015, p. 9). New York City's Deputy Chief Analytics Officer, Lindsey Mollineaux explains that MODA was originally created as a Financial and Crimes Taskforce and

matured into a city-side purview of data and analytics. So, our task is a two-fold one, to support analytics capacity throughout the city, and that means both internally from agencies or from places like CEO or YMI that are Mayor's Office initiatives. And then also to increase access to city data as well. We do a lot of the data sharing, data infrastructure initiatives, and then also do targeted predictive analytics models around city operations. (personal communications, July 5, 2016)

The current Open Data Law was established in 2012 during the Bloomberg administration and set timelines for agencies to make its data publicly available in a “easily usable format” (Goodyear, 2013). New York Councilmember Gale Brewer was driving force to pass the law and worked to garner bipartisan support of Open Data in New York City. Despite the inspiration from the federal level’s Open Government Initiative, New York City’s Open Data Law was the first legislative effort of its kind. Brewer explains, “It’s good to have it done legislatively, because an executive order is only as good as that administration” (As cited by Goodyear, 2013, p. 2).

While initiatives like CIDI and YMI represent the potential for future collaboration and utilization of data to inform policies, there are challenges with sustaining the initiatives beyond the current administration. Additional challenges include the size and complexity of the New York City government. “Despite significant progress in building cross-agency data systems the City too faces enormous challenge: it is awash in data and has to ensure the right data is being analyzed; it must ensure that all agencies are using the same defined metrics; and it must coordinate responses across many agencies” (Klein et al., 2015, p. 2).

A noteworthy challenge of social indicator measurement in New York City is the lack of continuity across administrations. The 2005 Social Indicators Report contains different metrics and data sources than the 2016 Social Indicators and Disparity Reports which makes comparison difficult. Reports prior to 2005 are not publicly available and current departmental staff were not involved with previous publications. Current staff are optimistic that this work will continue beyond the de Blasio administration, but they also expressed that challenges of continuity were the nature of

government. The current emphasis of CIDI and YMI of using data to focus on inequities in the city is a combination of forces from the Bloomberg and de Blasio administration. The Bloomberg administration had an emphasis on data and started many open data initiatives for the City and the de Blasio administration has an emphasis on social equity (J. Raithel, Personal communication, May 19, 2016). The sentiment expressed across departments involved with these reports was that it represents a new baseline on which to establish future measurement efforts.

The New York City's government social indicator initiative represents the most comprehensive reports in the region and has garnered attention from NNIP and CIC. Other initiatives have developed social indicator reports; while these reports are not the focus of this research, they are worth discussion as it contributes to New York City's overall data environment. Several academic institutions have taken various approaches in developing indicators measurement. New York University's Furman Center for Real Estate and Urban Policy and the City University of New York Institute for State and Local Governance have data initiatives that do not serve as comprehensive social indicator projects, but still utilize data for analysis and forming policy recommendations. NYU's Furman Center is affiliated with the NNIP, but the focus of the research center is data concerning real estate. Within this research focus the Furman Center produces research addressing land use planning, real estate development, community economic development, housing, urban economics and urban policy ("About Furman....," n.d.). The Furman Center has produced reports concerning equity with regards to housing and real estate policies. CUNY's Institute for State and Local Governance has produced an Annual Report on Equality Indicators since 2015. This work is based on their equality framework which consists of the

Institute's equality index. The staff of the Institute consulted the Mayor's office during the development of the equality index and uses many of the datasets available through NYC Open Data (B. Kutateladze, Personal Communication, May 11, 2016). An additional departure from this research and CUNY's Institute for State and Local Governance is the equity and equality frameworks. CUNY's Institute operates under the following definition of equality: "Everyone has the same economic, educational, health, housing, justice, and service outcomes regardless of race, ethnicity, disability, sexual orientation, gender, single parenthood, age, immigration status, education, criminal record, place of residence, and other characteristics" (Lawson et al., 2016, p. 12). CUNY's Institute focuses on outcomes rather than opportunities in measuring equality indicators (Lawson et al., 2016). This definition is a departure from the framework for this research which has assumed a framework of equity as defined by Frederickson.

7.3 Utilization of Data in New York

There have been many New York City government departments that contributed to the development of the Social Indicators and Disparity Reports, therefore it is necessary to explore the departmental efforts to ensure data utilization across New York City residents. In addition to reviewing how these data are used, this discussion will review the process to solicit input and engage stakeholders in the creation of the indicators. This section will also review the ways in which indicators are framed for specific audiences and the political environment around promoting policies based on the data.

The departments that contributed to the Social Indicators and Disparity Reports identified two audience groups: community groups and citizens and internal

stakeholders. Community groups and citizens include academics, accountability groups, and nonprofit organizations. Jessica Raithel of CIDI explains the goal:

getting it into the hands of people. [...] I think we want people to be able to use it for advocacy, we want people to be able to use it in research [...]. And so, [...] it's really a tool for people to use, and I think we have really heard from the advocates and nonprofits that it's just helpful to them to like not have to dig around for it. (Personal Communication, May 19, 2016).

Among the users of the data who are internal stakeholders in the New York City Government, data from one department can be accessed and used in various department across the city. This function of using indicators from other department is being encouraged because it is often easier and more efficient than each department trying to independently secure data (L. Mollineaux, personal communication, July 5, 2016). YMI is working to use these indicators to build a bridge between the internal New York City stakeholders and external community stakeholders. When asked about the audience of the Disparity Report, Garrett explains,

One of the things that we can do for the city is really restart community - conversations with communities of color in a way that shows we recognize past mistakes and failings. We also have a game plan moving forward and that we want to be transparent about what those milestones are, what we're keeping ourselves at account for so that the community can do the same. (Personal Communication, June 16, 2016)

In partnership with CIDI, YMI is working to improve relations with the New York City Council. Since Garrett's appointment in 2015, some Councilmembers expressed that they were "unaware" of the extent of YMI's programming and investments

(Burger, 2016, p. 1). Some Councilmembers do not agree with YMI's pilot approach of testing, evaluating, and expanding programs. YMI's pilot approach means that ineffective programs are phased out and that programs are targeted to the six priority communities of East Harlem, South Bronx, South Jamaica, Queens, North Shore Staten Island, Brownsville (W.C. Garrett, personal communication, June 16, 2016). Once YMI can demonstrate the department's theory of change in those neighborhoods, they will explore ways to expand effective programming across New York City. This neighborhood focus is appropriate for measuring indicators and understanding the indicators within a community, but may present challenges for Councilmembers who advocate on behalf of programming for their constituents in neighborhoods not covered by YMI programming (Burger, 2016).

In developing the Social Indicator and Disparity Reports, CIDI and YMI partnered with New York City departments to solicit input from community members. New York City has provided resources to enhance participation across demographics by hosting community meetings in eight languages which included hiring translators to conduct the meetings as well as translating all materials. New York Public Libraries were used to host many community meetings because they are viewed as neutral environment for residents to attend a meeting (A. Mettey, Personal Communication, June 16, 2016).

Additionally, New York City has made resource available to community organizations that are running programs that address problems identified in the data. In this regard, New York City is incentivizing nonprofit organizations to utilize data in their work. For example, YMI is promoting programming targeting overage, under-

credit teens in their priority communities. The programming is based on a joint effort between the organization and YMI to address a need identified in the indicators data.

[YMI] base[s] it on where the data says that need is, so we see in District 9, let's say, there are 400 overage young people. [...] We know that overage, under credit young people are the main feeders in [...] these communities for the juvenile justice system because they're embarrassed. They're 15 [years old] and they're still in the 8th grade. [...] and they just stop coming. And when they stop coming, they cut off their life force and we know that then leads to the justice system. (W.C. Garrett, Personal Communication, June 16, 2016)

Given the various audiences of CIDI and YMI's data, the departments frame the data accordingly. New York City has a Democratic Mayor and the City Council is overwhelmingly comprised of Democrats. Notwithstanding the liberal political nature of New York City government, CIDI and YMI recognize the importance of framing the data with specific value propositions. Garrett explains that the conversation changes based on the issues themselves (Personal Communication, June 16, 2016).

YMI will start conversations with City Council around the data and the outcomes for young people, but "when we go and we talk to partners on Wall Street or partners [...] that may come from more conservative backgrounds, the idea is the return on investment" (W. C. Garrett, Personal Communication, June 16, 2016). YMI regularly uses the cost comparison of spending \$161,000 to incarcerate an individual per year or spending less than \$2,000 per head for an intensive community-based program (W.C. Garrett, Personal Communication, June 16, 2016). In keeping with the de Blasio administration, CIDI and YMI are committed to advancing social equity through measuring social indicators. "Comprehensive, detailed statistical data of this kind is

critical for effective and efficient governance. The de Blasio administration strongly believes in data-driven responses to the City’s problems – in developing solutions that are targeted to where the need is greatest, and using the tools that have proven most effective over time” (“Social Indicators, 2016, p. 2)

7.4 Geography of New York

Due to the format of the Social Indicators and Disparity Reports, there is limited ability to refine the indicators by neighborhood. This section will review the limitations with the current reports and how indicators are analyzed by CIDI and YMI. In addition, this section will discuss other geographic units available on Open Data NYC and through the Department of Health, but not included in the Social Indicators and Disparity Reports.

The Social Indicators and Disparity Reports are available online as a PDF document or as a printed copy through New York City Government. The Social Indicator initiative is lacking an online, interactive tool that would enable individuals to analyze the data specific to neighborhoods, dates, or demographic characteristics. There are several potential reasons for the lack of an online, interactive tool including the problems with continuity in the data and duplicative efforts, across New York City government and from external research centers. The Open Data NYC portal provides open data sets for several indicators contained within the Social Indicators and Disparity Reports, but there are proprietary data sources that were aggregated for the reports and therefore not available publicly. Additionally, the Open Data NYC portal contains thousands of datasets which may present a challenge to a layperson trying to access data.

The Social Indicators and Disparity Reports contain indicators analyzed at the City, borough, and community district levels. Some indicators include summaries of borough data, but it does not provide comprehensive demographic data for each indicator at the borough level. Indicators in these reports that have borough level data include borough population change, graduation rate, infant mortality, rental housing vacancy, households with internet access, number of jobs, traffic fatalities, and violent crimes, among others. However, a noteworthy weakness of this format is the lack of statistical data available within these indicators. For example, the report includes graduation rate by borough, but does not break down graduation rate within the borough by gender, ethnicity, or age. Indicators were analyzed at the Community District Level, but did not provide contextual information about the districts or composition of the districts. The reports utilized labels of “Brooklyn Community District 16” as opposed to using the neighborhood name of Brownsville. The only indicator included in the 2016 Social Indicators Report that used a different geographic unit was the mean travel time to work by Neighborhood Tabulation Areas.

A model on which CIDI and YMI could base future reports is from NYC’s Department of Health which includes community profiles for the layperson to understand and the raw data for specific inquiries. The NYC Department of Health data and community profiles are archived on their website from the 1990s to conduct long-term analysis and program planning. The NYC Department of Health data archives utilizes the neighborhood names and contains an atlas which explains the geographic units included in the profiles.

7.5 Equity Measures in New York

The New York City government departments tasked with social indicator measurement demonstrate a commitment to advancing equity through publishing reports, highlighting data concerning demographic and geographic disparities, and through comprehensive outreach efforts. This section will review the de Blasio administration's emphasis on social equity and CIDI and YMI's work to operationalize the measurement of social equity. New York City has unique characteristics as the largest city in the United State which requires special considerations regarding measuring indicators. This section will discuss the ways in which CIDI and YMI have adapted measures based on New York City's characteristics.

Mayor Bill de Blasio assumed the mayoral office in 2014 after serving as the New York City Public Advocate since 2010. Mayor de Blasio has been working in New York City and New York State politics since the 1980s including Housing and Urban Development City Council (Ball, 2013). During the mayoral campaign in 2013, then candidate de Blasio "branded himself the candidate of the outer boroughs, channeling residents' resentment of the Manhattan-centric prosperity of the Bloomberg years" (Ball, 2013). De Blasio's frequently repeated motto while campaigning for the mayoral office was that Bloomberg's New York City was a "tale of two cities" alluding to Bloomberg's association with the 1% wealthiest Americans (Ball, 2013).

Mayor de Blasio won the election as the Democratic Candidate in 2013 with 73.3% of the vote. Republican candidate for New York City Mayor, Joe Lhota, received 24.3% of the votes, but Mayor de Blasio's voter support in the boroughs was

as high as 86.1% in the Bronx and 77.7% in Brooklyn (“Key 2013 Election Results,” 2013).

New York City mayor is a unique position as the constituency is larger than many congressional or gubernatorial constituencies (Ball, 2015). The structure of the New York City government is a strong mayor-council system which gives the mayor broad authority to establish an agenda and reach a large audience. “De Blasio has something [senators] don’t have: power. [...] he presides over a city council that is both ideologically sympathetic and structurally weak” (Ball, 2015, p. 2). Previous mayors of New York City have used the position as a platform for higher offices. Mayor de Blasio established himself as a unique candidate and elected official as he is the first Mayor to send his children to the New York Public School system (Ball, 2013). Critics of then Candidate de Blasio claim that he utilized his African-American wife, Chirlane McCray, and biracial children as props on the campaign trail (Ball, 2013). Mayor de Blasio has used his position as mayor to gain a wider audience, both within New York State and nationally. In 2015, New York City released its City plan, *One New York: The Plan for a Strong and Just City*, and Mayor de Blasio hoped that the plan would serve as a model for other cities to emulate (“Mayor de Blasio releases...,” 2015). Furthermore, Mayor de Blasio has become active on the national political scene with promoting a progressive agenda and aligned himself with Senator Bernie Sanders (Goldman, 2017). Additionally, Mayor de Blasio countered Trump’s presidential agenda and frequently stated that he was working to “Make America Fair Again” (Ball, 2015).

