



Can Creative Placemaking Be a Tool for Building Community Resilience?

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CAN CREATIVE PLACEMAKING BE A TOOL FOR BUILDING COMMUNITY RESILIENCE?

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A DELTA Doctoral Thesis Submitted to the Faculty of

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Abstract

Across the nation, heat waves, droughts, and floods are becoming more frequent and severe, increasing risks to individuals and infrastructure. Simultaneously, amplified and rapid urbanization continues to increase pressure on the environment and the local governments managing the confluence of these trends. The threat of these stressors on vulnerable populations, who have consistently experienced trauma, disinvestment, and discrimination, can present significant health implications. Economically constrained, communities of color, immigrant, elderly, and homeless populations are at greater risks and often have limited resources to respond to the changing conditions. When we think of resilience as a privilege unequally supported across different communities, it changes the responsibility of stakeholders in providing interventions. In the face of “market” and natural forces, it is up to organizational allies to support community residents in advocating for community-informed investment. This starts with creating environments for collaboration, lifting residents’ voices, and building social cohesion and capital. Communities most resilient to disaster are not only structurally sound but also socially empowered and connected. The Climate and Cultural Resilience (C&CR) Program funded five community-based organizations across the country to use creative placemaking toward community resilience outcomes, testing the theory that building cultural resilience—“the capacity to maintain and develop cultural identity and critical cultural

knowledge and practices” (107)—advances communities’ overall resilience. This research developed a qualitative case study to investigate how climate resilience, cultural resilience, and creative placemaking are understood among different stakeholders engaged in community development; it also explored the role of creative placemaking in advancing climate and cultural resilience, as well as the role that intermediaries are best suited to influence these strategies. It found that creative placemaking is a tool for building community resilience with limitations and that communities understand resilience in parameters more expansive than the program anticipated. Ultimately, intermediaries hold a powerful role in supporting creative placemaking for community resilience but must fully incorporate cultural resilience and be more interdisciplinary, participatory, and disruptive in order to be most impactful.

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1. Introduction

Across the nation, heat waves, droughts, and floods are becoming more frequent and severe, increasing risks to individuals and infrastructure. Between 2011 and 2013, the U.S. experienced 32 weather events, each causing at least one billion dollars in damages, and two-thirds of counties nationwide experienced presidentially declared disasters (10). Low-income, communities of color, immigrant, elderly, and homeless populations are disproportionately affected by these events. Simultaneously, amplified and rapid urbanization continues to increase pressure on the environment and basic resources, intensifying the difficulty local governments have with managing the confluence of these trends. The United Nations projects that by 2050, 75% of the global population will live in increasingly large, dense urban centers (21). While growth continues, vulnerable populations and small businesses in these urban centers are consistently threatened with displacement (27).

In the face of these “market” and natural forces, it is up to community residents and organizational allies to advocate for and support community-informed investment. If nonprofit, community, and government organizations’ missions are to serve “low-income” communities, then strengthening community resilience must be part of that responsibility. This starts with creating environments for collaboration, lifting residents’ voices, and building social cohesion and capital. Communities most resilient to disaster are not only structurally sound but also socially empowered and connected. So how do we do this?

For my DELTA project, I began to seek creative interventions for equitable community participation that fosters cross-sector collaboration and supports social capital and cohesion. I found The Climate and Cultural Resilience Program through Enterprise

Community Partners, a nonprofit organization that seeks to improve communities by increasing community development capacity and access to well designed, affordable housing (7). It is an intermediary between funders and communities seeking to use an opportunity to build community resilience through creative placemaking. Creative placemaking is the practice of integrating arts and culture into community development (78). It has been branded in community development and art practice literature as a tool to achieve several extremely important objectives, such as strengthening economic development, encouraging civic engagement, building resiliency, and contributing to quality of life. However, there is little evidence around successful models for building community resilience in an equitable, inclusive, and culturally representative manner.

The Climate and Cultural Resilience (C&CR) Program—which funds five community-based organizations across the country to use creative placemaking toward community resilience outcomes—presents a component not seen in other creative placemaking programs. The component of cultural resilience offers a more nuanced definition of community resilience that places “capacity to maintain and develop cultural identity and critical cultural knowledge and practices” (107) as an equal contributor as climate to advancing a community’s overall resilience. Enterprise hired me in June 2016 to manage the pilot of the Climate & Cultural Resilience Program (C&CR). In this role at Enterprise, I was given the opportunity to conduct a focused study and critically examine this program.

This study is known as a DELTA project, which is centered on translating knowledge into practice to implement interventions within an organization that improve public health. For my DELTA project, I am using the C&CR Program to interrogate the role of creative placemaking within community development projects. I am approaching this work by

investigating the following:

1. How climate resilience, cultural resilience and creative placemaking are understood among different stakeholders engaged in community development;
2. The role of creative placemaking in advancing climate and cultural resilience; and
3. The role that an intermediary might be best suited to influence toward these strategies.

This study seeks to answer these questions by exploring five different exemplars for using creative placemaking as a tool for building community resilience and analyzing their alignment with expressed community needs. I thought it important to first understand how the communities of the C&CR Program intend to conceptualize the concepts of creative placemaking and community resilience and if, in fact, these conceptualizations align across stakeholders. This is important because in order to evaluate the impact of these concepts we must first understand the ways in which they are realized in practice. Through focus groups, interviews, observations, existing data and research, and my own participant observations, I created a case study of these five exemplar organizations participating in the C&CR Program. Based on what I observed and researched, I made the following observations:

1. There are alignments and misalignments in understanding climate and cultural resilience with clear prioritization of other more critical issues.
2. Creative placemaking is a concept not well understood on the ground and the application of creative placemaking projects varied across communities with

a few primary required creative placemaking activities.

3. Creative placemaking supported producing cultural resilience activities as well as producing community social outcomes and raised awareness of climate resilience needs. However, it did not effectively address many of the other more pressing issues in communities, and it is unclear if it increased the efficacy of climate interventions.
4. Intermediaries are uniquely positioned to break down silos across organizations and support interdisciplinary, cross-sector collaborations necessary to achieve greater impact in this work.

From these findings I have several recommendations to impact the future of this project and the field of practice. Those recommendations include:

1. Recognizing community resilience to incorporate more components than climate and cultural resilience, such as economic resilience, social resilience, and trauma, which are closely tied with social determinants of health.
2. Intermediaries should put forward some guidelines for creative placemaking success while incorporating flexibility for place-based context.
3. Organizations need shared metrics to begin evaluating the impact of and interaction between creative placemaking and community resilience efforts.
4. Intermediaries must build a system by which different resilience teams can learn from one another, disrupt siloes, and jointly engage a shared learning agenda to build collective capacity.

This dissertation will present a description of the grant program, the background literature of the project components of focus, the grantees, methods used for investigation, my

findings, and recommendations to intermediaries.

2. Grant Program Description

Grant Purpose

The Climate and Cultural Resilience (C&CR) Program is designed to leverage Enterprise's core competencies and to deploy more comprehensive, participatory, and culturally responsive community development practices. Based on lessons learned from other geographical areas where they have responded to major climate disasters such as Hurricane Katrina, Enterprise has found that engaging residents as part of the community development process creates conditions for local-led change (97). Enterprise believes this approach supports increased resilience at the resident, building, and neighborhood levels (97). Enterprise received \$1.34 million from the Kresge Foundation to implement this program. This included awarding Climate & Cultural Resilience Grants of \$100,000 per location to five targeted places, awarding Collaborative Action Grants of \$5,000 per grantee to 20 places, and hiring a full-time project manager (this research) and part-time internal and external consultants. The five grantees represent a diverse group of projects and communities who are engaging in project activities throughout the one-year grant period, which began on June 1, 2017.

Enterprise used the following criteria to select five Community Development Corporations (CDCs) out of 97 applicants as recipient grantees for the Climate and Cultural Resilience Program. The goal was to select a cohort of grantees with a demonstrated interest in the joint topics of climate and cultural resilience, diverse strengths and experiences to date in activities that support these values, and a compelling proposal for continued learning to integrate climate and cultural resilience at their respective organization (97). The five grantees selected all serve low-income communities that have

been disproportionately affected by climate-related challenges, and all five grantees explicitly addressed how their projects and activities can be positive forces to improve racial equity and social justice. The lead organizations then either had experience conducting activities that advance climate and cultural resilience or partnered with other organizations to provide the expertise. Each grantee had to meet at least one of the climate and one of the cultural activity requirements. The grantee groups selected had the most compelling projects in service of these requirements. The climate-resilience-advancing activities are engaged in one or more of the following:

- a. Learn from residents about specific ways in which climate impacts affect them and the places they live;
- b. Proactively address potential climate-related challenges for the particular place; or
- c. Plan to address specific climate resilience needs to be paired with cultural resilience efforts for added impact. (97)

The cultural-resilience-advancing-activities are those that

- a. Partner with artists or designers and with residents or community members to create an experience or product that reflects community identity;
- b. Conduct community-engaged activities that focus on cultural expression of the people involved;
- c. Partner with local culture bearers;
- d. Use culturally competent practices to deliver the services of the organization and to gain stakeholder input; or
- e. Plan for how to support climate resilience efforts through building cultural

resilience.

The following case study of the five grantee groups will present the projects of the different organizations and the activities they selected to implement. Enterprise intended to demonstrate that integrating creative placemaking with sustainability efforts contributes to the creation and advancement of climate and culturally resilient neighborhoods. To support this work, and for my DELTA project, I thought it important to first understand how the communities they were intending to serve conceptualized the concepts of creative placemaking and community resilience and if in fact these conceptualizations aligned across stakeholders.

Key Stakeholders

Enterprise Community Partners began as a national affordable housing nonprofit. Today they focus on more holistic approaches to strengthening communities. Their mission is to create opportunities for low- and moderate-income people through affordable housing in diverse, thriving communities. They do this through investments, policy, and programs that build the capacity of the community development sector, improve the quality of the homes that are built and preserved, and strengthen the outcomes for the residents who live in those homes. To date, Enterprise has invested \$23.4 billion across the United States, creating nearly 358,000 homes. In addition to the national programs, they have 10 regional offices across the country, which are rooted in, and respond to, local community needs. This range and depth of work has provided Enterprise an understanding of both the challenges that low-income communities face and the ways to identify where opportunities exist to improve their circumstances. Their partners include both the nonprofit CDCs that adopt practices and the NGOs and policy organizations that affect systems change and

influence regulations that incentivize sustainable development.

Enterprise defines resilience as the “capacity for households, communities, and regions to adapt to changing conditions and to maintain and regain functionality and vitality in the face of stress or disturbance” (7). In the past, most of Enterprise’s resilience work has focused primarily on climate preparedness and recovery at the scale of the home and the neighborhood. Enterprise has since expanded this concept to include broader communities and regions.

The Climate and Cultural Resilience Program introduces a new lens through which to focus resilience work—one that involves arts and culture. Through this effort, Enterprise presents that community resilience is not just about climate resilience but also must focus on human networks and be sensitive to unique cultural identities and heritage; in other words, community resilience must involve building cultural resilience. Enterprise most recently developed a web-based Opportunity 360 platform, which acknowledges that not everyone in the U.S. has access to the same opportunities and that where people live is a significant determining factor. “Opportunity360 helps improve people’s lives by offering a 360-degree view of any neighborhood” (98). The platform does this by measuring five evidence-based criteria that have demonstrated to have the greatest impact on how people live: housing stability, education, health and well-being, economic security, and mobility. Climate, resilience, climate resilience, arts and culture, and cultural resilience are not incorporated (See Appendix 2). The lack of these components represents a lack of adoption of these topics across Enterprise.

Enterprise has taken on much of the creative placemaking definition from its primary C&CR funder, The Kresge Foundation. However, it is more specific in describing

the process that achieves outcomes. In its article “8 Reasons to Do Creative Placemaking,” Enterprise presents eight outcomes of creative placemaking as justification for its importance in community development: 1) Cultural and creative tactics resonates with people and builds trust; 2) community-based events and art build strong social connections and cohesion, 3) arts are a successful tool for engagement; 4) lifting up resident voices can preserve neighborhood identity; 5) arts and cultural investment can counteract “NIMByism” (“not in my backyard”); 6) arts and culture draw attention and can generate support for community efforts; 7) creative placemaking can spur interest and investment making places feel more safe; and 8) creative placemaking can spur economic development by attracting foot traffic and investment interest (99). However, there is not one way to do this. The examples were taken from different community development organizations, each leveraging creative placemaking in a different way. Enterprise does not have explicit guidelines for how they conduct creative placemaking or what makes particular processes of creative placemaking most successful.

Through the Climate and Cultural Resilience Grant Program, Enterprise aims to connect climate resilience and cultural resilience through creative placemaking. As an intermediary organization, it does not directly provide services to the grantee communities. Instead, Enterprise provides services to the organizations serving those communities. It works to bring local programs, initiatives, and institutions together to maximize their impact and implement long-range plans to improve outcomes. Enterprise facilitates relationships, identifies connections between organizations, designs collaborations, and helps groups of organizations work together to focus on their own specialties. Enterprise accomplishes these goals through this project and with many of the

tools that its staff developed, such as Creative Placemaking for Community Developers, which features “8 Reasons to Do Creative Placemaking” as well as two in-depth case studies. With these resources, Enterprise and its partners are working to understand how to meet the needs of community by supporting community organizations and attempting to create more collaborative and equitable engagement processes.

The Kresge Foundation is a \$3.6 billion, private, national foundation in Detroit that works to expand opportunities in America's cities through grant-making and social investing in arts and culture, education, environment, health, human services, and community development. In collaboration with other nonprofit, public, private, and philanthropic partners, its target audience is low-income people, with the goal to “improve their life circumstances and join the economic mainstream” (78). As a private foundation, Kresge is a tax-exempt, grant-making organization that exists to serve and support a charitable purpose. However, unlike community foundations, private foundations typically obtain funding from a single source, such as an individual, family, or corporation (100). Foundations typically seek to build the capacity of the social services delivery sector by disseminating funds to community-based organizations while maximizing limited resources (100). Intermediaries, like Enterprise, support foundations in realizing these goals, among others, such as extending the reach of foundations, bridging the credibility gap, building community organizing capacity, increasing efficiency, leveraging experience and expertise, and increasing effectiveness (100).

Kresge is the primary funder of the Climate and Cultural Resilience Program through its arts and culture investment arm. It funded this project for Enterprise Community Partners and other intermediary organizations doing similar work around

creative placemaking across the country. Its goal is to build capacity in the field for this work and create systems level impact. Kresge is interested in better exploring the implementation of creative placemaking with climate resilience projects, how this work is integrating within Enterprise's current work, and strengthening the field of practice through system level outcomes.

As posted on its website, Kresge believes that climate resilience means the capacity to withstand stresses and shocks while prospering under a wide range of climate-influenced circumstances (78). The foundation believes that reducing greenhouse gas emissions, planning for the effects of climate change, and fostering social cohesion and inclusion are the requirements for strengthening community resilience (78). Although Kresge has Health and Creativity departments, resilience is only headlined and primarily explored through their environment department, which has a particular focus on climate resilience. Kresge's definition includes fostering social cohesion and inclusion as inputs necessary for community resilience, which seem to be the least climate-related of the three. However, the community resilience described in its publications still seems to be focused on overcoming the overall issue of climate change and not necessarily other types of resilience challenges.

Kresge described creative placemaking as "an approach to community development and urban planning that integrates arts, culture, and community-engaged design strategies." Kresge's unique niche in creative placemaking is its commitment to influencing community development-related systems and practices that expand opportunities for low-income people in disinvested communities in American cities. Kresge is clear about who the community it serves is and offer multiple resource for how practices can be done;

however, it requires no evidence from Enterprise to meet certain community resilience outcomes, nor does it present certain outcomes as requirements for measurement or achievement. Kresge is interested, however, in allowing Enterprise to test its theory about creative placemaking and its impact on climate and cultural resilience. The C&CR Program is the representation of this test in practice.

3. Background Literature

Across the nation, heatwaves, droughts, and floods are becoming more frequent and severe, increasing risks to individuals and infrastructure. Between 2011 and 2013, the U.S. experienced 32 weather events, each causing at least one billion dollars in damages, and two-thirds of counties nationwide experienced presidentially declared disasters (10). Low-income, communities of color, immigrant, elderly, and homeless populations are disproportionately affected by these events. These communities are at greater risks from the impact of climate change and often have the fewest resources to respond to the changing conditions (93). Climate change reaches across all areas of human life, and increasing temperatures would ultimately lead to negative environmental, population, and social health consequences. There are serious public health implications from the impact of climate change (94).

Simultaneously, amplified and rapid urbanization continues to increase pressure on the environment and basic resources, aggravating the difficulty local governments have with managing the confluence of these trends. The United Nations projects that by 2050, 75% of the global population will live in increasingly large, dense urban centers (21). While growth continues, vulnerable populations and small businesses in these urban centers are consistently threatened with displacement. A 2015 analysis of 50 of the largest cities found that nearly 20% of neighborhoods with lower-income communities and lower home values have experienced gentrification, compared to nine percent in the 1990s (26).

The threat of these stressors and shocks on vulnerable populations, who have consistently experienced trauma, disinvestment, and discrimination, can present significant health implications. A recent New York State report determined that climate

change impacts are extremely unequal across families in underserved communities (92). Income-restricted people are negatively exposed in a multitude of ways, “including higher energy costs, dependence on public transit and lack of access to health care” (92). A major factor contributing to climate vulnerability is racism.

The legacy of institutional and systemic racism in our economic, government, and social systems has resulted—and continues to result—in the disproportionate distribution of the benefits and burdens of our society for people of color (95).

Throughout the country, race is the most substantial predictor of a person living near contaminated air, water, or soil (95). Climate change is creating another layer to the environmental justice movement of the past thirty years. Race is exacerbated by income disparity, and people experiencing the stress of both often do not have the same resources to address climate risk and exposures. Neenah Estrella-Luna, an urban planning professor at Northeastern University, stated that the “most vulnerable people to climate impacts . . . don’t have the economic conditions that allow them to be resilient” (96). When we think of resilience as a privilege unequally supported across different communities, it changes the responsibility of stakeholders in providing interventions. Major climate events have not only devastated physical infrastructure but have also disrupted community social fabric. People across the country are seeing that the problem is not just about the problems these events create but also about the preexisting injustices these events highlight.

In the face of these “market,” social, and natural forces, it is up to organizational allies to work with community residents to advocate for and support community-informed investment. If nonprofit, community, and government organizations’ missions are to serve

“low-income” communities, then strengthening community resilience must be part of that responsibility. This starts with creating environments for collaboration, lifting residents’ voices, and building social cohesion and capital. Communities most resilient to disaster are not only structurally sound but also socially empowered and connected. In the Climate and Cultural Resilience Program, Enterprise understands the two components that constitute community resilience as climate resilience and cultural resilience. It believes that for communities to bounce back from acute and chronic stressors they must have climate knowledge and infrastructure to protect against climate issues and strong social connections that uplift underrepresented cultural groups. Enterprise believes that creative placemaking—the integration of arts and culture into community development processes—is a strategy for supporting cultural resilience in communities. The next section explores the literature on community resilience and creative placemaking.

What Is Resilience?

Resilience, defined by most as an individual's’ ability to recover from adverse events, shocks, or stressors, is derived from the physics and math disciplines (13). Many resilience definitions and efforts focus on individual resilience and how individuals prepare for and respond to chronic and acute stressors or shocks. However, climate change and an increase in severe climate events impacting large swathes of communities at once has highlighted the need for understanding community resilience or how communities respond to and recover from acute and chronic stressors. Resilience and community resilience seem to be concepts for understanding how people can positively respond to adverse events they might face individually or collectively. Climate and cultural resilience are components of individual or community resilience that represent particular shocks or stressors faced by

individuals and communities. For example, creating storm water infrastructure is an intervention for being resilient in the face of climate change. This could be a climate resilience intervention that is one component of community resilience.

Community Resilience. Despite nuances in the definition of community resilience, the underlying premise involves the idea of a group being able to recover from a significant event or prolonged stressors (25). Many of these definitions attribute multiple factors to community resilience, of which there are quite a few consistent similarities. Most frameworks indicate community resilience as some function of economic development, social capital, communication and information, and community capacity (13). While components for building resilience also vary, there are again many similar ideas about what is necessary to be successful. Communities must “reduce risk and resource inequities, engage local people in mitigation, create organizational linkages, boost and protect social supports” (15). These themes imply that resilience efforts sit at the intersection between risk and recoverability, and most literature presents the two separately (61,62). These components seem necessary to consider addressing simultaneously but less research does so.

The World Health Organization (WHO) defines health as a state of physical, mental, and social well-being (24). Grounding community resilience from a social epidemiologic and population health perspective recognizes that resilience is a process for supporting a broad range of positive physical and mental health outcomes related to socio-environmental exposures and that individual risk of illness or disease cannot be considered in isolation from the disease risk of the population to which it belongs (6). These distinctions are important because they emphasize why understanding social determinants

of health are important to uncovering interventions for equitable resilience building. The WHO defines social determinants of health as “the conditions in which people are born, grow, live, work and age.” The social determinants of health are mostly responsible for health inequities—the unfair and avoidable differences in health status seen within and between countries (24). Health inequities are prominent in urban centers across the country and often, because of historical inequality, are related to race and income. Although race is a social construct, disinvestments, discrimination, and social devaluing committed based on race over time have created population-level health disparities in communities of color. This highlights the importance of understanding the social determinants of health in order to begin to overcome present community-based health inequities and disparities and support community resilience efforts.

An increasing focus of the literature associated with community resilience is on the importance of community experiences of social support and social connections, the state of the physical and psychological health of the population, and the integration and collaboration of government and nongovernment bodies (16). Emile Durkheim was one of the first philosophers to present social circumstances as essential to determining one’s quality of life (27, 28). Academics in a number of fields have acknowledged social capital as important, such as criminal justice, governmental operations, economic development, and youth services (29,30). However, the most well-established literature on social connection is in the realm of health and well-being (31). There is an abundance of data linking social capital and health outcomes (32). Social capital has been linked to improved mental health (33), decreased mortality (34), increased adolescent well-being (35), decreased vulnerability to loneliness (36) and depression (37,38), and better perceptions of self-

reported health (39,40,41,42) and well-being (43,44,45). People living in communities where social capital is perceptibly low report decreases in child welfare, increases in isolation (46) and stress levels (47), and decreased capability to obtain public health service interventions (48-54) and to be resilient to environmental health risks (56).

Resilience is not only about rebounding from environmental risks but also about persevering through traumatic experiences and other perpetually stressful events. As an intermediary organization whose role is to collaborate with government and nongovernment organizations while focusing on development, it is important for Enterprise to understand how utilizing a resilience paradigm might augment traditional efforts to prepare communities to withstand anticipated disasters and emergent and consistent threats (25). This lies in understanding the significance of human health, wellness, and culture to overall community resilience.

Climate Resilience. A primary focus of current resilience literature and the literature that most frequently places risk and recovery together is climate resilience.

Climate resilience is defined as the ability for urban and rural systems to rapidly recover from climate related shocks and stressors (57–60). As mentioned previously, climate issues have become more frequent and intense and will continue to do so. Many climate interventions primarily focus on the risk and recovery of infrastructure and property. However, natural ecosystems and human ecosystems are both essential to community resilience since both are inherently connected to people and their health and well-being (63).

Researchers across disciplines have investigated the relationship between climate preparedness and health resilience, which has supported efforts across public health and

social services to leverage climate preparedness initiatives within critical infrastructure, emergency management, housing and land management, and recovery (25,15,14). U.S. federal agencies such as FEMA and Health and Human Services have incorporated health-centered frameworks to support community resilience work through FEMA's Whole Community effort and HHS National Health Security Strategy (NHSS), the Centers for Disease Control and Prevention's (CDC) Public Health Preparedness Program, and the Assistant Secretary for Preparedness and Response (ASPR)'s Hospital Preparedness Program grants (22,23,3). Programs like these demonstrate the relevance of resilience efforts at the national level but are primarily focused on the relationship between preparedness and resilience.

There is extensive research on social cohesion and social capital and their importance as determinants of health protecting against climate disasters (20,6). Recent studies show that community-level interventions aimed at building social capital—defined as “the resources that are accessed by individuals as a result of their membership of a network or group” (6)—are relevant not only to emergency preparedness but community resilience (25). One of the most well-known social capital studies presented by Daniel Aldrich in *Building Resilience* analyzed resilience and recovery in four catastrophic disasters: the 1923 Tokyo earthquake, the 1995 Kobe earthquake, the 2004 Indian Ocean earthquake and tsunami, and the 2005 Hurricane Katrina disaster in New Orleans. He found that the presence of strong social capital, both among people and among individuals and organizations, is a prerequisite for and a predictor of recovery. Additionally, he claimed that social capital might be even more important to resilience than both the degree of infrastructure damage and the amount of aid received by an area (1,2). Building social

cohesion and capital supports health resilience and thus is a critical element of not only building preparedness and facilitating recovery but also maintaining community resilience.

Cultural Resilience. Cultural resilience is not a widely researched term. The few available sources refer to it to describe how culture plays a role in the resilience of an individual (64). Healy presented cultural resilience as synonymous with community resilience and defined it as “the capacity of a distinctive cultural network or community to absorb disruption and adjust while enduring change to retain key elements of identity that preserve its distinctiveness” (65). Enterprise makes a distinction between cultural resilience and community resilience by understanding cultural resilience as a component of community resilience. However, it aligns with Healy’s conceptualization that cultural resilience is foundational to community resilience in supporting the people-based component of resilience. Shared cultural identities help people connect and empathize with others experiences. Understanding culture resilience as a tool for connecting particularly marginalized groups to one another and the environment they exist within recognizes its ability as a community resilience component to uniquely support climate resilience challenges . The cultural resilience concept has been examined in several studies of groups responding to oppression, violence, and adverse socioeconomic conditions in countries around the world, including the “colored” people in apartheid South Africa (65–67). Chandler and Lalonde, of the University of British Columbia, use the term cultural resilience as a mechanism leveraged by First Nations communities to promote protective mechanisms and behaviors in community youth by maintaining and reviving their cultural heritage (68).