In addition to the de Blasio administration resourcing data measurement initiatives across New York City departments, Mayor de Blasio established several

projects tasked with advancing programs that addressed inequities in the City. Within the first two years of his administration, he established universal pre-k across the city and created a municipal identification card for undocumented immigrants (Goldenberg, 2015). To increase the availability of affordable housing, the de Blasio administration has plans to preserve 200,000 housing units by 2024 (Goldenberg, 2015). To increase college access among first generation students. Mayor de Blasio in partnership with the New York City School System Chancellor Carmen Farina established the first SAT School Day which enabled all enrolled juniors to take the pre-college exam (“Mayor de Blasio, Chancellor...,” 2017). Mayor de Blasio stated that “by making the SAT available as part of the course of the normal school day, we are eliminating barriers that too often stand in the way of opportunity” (as cited by “Mayor de Blasio, Chancellor...,” 2017, p. 1). An additional advance in promoting equity was the creation of New York City’s Commission on Gender Equity in 2016. Executive Director of the Commission on Gender Equity, Azadeh Khalili, explains that the purpose of the Commission is to “promote economic, social, and physical well-being for women, girls, lesbians, bisexuals, transgender people, queer, and intersex people, and to develop policies that promote opportunities for these populations” (as cited by Ettachfini, 2016, p. 2). In the interest of promoting equity, the Commission is “thinking very broadly about gender, and [...] thinking broadly about equity” (Khalili as cited by Ettachfini, 2016, p. 3). The Commission on Gender Equity replaced the Commission on Women’s Issues which marks the de Blasio’s broader and inclusive approach to equity (Ettachfini, 2016).

CIDI and YMI developed 45 indicators across eight categories for the Social Indicator and Disparity Report. “The de Blasio administration has made equity its

central governing value, and its focused on helping all New Yorkers, in every demographic group and all five boroughs, share in the rich opportunities the City has to offer” (“Social Indicators,” 2016, p. 5). The explicit purpose for the Social Indicators Report was to “reduce disparities and advance equity” (“Social Indicators,” 2016, p. 2). The eight categories or “domains” contain indicators about education, health and wellbeing, housing, empowered residents and neighborhoods, economic security and mobility, core infrastructure and the environment, personal and community safety, and diverse and inclusive government. These reports do not have a singular focus for measuring equity, but each domain contains various measures that concern equity. For example, the Education Domain contains the following indicators: number of four-year-olds enrolled in full day Pre-K, academic achievement: grades 3 to 8 proficiency, chronic absenteeism (20+ days), four-year high school graduation rate, four-year college readiness, and number of New York City Public School students attaining associate’s or bachelor’s degrees.

Similarly, the Disparity Report has four domains of education, economic security and mobility, health and wellbeing, and personal and community safety. The Disparity Report expands the indicators from the Social Indicator Report to provide greater details of the data and to analyze the data based on racial, ethnic, and gender data. Using the chronic absenteeism (20+ days) indicator as an example, the Disparity Report looks at these data for students in grades 6 – 8 and grades 9 – 12, and compares peers across racial groups. The indicators contained in the Disparity Report depart from the Social Indicators Report in that the data are used to understand disparities. The indicators for the Disparity Report use the following formulas:

Figure 7.1 Disparity Report

| | |
|---|--|
| <p>1</p> <p>Rates of events (e.g., teen pregnancy, high school graduation, college/career readiness) by population</p> | <p>EXAMPLE:</p> $\left(\frac{\# \text{ Teen pregnancies for Hispanic females 15-19 years old}}{\text{Total \# of Hispanic females 15-19 years old}} \right) \times 1,000$ |
| <p>2</p> <p>Disparity indices between White Individuals and Individuals of other racial groups (Black, Hispanic, Asian)</p> | <p>EXAMPLE:</p> $\frac{\text{Rate per 1,000 of teen pregnancy for Hispanic females}}{\text{Rate per 1,000 of teen pregnancy for White females}}$ |

YMI Executive Director, W.C. Garrett, recognizes that this is a “deficit framing of the initiative,” but that it is a starting point from which to start to address deficiencies in communities (Personal communication, June 16, 2016). Garrett cited the example of the White House’s federal program, My Brother’s Keeper, which uses an asset-based framework for addressing deficiencies.

As New York City is the largest population center in the United States, staff of CIDI and YMI adjusted indicator measurement to account for the high cost of living in New York City. Specifically, CIDI and YMI worked with the Center for Economic Opportunity (CEO) in developing an alternative poverty rate for New York City. CEO’s poverty rate is a departure from the official US poverty rate. The CEO poverty rate “uses a poverty threshold that accounts for food, clothing, shelter, and utilities and recognizes the higher cost of living. It also adds the value of benefit not included in the official measure. Costs of transportation, childcare, and medical spending are also estimated and deducted from resources available to meet the needs included in the threshold” (“Social Indicators,” 2016, p. 160). Using the CEO poverty rate provides

greater context for understanding economic conditions in a neighborhood and enables New York City government to understand economic and social programs addressing poverty.

New York City's current administration has demonstrated a commitment to advancing social equity through social and economic programs and increased resources available to measure and track social indicators. While Mayor de Blasio has advanced using data to inform equity policies since being elected, the political nature of social indicator measurement and tracking means that it may not be sustained across new administrations. The transient nature of social indicator measurement in New York City makes it challenging to understand the long-term social conditions across demographic groups and neighborhoods. New York City's social indicator measurement is mandated in its City Charter, but history has demonstrated that it has not been enforced and been ignored by previous administrations. The City government structure that has supported social indicator measurement is comprised of city departments and would benefit from greater engagement with philanthropic partners and community based organizations.

7.6 Key Findings

The key findings from the New York City case study are the political nature of the initiative, the engagement process, and the departmental structure of tracking social indicators. Despite the strong history of data in New York City, there was no social indicator report published for eleven years. Even with the City's charter mandate, there was limited accountability for the lack of producing the reports. While great efforts have been made for advancing equity on behalf of the de Blasio administration, it is unclear if these efforts will continue past this administration. The

New York City case study did demonstrate a commitment to engaging the public through multiple community meetings in diverse locations and languages. Given the multiple City departments that contributed to the efforts reviewed in this case study, the initiatives were fragmented across the five departments. Notwithstanding the departmental expertise contributed to the social indicator initiatives, there was no clear leading department that owned the project and demonstrated commitment to advancing it beyond the current mayoral administration.

Chapter 8

ANALYSIS & DISCUSSION

In considering the four case studies, this section will address the initial research questions and characteristics of each case study. The research codes and definitions will be included in this section. This section will also address a comparative analysis of the four case studies, including each case study's equity measures.

In addressing those research questions with concise answers, table 8.1 provides a summary of each case. For clarity, this table uses the case study city as opposed to the organization or city department. In following sections, this distinction will be explored as the host's data environment played a key piece in the social indicator projects' work.

Table 8.1 Research Questions

| Question | Baltimore | Chicago | Detroit | New York City |
|---|---|--|--|--|
| RQ1. How are social indicator projects administered | Independent Research Unit, Nonprofit Organization | City Department | Low-Profit Limited Liability Corporation | City Departments |
| RQ1a. Where are they housed? | Baltimore Neighborhood Indicators Alliance | Chicago Metropolitan Agency for Planning | Data Driven Detroit | New York City Mayor's Office of Operations |
| RQ1a. How are they administered? | Online Portal and Report | Report | Online Portal | Report |
| Frequency of Updates | Annually, ongoing | Every 4-5 years | Ongoing | Proposed 5 year intervals |

The format of each case study is notable as it may determine how the data are used by the community and other stakeholders. This comparison is not an assertion that one format is preferable over another format, but that the utilization may differ based on the format. An online portal format used by BNIA and D3 allows users to do independent analysis across geographic and demographic parameters. Technology advances in Rich Site Summary (RSS) allow site administrators to automate updates from data sources which facilitates website maintenance with limited staff resources required for keeping data current. A report format, either printed or as a PDF document, does not require the end user to have technical skills to compile and analyze data from a data portal. However, a report format requires considerable staff resources, not only for data analysis, but also for the writing, editing, and design of the report. Many larger cities, like New York City, maintains a strict process for publishing reports for public consumption to ensure accurate information, editorial oversight, and brand compliance. The time required for producing a report denotes that the data contained in the report may be from the previous year. Because a report has the completed analysis of the data, it may not be appropriate to all inquiries from the public. Furthermore, as staff are conducting the data analysis, the end report may not contain methodology details.

The cities of Chicago and New York have government-sponsored open data portals, but these are distinct operations from the departments that administer the measurement of social indicators. While CMAP and New York City's Mayor's Office of Operations regularly interface with their respective cities' open data departments, CMAP and New York City's Mayor's Office of Operations also receive data from

external sources. Similarly, BNIA and D3 work with Baltimore and Detroit's open data departments, but also utilize data from diverse sources.

RQ 1.b Are social indicator projects tracking social equity?

RQ 1.c If so, what types of indicators are they tracking

This set of research questions require a lengthier discussion as the measurement of social equity remains undeveloped and nuanced among the case studies. Equity, as a topic, was frequently discussed during interviews and mentioned in reports, websites, and news coverage; equity, as a measure, was elusive. BNIA, CMAP, D3 and New York City's Mayor's Office of Operations have developed proxy measures for equity which represent topical and conceptual diversity. For example, table 8.2 shows that the case studies measure indicators related to education, housing, employment, and transportation, among others.