It is important for individuals to have access to resources to support positive

individual resilience and organizations and governments to be equipped with tools to address trauma and other individual resilience challenges. A crosscutting theme at all levels is a focus on the needs of vulnerable populations (3). In addition to populations facing physical limitations, other social determinants of health highly dictate people's ability to be resilient in day-to-day stressors as well as disasters (25). Extensive public health research suggests individuals at higher physical health, behavioral health, economic, and social disruption risk prior to a disaster are at higher risk when these issues are exacerbated by injury, trauma, or disruption of vital services (12).

Resilience factors such as social connectedness, community communication and capacity are all closely tied to social determinants of health such as social capital and cohesion (18). As we begin to think about why culture matters to resilience and community development efforts, it is important to know that discrimination, another social determinant of health, and the oppression of culture through structural and interpersonal prejudice has driven many of the health inequities we see today. Thus, incorporating ways to support and uplift cultural identity and social connectedness of underrepresented groups is an often forgotten but very important component for connection building and, in turn, community resilience.

Traditionally, wealthy communities are thought to have higher social capital than those with less wealth. However, conceptualizing community cultural wealth as a critical race theory (CRT)—the acknowledgment that race is a social construction—functions to maintain the status quo of oppression created in society through white supremacy (56) and challenges traditional interpretations of cultural capital. This shifts the research lens away from a deficit view of Communities of Color as places full of cultural poverty disadvantages,

and instead focuses on and learns from the array of cultural knowledge, skills, abilities, and contacts possessed by socially marginalized groups that often go unrecognized and unacknowledged (26). Cultural wealth nurtures social capital and, if leveraged, can support community resilience. Culture is essential to equitably building community health resilience.

The Social Impact of the Arts Project Approach

The University of Pennsylvania's Social Impact of the Arts project (SIAP) has been working for several decades to create methods and data about the relationship between arts and culture and social benefits in urban neighborhoods (70). Leveraging John Kreidler's idea of an "arts ecosystem" and highlighting its spatial component, SIAP connects the various "cultural resources" of a place such as nonprofits, resident artists, commercial firms, as contributing to that place's "cultural ecology" (70). They "developed quantitative indexes of different cultural assets and combined them into a cultural asset index (CAI) . . . and linked the cultural data to other measures of social wellbeing to study the arts social impact" (70) (see Appendix 1).

Through its most recent research in New York City neighborhoods, SAIP found that

- 1) Cultural resources were not distributed equally across the city, with many neighborhoods having few (70).
- 2) However, there were a substantial number of lower-income neighborhoods with more cultural resources than their economic standing would lead one to predict (70).
- 3) Even though lower-income neighborhoods had relatively few resources, these places demonstrated the most substantial relationship between culture and social well-being (70). Markedly, when controlling for socioeconomic status and ethnic makeup, the existence of cultural assets was significantly associated with increased

outcomes in health and safety. The qualitative data emphasized that neighborhood cultural ecology also adds to well-being in social connection and political and cultural voice (70).

Much of the previous and current research around arts and culture focus on cultural organizations that are doing the work, but this approach shifts focus from not just cultural institutions but more “geographically defined networks” (70). Stern refers to these networks and resources as “cultural ecology,” defined as the relationships and networks among cultural resources in a neighborhood-level geography. In the conclusion of the study he found that social connection is the key to the improvements in social well-being and that a neighborhood’s cultural ecology is one means through which social connection is fostered (70). As a national intermediary, Enterprise is well suited to foster synergy across the cultural ecology of places that they work. The C&CR program is well suited to support cultural ecologies through these synergies and through leveraging creative placemaking processes within community development.

This DELTA study seeks to investigate if creative placemaking can be a strategy to support community resilience by focusing efforts on cultural resilience building, bridging relationships between organizations and community, facilitating social connectedness through community engagement opportunities, and highlighting the needs of vulnerable populations by focusing on processes that are culturally appropriate and community driven. The Climate and Cultural Resilience Program supports community-driven projects that use creative placemaking as a tool to build climate and cultural resilience.

What Is Creative Placemaking?

In “Creative Placemaking,” a white paper written for the National Endowment for the Arts, Ann Markusen and Anne Gadwa first coined the term creative placemaking. They

define it as strategically leveraging stakeholders from diverse sectors to mold the physical and social characteristics of a place around arts and cultural activities (71). The focus of this definition brings together several different theories to conceptualize how art can transform space and society.

The first theory supporting the conceptualization of creative placemaking is placemaking. Although creative placemaking is relatively new, placemaking is a word made popular in the 1960s by Jane Jacobs and William Whyte. Placemaking is defined as an approach to urban planning that is community-centered and place-based (72). Indicative in its name, creative placemaking adds art and culture to the placemaking process. However, Jacobs' focus on "local community's assets," "public spaces," and "health and well-being" (72) seems far less explicit than in Markusen et al.'s creative placemaking definition. Jacobs' definition focuses placemaking outcomes on meeting the needs of the residents and at the human scale. Both definitions, however, promote the importance of interventions "making" thriving places. One controversy of this term is that it implies sites of creative placemaking are not currently places with existing communities and, if "local communities assets" are not centered, can attract development not representative of current residents.

The second theory is around art and urban regeneration, which has largely come from the economic field. Sharon Zukin presents in a number of her books that the arts are imperative to how places are valued or their "symbolic economy" (73). She describes placemaking as being grounded in a specific locale but creating outcomes that can touch the city in its entirety. Public art and art activities have become part of cities arsenal to "encourage entrepreneurial innovation and creativity, cleanse public spaces of visible signs of moral decay, and compete with other capitals of the symbolic economy" (73). Neil Smith

presents the rent gap theory to explain the process of gentrification, often spurred by this art activity. He explains the idea of gentrification as the rent gap. As land ages, it creates a gap between its present value and its potential redevelopment value, a gap is that many property owners and developers try to capture (74, 75). As described by Smith, displacement in many places across the globe comes from this developer capture (74, 75). Many critics of creative placemaking blame creative placemaking for spurring this process without having mechanisms to protect vulnerable residents. However, gentrification in itself is meeting one of the primary focuses of creative placemaking; increasing economic development and investment. There is a persistent tension in the field with doing creative placemaking to promote economic investment while maintaining benefits for current residents.

The third theory is around art and building social capital. This concept focuses the relationship between art and its impact on human behavior in place. As mentioned in the previous section, social capital is “the resources accessed by individuals as a result of their membership of a network or group” (6). Recent studies on social capital suggest social capital is a relevant outcome of community resilience that can be fostered by people exposed to the arts (25). A study by the National Endowment for the Arts (NEA) found that adults who partake in art and cultural events are far more likely than those who do not to participate in community events, volunteer in local organizations, and vote (83). In a similar study, “arts participation rates” were found to be a rigorous indicator for assessing civic engagement and community health (84, 85). People involved with the arts are more engaged in their communities and thus more socially connected and supported. This seems to be because the arts use more participatory practices that bring people together and

connect them.

Creative placemaking supporters combine these theories to present the argument that cultural practitioners pursue the revitalization of underused urban spaces to create attractive urban spaces that “serve local residents, build social trust, and attract increasing investments” (69). However, we are seeing in practice that a focus on redevelopment of underused land that attracts investments does not always serve local residents. In “Measuring the Outcome of Creative Placemaking,” Mark Stern argued that there can be space for both but advocates must acknowledge the tensions associated with them (69). I would argue that the primary focus must be centered on local residents, otherwise existing systems of inequity can inadvertently shift the benefits of projects.

Today, several organizations focus on funding and implementing creative placemaking interventions. Although different organizations have adapted the definition of creative placemaking in unique ways, the overarching components require the integration of art and community development. Based on a comparison of six of the largest creative placemaking funders (see Table 1), it is clear that this basic definition is shared, although they each have different approaches to the practice.

Table 1. Overview of Creative Placemaking Funders (76-82)

Organization/ Author	Definition	Components	Outcomes	By who/for who
NEA/ Ann Markisen & Anne Gawda	Creative placemaking is when artists, arts organizations, and community development practitioners deliberately integrate arts and culture into community revitalization work - placing arts at the table with land-use, transportation, economic development, education, housing, infrastructure, and public safety strategies.	integrate arts and culture in community revitalization	Collaboration across disciplines	artists, art orgs, community dev practitioners/ existing residents
ArtPlace	describes projects in which art plays an intentional and integrated role in place-based community planning and development. This brings artists, arts organizations, and artistic activity into the suite of placemaking strategies pioneered by Jane Jacobs and her colleagues, who believed that community development must be locally informed, human-centric, and holistic.	integrate arts and culture in community planning and development	locally informed, placemaking strategies(Jane Jacobs)	artists, art orgs/ people living & working in community
Kresge	an approach to community development and urban planning that integrates arts, culture, and community-engaged design strategies. Kresge's unique niche in Creative Placemaking is our commitment to influence community development-related systems and practices that expand opportunities for low-income people in disinvested communities in American cities.	integrate art, culture, and community engaged design in community development and urban planning	communitiy-engaged, disinvested communities	?/Low income, disinvested communities
Local Inittatives Support Corporation (LISC)	LISC defines creative placemaking as a collaborative process that leverages the unique power of arts and culture to empower people to build vibrant, resilient, and socially connected communities in the places they call home. We bring together artists, arts organizations, and community organizations in collaboration to activate spaces, revitalize places, and preserve neighborhood identity and culture.	collaborative process of arts and culture in community development	resilient, socially connected, preserve neighborhood identity	artists, arts organizations, and community organizations/ community?
Project for Public spaces	Arts-based Placemaking is an integrative approach to urban planning and community building that stimulates local economies and leads to increased innovation, cultural diversity, and civic engagement.	arts based integrative approach to communitr building and urban planning	local economies-innovation, cultural identity, and civic engagement	??
100 Resilient Cities	seeks to help communities develop a stronger sense of identity, building on native cultural assets to create more cohesive, healthy, and resilient places. The deliberate integration of arts and culture into community development work brings arts organizations and artists to the table, helping to design land-use, transportation, economic development, education, housing, infrastructure, and public safety strategies.	integration of arts and culture in community development	identity, native cultural assets-cohesive, healthy, and resileint places	artists, art orgs/ communitiy
Trust for Public Land (TPL)	a cooperative, community-based process that leads to new and rejuvenated parks and open spaces reflecting local identity through arts and culture.	equity, arts and culture, community engagement, partnerships and stewardship	parks and open space refelcting local identity	?/community

Research of these organizations shows that there are four main categories that contribute to how creative placemaking is done (76–82). The first is the creative design component: what is being created and what is it meant to do? The second is the implementation process: who is doing the making and whom is it meant to serve? The third is the tenure of the project: how long is it meant to last? The last are the outcomes: what is the impact of the project and how are we measuring it? I will investigate the above organizations' practices to better understand these creative placemaking principles.

Creative Design: What Does It Look Like? The primary distinction between placemaking and creative placemaking is the art and cultural focus. For many of the organizations doing this work, the creativity can come from several places. It can come from the physical structures or practices being implemented, the processes being created, or the practitioners doing the work. Bringing artists to the community development decision-making table is a primary focus of much of the creative placemaking work of the top six major funders. The Kresge Foundation is one of the only organizations that do not explicitly mention “bringing artists to the table” as part of their definition of creative placemaking. There are dozens of “how to” guides from each of these organizations: *How to Do Creative placemaking: An Action Oriented Guide to Arts in Community Development* (NEA), *Field Guide for Creative Placemaking and Parks* (Trust for Public Land), *Creative Placemaking: Everything You Need to Know* (LISC), to name a few (see Table 1). They each reference different mediums and mechanisms for the design of creative placemaking projects. The only similarity is that there seems to be a need for the creative endeavor to be public.

Implementation Process: For Whom and by Whom? Much of the research

features creative placemaking as a participatory approach to community development, but some of this same literature excludes community participants from the designing or creating (76–82). From the definitions of many of these organizations, the process seems centered on artists and bringing artists and their tools to the community development table (76–82). Xavier De Souza Briggs of the Ford Foundation notes in a white paper on community development and creative placemaking that artists, better than developers, can “connect, engage, and listen” toward enabling the community to “narrate itself”: how it sees itself, what the critical issues it faces are, and where it is headed” (91). From the above statement, it seems that the community is not thought of as able to narrate itself.

Although many of the outcomes the above organizations claim are beneficial to community members, they do not mention community members as designers or implementers in the making process (76–82). However, it seems that a process centered on artists must also seek to benefit artists, yet these explicit outcomes are missing from much of the literature. One important question is who is the community? Of the seven definitions, only the NEA is explicit about whom the community includes. They focus their definition on benefiting “existing residents,” which seems like a clear nod toward preventing displacement. A persistent fear of the field is leveraging creative placemaking and creating spaces for artists attracts development that is often exclusive of the current community and inviting to wealthier future residents. However, it is important to also be thoughtful about this language as it pertains to the process. Regardless of whether current residents are the community of focus, and even if artists are better representatives than developers, are they the best representative to facilitate a process that is representative of community if they are not part of that community?

Kresge focuses its definition on a broader issue area, classifying focal areas as “low-income” and “disinvested communities,” which seems to be determined by some economic measure, but it is unclear who decides what makes the community “disinvested” in and at what scale the community exists (78). Artplace has created a process of four steps by which to determine the community based on geographic scale and engage the community in the process of the making (77):

1. Define a community based in geography, such as a block, a neighborhood, a city, or a region
2. Articulate a change the group of people living and working in that community would like to see
3. Propose an arts-based intervention to help achieve that change
4. Develop a way to know whether the change occurred

It is still unclear who directs this process. Is it artists, community development practitioners, community, or some combination? The NEA, like others, discusses a collaborative process that places “art at the table” with land-use, transportation, economic development, education, housing, infrastructure, and public safety (76). However, few others go further to explicitly state what sorts of community stakeholders are necessary to facilitate this collaborative approach and who is spearheading it. It does not seem explicit in the research across the board that communities have to be members of this stakeholder group. Many organizations mention community as the beneficiaries of this work or in some cases consulted somewhere in the process of creating. If in fact the process is meant to primarily benefit community members, community should be explicitly centered in the definition of who is creating.