Table 8.2 Case Indicators

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|-----------|-----------------------------------|--|---|---|-----------------------------|-------------|
| Baltimore | Housing Diversity | Percent of Housing Units that are Owner Occupied | The percentage of homeowners that are the principal residents of a particular residential property out of all residential properties. It is important to note that a portion of these owner-occupied properties may be subdivided and have tenants that pay rent and are not included in the calculation. | Maryland Property View | Community Statistical Areas | 2010 - 2015 |
| Baltimore | Housing and Community Development | Affordability Index - Spending more than 30% of Income on Rent | The percentage of households that pay more than 30% of their total household income on rent and related expenses out of all households in an area. | US Census, American Community Survey | Community Statistical Areas | 2009 - 2015 |
| Baltimore | Housing and Community Development | Rate of Housing Vouchers per 1,000 Rental Units | Measures the ability of housing voucher holders to find housing in the private rental market. The Housing Choice Voucher program is the federal government's largest low-income housing assistance program where people can seek housing in the private market. | US Department of Housing and Urban Development, Picture of Subsidized Housing | Community Statistical Areas | 2013 - 2015 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|-----------|-----------------------------------|---|---|--|-----------------------------|-------------|
| Baltimore | Housing and Community Development | Percentage of Residential Properties that are Vacant and Abandoned | The percentage of residential properties that have been classified as being vacant and abandoned by the Baltimore City Department of Housing out of all properties. Properties are classified as being vacant and abandoned if: the property is not habitable and appears boarded up or open to the elements; the property was designated as being vacant prior to the current year and still remains vacant; and the property is a multi-family structure where all units are considered to be vacant. | Baltimore City Department of Housing | Community Statistical Areas | 2010 - 2015 |
| Baltimore | Sustainability | Percentage of Employed Population with Travel Time to Work of 45 Minutes and Over | The percentage of commuters that spend more than 45 minutes travelling to work out of all commuters aged 16 and above | US Census, American Community Survey | Community Statistical Areas | 2009 - 2015 |
| Detroit | Social Equity | Percent Population Foreign Born | The foreign-born population includes anyone who is not a U.S. citizen at birth. This includes those who have become U.S. citizens through naturalization. Everyone else constitutes the native-born population, composed of anyone who is a U.S. citizen at birth, including people born in the United States, in Puerto Rico, in a U.S. Island Area (American Samoa, Guam, the Commonwealth of the Northern Mariana | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------|---------------|------------|--|--|-----------------------------|-------------|
| | | | Islands, and the U.S. Virgin Islands), or abroad to a U.S. citizen parent or parents. | | | |
| Detroit | Social Equity | Gini Index | The Gini Index is a summary measure of income inequality. The Gini coefficient incorporates the detailed shares data into a single statistic, which summarizes the dispersion of income across the entire income distribution. The Gini coefficient ranges from 0, indicating perfect equality (where everyone receives an equal share), to 1, perfect inequality (where only one recipient or group of recipients receives all the income). The Gini is based on the difference between the Lorenz curve (the observed cumulative income distribution) and the notion of a perfectly equal income distribution. | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------|---------------|--|---|--|-----------------------------|-------------|
| Detroit | Social Equity | Income Level by Quintile (Lowest, Second Lowest, and Middle Quintiles) | Census money income is defined as income received on a regular basis (exclusive of certain money receipts such as capital gains) before payments for personal income taxes, social security, union dues, Medicare deductions, etc. Therefore, money income does not reflect the fact that some families receive part of their income in the form of noncash benefits, such as food stamps, health benefits, subsidized housing, and goods produced and consumed on the farm. In addition, money income does not reflect the fact that noncash benefits are also received by some nonfarm residents which may take the form of the use of business transportation and facilities, full or partial payments by business for retirement programs, medical and educational expenses, etc. | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |
| Detroit | Social Equity | Income Level by Quintile (Highest and Second Highest Quintiles) | Census money income is defined as income received on a regular basis (exclusive of certain money receipts such as capital gains) before payments for personal income taxes, social security, union dues, Medicare deductions, etc. Therefore, money income does not reflect the fact that some families receive part of their income in the form of noncash benefits, such as food stamps, health benefits, subsidized housing, and goods produced and consumed on the farm. In addition, money income does not reflect the fact that noncash benefits are also received by some nonfarm residents which may take the | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------|---------------|-----------------------------------|---|--|-----------------------------|-------------|
| | | | form of the use of business transportation and facilities, full or partial payments by business for retirement programs, medical and educational expenses, etc. | | | |
| Detroit | Social Equity | Median Household Income (by Race) | Census money income is defined as income received on a regular basis (exclusive of certain money receipts such as capital gains) before payments for personal income taxes, social security, union dues, Medicare deductions, etc. Therefore, money income does not reflect the fact that some families receive part of their income in the form of noncash benefits, such as food stamps, health benefits, subsidized housing, and goods produced and consumed on the farm. In addition, money income does not reflect the fact that noncash benefits are also received by some nonfarm residents which may take the form of the use of business transportation and facilities, full or partial payments by business for retirement programs, medical and educational expenses, etc. | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------|---------------|---|---|--|-----------------------------|-------------|
| Detroit | Social Equity | Percent Housing Owner Occupied (by Race) | A housing unit is owner-occupied if the owner or co-owner lives in the unit, even if it is mortgaged or not fully paid for. The owner or co-owner must live in the unit and usually is Person 1 on the questionnaire. The unit is "Owned by you or someone in this household with a mortgage or loan" if it is being purchased with a mortgage or some other debt arrangement such as a deed of trust, trust deed, contract to purchase, land contract, or purchase agreement. The unit also is considered owned with a mortgage if it is built on leased land and there is a mortgage on the unit. | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |
| Detroit | Social Equity | Poverty Rate of Children under 18 (by Race) | Following the Office of Management and Budget's (OMB) Statistical Policy Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using the Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps). | US Census, American Community Survey, 3-year Estimates | Community Statistical Areas | 2007 - 2011 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------------|--------------------|---|---|---|--------------------|-------------|
| New York City | Education | Four-Year High School Graduation Rate | The percentage of students who graduated with a diploma within four years in August out of the cohort of all students who entered ninth grade. | NYC Department of Education | Borough | 2011 - 2015 |
| New York City | Education | Percentage of ninth grade cohort college ready by August of graduation year (Four-Year College Readiness) | The College Readiness Index (CRI) includes students who meet CUNY's remediation standards, which are currently defined as: (1) graduated by August with a Regents diploma, (2) earned a 75+ on the English Regents exam, or scored 480+ on the Critical Reading SAT, or scored a 20+ on the ACT English, or scored a 70+ on the CUNY Reading Assessment and a 56+ on the CUNY Writing Assessment, and (3) scored an 80+ on a Math Regents, or 70+ on a Common Core Algebra or Geometry Regents and completed coursework in Algebra II/Trigonometry or higher, or scored 480+ on the Math SAT, or scored a 20+ on the ACT Math, or scored a 40+ on the CUNY Math Assessment, or scored an 80+ on the PBAT and completed required coursework. | NYC Department of Education | Borough | 2011 - 2015 |
| New York City | Health & Wellbeing | Age-adjusted death rate per 1,000 population (Premature Mortality Rate) | The number of deaths per 1,000 standard population. Age, sex, and race/ethnicity specific death rates are applied to a standard population age distribution eliminating the effect of differences in population age composition, and allowing comparisons over time and between geographic areas. | NYC Department of Health and Mental Hygiene | Community District | 2011 - 2013 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------------|---------------------------------------|---|--|---|-----------------------------|-------------|
| New York City | Empowered Residents & Neighborhoods | Percentage of NYC households with internet access | Percent of NYC households with Internet access. Households with access include those with and without a subscription. | US Census, American Community Survey (PUMS) | Community District | 2013 - 2014 |
| New York City | Core Infrastructure & the Environment | Fine Particulate Matter (PM2.5) Levels | PM2.5 is fine particulate matter with a diameter smaller than 2.5 microns. It is made up of very small airborne solid and liquid droplet pollutants either emitted directly or formed in the atmosphere when other pollutants react with sunlight. It is small enough to be inhaled into the lungs and to enter the bloodstream. The unit of measurement is micrograms (one-millionth of a gram) of PM2.5 per cubic meter of air ($\mu\text{g}/\text{m}^3$). | New York City Community Air Survey | Community District | 2009 - 2013 |
| New York City | Core Infrastructure & the Environment | Curbside and Containerized Diversion Rate | Percentage of residential recycling, including metal, glass, plastic, organics, and mixed paper | NYC Citywide Performance Report | Community District | 2011 - 2015 |
| Chicago | Inclusive Growth | Excluded Populations | Concentration thresholds: >5% of families with median income <185% of Federal Poverty Level by family size and percent non-white population >= regional average OR >5% of families with median income <185% of Federal Poverty Level by family size and percent limited English speaking population >= regional average | US Census, American Community Survey | Community Statistical Areas | 2010 - 2014 |

| City | Category | Indicator | Measure | Data Sources | Geographic Unit | Years |
|---------|------------------------------------|--|--|---|-----------------|-------------|
| Chicago | Sustainable Transportation Funding | State motor fuel tax revenue compared to consumer price index and national construction cost index | State motor fuel tax revenue compared to consumer price index and national construction cost index. The consumer price index for all urban consumers is used for inflation, while the Engineering News Records' national construction cost index is used to measure construction costs | Chicago Metropolitan Agency for Planning, Illinois Department of Transportation, US Bureau of Labor Statistics, and Engineering News Record | MSA | 1991 - 2014 |

Table 8.2 demonstrates the diversity of equity measures across the four case studies. Not only do these case studies have variation of measures, but the data sources, geographic unit, and years of data vary across the indicator projects. The US Survey, American Community Survey was the most frequently cited source for data, with cities supplementing federally produced data from local and state databases.

The source of the data often determines the geographic focus. All of the case studies contend with finding appropriate data in the necessary geography. For example, CMAP has a limited ability to adopt new measures because their geographic area is across seven counties. CMAP will only add new data to its database if the source covers the metropolitan region. Similarly, D3 incorporates data over a larger geographic region, but will include new data based on the needs of the client or funder of the project. Conversely, BNIA and New York City's Mayor's Office of Operations has a specific geographic focus of Baltimore City and New York City respectively. BNIA's commitment to Baltimore City has guided the organization's past decisions regarding data projects. Because the Mayor's Office of Operations is funded through the City, the data included is specific to the five boroughs in New York City.

The following three research questions concerning administrators and organizational practices will be addressed together in the following section as the findings are similar.

RQ2. How do social indicator projects incorporate the construct of social equity in their data-gathering processes?

RQ2. a. How do social indicator projects incorporate the construct of social equity in their decision-making processes?

RQ3. How does social equity influence social indicator project administrators?

As many of the interview questions addressed the process by which each case study solicited community input during the development of equity measures, this section will address how the measures were developed. (See Appendix A for interview protocol). New York City's Mayor's Office of Operations enabled broad outreach by providing resources for interpreters to conduct outreach meetings and translate physical materials. The Mayor's Office of Operations engaged with speakers of eight languages during the community input process. CMAP conducted several community meetings with Spanish speakers, and D3 and BNIA did not conduct community outreach meetings in languages other than English. Both D3 and BNIA staff recognized the limitations of not working with interpreters, but attributed the weakness to the lack of resources.

There was not an agreed upon definition of equity across the case studies. The Executive Director of D3, Erica Raleigh, indicated that equity has to be specific to each community and defined by the community. D3 as an organization assumes a position of not asserting the organization's definitions, and the D3 staff conduct focus groups, outreach, and surveying to ascertain the community's voice regarding important data topics. D3 occupied a unique position across the case studies due, in part, to the organization's project-based work. Because D3 is conducting fee-for-service data analyses for clients and philanthropists, the D3 staff can conduct specialized outreach and incorporate the feedback into the project. An example of this is the Motor City Mapping project explained in chapter seven. This organizational

structure enables D3 to be strategic in considering and including community voices, but it may not facilitate long-term data collection as funding is predominantly project-based.

BNIA and New York City Mayor's Office of Operations have similarities in the approach of developing indicators; both operations rely on a group of community experts and other stakeholders to provide input on the indicator development process. BNIA has an advisory council comprised of community based organizations, local government officials, academics, and other external stakeholders. The advisory council convenes quarterly to discuss community measurement needs and suggest possible data sources to BNIA. BNIA's staff also uses the advisory council meetings to report to members how the organization is updating data in Vital Signs and providing technical assistance to partners in Baltimore.

New York City's Mayor's Office of Operations through YMI has convened an Equity Committee which is comprised of community partners, academics, and city government officials. The Equity Committee advised YMI and CIDI on the equity measures included in the Social Indicators and Disparity Reports. The Equity Committee works with YMI, CIDI, and other departments to address equity issues within the New York City government. For example, the Equity Committee was instrumental in helping develop diversity measures in the Fire Department of New York. Included in the Equity Committee's agenda is the development of a glossary of terms to ensure stakeholders have a shared understanding of terms like equity, diversity, and intervention.

CMAP has a board as mandated in its charter, but the board serves in a different capacity than the other case studies. Because the CMAP board is largely

comprised of political appointees, the board's function has been to guide CMAP on the broad strategy of the organization. The CMAP staff consults with the community through its outreach to learn the large topics that concern them like affordable housing or education. The process of soliciting input from community members occurred before each preparation of CMAP's city plan or approximately every five years. CMAP aggregates the feedback from the community and the CMAP staff develop appropriate measures based on available data and accumulated feedback from the community. As explained in chapter five, CMAP frames data concerning equity as inclusive growth and focuses on the economic benefits of advancing this aspect of CMAP's agenda.

In addressing the incorporation of social equity in organizational processes, each case study has a unique approach to defining social equity. Accordingly, each case study demonstrated distinct practices for selecting equity measures and incorporating these data into data-gathering and decision-making processes. Isolating organizational practices to one aspect of the work of defining and tracking indicators simplifies the complex work of these organizations. The data collected for these case studies of interviews, participant observation, and document analysis revealed a more nuanced approach to social indicator measurement. In identifying and measuring social indicators, the organizations reviewed in each case study have to balance many considerations in doing their work. Social indicator projects have to consider availability of a data source which includes the geographic unit and geographic focus of the data, the degree to which the data will need to be cleaned or reformatted, the frequency with which the data is updated, the longevity of the data source, and the data usage agreement, among others.

Administrators across the four case studies expressed frustration that there were topics that they wanted to measure, but that they did not have access to an appropriate measure or there was no available data source to address the topic. Each case study had a “wish list” of measures that the organization would like track, but they were unable to include in their portfolio. Because of this gap between available and aspirational data, there were many practical considerations that guided the organizations more than equity. Funding and data availability guided organization’s processes and decisions.

8.1 Characteristics of Organizations

Other than the four case studies’ shared activity of tracking and disseminating data, the organizations are diverse in the funding, context, operations, and approaches. Table 8.3 compares the four case studies and the organizations’ characteristics concerning funding and data sources, as well as the categories used for grouping indicators.

The year of each case study’s development is notable. BNIA is the most established social indicator project starting in 2002. CMAP was created by the Illinois General Assembly in 2005 and has grown to expand its data and planning work for the region. D3 was initiated in 2010 and has shifted from being housed at an umbrella organization, to being an independent nonprofit organization, to its current iteration as a low-profit limited liability corporation. While the New York City’s Mayor’s Office of Operations was started through the City’s charter, the reports included in the New York City case were developed in 2016 under the de Blasio administration.

The funding sources for the case studies varied from fee-for-service projects, philanthropic foundations, and local, state, and federal government. CMAP and the New York City's Mayor's Office of Operations, receive funds from the government as the initiatives are housed within city or local government departments. BNIA has developed a long-standing relationship with the Annie E. Casey Foundation and is partially supported by funding from the Foundation. Similarly, D3 was created by a group of local foundations, but did not have the operational funds to sustain D3's work. D3's funding challenges motivated the organization's shift from a nonprofit to a low-profit limited liability corporation.

Table 8.3 Case Comparison

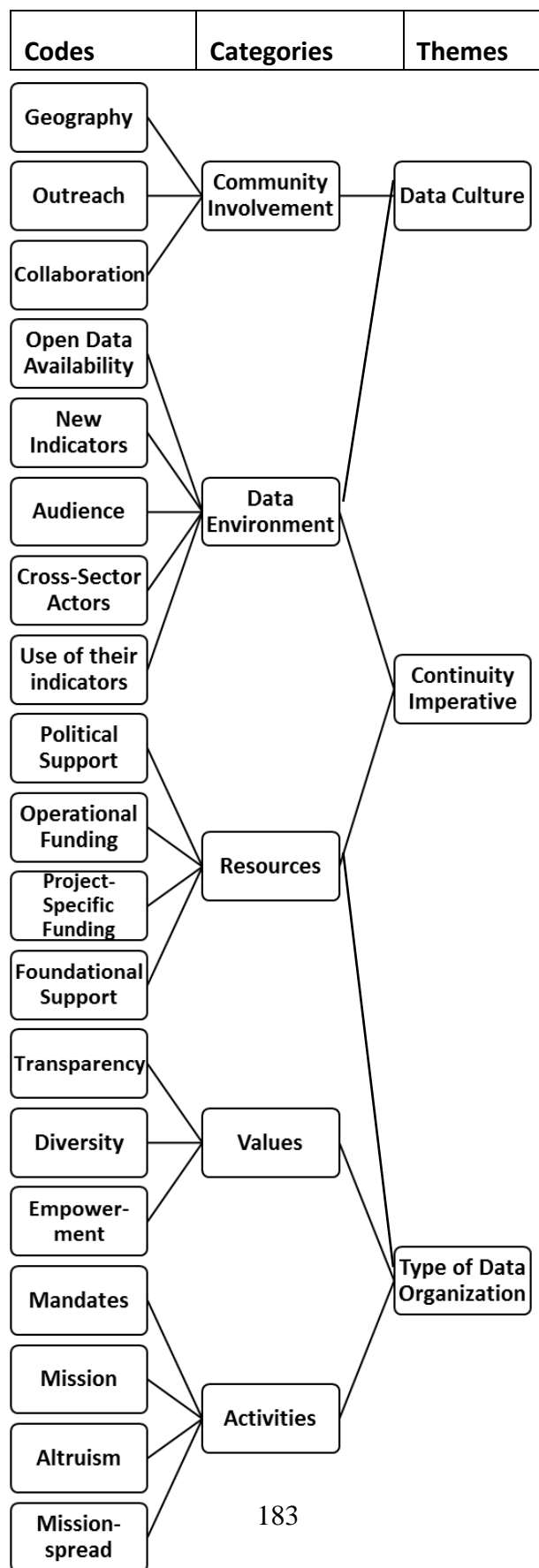
| | Baltimore Neighborhood Indicators Alliance | Chicago Metropolitan Agency for Planning | Data Driven Detroit | City of New York, Mayor's Office of Operations |
|---|---|---|--|---|
| Type | Nonprofit Organization | Regional Government | Low Limited Liability Corporation | City Government |
| Funding Source | Foundations | Federal Government | Fee for Service | City Government |
| Funding Source (secondary) | Projects | State Government | Foundations | |
| Year of Develop- ment | 2002 | 2008 | 2010 | 2016 |
| Regional Open Data | Open Baltimore | Open Data Illinois | Detroit Open Data | Open Data NYC |
| Geographic Unit | Community Statistical Areas | Municipalities | Census Block - Group Level, Municipality, State, Census Tracts | Community District, Boroughs |
| # Geographic Units | 55 | 284 | various | 59 |
| Geographic Focus | Local | Regional | Region | Local |
| Online Tool | Vital Signs | n/a | Motor City Mapping, One D Scorecard | n/a |
| Report | Vital Signs | GO TO 2040 | n/a | Social Indicators, Disparity Report |
| # Indicators | 150 | 28 | 148 | 45 |
| Main stakeholder | Nonprofits, City government | State & Local Government | Community Development | State & Local Government |

| | Baltimore Neighborhood Indicators Alliance | Chicago Metropolitan Agency for Planning | Data Driven Detroit | City of New York, Mayor's Office of Operations |
|-------------------------------|---|---|--------------------------------|---|
| Indicator Category | Demographics | Livable Communities | Amenities | Education |
| | Children and Family Health | Human Capital | Business & Workforce | Health & Wellbeing |
| | Crime and Safety | Efficient Governance | Civic Engagement | Housing |
| | Housing and Community Development | Regional Mobility | Demographic | Empowered Residents & Neighbors |
| | Workforce and Economic Development | | Education | Economic Security & Mobility |
| | Sustainability | | Environment | Core Infrastructure & the Environment |
| | Education and Youth | | Health | Personal & Community Safety |
| | Arts and Culture | | Property & Land Use | Diverse & Inclusive Government |
| | | | Public Safety | |
| | | | Transportation | |

8.2 Coding Data

The coding process for this research followed an open coding scheme. Following this process, the codes were grouped into categories through which the themes emerged. The following section will review the codes, categories, and themes. Coding for this research followed an iterative process where the properties of the codes were refined throughout the data collection process. Table 8.4 provides an outline of the codes, categories and themes. See Appendix B for the properties of the codes.

Figure 8.1 Codes



Chapter 9

FINDINGS & CONCLUSION

This section will review the findings of the research based on the data collected from the four case studies. Specifically, this section will explain the components of a community's data culture, the continuity imperative for the case studies, and the various types of data organizations. Included in this section is a discussion of the expected and unexpected findings of the research as well as the recommendations and implications from this research. Finally, the conclusion will propose best practices and research for future inquiry.

9.1 Data Culture

These organizations are defined by the limitations of resources, data, and, most importantly, the community's understanding and embracing data. Because organizations that measure social indicators are reliant on external sources for data, the data resources in a community influence the work that the case study organization can complete. The data cultures across the four case studies varied in community support, available resources, and the end use of the social indicators. This section will discuss the various data cultures across the four case studies and how the data culture may have influenced the case study organizations.

Each of the case studies had experienced challenges of sustaining their work for reasons including lack of resources, including operational funds, and lack of

support from external stakeholders. These challenges were mitigated if the community hosting the social indicator project had an understanding of the benefits of data.

As a case study, BNIA operates in an advanced data culture of Baltimore. A review of Baltimore's Citistat is included in chapter four. While Citistat did not do the same work as BNIA, Citistat educated the public about the benefits of open data for government efficiency, transparency, and accountability. Citistat's establishment of a general understanding of the function and possibilities for data in Baltimore enabled BNIA to benefit from Citistat's community outreach.

This background of data in Baltimore enabled BNIA to garner support through operational funds from the Annie E. Casey Foundation. BNIA's position in Baltimore as the proprietor and analyst of community data enables BNIA to be wholly focused on work within the City of Baltimore. Because BNIA has sustaining funds and data projects, BNIA can augment Baltimore's data culture through activities like Data Day, an annual symposium about how data is being used to better life for Baltimoreans.

The Chicago case study did not demonstrate the same robust data culture in comparison to Baltimore. The funding struggle and ultimate closure of MCIC is an example of the community's lack of support for community level indicator measurement. Additional signs of the modest data culture in Chicago are the fragmented way MCIC's functions were given to other Chicago organizations and City departments as well as the duplication of data efforts. Without a data leader, community level data analysis is segmented across Chicago. Because CMAP is limited in the functions they can assume compared to MCIC's original data repository, the staff at CMAP has had to frame indicators in terms of economic development, inclusive growth, and urban planning. While these framing issues may be appropriate

for a metropolitan planning organization, it is a limiting force for measuring social indicators. CMAP's attempt at providing broad social indicator analysis, Metro Pulse, did not sustain its funding and has not been updated since 2012. The partnership with The Chicago Community Trust was discontinued for Metro Pulse, but an archival copy is available on the CMAP website.

While Detroit's Open Data Portal is the newest example of a case study's open data implementation, Detroit's data culture is seated in the for-profit sector. Detroit has several for-profit entities that have cultivated community data, both as a commodity and to inform business decisions. Rock Ventures through Loveland Technologies and Tech Town Detroit have worked in the region to establish a foundation of place-based data. Detroit's position as a city emerging from bankruptcy created the need to understand the needs and opportunities through data analysis.

D3's unique approach of using citizens to conduct data collection adds to the data environment of the city. More than simply partnering with businesses and organizations, D3 has established a model for broad citizen engagement through education.

The New York City case study is dependent upon the mayoral administration in office, and the de Blasio administration has supported a strong data culture across the city government. Similar to Baltimore, New York City has embraced using technology and data to inform decisions through Compstat in the early 1990s. New York City's size and diversity has compelled administrators to use data to enhance understanding of issues in the City.

While New York City's data culture is developed, data initiatives appear to be segmented across sectors. The New York City government measures and tracks

indicators, and there are parallel data efforts in universities and businesses. A city the size of New York can support many data initiatives, but there was not collaboration or integration of data across these initiatives. An example of these parallel data initiatives is that two separate reports were produced in 2016 that addressed measures of injustice. CUNY produced the Equality Indicators Report and the Mayor's Office of Operations published the Disparity Report. These reports were independently written, but have complimentary information.

The importance of a community's data culture cannot be overstated; the community's understanding of data's value influenced the utilization of social indicators, funding opportunities, and data included in the project's portfolio. The acquisition of new data was one aspect that varied across the case studies and the communities' data cultures. Whereas some of the indicators were generated through a solicitation process of the organization or city department, other indicators were brought to an organization to add to the indicator portfolio. The staff of D3 shared stories of having to physically go to a Detroit City office with an external hard drive to obtain necessary data in the years before the Open Data portal in Detroit. The staff at D3 would then keep their database updated by periodically returning to the source of the data. This process became automatic after the development of Detroit's Open Data portal.

BNIA cultivates potential sources of new data in the community. The example of the library membership data explained in Chapter five is one instance where BNIA's standing in the Baltimore community led to new data sources. Another example is BNIA's discussions around trying to develop a justice-related indicator. BNIA's leadership expressed the need to add a justice-related indicator, but did not

have the staff expertise or resources to know what measure would be feasible to track long-term. Through working with the Maryland Access to Justice and the Maryland State Attorney's office, BNIA is determining the process to adapting court system data to be incorporated into BNIA's database. The challenges of adapting these data include privacy concerns and finding additional resources to clean and incorporate it into BNIA's portfolio.

CMAA and New York City's Mayor's Office of Operations followed a similar development process in that both operations rely heavily on the expertise of internal stakeholders. Through the advisory council and staff experts, CMAA and New York City government incorporate new indicators into their reports.

9.2 Continuity Imperative

Producing data for social indicators requires continuity. Failure in maintaining a social indicator project means that it will be difficult for organizations to assess long-term changes in the indicators. Continuity of social indicators may depend on factors like funding, political support, changes in data, and the audience of the product. This section will discuss how the four case studies maintain the social indicators and how resources may influence the social indicator project's continuity.

The case studies experienced differences in continuity related to funding challenges. Distributing data is challenging to sustain operational funding. In the examples of D3 and BNIA, as well as the failed MCIC, these social indicator projects received start-up funds from community organizations and foundations. MCIC was not able to secure funding to sustain operations which led to the acquisition of part of the project by CMAA. BNIA receives operational funds for Vital Signs from the Annie E. Casey Foundation. After D3 exhausted start-up funds from the Kresge and Skillman

Foundations, the organization worked to secure operational funds through project-based activities. The challenges related to operational funding were part of the impetus to transition to a low-profit limited liability corporation.

CMAP and New York City's Mayor's Office of Operations receives funding from local, state, and federal government to measure and track indicators. While this funding is devoted to the specific activities related to data management, the continuity of the project may be beholden to the political administration. For example, the two government administered case studies in Chicago and New York City experienced multi-year gaps in data activities. The political will to continue funding these initiatives is dependent upon the leader in office. Despite mandates in the charter, New York City did not fulfill the requirement of producing a social indicator report for more than ten years. Additional concerns related to the government-administered case studies is the oversight of the data. For example, CMAP has been developing indicators regarding inclusive growth, but it is uncertain if this focus will continue past the present city administration. Similar uncertainty was expressed during interviews with the New York City staff involved with the Social Indicator and Disparity Reports.

The political connection to government administered social indicator projects may influence the staff turnover and institutional knowledge. D3 has employees who have been at the organization since its inception and BNIA employs several staff members who have worked at the organization for more than ten years. Conversely, staff involved in the previous publications of the Social Indicators Report from 2005 were not involved in the 2016 publication of the report. This staff turnover in the government administered case studies may limit the long-term knowledge of the

project. Furthermore, its connection to political administrations may change the focus of indicator development.

Another issue related to a social indicator project's continuity is the source of the data. If a data source changes the collection methodology, geographic unit, or data point, the social indicator project may be forced to adapt the data for its analysis or begin a new indicator based on the revised data source. Either scenario may lead to additional staff resources for the new data analysis or challenges in data analysis of the old indicator and the new data source. The reliability of a data source to feed into an indicator was a concern of several staff members during interviews. For example, despite the abundance of data available on Baltimore's Open Data portal, BNIA's staff confirms the sources of data and determines how the data was collected. Additionally, BNIA's staff inquires the longevity of the source to determine if the data source will be sustained in the future. Because social indicator projects are analyzing data for long-term measurement and analysis, it is imperative to pursue stable data sources.

A possible solution for maintaining the continuity of the sources of data for social indicator projects is the adoption of an established framework like the United Nation's Sustainable Development Goals. Baltimore and New York City have publicly endorsed the UN's SDGs. However, the extent to which the UN's framework is being implemented by each location varies greatly. Data collected from Baltimore interviews and documents frequently referenced their adaptation of the SDGs. Conversely, New York City's endorsement of the SDG framework has not been implemented at the department level. The SDG framework was not discussed during any of the interviews with New York City participants nor was the SDG framework mentioned or referenced in the Social Indicators and Disparity Reports. While the New York City

Department of City Planning released the report, “OneNYC,” in 2015, the plan was not integrated with the Social Indicators or Disparity Report. Moreover, the departments responsible for social indicators in New York City – MODA, CIDI, and YMI – were not included in the “OneNYC” plan (“Global Vision, Urban Action” 2015). As a comparison, BNIA has more closely considered the SDGs in its existing indicator tracking. Even with BNIA’s public endorsement of the SDGs, the organization has not fully adopted the UN’s framework (Iyer, personal communication, August 19, 2016). According to Iyer, BNIA’s Executive Director, BNIA conducted a series of meetings to determine which of the SDGs were relevant to Baltimore (personal communication, August 19, 2016). Chicago and Detroit have not adopted or endorsed a framework for measuring indicators.

The challenges associated with adopting a fixed framework like the SDGs is the lack of available data in a location and the potential for a break in continuity of an indicator that is already being measured. However, the benefits of adopting the SDG framework include comparative analysis, funding opportunities, and data resources. An additional benefit of the SDG framework is that it may reduce duplicative efforts in cities like Chicago. The magnitude of an institute like the UN may provide the ability to anchor disparate efforts around the common goal of measuring indicators. This approach also enables nonprofit organizations to collaborate with government and business entities around tracking the SDGs. The SDGs is an appropriate framework as it allows for flexibility among the partner cities. NNIP and CIC have broadly discussed parallel interests to the UN’s SDG framework, but no formal adoption has been endorsed by the networks.