Tenure: How Long Will It Last? Tenure is even less documented than any of the other criteria. There are unquestionably different tenures for different projects but there is less data on the comparable benefit of different approaches. There are two distinct approaches that speak less to the length or scale of the project but more to speed of implementation. These quicker strategies are called tactical urbanism, D.I.Y. (“do-it-yourself”), or guerilla urbanism, and they are often temporary, informal, and meant to challenge more “top-down” or privatized approaches to city planning. The goal is to “generate experimentation and creativity, and try new ideas for revitalizing public spaces,” which are arguably similar goals for longer-term creative placemaking interventions (79). The main difference explored in the research is cost. Shorter-term interventions in general cost less, while deeper infrastructure interventions have much higher price tags.

Impact: What Can It Do? Jamie Bennett, executive director of ArtPlace America was quoted as saying, “in creative placemaking, ‘creative’ is an adverb describing the making, not an adjective describing the place. Successful creative placemaking is measured in the ways artists, formal and informal art spaces, and creative interventions contribute toward community outcomes” (91). In the C&CR program, Enterprise’s primary focus is not on the art being created but what the creative process can do to support community building. There are many theorized outcomes from creative placemaking. Different leaders in the field claim “creative placemaking leads with the ability to address the intangibles that make a successful and vibrant community, to mobilize social capital, bring performance and participatory activities to public spaces, and “challenge preconceptions about what a city is supposed to look like and how it works” (91).

Expanding this idea, Darren Walker, president of the Ford Foundation, notes that

creative placemaking, particularly in under-resourced communities, can unearth and support inherent creativity within a community: “I reject the idea that a community that is poor can’t be a place of creative placemaking The creative process might need to be organized, leveraged, and oxygenated, but you often find that creativity is there” (91).

Examining communities through a lens of assets instead of deficits transforms perspectives. I argue that people in communities that have experienced disinvestment and intergenerational trauma are already creative in their ability to survive and thrive. The question is how organizations support people in leveraging and displaying that creativity in place to represent their current lived experience while advocating for their future vision of place. The use of the arts to “activate” places—storefronts, trails, abandoned railways, town centers, and main streets—may be a way to do this, for which artists are well suited for, but not in the absence of local residents for whom interventions are meant to serve.

There are many discussions about the theoretical impact of creative placemaking but few studies that empirically measure this impact. A few organizations have tried. For example, ArtPlace America presented a vibrancy index that proposed a way to track outcomes in cell phone activity and other indicators, which was quickly criticized for overlooking “distributional issues” and their “contribution to gentrification” (89). Ann Markusen and later Anne Gadwa Nicodemus (the creators of the term “creative placemaking”) separately criticized creative placemaking for its intangible outcomes. Markusen argued in a blog post that later became an article that creative placemaking is a “fuzzy concept” with a “number of data problems making it unrealistic for rigorous assessment” (87, 88). The data problems are as follows:

- The dimensions to be measured are hard to pin down.

- Most good secondary data series are not available at spatial scales.
- They are unlikely be statistically significant at the scales desired.
- Charting change over time successfully is a huge challenge.
- There are very few arts and cultural indicators included among the measures under consideration.

In a follow-up piece, Ann Gadwa Nicodemus made a similar argument: Even though the “liveability” and “vibrancy” are appealing to stakeholders, they have left the field open to criticism about supporting “development and gentrification” over social equity” because of their “malleable” nature (88). Despite this skeptical view, Mark Stern, Kenneth L. M. Pray Professor of Social Policy and History at the University of Pennsylvania, presented research that offers some hope for the future of measurement. He agreed that the field needs to clarify the conceptual foundation of creative placemaking but argued that “complex multivariate models” may not be the best way to understand the impact of the arts on communities; however, Stern is optimistic about developing credible and useful indicators to measure impact (69).

Creative Placemaking and Health

The SAIP project “rather than suggesting that cultural resources in a neighborhood cause particular outcomes argue that they are one ingredient of a healthy, connected community” (70). Much of the SAIP research demonstrated clear correlations between the presence of creative placemaking and cultural assets and positive health outcomes. Mark Stern describes the findings in these words:

The presence of cultural resources in a neighborhood—particularly in low-income neighborhoods—allows residents to beat the odds and enjoy better

health. This is not to say that cultural resources cause better health, like taking one's vitamins or exercising regularly. Rather, they suggest that culture—that is, access to and opportunities for cultural engagement and creative expression—is one ingredient that contributes to a healthy environment. (70)

Additionally, when we think about social well-being and health, there is extensive research on the causal link between the two. The World Health Organization defines health as a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity (90). Whether taking the approach that composite measures such as built environment, natural environment, and economic and social access are parts of what make societies healthy or that health and all the aforementioned components come together to make more prosperous communities with greater opportunity, a comprehensive understanding of social well-being and health must incorporate culture, creativity, and social capital. I will discuss later what this means for Enterprise, their Opportunity Index, and future research.

4. Methods for Investigating

The purpose of this study was to investigate how climate resilience, cultural resilience, and creative placemaking are understood among different stakeholders engaged in community development, the role of creative placemaking in advancing climate and cultural resilience, and the role an intermediary might be best suited to influence these strategies. The key questions I have asked community stakeholders and program staff during this investigation are listed below.

Key Questions

- What is climate resilience?
- What is cultural resilience?
- What makes your community resilient?
- How have you experienced creative placemaking?
- What can creative placemaking achieve?
- What role do intermediaries play in supporting this work?
- What was most valuable about this program/grant cycle?

As a public health leader, I believe health is a foundational social benefit and seek to integrate this principle across disciplines and practices that support people's ability to live prosperous lives. Essential to making this a reality is contributing to the field of community resilience. The C&CR program attempts to approach resilience development through a diverse approach, using art and culture to create innovative community development practices that actively promote health and well-being among the most underserved and enhance climate practices to build healthier and more resilient communities. Additionally,

this program seeks to bring together sustainability and art practitioners to engage in new kinds of partnerships that foster the growth of more equitable and resilient communities.

In recent years, the “range of social and physical stresses that people and communities experience has multiplied” (133). Additionally, acute events, combined with these stresses, affect many communities consistently over time (133). The scholarship and practice of ways to promote resilience for individuals and communities continues to grow. As the scope grows, so does the number of differing perspectives about the most important factors contributing to individual and community resilience (133). However, if we can better understand what resilience means for the communities we serve and what solutions they are already employing to be resilient, we may be able to create and support more effective solutions. Today, many practice, policy, and research stakeholders are developing and implementing efforts to establish the most effective methods for building resilient communities (133). At the same time, local leaders and communities have been actively innovating and experimenting with successful approaches, but often without the advantage of rigorous evidence to learn what works best and why (133). This project is an opportunity to explore one approach to fostering community resilience for expansion of such strategies in the future benefiting communities and stakeholder groups.

Through an interpretative epistemological approach, I developed a qualitative case study, in which I simultaneously worked with theory and empirical material. I collected my findings by performing document analysis, focus groups, participant observation, and conducting semi-structured interviews with people participating in the C&CR Program. Since the aim of this study was to gain a deeper understanding of climate and cultural resilience and creative placemaking in the C&CR Program, qualitative research was the

most suitable method.

For this study I use a case study model. Following Stake (108) and Yin (109), I based my approach to the case study on a constructivist paradigm. Constructivists claim that truth is relative and dependent on one's perspective. This paradigm "recognizes the importance of the subjective human creation of meaning, but doesn't reject outright some notion of objectivity. Constructivism is built upon the premise of a social construction of reality" (110). One of the advantages of this approach is the close collaboration between the researcher and the participant, while enabling participants to tell their stories (111). Through these stories the participants are able to describe their views of reality, which enables the researcher to better understand the participants' actions (112). As the project manager and lead researcher in this study, I closely collaborated with the participants throughout the study and in the program at large.

I selected this methodology based on the extensive research on the many beneficial uses of case study models. Because this project involves numerous stakeholders, I thought it important to find a model "designed to bring out the details from the viewpoints of the participants by using multiple sources of data" (113). I conducted an exploratory case study analyzing five different sites models for understanding climate and cultural resilience, and creative placemaking through participating in the Climate and Cultural Resilience Program. This methodology supported me in describing the interventions themselves, describing the real-life context in which the interventions occurred at each site, and exploring the models for the interventions being evaluated and their proposed outcomes (114). I chose a multi-case study because the study includes multiple cases where the context is unique. The multiple case study model afforded me the opportunity to

analyze within and across each stakeholder. The procedure I used for conducting this case study is adapted from Yin (115) and outlined as follows:

1. Design the case study protocol
 - a. Determine the required skills
 - b. Develop and review protocol
2. Conduct case study
 - a. Prepare for data collection
 - b. Conduct focus groups
 - c. Collect observations
 - d. Conduct interviews
3. Analyze case study evidence
 - a. Analytic strategy
4. Develop conclusions, recommendations, and implications based on evidence

Design the Case Study Protocol

The first stage of the case study was to design the protocol for what should be included and a plan for how to gather that data. I selected an approach for leveraging my C&CR team and the C&CR participants toward building the case study.

Lead Researcher. Yin suggested that the researcher must possess or acquire the following skills: the ability to ask good questions and to interpret the responses, be a good listener, be adaptive and flexible so as to react to various situations, have a firm grasp of the issues being studied, and be unbiased by preconceived notions (114). Our project staff comprised experts in particular field areas relevant to this project. Each brings a wealth of knowledge to the project. It was particularly important to collaboratively develop the study

protocol and questions so that the entire team was working from the same understanding when engaging with participants. However, I was the only investigator collecting and analyzing data.

The C&CR grantee cycle is for 12 months, from May 2017 to May 2018. Grantees have been completing their projects and attending conferences, site visits, and retreats throughout this time. During each of the site visits to the five sites we conducted two focus groups with different community members who were selected by the site leadership team. During the Spring Retreat in March I conducted a focus group with the team leadership staff present at the retreat. All focus groups were one-time events. All interviews were one-time interviews with different program staff and project implementers.

Inclusion Criteria and Exclusion Criteria. To be included in the focus groups or interviews individuals had to be participants in the C&CR project directly as project leadership planning the project, community members impacted by the project, or designers implementing the projects. The only exclusion criterion was not being a part of the C&CR program or impacted by the projects. The participants were recommended from program leadership at each of the following sites, which were selected to receive the C&CR grants:

- American Indian Community Housing Organization in Duluth, Minnesota
- WonderRoot in Atlanta, Georgia
- The Center for Neighborhood Technology in Chicago, Illinois
- Chinatown Community Development Center in San Francisco, California
- Coalfield Development Corporation in Wayne, West Virginia

Conduct Case Study

The second stage of the methodology was conducting the actual case study. My data

collection plan addressed internal validity and construction as well as external validity and reliability (114) while focusing on the design challenge of traditional grant programs that do not incorporate community voices. To do this I used the following data collection mechanisms:

- **Document analysis:** As a starting point for my case study, I chose to perform a document analysis to gain broader knowledge of what was officially communicated to and between grantees and Enterprise Community Partners. According to Bowen (116), document analysis is a systematic approach for evaluating and interpreting documents with the purpose to gain understanding and is often used in combination with other methods as a means of triangulation to identify patterns and convergent themes in the empirical material (116). The documents analyzed in the case study were over 200 pages of Enterprise products related to climate resilience and creative placemaking. They were developed by consultants with Enterprise staff to communicate previous and continuing work, with the purpose of providing technical assistance to community organizations. Additionally, I reviewed over 100 pages of Climate and Cultural Resilience proposal data from Enterprise to Kresge and from program grantees to Enterprise. Through performing this document analysis and before conducting the focus groups, I gained a general understanding of what kind of activities were performed by Enterprise and the grantees and those that were anticipated. Thus, the document analysis made it possible for me to acquire more from the later conducted focus groups as well as the possibility to see correlations or fragmentation in the empirical material.
- **Focus groups** I chose focus groups because they are the best tool for uncovering individual as well as group perceptions and opinion. I conducted 12 focus groups, which

incorporated 49 people total. Community members and staff were in separate focus groups. The following was the breakdown for each site:

- The American Indian Community Housing Organization in Duluth, Minnesota: six community members, two staff members
- WonderRoot in Atlanta, Georgia: 15 community members, two staff members
- The Center for Neighborhood Technology in Chicago, Illinois: 15 community members, three staff members
- Chinatown Community Development Center in San Francisco, California: six community members, two staff members
- Coalfield Development Corporation in Wayne, West Virginia: six community members, two staff members

Each of the community member focus groups was conducted in the grantee community at a site selected by the grantees. Each focus group happened in a private room and was recorded. The key questions asked of the group focused on how the respondents understood and have experienced climate and cultural resilience and creative placemaking. There was one focus group that included all staff members from the different sites. This focus group took place in Mingo County, WV, during the program's spring retreat. The focus group was conducted in a private room and was recorded. For staff member participants the questions were more targeted to how they experienced them throughout the planning and application of this particular program.

- **Interviews** are another source of case study information. I followed up focus groups with focused interviews based on previous observations and data collected during focus groups. The key questions focused on how the respondents understood

and have experienced climate and cultural resilience and creative placemaking in their communities.

- **Participant observation** The objective of observations was to better understand the feelings and expertise of C&CR participants regarding climate and cultural resilience and creative placemaking. Most data collection occurred during site visits of particular neighborhoods. As the project manager, I had the unique opportunity to observe while participating in the events being studied. Most observations were of interactions of participants with one another, community members, and program staff either in discussing the different key questions of the program or implementing their own place-based projects. Additionally, I had the opportunity to interact with participants engaging in a conference about climate resilience. Some of my observations are based around how participants interact around new concepts or those that seem familiar related to the key questions. A major concern of this data source is my potential bias as a researcher and active participant. I was fully conscious of this while collecting data and recognize this as a limitation I tried to overcome this limitation by sharing my final analysis as I triangulated to check my objectivity.

- I developed **conceptual program logic models and a conceptual framework of the themes** based on the program proposals of each of the grantees, grantee engaged logic model development activities, and a compilation of data analysis. I compared these models to models created around the actual data collected and outcomes achieved.

I used multiple sources of data to increase the reliability of the data and the process of

collection. Having multiple sources improved triangulation and the opportunity to corroborate data from other sources. I leveraged a combination of each of these mechanisms at each of the five different grantee sites.

Analyze Case Study Evidence

Analytic Platform. I used a pattern-matching technique to analyze the data collected for the case study. In case-study research, pattern-matching techniques are designed to enhance the rigor of the study; if the empirically found patterns match the predicted ones, the findings can contribute to and strengthen the internal validity of the study and result in the confirmation of the hypotheses/propositions (109). In contrast, if the predicted and experienced patterns do not match, the researcher must examine alternative explanations for the findings (117) (see Appendix 3 for flow chart example).

A limitation of pattern matching is that there is little guidance from published literature that explains how to apply these techniques to bring the diverse results together. However, I used many theoretical examples to compensate for the lack of practical examples (117). Additionally, I created a conceptual framework during the analysis. The framework developed as the study progressed and the relationships between the proposed constructs emerged as I analyzed the data. A final conceptual framework includes all the themes that emerged from data analysis. As Yin suggested, I returned to the propositions that initially formed the conceptual framework in this phase, to ensure that my analysis was reasonable in scope and that it provided structure for the final report. Despite the challenges, I believe these tools are useful for analyzing my data and an opportunity for adding to the practical literature on pattern-matching and conceptual framework techniques.

Synthesis Approach

I used a narrative and thematic approach to synthesizing the analysis. This approach, in this context, focuses on the collection of the diverse kinds of oral, written, and observed accounts of events, stories and actions (118, 119) and synthesizes them to tell a story. In the case study and in my findings I use direct quotes from participants to illustrate places where thought align and diverge. I used thematic synthesis to code the findings of my data, organize these codes into related areas to construct descriptive themes, and develop the analytical themes. I first had data transcribed of the different focus groups, and then went through each transcription to create codes. Then, I went over the codes to create larger themes. Finally, I used these themes to uncover my final analytic themes around participants understanding and experience of community resilience and creative placemaking

Develop Conclusions, Recommendations, and Implications Based on Evidence

In the following section, I reveal findings, recommendations and implications based on the evidence presented.

5. Grantee Case Study

Each of the grantee organizations presented resilience and cultural challenges within their communities. However, these challenges were in the context of the Request for Proposal (RFP) from Enterprise and, as mentioned earlier, were selected because they had experience conducting activities that advanced climate and cultural resilience. Therefore, these components are present in each of the grantee projects but the extent to which they are present varies across the grantee groups. As mentioned previously, each of the grantee groups has an organizational partner experienced in climate or cultural issues. Each lead organization is a community development corporation (CDC), which are nonprofit, community-based organizations focused on revitalizing the areas in which they are located, typically low-income, underserved neighborhoods that have experienced significant disinvestment. While they are most commonly celebrated for developing affordable housing, they are usually involved in a range of initiatives critical to community health such as economic development, sanitation, streetscaping, neighborhood planning projects, education, and social service provision to neighborhood residents (101). Through the C&CR project, Enterprise is providing funding to support capacity building, as well connecting them with resources, distributing best practices, publicizing successes, and connecting to provider networks.

This section takes a deep dive into each of the grantee projects, presenting an organizational overview, the context of their project, the activities they explored, and which of those aligned with the Enterprise Criteria. The organizations are as follows (see also Table 2 below):

1. The American Indian Community Housing Organization in Duluth, Minnesota:

revitalizing a rooftop garden as a native community collaborative space with green infrastructure and traditional foods.

2. WonderRoot in Atlanta, Georgia: building community understanding of design initiatives, embedding arts strategies into rainwater retention efforts.

3. The Center for Neighborhood Technology in Chicago, Illinois: creating a social and environmental justice initiative with local partners, developing four site-specific art and green infrastructure installations within a half-mile of transit stops in areas of high economic hardship.

4. Chinatown Community Development Center in San Francisco (SF), California: enhancing social cohesion and climate resilience by building government partnerships in redesigning Portsmouth Square Park and the implementation of an ecofair.

5. Coalfield Development Corporation in Wayne, West Virginia: providing out-of-work coal miners with retraining in reforestation, solar installation, furniture making, and sustainable agriculture on former mountaintop removal sites.

The Enterprise criteria is as follows and numbered accordingly in the “Outcomes” box below:

- 1) Climate resilience advancing activities (97):**
 - a. Learn from residents about specific ways in which climate impacts affect them and the places they live
 - b. Proactively address potential climate-related challenges for the particular place
 - c. Plan to address specific climate resilience needs to be paired with cultural resilience efforts for added impact

2) Cultural resilience advancing activities:

- a. Partner with artists or designers and with residents or community members to create an experience or product that reflects community identity
- b. Conduct community-engaged activities that focus on cultural expression of the people involved
- c. Partner with local culture bearers
- d. Use culturally competent practices to deliver the services of the organization and to gain stakeholder input
- e. Plan for how to support climate resilience efforts through building cultural resilience

Table 2. Case Study Overview

Organization	Climate Resilience Strategy	Cultural Resilience Strategy	Creative Placemaking Approach	Outcomes
AICHO	Rooftop garden redesign & Capacity building for sustainability efforts: <ul style="list-style-type: none"> • Installation of a 12 kW photovoltaic array • Installation of composting system • Installation of water capture system • Natural food production 	Rooftop garden programming: <ul style="list-style-type: none"> • Native American public art • Creation of a C&CR speaker series on NA topic areas • Development of a C&CR Community Committee 	<ul style="list-style-type: none"> • C&CR Community Committee to select art installation • Selected artist designed and installed mural • Conducted a community participatory design activity with residents and community to inform rooftop design 	1B, 1C, 2D, 2E, 2F
WonderRoot & SouthFace	Support the development of a local Climate Resiliency Plan to identify climate-related risks and opportunities, and help guide needs to build resilience: <ul style="list-style-type: none"> • Conduct a community-led arts-based needs assessment to identify climate facility needs 	<ul style="list-style-type: none"> • Conduct a community-led arts-based needs assessment to identify cultural facility needs, and develop a cultural facility siting and operating plan within the Lee Street corridor 	<ul style="list-style-type: none"> • Using creative placemaking platforms to elevate discussions about creating new sustainability and resiliency policies that are people-first • Design and launch of a public art/way-finding project that denotes community assets in the natural and built environment • Hire additional creative placemaking staff person <p>Five key elements to the CP strategy that informed how they approached:</p> <ol style="list-style-type: none"> 1. Cross sector partnership 2. Incorporating the social landscape of the area 3. Centered on a specific place- Lee St. Corridor 4. Publicly visible 5. Equitable community partnership 	1A, 2D, 2E, 2F
Chi-Go	Rain water infrastructure projects installed in 4 neighborhoods near metro stations: <ul style="list-style-type: none"> • Green Line (51st St.)- rain gardens on boxville community market • Blue Line (Holamn Square)- 10 trees planted of a 7,000 tree planting proj • Pink Line (California)- rain boxes at leaking overpass • Blue Line (Logan Square)- splashboxes for rain water runoff 	Local cultural events positioned near metro stations w/ climate infrastructure: <ul style="list-style-type: none"> • Green Line (51st St.)- mural depicting the local black community • Blue Line (Holamn Square)- crafting of shovels by local artists from reclaimed weapons-highlighting the issues of community violence • Pink Line (California)- placement of public art gallery under overpass with local Mexican artist's work • creation of a mural by local youth depicting the cultural Puerto Rican assets of the community 	Each area had a lead partner nonprofit that worked to: (1) Involve local artists; (2) Connect to local anchor institutions such as schools and houses of worship; and (3) Direct local implementation efforts with community residents and stakeholders. A community-led committee: <ul style="list-style-type: none"> • selected the local artists. •The artists then engaged in multiple community participatory sessions to identify and develop public art installations, programming, and community gardens. 	1B, 1C, 2D, 2E, 2F
Chinatown CDC	Develop a city plan and conceptual design for the redevelopment of Portsmouth Square Park that positions it to be a resilience hub for Chinatown residents	Develop a city plan and conceptual design for the redevelopment of Portsmouth Square Park that reflects the culture of Chinatown residents	CCDC employed a community planning process for Portsmouth Square that included: <ul style="list-style-type: none"> •four community meetings • one-on-one interviews with stakeholders and •intercept surveys with users of the park. 	1A, 1B, 1C, 2D, 2E, 2F, 2G
Coalfield	Addresses both climate and economic challenges by hiring out of work coal miners on projects that contribute to sustainable community development. Activates include: <ul style="list-style-type: none"> •planting trees,• maintain and harvesting local produce, •installing a solar farm, and •repurposing wood from cut down trees 	Mentorship program by local artists for former coal miners in: <ul style="list-style-type: none"> •quilting, woodworking, mountain music, foraging/canning, beekeeping, pottery, and glassblowing. 	Every program incorporates a design process with a: <ul style="list-style-type: none"> •community design charette facilitated by LEED architects •partnership with community groups to ensure broad outreach and involvement •All trainees are hired locally •Use local partnerships to select artist mentors who develop mentorship curriculum 	1C, 2D, 2E, 2F



Figure 1. Vainio, I. (Photographer). (2017, Dec 18). "Ganawenjige Onigam," by Volton Ik & Derek Brown, AICHO, Duluth, MN [Digital Image]

American Indian Community Housing Organization (**Duluth, Minnesota**)

AICHO was founded in 1993 to create culturally specific programming for Native women and children escaping violence (Fig. 1). Since the opening of their Dabinoo'igan

Shelter in 1994, AICHO has expanded to include its GiiweMobile Team (providing housing subsidies and case management to 33 families and 16 units of permanent housing for individuals and families coming from homeless situations. In 2006, AICHO purchased and renovated a historic YWCA, developing 29 units of publicly supportive housing and an Urban Indian Center. Opened in 2012, Gimaajii-Mino-Bimaadizimin also houses tribal partners and hosts cultural events, art shows, and performances. According to the organization, the center has become the central hub for the Native community in the region, where Native people go for safety, services, and community. It has also become a place where Native and non-Native communities connect and communicate.

Duluth is located in northern MN on the shores of Lake Superior, populated by 87,000 people (93% white, 7% people of color). American Indians make up 2.4% of the total population, yet they are 30% of the homeless population and face a wide range of barriers related to housing, employment and education. Michelle LeBeau, Director of AICHO described how many of the residents they serve: “Many Native American people move to Duluth in search of opportunities they can’t find on their own reservations or in Minnesota’s rural towns. As a whole, however, Duluth has not been welcoming to its indigenous population and tensions arise quite often over the city’s negligence when it comes to including the Native voice in urban planning and public arts initiatives” (AICHO staff member). AICHO defines their community as the Indigenous community, the adults and children who live in Gimaajii-Mino-Bimaadizimin (“We are, All of us Together, Beginning a Good Life”), as well as the Indigenous artists they work with. Their project is rooted in Indigenous values but encourages participation from the greater Duluth community, especially local children.

Project Description

In this project AICHO is responding to the challenges of climate by generating clean energy, improving access to traditional foods and medicines, and reducing water run-off by expanding use of the roof at the Gimaajii-Mino-Bimaadizim Urban Indian Center and redeveloping it as a rooftop garden and community learning and gathering space. They seek to engage Indigenous leaders, elders, artists, and community members to teach about traditional medicines, food, and cultural practices related to protecting the environment through cultural hands on experiences that address climate and cultural resilience practices (Table 3).