The revised UN SDGs are broad in comparison to previous iterations. This approach enables communities to adapt the goals based on the culture and other contextual factors. This framework allows communities to define the specific measures that will be included attached to each goal. Included in these revisions is a framework for public participation in the process of identifying these measures. The process orientation of the SDGs represents a departure from the MDGs which were prescribed by the UN.

Regarding the SDGs approach to equity, the UN has devoted one of its overarching goals of reducing inequality within and among countries (United Nations, 2016). The following goals are examples of the SDGs under the category of reducing inequality:

By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average; By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status; Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard. (United Nations, 2016, p. 1)

The lack of specific measures may be beneficial to countries that want to adapt the UN framework. However, the establishment of specific measures is critical for ensuring the tracking and long-term accountability for the measurement of the indicators.

The UN's approach for this framework is reflective of NNIP approach as it places importance to the process of community engagement. Both the UN and NNIP advise data initiatives to solicit feedback from the public during the development of measures to ensure that it reflects the community.

An additional challenge across indicator projects, regardless of the framework adopted, is the geographic unit of its data. Whereas Baltimore and New York City operated only within city limits, Chicago's role as the Metropolitan Agency for Planning required a seven-county region. Detroit's fee-based structure enables them to collect data based on projects. The regional nature of Chicago's indicators meant that the administrators can not adopt new data unless it is available for the seven-county region. It is important to note that the geographic distinctions do not follow administration type. The government administered cases of New York City and Chicago have different geographic units of the city and metropolitan region, respectively.

9.3 Types of Data Organizations

This research sought to understand the measurement of equity among social indicator projects with different administration types. While there were distinctions among the administration types, more visible were the distinctions among the types of data organizations reviewed in the case studies. This section will review the variation among each administration type, nonprofit, government, and hybrid, as well as the types of data organizations. Included in this section is a framework for the types of data organizations.

It would be an incorrect assumption that the government administered case studies experienced stability of funding and maintained regular reports. In the New

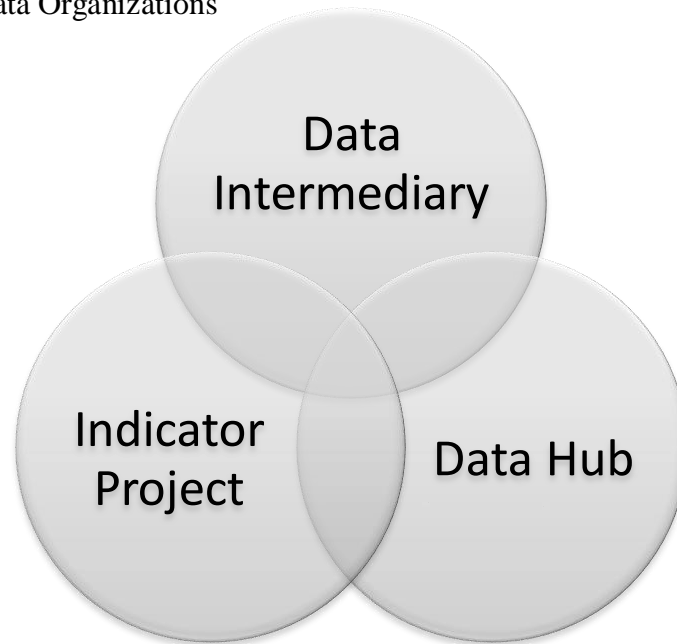
York City and Chicago case studies, the social indicator projects encountered challenges related to the political environment. Despite a requirement in the City's charter, New York City did not produce a social indicator report for more than ten years. Chicago's data efforts required framing as an economic development issue. The nonprofit and hybrid case studies in Baltimore and Detroit produced regular data products, but had to secure financial resources to continue the initiative.

Detroit's transition from a nonprofit organization to a L3C is an exceptional example of an organization experimenting with its operation. D3's transition is not without risk as they are the first social indicator project to do so. If they prove to be successful as an L3C while maintaining the commitment to serving the communities in Detroit, this may be an option for similar social indicator projects to secure operational funding. As explained in Chapter 6, an L3C is a form of a social entrepreneurial activity and this is an emerging organizational structure since its inception in 2008. As data organizations and hybrid organizations are similarly in the early stages of development, it is unclear if data can be considered an appropriate activity of social entrepreneurship. Data as social entrepreneurship is a topic for future inquiry as similar initiatives develop in other communities.

The initial research questions addressed the administrative functions of the organizations, but a more relevant consideration is the type of data organization. Despite the administration type, the case study organizations assumed different activities in the measurement of indicators. The term of "social indicator project" is used broadly to describe the case study organizations. However, appropriate labels could be applied to these case studies that accurately capture the activities they

perform in the communities. Figure 9.1 displays the proposed terms for describing the case study organizations with additional descriptions below.

Figure 9.1 Data Organizations



| | Data Hub | Data Intermediary | Indicator Project |
|--------------------------|-------------------------------------|--|--|
| Organization Role | Open Bucket | Interpreter | Curator |
| Activities | Serves as a clearinghouse for data. | Cleans and updates data for the community. | Curates data and develops indicators for the end user. |
| Outreach | No direct community engagement. | Cultivates relationships with community-based organizations. | Empowers community residents to use the data. |

This proposed framework assumes that there will be overlap in types of organizations and that no organization exists in this pure model. A data hub is a clearinghouse for data and the data hub does no reformatting of data across their portal. The data hub assumes that the end user can navigate and perform analysis on the data. An open bucket is used to describe data hubs because anyone can upload data to the hub with minimal oversight from the organization. A data intermediary may clean and update data. The intermediary's role is as the interpreter of data for the community. An example of the interpreter role is organizations that use traffic light graphics or emoticons to summarize quality of life indicators in a neighborhood. A social indicator project works to democratize data through empowering residents to use and interpret the data based on the community needs. As a curator of data, the social indicator project strategically selects data based on the indicator. The social indicator project in this framework does extensive cleaning and reformatting of data so it can be used by a broad audience. If the mission of a social indicator project is to democratize data, the staff work to build the capacity of community members so they are empowered to use data.

9.4 Commonalities and Differences

There were several commonalities and differences noted across the social indicator projects based on the administration. The following section will review the commonality of funding challenges as well as the differences of staffing and public access to the organization.

All the case studies expressed challenges with funding the work of measuring social indicators. In the cases of BNIA and D3, administrators were forced to supplement funding with secondary organizational work. In the case of D3, administrators completely changed the organizational structure due to funding challenges. In the cases of CMAP and New York City's Mayor's Office of Operations, administrators are dependent upon funding based on the political priorities of the elected official. The challenges in funding social indicator projects resulted in unenforced mandates and missed years of data. Regardless of the administration type, funding data collection and tracking is a significant challenge. Lack of funding has resulted in the closure of many social indicator projects (MCIC and Oregon Shines).

The staffing differences across the social indicator projects were notable. Both nongovernmental cases of BNIA and D3 had staff members who have been employed with the organization since its inception. The low staff turnover in BNIA and D3 resulted in a rich institutional history. Conversely, CMAP and New York City's Mayor's Office of Operations and supporting departments did not have the same longevity among its staff. This may be attributed to the political administration turnover and staff members who leave at the end of a Mayor's term. The staff turnover among the government administered cases resulted in a lack of institutional history regarding the social indicator work.

Finally, with regards to this research, there was a marked difference in the level of access to the cases across administration type. The government administered cases in Chicago and New York City were more available for interviews and open with providing information. While the cases in Baltimore and Detroit did provide interviews, the government administered cases provided access to more individuals

across various departments. The level of access in government administered projects may be attributed to the administrators being accustomed to working with members of the public. Nongovernmental organizations do not share the same responsibility to meet with citizens as with government administrators.

While these comparisons are necessary for analyzing the four case studies, the administration type is less important in comparison to the data type. As outlined in section 9.3, the data activities assumed by an organization is more important than the administration type. Despite the funding and political differences, all the case studies conduct various data activities. The variation of these data activities is more important to understanding community level data in comparison to administration type.

9.5 Implications for Measuring Social Equity

The purpose of this research is that it will be useful for organizations interested in social indicators and measuring equity. The findings of the importance of a community's data culture, the imperative nature of continuity in data organizations, and the types of data organizations were unexpected and may contribute to future inquiry concerning social measurement.

The development a set of equity indicators is nuanced and must be considerate of the community being measured. While organizations can learn about the process and lessons related to funding and outreach from established social indicator projects, the definition and operationalization of social equity needs to be adapted for each community. The implications of this research for measuring equity is complex because there is no simplified set of indicators for concisely measuring equity across all communities. The measures included in Chapter 8 capture measures from four data initiatives and demonstrates the diversity of equity measures. Open data portals are

still in the infancy stage of development; across the four case studies the open data portals have been operational for less than ten years. Moreover, the potential for using data to address social equity in communities has not yet been fully realized. It is evident that organizations like Center for Accountability and Performance and the Government Alliance on Race and Equity have advanced these efforts. Given the early stages of open data and understanding equity measures, these case study findings are preliminary and require long-term analysis.

More importantly, developing a prescribed set of equity indicators may not be a prudent approach for replicating across communities. As demonstrated in the four case studies, there was not a shared equity indicator because each indicator project has a distinct approach in the data development process. Despite the lack of specific equity indicators, the case studies produced multiple examples of staff and administrators talking about and writing about equity as a concept. While discussions about equity and measuring equity indicators are admittedly very different activities, this may show that these case studies are in the development process of equity indicators. Regarding implications for social equity, this research demonstrates that the community engagement process is critical for ensuring the community is reflected in the data.

The importance of employing a community engagement process can be applied to social indicator projects with different administration types. The social indicator projects' activities and community outreach may be more important than the classification as a government, nonprofit, or business entity. This is unsurprising given the public administration literature about the blurring of sectoral boundaries (Bromley & Meyer, 2014).

Finally, sustaining long-term social indicator projects may depend on securing an independent source of funding. Data is not an inherently fee-generating activity, but data has the potential to provide value to the community through informed decisions. Philanthropists across the country continue to invest in community programs and social indicators are a powerful tool to determine if the investment is improving social outcomes. Funding social indicator projects may be an effective approach for enhancing philanthropic investments in communities.

9.6 Recommendations

The following recommendations are based on the data from the case studies: collaboration across sectors, participation in larger network, designing outreach activities for community members, developing diverse data products and securing an independent funding source. These recommendations are broad to include diverse social indicator projects across administration types and data activities.

This research developed cases in terms of administration type, but each social indicator project worked with partners across sectors. Data is being produced by nonprofits, businesses, government entities, as well as individuals, so it is important for social indicator projects to be established as a collaborative endeavor. The shared ownership of the social indicator project may facilitate new data sources and funding resources. An example of a collaborative social indicator project is in Charlotte – Mecklenburg County. In addition to engaging departments in the city and county, the University of North Carolina, Charlotte (UNCC) provides technical assistance and data resources for the project. Sharing responsibility across sectors may diminish skipping years of data as was the case in Baltimore, New York City, and Chicago.

The second recommendation is to participate in a larger network for measuring indicators. BNIA and D3 are active in NNIP and CIC and share resources with similar projects. Participating in a larger network can assist project administrators with developing new indicators and potential sources of data. These national and international networks also provide information about adopting universal measures which may facilitate obtaining funding from philanthropic sources. The networks also help administrators connect with their peers in other cities to learn from their previous experiences.

Social indicator projects may benefit from designing ongoing community outreach activities. Data does not have an inherent value unless it is used by the community. Community outreach activities will be specific to each location and require additional organizational resources. Engaging community members in the social indicator projects' work is an investment that promotes the longevity of the operation. If a social indicator project closes and the community does not show concern, it may be a signal that the community was not using the project's data. However, engaging community members in regular outreach activities promotes utilization of their data. An additional benefit of ongoing outreach activities is that the organization may learn of data needs or problems with their current data. Ongoing community outreach activities provides the engagement opportunities for the social indicator project to stay relevant in the community. Outreach activities cannot be a yearly event, but it should occur during regular intervals during the year to promote broad participation.

Related to community outreach is the recommendation to develop diverse data products within a social indicator project's portfolio. This is specifically related to the

research questions discussion found on page 160. The delivery system of the data and the frequency of updates varied across the four case studies. An online portal enables an indicator project to update data weekly or monthly and can accommodate more data than a written report. As discussed in Chapter 8, an online portal has benefits of immediacy and capacity, but requires that the end user has the technical knowledge to use the data in the portal. A written report may be updated annually or biennially. A written report produced by the social indicator project means that the staff has conducted the data analysis and that the end user does not require technical knowledge. The latter approach was common in the 1990s with reports like Oregon Shines and Charlotte Mecklenburg County's social indicator projects. Because the reports already contained the data analysis and findings, the administrators used symbols that were easily understood by a lay audience. These symbols included a red, yellow, or green light, smiling or frowning emoticons, and thumbs up or down to describe a community. This approach is not commonly used because of the potential negative labeling of communities. The symbols appealed to a broad audience, but reduced a complex community to a simple emoticon. While this approach is not advisable, it is recommended for a social indicator project to produce diverse data products to appeal to a broad audience with varying technical capacity.

Finally, an independent funding source is recommended to maintain the neutrality and continuity of social indicator projects. Securing an independent source of funding is challenging, but many of the pitfalls described in the case studies stemmed from funding issues. Among government administered social indicator projects, there are unfulfilled charter mandates and political considerations that may interfere with the collection of social indicators. Nonprofit or hybrid social indicator

projects may experience mission spread when administrators are forced to adopt extra projects to secure operational funding. Foundations that understand the value of social indicators in communities are investing in these initiatives and include the Annie E. Casey Foundation and the Sunlight Foundation. These foundations serve a critical function in advancing community level measurement of social indicators.