Challenges Addressed

- Lack of inclusiveness and knowledge of American Indian (AI) culture in local community
- High levels of food insecurity for local AI population
- Persistent power outages with increased severe winter weather events

Proposed Goals

Rooftop garden redesign and capacity-building for sustainability efforts:

- Installation of a 12 kW photovoltaic array
- Installation of composting system
- Installation of water capture system
- Public art
- Creation of a C&CR speaker series
- Development of a C&CR Community Committee

Project Participants

- Rural renewable energy alliances
- Two AmeriCorps Vistas
- Duluth community garden
- Laverne's worms
- Growing Power
- Dream of wild
- Research for indigenous community health
- Honor for earth
- Duluth Indigenous Commission

Table 3. AICHO Climate, Culture, & Creative Placemaking Strategy

Organization	Climate Resilience Strategy	Cultural Resilience Strategy	Creative Placemaking Approach	Outcomes
AICHO	Rooftop garden redesign & Capacity building for sustainability efforts: <ul style="list-style-type: none"> • Installation of a 12 kW photovoltaic array • Installation of composting system • Installation of water capture system • Natural food production 	Rooftop garden programming: <ul style="list-style-type: none"> • Native American public art • Creation of a C&CR speaker series on NA topic areas • Development of a C&CR Community Committee 	<ul style="list-style-type: none"> • C&CR Community Committee to select art installation • Selected artist designed and installed mural • Conducted a community participatory design activity with residents and community to inform rooftop design 	1B, 1C, 2D, 2E, 2F

Process/Design Strategy

Prior to installing any climate infrastructure, AICHO had a community meeting to determine the type of programming and art that the community would want to see. AICHO partnered with Honor the Earth, a nonprofit environmental conservation organization, and Mayan artist Volton Ik, with the assistance of Derek Brown of the Dine or Navajo tribe, to design and paint a mural on the rooftop. The artists designed and painted the piece but some residents of the building assisted in painting. Once it was complete, AICHO then had a community event with a cultural fair to unveil the mural. The event had drum circles, presentations about local events, and prayers for the community space by a tribal elder. The cultural fair included booths discussing climate and American Indian cultural topics. Even I had a table facilitating a participatory activity where community members mapped different things they wanted to see in the rooftop community garden space. These maps were used to inform the design for the rooftop space.

As people lined the street to watch the unveiling of the mural you could feel the excitement in the air. A dark sheet dropped to reveal a 30-foot portrait of an American Indian woman. On her body she wore a jingle dress, a dress traditionally worn by Ojibwe women during powwows that, when danced in, creates an airy, jingling sound, and covering her face a red bandana to represent the women who “participated in the Zapatista uprising in the Mexican state of Chiapas in 1994” as well as those “Water Protectors at Standing Rock.” From the crowd, I heard sighs, cheers, and even sniffles trying to hold back tears. I knew immediately that this was more than a mural. In a building that houses Native women from some of the most difficult circumstances, in a city that has no public art for and by indigenous people, this was a symbol of resilience. “The mural is powerful, in a

spiritually and deep-down emotional way. Its interconnections with the importance of protecting our water, indigenous women, and cultural ways will now be front and center in downtown Duluth,” said Ivy Vainio of the Grand Portage Band of Ojibwe. Vainio is program coordinator at AICHO.



Figure 2. Austin, C. (Photographer). (2017, Sep 9). “Children picking tomatoes in the AICHO community garden [Digital Image]. <http://www.duluthnewstribune.com/lifestyle/home-and-garden/4325346-aicho-garden-aims-connect-people-traditional-food>

WonderRoot (Atlanta, Georgia)

WonderRoot is an arts organization that works to improve the cultural and social landscape of Atlanta through creative initiatives and community partnerships (Fig. 2). Its mission is to “unite artists and community to inspire positive social change” (102). For this project, it partnered with Southface, a sustainable development and green building

nonprofit which supports community education, research, advocacy and technical assistance (103). Both organizations are part of a larger collaborative called the TransFormation Alliance, a 17-member network of organizations and agencies that work at the intersection of equitable transit oriented development, racial equity, and the built environment. The TransFormation Alliance identified the Lee Street corridor in Atlanta as a demonstration site for further community investment and planning in the built environment, particularly with regard to health, climate, and creative placemaking.

The Lee Street Corridor includes some of the most underinvested in and racially segregated neighborhoods in the city, and it is facing development pressures from the BeltLine expansion, MARTA expansion, and the Fort McPherson redevelopment. Forthcoming transit-related investment will bring an influx of new employment, business, housing choices, and retail opportunities to the corridor. However, it will also spur gentrification, which sparks fear of displacement in local residents. The focus area has seen a population decline of 23% from 2000 to 2010, but since 2010, population has increased by 6%. Despite this recent growth, the area's current population is still just 82% of 2000 levels. The area has a median household income of \$24,042, a little more than half of citywide median of \$41,605; 66% of households have incomes below \$35,000; and 37% of the households live in poverty, compared to 21% citywide. The corridor is predominantly African-American, 91%, vs. 51% citywide. The area is a multi-generational neighborhood, where 65% of area owner-occupied housing units are valued less than \$100,000, compared to 23% citywide. Further, 66% of the area households are rented, compared to 56% citywide. Even with a high incidence of renting, large apartment buildings are rare. Just 15% of area residents live in multi-family buildings, compared to 49% citywide. The area

has 13,194 housing units, of which 3,140 are vacant. The work in Atlanta is attempting to address the resilience needs of the community while highlighting their local assets that in many ways has been and continues to be overlooked as valuable residents.

Project Description

WonderRoot is designing and launching a public art, way-finding project that denotes community assets in the natural and built environments that have been adversely impacted by (or are at risk of) poor land irrigation and overflow flooding, soil erosion due to improper storm water management, and any disruptions to environmental ecosystems due to commercial development (Table 3).

Challenges Addressed

- Significant disinvestment and poor housing stock for years
- Threat of displacement due to Atlanta Beltline development
- Heavy flooding and sewage backup during normal and frequent rain events

Proposed Goals

- Design and launch of a public art/way-finding project
- Strengthen the cultural organizing capacity of climate partners
- Arts and culture integration amongst the TransFormation Alliance and its Lee street corridor climate partners
- Increased Investment in Lee street corridor (employment of local artists and beautification or neighborhood)
- Shift toward achieving racial equity through the built environment
- Inform the creation of new policy around C&CR (awareness, advocacy, guidelines for developers)

Project Participants

- WonderRoot
- Southface Institute
- Transformation Alliance
- Westside Atlanta Watershed Alliance
- Atlanta Office of Resilience
- Georgia Stand Up

Table 4. WonderRoot & SouthFace Climate, Culture, & Creative Placemaking Strategy

Organization	Climate Resilience Strategy	Cultural Resilience Strategy	Creative Placemaking Approach	Outcomes
<p>WonderRoot & SouthFace</p>	<p>Support the development of a local Climate Resiliency Plan to identify climate-related risks and opportunities, and help guide needs to build resilience:</p> <ul style="list-style-type: none"> • Conduct a community-led arts-based needs assessment to identify climate facility needs 	<ul style="list-style-type: none"> • Conduct a community-led arts-based needs assessment to identify cultural facility needs, and develop a cultural facility siting and operating plan within the Lee Street corridor 	<ul style="list-style-type: none"> • Using creative placemaking platforms to elevate discussions about creating new sustainability and resiliency policies that are people-first • Design and launch of a public art/way-finding project that denotes community assets in the natural and built environment • Hire additional creative placemaking staff person <p>Five key elements to the CP strategy that informed how they approached:</p> <ol style="list-style-type: none"> 1. Cross sector partnership 2. Incorporating the social landscape of the area 3. Centered on a specific place- Lee St. Corridor 4. Publicly visible 5. Equitable community partnership 	<p>1A, 2D, 2E, 2F</p>

Process/Design Strategy

With the support of individual artists and Lee Street corridor residents, WonderRoot and Southface employed a series of creative placemaking strategies to ensure that planning and decision making for green infrastructure investments were inclusive and elevated the lived experience of community stakeholders. By integrating an arts lens into the community engagement and narrative-building process for climate-related investments in the Lee Street corridor, climate and policy partners were able to more comprehensively understand the people-level impacts and community needs. Figure 3 illustrates one of the multiple mapping activities done to identify local climate and cultural assets and challenges. Already identified concerns include green infrastructure and its role in urban displacement, as well as educational and advocacy campaigns regarding watershed investment. Individual artist participants beyond the cultural practitioners employed at WonderRoot were selected through a resident-led community advisory committee, to ensure that the contributing artists were reflective of the community in which they were working. WonderRoot also commissioned neighborhood artists to develop promotional visuals for advocacy campaigns that highlighted green infrastructure investment opportunities. By employing artists living in the Lee Street corridor, strengthening the cultural organizing capacity of climate partners, and investing in the visual landscape of the corridor, the community better retain and highlight their cultural identity and assets.



Figure 3. Mapping exercise in Atlanta, GA, Ecodistrict Summit

Chicago Connections (Chi-Go) (Chicago, Illinois)

Chicago Connections is a coalition of six nonprofit organizations across the city. Four are local leaders in their respective communities, and two provide community-based art, storm water management, and technical and analytical support to all communities. All share a history of collaboration and a dedication to equitable and sustainable community development.

The project lead is Center for Neighborhood Technology (CNT), a four-decade-old nonprofit dedicated to urban environments that are resilient, sustainable, and livable for people from all walks of life. CNT provides analytics and innovation, with a long history in testing, promoting, and facilitating implementation of economically efficient and

environmentally sound solutions.

The project co-lead is Arts + Public Life, an initiative of U Chicago Arts. Arts + Public Life builds creative connections on Chicago's South Side through artist residencies, arts education, and artist-led projects and events.

The 51st Street Green Line lead nonprofit is Urban Juncture, whose tagline is indicative of their mission—"Where Commerce Meets Community." Urban Juncture serves the Bronzeville community, where it develops commercial real estate and related enterprises addressing the needs of underserved communities.

The Blue Line Logan Square lead nonprofit is LUCHA, the Latin United Community Housing Association. Residents of Humboldt Park, West Town and Logan Square founded LUCHA in 1982, to combat displacement and preserve affordable housing in the community. LUCHA's current work includes the building of affordable housing developments as well as helping families rent decent and affordable housing.

The Pink Line California lead nonprofit is the Open Center for the Arts (The Center), which provide a space where all artists can come together to educate, showcase, refine, and develop their talents.

The Blue Line Homan Square lead nonprofit is the School of the Art Institute (SAI). Through its 7,000 Oaks for Chicago project, SAI brought artists to its mobile foundry in its North Lawndale Homan Square campus, holding community events, art programming, and planting of trees.

The four communities face multiple challenges, including high levels of economic hardship, urban flooding, and high combined housing and transportation costs for residents. Equity issues are also a concern, as the areas face questions of affordability or

safety and disinvestment. The four community areas are designated by Chicago

Department of Public Health 2014 statistics as “high” levels of economic hardship:

- Green Line 51st Street: Population of 6,646, with 94% Black and 31% living in poverty. There were 38 acres of vacant land and 97 flood insurance claims from 2007 to 2011.
- Blue Line Logan Square: Population of 19,148, with 44% Hispanic and 20% living in poverty. There were three acres of vacant land and 88 flood insurance claims from 2007 to 2011.
- Pink Line California station: Population of 12,463, with 79% Hispanic and 39.9% living in poverty. There were 11 acres of vacant land and 223 flood insurance claims from 2007 to 2011.
- Blue Line Homan Square: Population of 9,612, with 96% Black and 47% living in poverty. There were 37 acres of vacant land and 333 flood insurance claims from 2007 to 2011.

Each location has distinct cultural histories and populations, and because of the segregation across the city, collaboration and connection is needed but not the norm. These collaborators recognized the importance of pooling their resources to have a more collective and impactful effort for the residents of Chicago.

Project Description

Chi-Go is a social and environmental justice initiative that aims to strengthen social networks and climate resilience through public arts and storm water projects. This project is unique in that they are working to connect four neighborhoods across Chicago, each of which has a very different experience in the city. Chi-Go facilitates cross-cultural learning

between each of the four areas. For example, the lead nonprofit groups are coming together to share their approach, processes, barriers, and results to support one another. The two convening nonprofits—CNT and Arts and Public Life—are documenting the results and leading the production of a final report (see Table 5).

Challenges Addressed

- Chicago is a city divided. In 2015 it was the most segregated city in the country.
- Dominated by hardscape and regular rain causes severe flooding
- Severe threat of gentrification

Project Goals

- Four artists/teams selected
- Youth engaged in installation
- Four installations completed
- Four or more kickoff events/celebrations
- Best practices doc completed, capturing process of art installation and community responses

Project Participants

- Center for Neighborhood Technology
- Arts & Public Life
- Urban Juncture
- LUCHA
- Open Center for the Arts
- School of the Art Institute

Table 5. Chi-Go Climate, Culture, & Creative Placemaking Strategy

Organization	Climate Resilience Strategy	Cultural Resilience Strategy	Creative Placemaking Approach	Outcomes
Chi-Go	<p>Rain water infrastructure projects installed in 4 neighborhoods near metro stations:</p> <ul style="list-style-type: none"> • Green Line (51st St.)- rain gardens on Boxville community market • Blue Line (Holman Square)- 10 trees planted of a 7,000 tree planting project • Pink Line (California)- rain boxes at leaking overpass • Blue Line (Logan Square)- splashboxes for rain water runoff 	<p>Local cultural events positioned near metro stations w/ climate infrastructure:</p> <ul style="list-style-type: none"> • Green Line (51st St.)- mural depicting the local black community • Blue Line (Holman Square)- crafting of shovels by local artists from reclaimed weapons-highlighting the issues of community violence • Pink Line (California)- placement of public art gallery under overpass with local Mexican artist's work • Blue Line (Logan Square)-creation of a mural by local youth depicting the cultural Puerto Rican assets of the community 	<p>Each area had a lead partner nonprofit that worked to: (1) Involve local artists; (2) Connect to local anchor institutions such as schools and houses of worship; and (3) Direct local implementation efforts with community residents and stakeholders. A community-led committee:</p> <ul style="list-style-type: none"> • selected the local artists. •The artists then engaged in multiple community participatory sessions to identify and develop public art installations, programming, and community gardens. 	1B, 1C, 2D, 2E, 2F

Process/ Design Strategy

Chi-GO is engaging in specific place-based initiatives in each of their four areas, which build upon existing community assets and resident expertise around train stops. All of their activities are linked through a common arts participation and a stormwater management strategy, which engages community residents and stakeholders. Each area has a lead partner nonprofit that works to: (1) involve local artists; (2) connect to local anchor institutions such as schools and houses of worship; and (3) direct local implementation efforts with community residents and stakeholders. A community-led committee selected the local artists. The artists then engaged in multiple community participatory sessions to identify and develop public art installations, programming, and community gardens.