Another important function in the development of social indicators is understanding how communities will use indicators to improve quality of life in neighborhoods. In closing and to revisit Frederickson's quote cited in Chapter 3, he states,

I respect those who are working on social equity indicators, social equity benchmarks, and other forms of statistics, but the prospects of such labor for success seem to me to be limited. Furthermore, statistics and data lack passion and smother indignation. It does the cause of social equity little good to be able to know exactly how poor the poor are. (2005, p. 37)

In agreement with Frederickson's assessment of the futility of simply possessing data, social indicators themselves will not advance equity. Data is a powerful tool and social indicator projects serve a prominent role of advancing equity in communities.

However, to avoid the limitations outlined by Frederickson, data must be used. It is not enough to simply measure indicators; the data must be used for decisions and to shape policies for action in communities.

9.7 Future Research

This research provides many opportunities for future inquiry as the availability of data is increasing with open data. Future research questions will expand the proposed framework of types of data organizations and advance the sources for funding social indicator projects. This research will be expanded to medium-sized cities that are in the early development of a social indicator project.

An additional direction for future research is to clarify the distinction between open data and free data. The function of a social indicator project is not simply to serve as a portal for any publicly available data set, but to actively work to democratize data for communities. Data does not have value unless it is used and social indicator projects can build capacity in communities to encourage use of data.

Because social equity measurement is specific to the community, this research would benefit from additional inquiry about public participation processes. While this research addressed aspects of outreach and engagement, future research will assess the influence of external feedback on community measures compared to internal organizational experts' input on indicator development. Furthermore, there are additional cities in NNIP and CIC that are developing social equity measures; adding new cities' social equity measure will strengthen this research in the future.

REFERENCES

- “A history of impact.” (n.d.). Capital Impact Partners. Retrieved from <https://www.capitalimpact.org/who/history/>
- “About Kirwan.” (n.d.). The Ohio State University, The Kirwin Institute for the Study of Race and Ethnicity. Retrieved from <http://kirwaninstitute.osu.edu/about/#overview>
- “About the Furman Center.” (n.d.). New York University, Furman Center for Real Estate and Urban Policy. Retrieved from <http://furmancenter.org/about>
- Abello, O.P. (2016, April 15). NYC quietly resumes social indicators report mandated by Charter. *Next City*. Retrieved from <https://nextcity.org/daily/entry/nyc-resumes-social-indicators-report-mandated>
- Ali, C. (2016). Critical regionalism and the policies of place: Revisiting localism for the digital age. *Communication Theory*. 26. 106-127.
- Aristigueta, M.P. (2004). Indicators of living conditions: Challenges and opportunities for accountability and governance. In M. Holzer & S.H. Lee (Eds.), *Public productivity handbook* (2nd ed.). (431-446). New York, NY: Marcel Dekker, Inc.
- Aristigueta, M.P., Cooksy, L.J., & Nelson, C.W. (2001). The role of social indicators in developing a managing for results system. *Public Performance & Management Review*, (24)3. 254-269.
- Astone, N.M., Gelatt, J., Simms, M.C., Emam, D., & Monson, W. (2016, January). New York City’s Young Men’s Initiative: Status report and future directions. The Urban Institute. Retrieved from <http://www.urban.org/sites/default/files/publication/75996/2000533-New-York-Citys-Young-Mens-Initiative-Status-Report-and-Future-Directions.pdf>
- Ball, M. (2013, September 7). Who is Bill de Blasio, and could he be New York’s next mayor? *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2013/09/who-is-bill-de-blasio-and-could-he-be-new-yorks-next-mayor/279442/>
- Ball, M. (2015, December). The equalizer: Bill de Blasio vs. Inequality. *The Atlantic*. Retrieved from <https://www.theatlantic.com/magazine/archive/2015/12/the-equalizer/413158/>

- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (n.d.). *History*. Retrieved from <http://bniajfi.org/history/>
- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2013). *Baltimore data day: Community-based indicators in action*. Retrieved from <http://www.jacob-france-institute.org/wp-content/uploads/Baltimore-Data-Day-2013-Final-Report.pdf>
- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2015a). *Baltimore Data Day*. Retrieved from http://bniajfi.org/data_day/
- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2015b). *Vital Signs 13*. Baltimore, MD: University of Baltimore. Retrieved from http://bniajfi.org/wp-content/uploads/2015/04/VS13_FullReport.pdf
- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2015c). *What happened in Baltimore and what can we do: A neighborhoods' perspective*. Baltimore, MD: University of Baltimore. Retrieved from <http://bniajfi.org/2016/01/07/what-happened-in-baltimore-and-what-can-we-do-a-neighborhoods-perspective/>
- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2012a). *Executive summary: 10 years of Vital Signs*. Baltimore, MD: University of Baltimore. Retrieved from BNIA Archives.
- Baltimore Neighborhood Indicators Alliance – Jacob France Institute. (2012c). *Strategic plan for Vital Signs 2011 and beyond: Development of Baltimore neighborhood indicators in the 2010s*. Retrieved from <http://www.neighborhoodindicators.org/sites/default/files/publications/strategicplanvitalsignsindicators2011andbeyond.docx>
- Barbaro, M., & Chen, D.W. (2013, November 5). De Blasio is elected New York City Mayor in landslide. *New York Times*. Retrieved from <http://www.nytimes.com/2013/11/06/nyregion/de-blasio-is-elected-new-york-city-mayor.html>
- Bauer, R.A. (1966). *Social indicators*. Cambridge, MA: MIT Press.
- Behn, R.D. (2006). The varieties of CitiStat. *Public Administration Review*, 66(3), 332-340.
- Benson Wahlen, C. (2012, December 11). UN adviser proposes four pillars for post-2015 goals. International Institute for Sustainable Development's SDG Knowledge Hub. Retrieved from <http://sdg.iisd.org/news/un-adviser-proposes-four-pillars-for-post-2015-goals/>

- Berlinger, J. (2015, April 28). Baltimore riots: A timeline. *CNN*. Retrieved from <http://www.cnn.com/2015/04/27/us/baltimore-riots-timeline/>
- Besleme, K., Maser, E., & Silverstein, J. (1999). *A community indicators case study: Addressing the quality of life in two communities*. San Francisco, CA: Redefining Progress, Inc.
- Blewett, Daniel K. (1995). MCIC: The Metro Chicago Information Center. Illinois Periodicals Online. Northern Illinois University Libraries. Retrieved from <http://www.lib.niu.edu/1995/il950245.html>
- Bloomberg, M.R. (2013, August 18). Opinions: Michael Bloomberg: 'Stop and frisk' keeps New York safe. *The Washington Post*. Retrieved from https://www.washingtonpost.com/opinions/michael-bloomberg-stop-and-frisk-keeps-new-york-safe/2013/08/18/8d4cd8c4-06cf-11e3-9259-e2aaf5a5f84_story.html?utm_term=.0f5ec285842f
- BNIAJFI. (2012, August 24b). Vital signs 10: Taking the pulse of Baltimore neighborhoods [Video file]. Retrieved from <https://www.youtube.com/watch?v=hnIqnsNK7yY>
- Borders, S., Edwards, J., & Miller, A. (2013). Lessons from *Patchwork Nation*: A new framework for building community indicators. *The Foundation Review*, 5(3), 14-27.
- Braun, A., & Greenwood, M. (2015, November 25). The Laquan McDonald case: A timeline of the past year. *Medill Reports Chicago*. Retrieved from <http://news.medill.northwestern.edu/chicago/the-laquan-mcdonald-case-a-timeline-of-the-past-year/>
- Broadwater, L. (2015, April 24). Baltimore police acknowledge mistakes in Freddie Gray's death. *The Baltimore Sun*. Retrieved from <http://www.baltimoresun.com/news/maryland/bs-md-freddie-gray-protest-prepare-20150424-story.html#page=1>
- Bromley, P., & Meyer, J.W. (2014). They are all organizations: The cultural roots of blurring between the nonprofit, business, and government sectors. *Administration & Society*. 1-28. DOI: 10.1177/0095399714548268
- Buchanan, L., Fessenden, F., Lai, K.K.R., Park, H., Parlapiano, A., Tse, A., Wallace, T., Watkins, D., & Yourish, K. (2015). What happened in Ferguson? *New York Times*. Retrieved from http://www.nytimes.com/interactive/2014/08/13/us/ferguson-missouri-town-under-siege-after-police-shooting.html?_r=0
- Burger, E. (2016, September 23). Hearing shows lack of communication on Young Men's Initiative. *Gotham Gazette*. Retrieved from

<http://www.gothamgazette.com/city/6546-hearing-shows-lack-of-communication-on-young-men-s-initiative>

- Burger, E. (2016, September 23). Hearing shows lack of communication on Young Men's Initiative. *Gotham Gazette*. Retrieved from <http://www.gothamgazette.com/city/6546-hearing-shows-lack-of-communication-on-young-men-s-initiative>
- Burnham, Daniel H., and Bennett, Edward H. (1909). Plan of Chicago. The Commercial Club: Chicago, IL.
- Burnstein, E. (2014, July). Case Study: NNIP and open data in Detroit. National Neighborhood Indicators Partnership. Retrieved from <http://www.urban.org/sites/default/files/publication/22801/413188-Case-Study-NNIP-and-Open-Data-in-Detroit.PDF>
- Burnstein, E., & Iyer, S. (2014, August). NNIP and Open Data in Baltimore. Washington, D.C.: National Neighborhood Indicators Partnership. Retrieved from http://www.urban.org/research/publication/partners-perspective-nnip-and-open-data-baltimore/view/full_report
- Campbell, C. (2016, October 12). Red Line as part of statewide light rail network. *The Baltimore Sun*. Retrieved from <http://www.baltimoresun.com/news/maryland/bs-md-transit-coalition-20161011-story.html>
- Campbell, C. (2017, March 8). New York City open data: A brief History. Data Smart City Solutions. Retrieved from <http://datasmart.ash.harvard.edu/news/article/new-york-city-open-data-a-brief-history-991>
- "Can entrepreneurs revive Motor City?" (2015, March 19). *The Economist*. Retrieved from <http://www.economist.com/news/united-states/21646755-can-entrepreneurs-revive-motor-city-green-shoots>
- Cave, D. (2015, April 28). Defining Baltimore: #riot, #uprising, or #disturbance. *The New York Times*. Retrieved from <http://www.nytimes.com/live/confrontation-in-baltimore/riot-uprising-or-disturbance/>
- "Chicago Data Portal." (2016). City of Chicago. Retrieved from <https://data.cityofchicago.org/>
- Chicago Metropolitan Agency for Planning. (2007). Memorandum of understanding between the Chicago Metropolitan Agency for Planning and the Policy Committee encompassing transportation, planning, and programming in northeastern Illinois. Retrieved from <http://www.cmap.illinois.gov/documents/10180/548672/Revised+MOU+CMA-P-MPO+6.16v2.pdf/82858b55-95ea-4142-b60d-02fb5a090f27>

- Chicago Metropolitan Agency for Planning. (2010). GO TO 2040: Comprehensive regional plan. Retrieved from http://www.cmap.illinois.gov/documents/10180/17842/long_plan_FINAL_100610_web.pdf/1e1ff482-7013-4f5f-90d5-90d395087a53
- Chicago Metropolitan Agency for Planning. (2014). GO TO 2040: Update Indicator Methodology. Retrieved from <http://www.cmap.illinois.gov/about/2040/update>
- Chicago Metropolitan Agency for Planning. (2015). Annual report: Fiscal year 2014-15. Retrieved from <http://www.cmap.illinois.gov/programs-and-resources/publications-and-archive/annual-reports>
- Chicago Metropolitan Agency for Planning. (2016a). Annual report: Fiscal year 2015-16. Retrieved from <http://www.cmap.illinois.gov/programs-and-resources/publications-and-archive/annual-reports>
- Chicago Metropolitan Agency for Planning. (2016b). Emerging Priorities for 2050. Retrieved from <http://www.cmap.illinois.gov/documents/10180/585074/FY17-0016%20Priorities%20Report%20Final/a3c55be2-1767-458e-af3e-0b3c290fdd5d>
- Citizens Planning and Housing Association. (2015, September). *The Red Line: what now?* Baltimore, MD. Retrieved from www.cphabaltimore.org
- Coates, T. (2013, August 12). Ending Michael Bloomberg's racist profiling campaign. *The Atlantic*. Retrieved from <https://www.theatlantic.com/national/archive/2013/08/ending-michael-bloombergs-racist-profiling-campaign/278582/>
- Cobb, C.W., & Rixford, C. (1998). *Lessons learned from the history of social indicators*. San Francisco, CA: Redefining Progress.
- Columbia Basin Rural Development Institute at Selkirk College. (2013). *Social indicators literature review: Developing the Columbia Basic Development Institute social research pillar*. Retrieved from <http://www.cbrdi.ca/wp-content/uploads/Social-Literature-Review.pdf>
- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory*, (4th ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Cresswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Curren R., Nelson, J., Marsh, D.S., Noor, S., Liu, N. (2016). "Racial Equity Action Plans, A How-to Manual." Haas Institute for a Fair and Inclusive Society, University of California, Berkeley.

- “DDJC.” (n.d.). Detroit Digital Justice Coalition. Retrieved from <http://detroitdjc.org/about/story/>
- DeBerry, J. (2015, May 8). In Ferguson and Baltimore, some see riots; others see rebellions. *The Times-Picayune*. Retrieved from http://www.nola.com/crime/index.ssf/2015/05/baltimore_riots_rebellions.html
- Devarajan, S., Miller, M.J., & Swanson, E.V. (2002). Goals for development: History, prospects, and costs. World Bank Policy Working Paper No. 2819. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=636102.
- Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social and subjective indicators. *Social Indicators Research*, 40(1-2). 189-216.
- Dluhy, M., & Swartz, N. (2006). Connecting knowledge and policy: The promise of community indicators in the US. *Social Indicators Research*, 79, (1). 1-23.
- Donovan, D., & Puente, M. (2015, March 12b). Inquiry called for on CitiStat: Officials ask why city accountability agency has appeared to stall. *The Baltimore Sun*. Section A:1.
- Donovan, D., & Puente, M. (2015, March 7a). Baltimore agency slow to hold officials accountable. *The Baltimore Sun*. Retrieved from <http://www.baltimoresun.com/news/maryland/bs-md-citistat-delays-20150307-story.html>
- Dunn, N. (2014). The end of architecture? Networked communities, urban transformation, and post-capitalist landscapes. *Spaces and Flows: An International Journal of Urban and ExtraUrban Studies*, 3(2). 67-75.
- Dunn, P. (2016, September 5). Open data: How access to public data is growing in Detroit. *Model D Media*. Retrieved from <http://www.modeldmedia.com/features/open-data-090516.aspx>
- Ettachfini, L. (2016, March 1). NYC now has a council advocating for women, trans people, and intersex people. *Vice News*. Retrieved from https://broadly.vice.com/en_us/article/nyc-now-has-a-council-advocating-for-women-trans-people-and-intersex-people
- Flora, D. (2015, January). “Four seasons of data: Celebrating 15 months of Motor City Mapping.” Data Driven Detroit. Retrieved from <http://datadrivendetroit.org/motor-city-mapping/four-seasons-of-data-celebrating-15-months-of-motor-city-mapping/>
- Frederickson, H.G. (1976). The lineage of new public administration. *Administration & Society*, 8(2). 149-174.
- Frederickson, H.G. (1980). New public administration. University of Alabama: The University of Alabama Press.

- Frederickson, H.G. (1990). Public administration and social equity. *Public Administration Review*, 50(2). 228-237.
- Frederickson, H.G. (2010). *Social equity and public administration: Origins, developments, and applications*. Armonk, NY: M.E. Sharpe.
- Fritze, J. (2015, April 28). Obama calls for 'soul searching' in the sake of Gray's death. *The Baltimore Sun*. Retrieved from <http://www.baltimoresun.com/news/maryland/baltimore-city/bs-md-freddie-gray-obama-20150428-story.html>
- Gardner, P. (2016, November 18). Here's a look at Dan Gilbert's multi-billion dollar impact on Detroit. *Michigan Live*. Retrieved from http://www.mlive.com/news/detroit/index.ssf/2016/11/what_is_dan_gilberts_economic.html
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York, NY: Basic Books, Inc.
- Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Hawthorne, NY: Aldine de Gruyter.
- "Global Vision, Urban Action." (2015). New York City Department of City Planning. Retrieved from <https://www1.nyc.gov/site/international/programs/global-vision-urban-action.page>
- Goldenberg, S. (2015, December 21). At midterm, de Blasio reflects on accomplishments, mistakes. *Politico*. Retrieved from <http://www.politico.com/states/new-york/albany/story/2015/12/at-midterm-de-blasio-reflects-on-accomplishments-mistakes-029351>
- Goldman, H. (2017, May 22). De Blasio promotes national role while seeking re-election. *Bloomberg News*. Retrieved from <https://www.bloomberg.com/politics/articles/2017-05-22/de-blasio-promotes-his-national-role-while-seeking-re-election>
- Gooden, S., & Portillo, S. (2011). Advancing social equity in the Minnowbrook Tradition. *Journal of Public Administration Research and Theory*. 21: i61-i76.
- Gooden, S.T. (2014). *Race and social equity: A nervous area of government*. Armonk, NY: M.E. Sharpe.
- Greenwood, T. (2008). Bridging the divide between community indicators and government performance measurement. *National Civic Review*. 55-60.
- Gross, B.M. (1966). "From social bookkeeping to social accounting." *Twentieth Anniversary Symposium of the Employment Act of 1946: An Economic Symposium*. Washington DC. Government Printing Office.
- Guy, M.E., & McCandless, S.A. (2012). Social equity: Its legacy, its promise. *Public Administration Review*, (72) S1, 5-13.

- Haimerl, A. (2014, February 16). Loveland's passion: Battle blight. *Crain's Detroit*. Retrieved from <http://www.crainsdetroit.com/article/20140216/NEWS/302169966/lovelands-passion-battle-blight>
- Halcom, C. (2015, August 19). Data Driven Detroit to leave Michigan Nonprofit Association to become low-profit LLC. *Crain's Detroit Business*. Retrieved from <http://www.crainsdetroit.com/article/20150819/NEWS/150819836/data-driven-detroit-to-leave-michigan-nonprofit-association-to-become>
- Hall, J.L., & Jennings, E.T. (2010). Assessing the use and weight of information and evidence in U.S. state policy decisions. *Policy & Society*, 29. 137 – 147.
- Hannah-Jones, N. (2014, December 19). School segregation, the continuing tragedy of Ferguson. *Propublica*. Retrieved from <http://www.propublica.org/article/ferguson-school-segregation>
- Head, B.W. (2008). Three lenses of evidence-based policy. *The Australian Journal of Public Administration*, 67(1). 1-11.
- Head, B.W. (2010). Reconsidering evidence-based policy: Key issues and challenges. *Policy and Society*, 29. 77-94.
- Headd, M. (2011, December 30). Baltimore open government 2011 year in review. *Govfresh*. Retrieved from <https://www.govfresh.com/2011/12/baltimore-open-government-2011-year-in-review/>
- Hendey, L. (2016). *Using integrated data to improve communities: Lessons from a cross-site project*. Washington, DC: National Neighborhood Indicators Partnership. Retrieved from <http://www.neighborhoodindicators.org/sites/default/files/publications/IDS%20Results%20Brief%20Final%20no%20link%20optimized.pdf>
- Hendey, L., Cowan, J., Kingsley, G.T., & Pettit, K.L.S. (2016). *NNIP's guide to starting a local data intermediary*. Washington, DC: Urban Institute.
- Howard Saul, M. (2013, December 30). Mayor Bloomberg leaves mark on New York City. *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/mayor-bloomberg-leaves-mark-on-new-york-city-1388458648>
- Howard, A.M. (2015, August 18). Why Ferguson isn't the tale of two protests. *The Black Scholar*. Retrieved from <http://www.theblackscholar.org/why-ferguson-isnt-the-tale-of-two-protests/>
- Iyer, S., Knott, C., & Cantora, A. (2016). McElderry Park: Byrne Criminal Justice Innovation Grant. Baltimore Neighborhood Indicators Alliance. Retrieved from <http://www.bnijfi.org/wp-content/uploads/2016/05/BCJI%20Year%202%20Report%20FINAL.pdf>

- Jacob France Institute. (2013). *Jacob France Institute 2013 Annual Report*. Retrieved from <http://www.jacob-france-institute.org/wp-content/uploads/2013-JFI-Annual-Report.pdf>
- Jacobs, A. (2015, May 4). Understanding neighborhood context #OneBaltimore. Baltimore Neighborhood Indicators Alliance. Retrieved from <http://bniajfi.org/2015/05/04/freddie-gray-the-integration-of-bnia-jfi-data/>
- James, D. (2009, January 8). 12 questions with Kurt Metzger. *Master Media*. Retrieved from <http://datadrivendetroit.org/uncategorized/12-questions-with-kurt-metzger/>
- Jennings, E.T., & Hall, J.L. (2012). Evidence-based practice and the use of information in state agency decision making. *Journal of Public Administration Research and Theory*. 22(2) 245-266.
- Johnson, N.J., & Svara, J.H. (2011). *Justice for all: Promoting social equity in public administration*. Armonk, NY: M.E. Sharpe.
- Kahn, A.J. (1969). *Theory and practice of social planning*. New York, NY: Russell Sage Foundation.
- Kennedy, M. (2015, December 29). Chicago police respond to domestic disturbance, shoot and kill teen, neighbor. *National Public Radio*. Retrieved from <http://www.npr.org/sections/thetwo-way/2015/12/26/461119329/chicago-police-respond-to-domestic-disturbance-shoot-dead-teen-and-neighbor>
- “Key 2013 Election Results.” (2013, November 6). Politico. Retrieved from <http://www.politico.com/2013-election/results/mayor/new-york-city/>
- Kingsley, G.T. (1999). *Building and operating neighborhood indicator systems: A guidebook*. Washington, DC: Urban Institute.
- Kingsley, G.T., & Pettit, K.L.S. (2011). Quality of life at a finer grain: The national neighborhood indicators partnership. In M.J. Sirgy et al. (Eds.), *Community Quality-of-Life Indicators: Best Cases* (pp. 67-96). Washington, DC: Springer.
- Kingsley, G.T., Coulton, C.J., & Pettit, K.L.S. (2014). *Strengthening communities with neighborhood data*. Washington, D.C.: Urban Institute.
- Klein, M., Reyes, B., Cadora, E., & Greenberg, D. (2015, December 6). Experts discuss using data as an anchor for multi-service strategies. Change Capital Fund. Retrieved from <http://changecapitalfund.org/press-release/experts-discuss-using-data-as-an-anchor-for-multi-service-strategies/>
- Kleinberger, D.S. (2010). A myth deconstructed: “The Emperor’s New Clothes” on the low-profit limited liability company. *The Delaware Journal of Corporate Law*, 35. 879-910.
- Knight Foundation. (2011, September 7). Knight foundation brings code for America to Detroit, Macon and Philadelphia. Knight Foundation. Retrieved from

<https://www.knightfoundation.org/press/releases/knight-foundation-brings-code-america-detroit-maco>

- Land, K.C. (1983). Social Indicators. *Annual Review of Sociology*, 9. 1-26.
- Lauffer, A. (1978). *Social planning at the community level*. Englewood Cliffs, NJ: Prentice Hall.
- Lawson, V., Drummond, J., Zhang, Q., Bowling, J., Kimiagar, B., Chapman Brown, S., & Michaels, M. (2016). *Equality indicators: Measuring change toward greater equality in New York City*. New York, NY: CUNY Institute for State and Local Governance. Retrieved from <http://islg.cuny.edu/wp-content/uploads/sites/5/2017/04/Equality-Indicators-Annual-Report-2016.pdf>
- Liew, A. (2007). Understanding data, information, knowledge and their inter-relationships. *Journal of knowledge management practice*, 8(2). 1-9.
- Light, P.C. (2008). A Government Ill Executed: The Depletion of the Federal Service *Public Administration Review*, 68(3). 413–419
- “List of charges against officers in Freddie Gray case.” (2015, May 21). *CNN*. Retrieved from <http://www.cnn.com/2015/05/01/us/freddie-gray-police-charges/index.html>
- Long, J. (2011). “D3 Maps for Advocacy.” Data Driven Detroit. Retrieved from https://datadrivendetroit.org/files/D3P/Using%20Maps%20for%20Equity_JoshLong.pdf
- “Loveland Technologies.” (n.d.). Loveland Technologies. Retrieved from <https://makeloveland.com/company>
- Maclaren, V.W. (2001). Blighted or booming? An evaluation of community indicators and their creation. *Canadian Journal of Urban Research*, 10(2). 275-291.
- Maridal, J.H. (2016). A worldwide measure of societal quality of life. *Social Indicators Research*, 1-38.
- Martinson, K., & O’Brien, C. (2010). Conducting case studies (p. 163-181). In *Handbook of practical program evaluation* (3rd ed.). J.S. Wholey, H.P. Hatry, & K.E. Newcomer (Eds.). San Francisco: Jossey-Bass.
- Mather, M. (2015, January). “Food equity in Detroit’s Brightmoor Neighborhood.” Data Driven Detroit. Retrieved from <https://datadrivendetroit.org/d3-staff/food-equity-in-detroits-brightmoor-neighborhood/>
- “Mayor de Blasio releases One New York: The plan for a strong and just city.” (2015, April 22). New York City Government. Retrieved from <http://www1.nyc.gov/office-of-the-mayor/news/257-15/mayor-de-blasio-releases-one-new-york-plan-strong-just-city#/0>

- “Metro Pulse” (n.d.). Chicago Metropolitan Agency for Planning. Retrieved from <http://www.cmap.illinois.gov/data/metropulse>
- Mills, C.W. (1959). *The sociological imagination*. New York, NY: Oxford University Press.
- Mineo, L. (2015, Nov. 13). Background on Black Lives Matter: Scholars in African-American history draw parallels with past movements. *Harvard Gazette*. Retrieved from <http://news.harvard.edu/gazette/story/2015/11/background-on-black-lives-matter/>
- Moore, M.H. (2013). *Recognizing public value*. Cambridge, MA: Harvard University Press.
- “Motor City Mapping” (2014). Data Driven Detroit. Retrieved from <https://www.arcgis.com/home/item.html?id=a48f09f279ff44e8ae311f49ce1bf15b>
- Moynihan, D.P. (2008). *The dynamics of performance management: Construction information and reform*. Washington, D.C.: Georgetown University Press.
- National Academy on Public Administration. (2000). Social Equity in Governance. Retrieved from <http://www.napawash.org/fellows/standing-panels/social-equity-in-governance.html>
- Newcomer, K.E., Hatry, H.P., & Wholey, J.S. (2010) Planning and designing useful evaluations (p. 5-30). In *Handbook of practical program evaluation* (3rd ed.). J.S. Wholey, H.P. Hatry, & K.E. Newcomer (Eds.). San Francisco, CA: Jossey-Bass.
- “NNIP Concept.” (n.d.) *National Neighborhood Indicators Partnership*. Retrieve from <http://www.neighborhoodindicators.org/about-nnip/nnip-concept>
- “One D Scorecard.” (2014). Data Driven Detroit. Retrieved from <http://onedscorecard.datadrivendetroit.org/about.html>
- “Painting pictures by the numbers.” (2010, January). Data Driven Detroit. Retrieved from <http://datadrivendetroit.org/uncategorized/painting-pictures-by-the-numbers-2/>
- Perez, T. & Rushing, R. (2007). *The CitiStat model: How data-driven government can increase efficiency and effectiveness*. Washington, DC: The Center for American Progress. Retrieved from https://www.americanprogress.org/wp-content/uploads/issues/2007/04/pdf/CitiStat_report.pdf
- Pettijohn, S.L., Boris, E.T., & Farrell, M.R. (2014) *National study of nonprofit-government contracts and grants 2013: State profiles*. Retrieved from Urban Institute website: <http://www.urban.org/UploadedPDF/412949-National-Study-of-Nonprofit-Government-Contracts-and-Grants-2013.pdf>
- Pettit, K.L.S. (2014). *Case study: Open data in Chicago*. Washington, DC: Urban Institute. Retrieved from Urban Institute