In Chicago's Cook County gun violence resulted in more than 744 deaths in 2016—more homicides and shooting victims than New York City and Los Angeles combined. Community members of the Holman Square neighborhood planted its first 10 of 7,000 trees in a community event where local artisans melted down reclaimed guns from a gun amnesty program and repurposed them into shovels (Fig. 4). The opportunity to get involved in the community while opening up communication around the very pressing resilience challenge of gun violence was groundbreaking (literally and figuratively). This event is part of a larger project to continue planting trees across the neighborhood and could raise ultimately increase canopy coverage to more than 38% over current canopy amounts decrease surface temperatures, reduce heating and cooling costs for residents by \$38 to \$77 per household annually and, once mature, reduce the frequency of some crimes in the 24th ward by up to 7.7%. This would result in crime avoidance savings of \$1.3

million annually. For Chi-Go, this work has been integral to strengthening social networks within and across these diverse communities, especially within African-American and Latino communities.



Figure 4. Reyes, P.(Artist). (2017, Oct 14). Shovels made from reclaimed weapons in Chi-Go Project, Palas Por Pistolas (Shovels for Guns).

Chinatown Community Development Center **(San Francisco, California)**

Founded in 1977, the mission of the Chinatown Community Development Center is “to build community and enhance the quality of life for San Francisco residents” (104).

They are a place-based community development organization serving primarily the Chinatown neighborhood (104). They not only maintain affordable housing, but also plan and rebuild neighborhood parks and alleyways and strengthen and protect Chinatown small businesses and restaurants.

San Francisco's Chinatown has a population of 18,000, largely foreign-born Chinese immigrants who are slightly older than the city average. Residents' poverty rate is almost three times the San Francisco average; their unemployment rate is over two times the

average. Sixty percent of Chinatown families and seniors live in overcrowded single room occupancy (SRO) residences. According to the SRO Families Collaborative 2015 Census, there are 530 SRO buildings in San Francisco's Chinatown. SROs, built to house bachelor Chinese laborers in the past, do not adequately accommodate families. As the cost of housing in the city soars, more families are forced to live in these cramped units. SROs house an estimated 457 families with children and, among these families, 62% immigrated from China or Hong Kong. Only 14% of SRO heads of household speak fluent English.

In SROs, parents raise children in rooms that typically measure 8 by 10 feet, about the size of a large walk-in closet. These units are crammed with bunk beds, desks, dishware, and clothing, leaving little space for residents to do more than sleep. This overcrowding frequently results in physical and mental health challenges. Despite the challenging conditions, the alternative is homelessness. The dual solution is stabilized housing so families can become more self-sufficient, as well as adequate outdoor space that serves as a respite from these crowded SROs. Chinatown is an immigrant gateway and serves as the current and historic heart of the social and cultural life of the Chinese-American and Asian Pacific Islander (API) communities in the region. It is a destination for millions of visitors each year. The Sustainable Chinatown project has the potential to reach everyone who lives, works, plays or visits the neighborhood and its assets.

Project Description

This project improves the Chinatown neighborhood's environmental performance and sustains the community's unique culture and history with a Chinatown Eco Fair and a Portsmouth Square park community engaged redesign (Table 6).

Challenges Addressed

- Lowest parks per person in city (11 vs. 300 sq. ft. / person)
- Dominated by hardscape: very little tree cover and permeable surfaces
- No disaster preparedness plan or place to evacuate in case of emergency
- Threatened with rapid increase in urbanization and increased real estate prices

Project Goals

- Preservation of the Chinatown neighborhood
- Develop a city plan that reflects the present and future needs of the community and positions Portsmouth Square to receive funding for the resulting capital improvements
- Develop a final conceptual design for the redeveloped Portsmouth Square Park

Project Participants

- Chinatown CDC
- Enterprise local market office
- SF Environment
- SF Planning
- SF Recreation and Parks
- SF Public Utilities Commission
- MEI Architects
- SWA Architects

Table 6. Chinatown Community Development Corporation Climate, Culture, & Creative Placemaking Strategy

Organization	Climate Resilience Strategy	Cultural Resilience Strategy	Creative Placemaking Approach	Outcomes
Chinatown CDC	Develop a city plan and conceptual design for the redevelopment of Portsmouth Square Park that positions it to be a resilience hub for Chinatown residents	Develop a city plan and conceptual design for the redevelopment of Portsmouth Square Park that reflects the culture of Chinatown residents	CCDC employed a community planning process for Portsmouth Square that included: •four community meetings • one-on-one interviews with stakeholders and •intercept surveys with users of the park.	1A, 1B, 1C, 2D, 2E, 2F, 2G

Process/ Design Strategy

Chinatown CDC recognized a gap in the knowledge and understanding of climate issues in the community. To share valuable information about climate threats in the neighborhood and interventions to overcome them, they organized an Eco Fair in Portsmouth Square park, led by high-school-aged youth in Chinatown, in August 2017. The fair featured conservation information and demonstrations, recycled art activities, and plant giveaways for those that visited all of the respective booths, each displaying important climate focused information. All information was translated into Chinese by the youth. The Eco Fair was used as a tool to creatively engage Chinatown residents around the vast and pressing climate issues impacting the neighborhood. It included a culturally relevant participatory activity that used a wishing tree for Chinatown residents to share their wishes for the future of Chinatown and Portsmouth Square park (Fig. 5).

For the park redesign, they employed a community planning process for Portsmouth Square that included four community meetings, one-on-one interviews with stakeholders and intercept surveys with users of the park. Ultimately, their process identified sustainability strategies that include green infrastructure and a resilience center that can be useful for everyday life and in times of disaster. The Portsmouth Square redesign incorporates water and energy saving technologies and integrated green infrastructure strategies to improve neighborhood resilience, and improve community cohesion. CCDC is also implementing a public education campaign that teaches about water and energy savings, and the impacts of heat and other climate vulnerabilities on human health. It focuses on ways to prevent negative health impacts of a changing climate in a neighborhood that has a high urban heat island effect. This effort is bringing community

members together to learn about topics they are less familiar with in order to advocate for a community informed redesign. Residents are more knowledgeable, engaged and invested in the development processes they may typically be excluded from.



Figure 5. Ly, L. (Photographer). (2017, Aug 15). Child placing wishes for the future of Portsmouth Square Park in San Francisco [digital image] Chinatown CCDC.

Coalfield Development Corporation **(Wayne, West Virginia)**

Coalfield Development provides out-of-work coal miners with retraining in reforestation, solar installation, furniture making, and sustainable agriculture on former mountaintop removal sites. Coalfield's vision is to develop the potential of Appalachian places and people as they experience challenging moments of economic transition. Since 2009, after significant community engagement, Coalfield pioneered a relationship-based, holistic approach to on-the-job training. They hired unemployed and underemployed people to construct green affordable housing. Trainees worked the 33-6-3 model each week: 33 hours of paid labor, six hours of higher education class time, and three hours of life-skills mentorship. Today, they have grown into a collection of social enterprises working throughout Appalachia to create a more sustainable economy in the wake of the coal industry's rapid decline. They have created more than 40 on-the-job training positions, more than 200 professional certification opportunities, redeveloped more than 150,000 square feet of dilapidated property, and successfully launched five new businesses in real estate development, construction, wood working, agriculture and artisan trades—all of which are industries based on local assets in the Appalachian region.

Mingo County is a rural county in southern West Virginia with a total population of 25,900. This project serves those making less than 50% Annual Median Income (AMI). According to the Energy Information Administration, total coal output from West Virginia underground and surface mine operations fell to 113 million short tons in 2013, marking the lowest amount produced in the state since the early 1980s. Mingo County has been distressed by the downturn in the coal industry. As consumers turn to greener, more sustainable forms of electricity, the coal industry has essentially collapsed. While

socioeconomic indicators have always lagged national averages, the situation has declined rapidly: those living in poverty are 28.1% (compared to 13.5% nationally), unemployment is 13.4% (4.8% nationally), labor participation is only 49.1% (62.7% nationally), and per-capita-income of \$32,902 (\$55,966 nationally) (105). The economic hardship contributes to social hardship. Only 16.4% of Mingo residents have a degree of higher education, compared to 37.2% nationally. Rates of cancer in West Virginia are alarmingly high: 194.4 new cases per 100,000 people. Only Kentucky and Mississippi have higher rates (106). Deforestation caused by mountain-top-removal coal mining has ruined over 1,200 miles of streams, flattening 500 mountains, and decimating 1.2 million acres of forest in Appalachia (105).

Project Description

This project retrains out-of-work coal miners in reforestation, solar installation, furniture making, and sustainable agriculture on former mountain top removal sites and does so by combining job-training, creative placemaking, and culturally grounded mentorship with reforestation of former mine sites (Table 7).

Challenges Addressed

- Rich coal heritage in sharp decline
- Lack of economic diversification and underemployment
- Mountaintop removal has deforested hundreds of acres of land

Project Goals

- Retrain unemployed coalminers in green and culturally support jobs
- Revitalize the economy
- Increase local pride

- Shift identity association from sole coal focus

Project Participants

- Coalfield Development
- The Nature Conservancy
- Unemployment agencies
- Mingo county redevelopment authority
- Ohio Valley Environmental Commission
- Marshall University Visual Arts Department

Table 7. Coalfield Development Corporation Climate, Culture, & Creative Placemaking Strategy

Organization	Climate Resilience Strategy	Cultural Resilience Strategy	Creative Placemaking Approach	Outcomes
Coalfield	<p>Addresses both climate and economic challenges by hiring out of work coal miners on projects that contribute to sustainable community development. Activates include:</p> <ul style="list-style-type: none"> •planting trees, •maintain and harvesting local produce, •installing a solar farm, and •repurposing wood from cut down trees 	<p>Mentorship program by local artists for former coal miners in:</p> <ul style="list-style-type: none"> •quilting, woodworking, mountain music, foraging/canning, beekeeping, pottery, and glassblowing. 	<p>Every program incorporates a design process with a:</p> <ul style="list-style-type: none"> •community design charette facilitated by LEED architects •partnership with community groups to ensure broad outreach and involvement •All trainees are hired locally •Use local partnerships to select artist mentors who develop mentorship curriculum 	<p>1C, 2D, 2E, 2F</p>

Process/ Design Strategy

In addition to reclaiming the scarred landscape, this project enables laid-off coalminers and other low-income Appalachians to rediscover their land and culture and to appreciate the local craftsmanship, artistry, music, and culture. Local artists and artisans mentor low-income trainees in trades unique to Appalachia: quilting, woodworking, mountain music, foraging/canning, beekeeping, pottery, and glassblowing. These same trainees are hired in partnership with TNC to do reforestation work, solar installation, sustainable agriculture, and green housing on former mountain-top-removal sites. Illustrated in Figure 6 is a Coalfield staff member on one of the former mountain-top-removal sites now testing sustainable agriculture and reforestation. They are achieving the creative placemaking principles directly on former mine sites. Each trainee devotes three hours a week to life-skills mentorship. During the three hours, local artists and artisans connect creativity to life skills such as problem solving, teamwork, communication, personal health, and even financial literacy. Because of the 33-6-3 model, formerly unemployed people gain employment and a renewed self-confidence. Cultural expression is enhanced over the course of the two-year contract granted to each trainee. By completing transformative community projects, a greater sense of community ownership manifests. Coalfield is creating an opportunity for former coal miners to reinvent themselves to be resilient, while maintaining their identity.



Figure 6. Coalfield staff member on former mountaintop removal site, 22 Mine site, WV

6. Findings

The purpose of my DELTA project was to investigate:

1. How climate resilience, cultural resilience, and creative placemaking are understood among different stakeholders engaged in community development;
2. The role of creative placemaking in advancing climate and cultural resilience; and
3. The role that an intermediary might be best suited to influence these strategies.

From building the case study through focus groups, interviews, observations, existing data and research, and my own participant observations, I have uncovered the following findings:

1. Understanding Climate and Cultural Resilience

There are alignments and misalignments in understanding climate and cultural resilience by community members and clear prioritization of other more critical issues, many of which communities attempted to incorporate in the grant with perhaps less success. It is evident that while there are similarities across communities, the types of resilience challenges most important to communities are diverse and context-specific.