<http://www.urban.org/sites/default/files/alfresco/publication-pdfs/413154-Case-Study-Open-Data-in-Chicago.PDF>

- Pettit, K.L.S. (2014, June). *Putting open data to work for communities*. National Neighborhood Indicators Partnership. Washington, DC: Urban Institute. Retrieved from <http://www.urban.org/research/publication/putting-open-data-work-communities>
- President's Research Committee on Social Trends. (1933). *Recent social trends in the United States*. New York, NY: McGraw-Hill Book Company, Inc.
- Rawls, J. (1999). *A theory of justice: Revised edition*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Reinhart, C. (2011, October 2011). Low-profit limited liability companies or L3Cs. Connecticut General Assembly, Office of Legislative Research. Document ID: 2011-R-0344. Retrieved from <https://www.cga.ct.gov/2011/rpt/2011-R-0344.htm>
- Rivlin, A.M. (1971). *Systematic thinking for social action: The 1970 H. Rowan Gaither lectures at the University of California, Berkeley*. Washington, D.C.: The Brookings Institution.
- Rothman, L. (2015, April 28). What Martin Luther King Jr really thought about riots? *Time Magazine*. Retrieved from <http://time.com/3838515/baltimore-riots-language-unheard-quote/>
- Ryan, R., & Hastings, C. (2015). Missed opportunities for democratic engagement: The adoption of community indicators in local government. *Asia Pacific Journal of Public Administration*, 37(1). 33-43.
- Ryff, C.D., & Singer, B.H. (2006). Best news yet on the six-factor model of wellbeing. *Social Science Research*, 35(4), 1103-1119.
- Salvaris, M. (2000). Community and social indicators: How citizens can measure progress. Retrieved from <http://library.bsl.org.au/jspui/bitstream/123456789/362/1/Community%20Social%20Indicators.pdf>
- Sawicki, D.S., & Craig, W.J. (1996). Democratization of data: Bridging the gap for community groups. *Journal of the American Planning Association*, 62(4). 512-523.
- Schachtel, M. R.B., (2001). CitiStat and the Baltimore neighborhood indicators alliance: Using information to improve communication and community. *National Civic Review*, 90(3). 253-267.
- Schaeffer, D., & Schaefer, R.R. (1979). Democracy, ethics, and public administration: A review of some recent literature. *The Political Science Reviewer*, (9). 257-297.

- Sheldon, E.B., & Freeman, H.E. (1970). Notes on social indicators: Promises and potential. *Policy Sciences*, 1(1). 97-111.
- Shine, K.N. (2013, December 6). Data driven leadership: A Q&A with Mayor Kurt Metzger. *Southeast Michigan Startup*. Retrieved from <http://www.semichiganstartup.com/features/KurtMetzgerMayor0325.aspx>
- Shropshire, C. (2012, January 24). MCIC for Chicago Nonprofit Closing. *Chicago Tribune*. Retrieved from http://articles.chicagotribune.com/2012-01-24/business/chi-mcic-for-chicago-nonprofits-closing-20120124_1_profits-donors-chicago-area
- Shueh, J. (2015, March 12). From debt to data: Detroit launches open data portal. *Government Technology*. Retrieved from <http://www.govtech.com/data/from-debt-to-data-detroit-launches-open-data-portal.html>
- Stake, R.E. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE Publications, Inc.
- Stavinsky, A.G. (1994). The changing conception of localism in U.S. public radio. *Journal of Broadcasting and Electronic media*. 38(1). 19-34.
- Stiglitz, J., Sen, A., & Fitoussi, J.P. (2009). *Report by the commission on the measurement of economic performance and social progress*. Retrieved from http://library.bsl.org.au/jspui/bitstream/1/1267/1/Measurement_of_economic_performance_and_social_progress.pdf
- Stoecker, R. (2006). Neighborhood data systems: A best practice analysis. *Journal of the Community Development Society*, 37(4). 109-122.
- Sung, C., & Shoichet, C.E. (2016, July 27) Freddie Gray case: Charges dropped against officers. *CNN*. Retrieved from <http://www.cnn.com/2016/07/27/us/freddie-gray-verdict-baltimore-officers/>
- Superville, D.R. (2015, Aug. 9). A year after Ferguson, schools still grapple with equity and racial bias. *Education Week*. Retrieved from http://blogs.edweek.org/edweek/District_Dossier/2015/08/a_year_later_schools_use_lesso.html
- Testa, M.R., & Sipe, L.J. (2013). The organizational culture audit: Countering cultural ambiguity in the service context. *Open Journal of Leadership*, 2(2). 36-44.
- “The Lines Between Us.” (n.d.). WYPR Radio. Baltimore, Maryland. Retrieved from <http://www.linesbetweenus.org/about.html>
- Thompson, V.A. (1972). Toward a new public administration: The Minnowbrook perspective. Book Review. *American Political Science Review*, 66(2). 620-622.
- Time for CitiStat-Stat: Our view: Baltimore's vaunted performance measurement tool appears to be suffering from benign neglect under Mayor Rawlings-Blake [Editorial]. (2015, March 31). *The Baltimore Sun*. Retrieved from <http://www.baltimoresun.com/news/opinion/editorial/bs-ed-citistat-20150330-story.html>
- “Tracking Oregon’s progress: A report of the tracking Oregon’s progress (TOP) indicators project.” (2014). The Oregon Community Foundation and Oregon State University. Retrieved from:

- http://www.oregoncf.org/Templates/media/files/reports/2014/top_indicators_oregon_2014.pdf
- United Nations. (2016). Sustainable Development Goals: 17 Goals to Transform our World. Retrieved from <http://www.un.org/sustainabledevelopment/>
- “USA Sustainable Cities Initiative (USA-SCI). (2016). Sustainable Development Solutions Network. Retrieved from <http://unsdsn.org/what-we-do/solution-initiatives/usa-sustainable-cities-initiative-usa-sci/>
- U.S. Census Bureau. (2015). Quick Facts, Baltimore. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- U.S. Census Bureau. (2015). Quick Facts, Chicago. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- U.S. Census Bureau. (2015). Quick Facts, Detroit. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- U.S. Census Bureau. (2015). Quick Facts, New York City. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- Veenhoven, R. (1996). Happy life-expectancy: A comprehensive measure of quality-of-life in nations. *Social Indicators Research*, 39. 1-58.
- Vinueza, A., & Hiensch, K. (2016, September 20). Social enterprise legislation in the United States: An overview. Morrison-Foerster Impact. Retrieved from <http://impact.mofo.com/resources/social-enterprise-legislation-in-the-united-states-an-overview/>
- “Vital Signs 10 marks a decade of gathering key data on Baltimore neighborhoods. (2012, May 12). Retrieved from <https://www.ubalt.edu/news/news-releases.cfm?id=1597>
- Welch, S. (2012, December 20). New tie with Michigan Nonprofit Association lets Data Driven Detroit spread its wings. *Detroit Business*. Retrieved from <http://www.crainsdetroit.com/article/20121220/BLOG009/121229992/new-tie-with-michigan-nonprofit-association-lets-data-driven-detroit>
- Williams, C. (2007, December). Back to the future. *Oregon Business Magazine*, 30(2). 22-24.
- Yin, R.K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Appendix A

INTERVIEW PROTOCOL

Name:
City:
Date:
Time:

In order to accurately capture your answers and make the most of our time, I would like to audio record our interview. This information will only be used for the purpose of this research study. The recordings will be transcribed. The interview should last approximately one hour.

You were selected for this interview because you have been involved with the social indicator project. I am interviewing stakeholders from social indicator projects in Baltimore, Detroit, Chicago and New York. The goal of this research is to understand how social indicator projects make decisions about community measurement and what influences administrators' decisions about social indicators. I will be happy to share my findings through the form of a written report at the end of this research.

Employment Information

- Title
- Length of Service

Organization Information

- Tell me about the role that [name of organization] occupies in [name of City].
 - How do you think residents of [name of City] view [name of organization]?
- How is [name of organization] administered?
 - If government ask about elected officials, budget, and funding.
 - If nonprofit ask about board of directors, funding, and involvement with government.
- Are there any other social indicator projects that you share best practices?
 - If applicable, ask about work with NNIP or CIC.

Social Indicators

- Can you please walk me through the process of how the organization produces [name of social indicator report or database]?
 - Who is involved?
 - What, if any, feedback is included from these individuals?
 - What, if any, changes are made from year to year?
 - What types of decisions do you make during the process?
- Who or what other organizations are your major stakeholders?
- How many social indicators do you track?
- Can you tell me about the process of deciding on the indicators? How has this changed over time?
 - How do you decide how to measure an indicator?
- What are the sources of data that you use?
 - Discuss relationship with origin of data.
- How do you determine the categories of topics? [provide specific example from each indicator project]

Users of Organizational Resources

We talked about stakeholders of the organization. Now I'd like to talk about how these stakeholders use your organizational resources and how they interact with the organization.

- Who uses data produced by [name of organization]?
 - To whom are you accountable?
- How do you determine who is involved in the administrative or decision-making processes?
- How do you assess the utility of [name of organization]?

Values

- What are the values that guide the organization? Values that guide your work?
 - How did the organization determine these values?
 - How do they influence your work? Please give specific examples.
 - Have you seen community values change over time? How do you know this?
 - How have they changed?
- Can you provide an example of how [name value] influenced a specific decision the organization made?
- What is something that you would like to measure, but are not currently tracking? Why?

- How do you think your organization is contributing to equity in [name of City]?
 - Why?
- Are there any examples of local elected officials using your data to support a decision?
- Ask about organization and advocacy. How does the organization advocate for these values?

Conclusion

- Where do you see the future of the organization?
- What tools do you anticipate using to improve [name of organization]?
- Having discussed these topics, is there anything else that you think I should know about [name of organization] and the work you do?
- Is there anyone else that I should talk to in the community who could shed light on this topic?

Thank you for sharing your insights with me today. I really appreciate your time and allowing me to interview you. This has been very valuable for my research process.

Appendix B

CODING THEMES

| Codes | Properties | Categories | Themes |
|-------------------------|--|-----------------------|--------------------|
| Geography | Finding data that aligns with organization's geographic unit of analysis, Adopting projects outside of region, Characteristics of city or region | Community Involvement | Data Culture |
| Outreach | Trainings, Engagement, Community-based Partnerships | | |
| Collaboration | Working on projects with other organizations or government departments, Seeking partners for expertise | | |
| Open Data Availability | Relationship with local open data portal, Age of open data portal, | Data Environment | Continuity of Data |
| New Indicators | Project seeking new source of data, community partners bringing new sources of data, staff as experts develop new indicators | | |
| Audience | Consideration of who is using their data, assessing frequently used datasets, Designing data for usability of end user | | |
| Cross-sector Actors | Data projects by government, nonprofits, or businesses in the region | | |
| Use of their indicators | frequently accessed datasets, usability of indicator format, cleaning data for end user, encouraging use of data | | |

| Codes | Properties | Categories | Themes |
|--------------------------|---|------------|---------------------------|
| Political Support | government funding, administration support, elected leaders supporting, | Resources | Continuity of Data |
| Operational Funding | Sustaining funding, not start-up funds, funds for staff or capital expenses | | |
| Project-specific Funding | Fee for service, Limited term funding | | |
| Foundational Support | Grants, nonprofit support | | |
| Transparency | Understanding methods of data collected, advocating for data use, | Values | Type of Data Organization |
| Diversity | Talking about racial, ethnic, socioeconomic, gender, or other demographics, wanting to engage diverse populations | | |
| Empowerment | Data literacy, other organizations advocacy, | | |
| Mandates | Charter, requirements, grant outcomes | Activities | |
| Mission | Fulfilling mission of organization, Considering organization's mission | | |
| Altruism | Right thing to do, Betterment of community, Personal investment | | |
| Mission-Spread | Developing new activities, applying for funding based on new activities, expanding geographic region | | |

Appendix C

INSTITUTIONAL REVIEW BOARD STATUS



RESEARCH OFFICE

210 Hullihen Hall
University of Delaware
Newark, Delaware 19716-1551
Ph: 302/831-2136
Fax: 302/831-2828

DATE: April 11, 2016

TO: Angela Kline
FROM: University of Delaware IRB

STUDY TITLE: [892656-1] Measuring Progress: Using Social Indicator Data to Advance Social Equity

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: April 11, 2016

REVIEW CATEGORY: Exemption category # (2)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.