2. Understanding Creative Placemaking

Creative placemaking is a concept not well understood on the ground. However, communities recognize the importance of creative activities in supporting community resilience. Additionally, the application of creative placemaking projects varied across communities with the achievement of many of the same outcomes, highlighting the

importance of a few primary required creative placemaking activities. Much like understanding climate and cultural resilience, the creative placemaking interventions were most successful when focused on processes that best addressed place-based, community-expressed needs.

3. Did Creative Placemaking advance Climate and Cultural Resilience?

Creative placemaking supported producing climate and cultural resilience activities as well as producing community social outcomes. However, it did not effectively address many of the other more pressing issues in communities, such as trauma and displacement, and in some places was thought to spur it.

4. The Role of Intermediaries

Intermediaries are uniquely positioned to break down siloes across organizations and support interdisciplinary, cross-sector collaborations necessary to achieve greater impact in this work. One of the greatest expressed benefits to grantees was co-learning with other disciplines and collaborating with people from their field in different places but experiencing similar challenges.

Understanding Climate and Cultural Resilience

Analysis of the qualitative comments from the focus groups and participant interviews reflected a number of consistent themes regarding the ways in which participants understood community resilience. Overall, many of the comments highlighted what appeared to be a much more multi-layered understanding of the components of and tools necessary for resilience, not just climate and cultural resilience. Study findings highlighted key components that contributed to people's understanding of community resilience, from trauma and identity, to agency and empowerment (see Appendix 4). In

presenting the study findings, a description of the overall conceptualization of community resilience will be followed by an explanation of each of the forces shaping this pattern.

Climate Resilience. There seems to be alignment across stakeholders in the definition of climate resilience and its importance as an outcome. Additionally, Kresge and Enterprise bring climate to the forefront of how they conceptualize resilience challenges. Based on analysis of the language around community resilience, there seems to be alignment across stakeholders that climate and culture are important components. The misalignment comes with how stakeholders, particularly community, prioritize climate when having to make personal or group decisions. Enterprise presents community resilience as focusing on climate infrastructure while building social connections. Although these ideas came forward through the qualitative research, there were also many other factors discussed that Enterprise had not taken into account. Understanding that resilience challenges take many forms is important because even if the end goal is to support communities in “bouncing back” from severe climate events, communities will only be able to best do so if their most pressing concerns are also being addressed. What we heard from the grantee communities is that resilience to them was overcoming their most pressing concerns, those stressors and shocks that they are attempting to “bounce back” from daily, such as violence, displacement, deportation, job insecurity, etc. Funding organizations should be responsive to recognizing that short-term challenges are equally as important to thinking about long-term sustainability of communities. This requires being flexible to what communities present as resilience challenges for themselves and not narrowing them into only climate issues.

Cultural Resilience. One theme heard across grantee communities was this idea of

identity and the importance of identity supporting connection and resilience. These diverse communities have understood their identities through shared cultural norms and practices. Many of these same practices have supported these groups in building and maintaining community resilience by bringing people together, and promoting social cohesion.

For example, at AICHO, “smudging” is a traditional practice done daily to cleanse the spirit. This is achieved by burning a mixture of sage, sweet grass, and pine and wafting over the body and/or in spaces around windows or rooms. This practice is not allowed in many residential buildings because of the herb mixtures smell of marijuana when burning. However, at AICHO, this practice is not only allowed but also encouraged. Native people acknowledge this practice as part of their culture and the way in which they socialize with one another and connect spiritually on an individual level. The AICHO community partners specifically addressed the importance of intercommunity cultural knowledge, shared history, and identity as a primary resilience challenge. “Native culture and heritage is important to who we are and how our community survives. Without understanding or knowing our traditions, we lose the tools that have made us so resilient thus far” (AICHO resident). Structural institutions like boarding schools have been mechanisms for separating native people from their cultural practices and reservations have been used as a tool for government disinvestment. The residents of AICHO believe existing through these difficult hardships is part of what makes them resilient.

Mingo County, WV, residents present the destruction of mountain top removal coalmining as a primary resilience challenge, not only to the climate and ecosystem of the region but also to the industry and the identity of the people who have built a culture around this industry. “Wherever you go around here, you see constant reminders of who

we are as coal miners. It is hard for people to think about their identity beyond coal but it is imperative to our community to understand that we are not defined by coal, that we are defined by the strength of our community and those strengths can be tied to other industries . . . that is resilience” (Coalfield community resident). For Appalachians, the destruction of an identity contributed to the loss of connection with one another. Additionally, many residents attribute this loss to some of the negative health and social issues in the community.

Community Resilience. The Climate and Cultural Resilience Program uses creative placemaking as a strategy for supporting community resilience. Enterprise believes that investing in cultural resilience simultaneously with climate resilience will improve overall community resilience (Fig. 7). The component of cultural resilience offers a more nuanced definition of community resilience that places “capacity to maintain and develop cultural identity and critical cultural knowledge and practices” (107) as an equal contributor with climate to a community’s overall resilience.

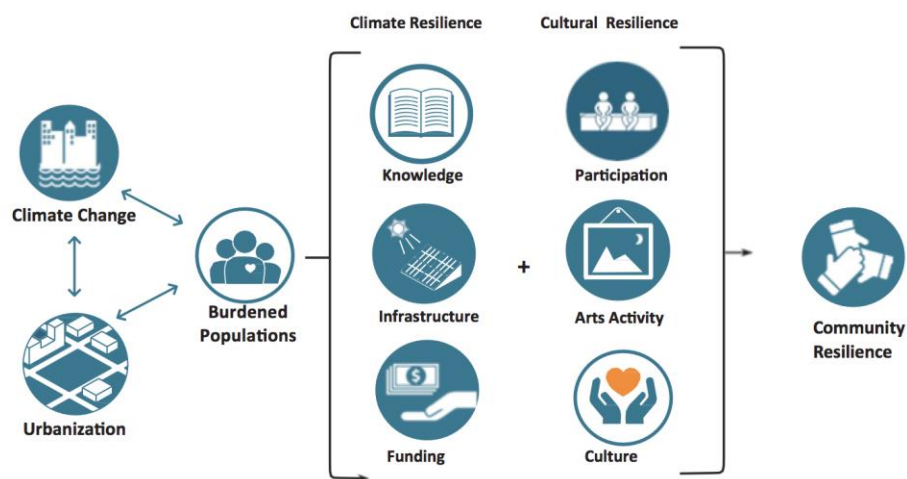


Figure 7. C&CR Community Resilience Conceptual Framework

This program analysis reveals that cultural resilience is not only integral to the ways in which communities understand and experience community resilience but an approach that supports a better connection of residents on a personal level to the issues they face. Because underserved communities often experience disinvestment and inequity because of the cultural groups that they identify with, many of their resilience challenges are inadvertently connected to their cultural identities. However, climate and culture alone do not fully conceptualize the community resilience model. There are even more components than anticipated from this program that are important to a community’s ability to be resilient, such as economic and social issues on top of the experiences of preexisting trauma. Figure 8 depicts the model of community resilience in practice.

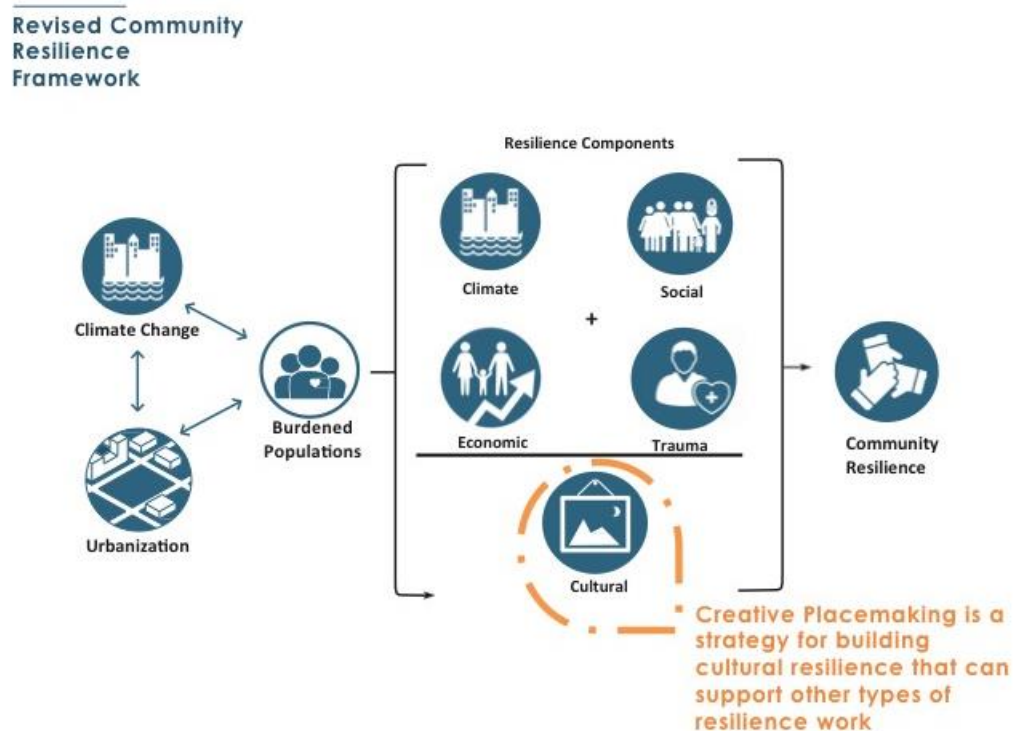


Figure 8. Revised Community Resilience Conceptual Framework

Overcoming Economic Hardship: Economic Resilience. Each Chi-Go community had nuances in the most pressing community need, but a prominent theme was economic resilience. “We have culture; we understand culture because it’s who we are. We got that part, but what we need is money; money to support our ideas, money to change our circumstances” (Chi-Go resident). Many people in these communities had ideas that were centered on how they understood culture but seemed to feel most constrained by their own and their communities’ economic circumstances. In Mingo County, the entire state is impacted by the downturn of the coal industry and unemployment is extensive. Therefore, the underpinning of Coalfield’s entire model is job development and economic opportunity. “We’re trying to look at the intersection between cultural and climate resilience and an overlay of economic resiliency” (Coalfield employee). For Coalfield, supporting people economically is foundational to how Appalachia can begin to bounce back from the challenges they’ve endured and are currently enduring.

Enduring Social Stressors: Social Resilience. Chinatown residents are also concerned about displacement due to a rapid rise in housing costs. They acknowledge the importance of a neighborhood uniquely suited to the cultural and social needs of Chinese- and Asian American and immigrant families, particularly those that are seniors. “Chinatown has faced development pressure since I can remember but now, as we are seeing other Chinatowns across the country dissolve and other neighborhoods in San Francisco change, the pressure feels much more threatening” (Chinatown resident). Climate challenges are present here as well. Residents highlight the deterioration of housing stock and its inability to meet the needs of residents in the more extreme climate events that the area has experienced. Recent heat waves have been extremely problematic

for senior residents to the point that they have had to vacate their homes to the park for relief because of the lack of ventilation and air conditioning units. However, the primary concern is being able to stay in their current homes. In Chicago, gun violence is a deadly issue plaguing community members. “Children and families can’t interact with each other because there are no safe, public, community spaces here to do that. I can’t create these spaces but someone should” (Chi-Go resident). Violence is also a significant constraint for people’s ability to thrive in spaces.

Trauma and Healing. Trauma was an overarching thread tying these grantee communities together. Without prompting, each community explicitly expressed experiencing trauma based around how they identify with their communities. It appeared as a notion for which people conceptualize their existences in the face of more pervasive community challenges. Trauma is not only a persistent challenge created in most of these communities by capitalism in coal country, colonialism in native communities, or white supremacy for people of color but is also understood as a shock or stressor that has fostered and supported resilient behaviors. Research shows that adverse health impacts can accumulate in the body over time, as can trauma, and its expression can be seen through health outcomes perpetuated for generations. In this context, it seems important to recognize that communities also create positive cultural protective mechanisms that are sometimes created in response to persistent trauma. The mechanisms that create these chronic stressors seem equally important to community resilience as climate and culture.

In hearing from community members, it is apparent that communities are expressing myriad resilience challenges. In knowing that communities face significant challenges on a daily basis, what is the responsibility of organizations serving those

communities to be adaptive and receptive? I will explore this more in the Recommendations section. Although these different community groups face a multitude of different challenges, many of them are cross-cutting. There is a need for organizations with resources to support these differences while leveraging the similarities as an opportunity for building collective impact across diverse communities.

Understanding Creative Placemaking

It is evident from resident responses to the idea of creative placemaking that the term “creative placemaking” does not resonate with many outside of the organizational structures. However, there seems to be clear understanding across the board of the usefulness of creative and cultural practices in community development and the potential for these tools to bring people together. Each of the grantee projects is successfully using creative practices and producing art products that support positive responses in their communities. Perhaps the language is most misaligned in reflecting the needs and uses of community but does seem to have value in the community development and design field as an understood and valued field of practice. Additionally, the application of creative placemaking projects varied across communities with the achievement of many of the same outcomes, highlighting the importance of a few primary required creative placemaking activities. Much like understanding climate and cultural resilience, the creative placemaking interventions were most successful when focused on processes that best addressed place-based, community-expressed needs.

Most community members understood creative placemaking more broadly as a way of using art creativity and cultural practices to build community. A local practitioner from Atlanta said:

Through a creative placemaking lens we're able to ask questions we wouldn't typically address, the importance of identity, how you express yourself.

There's a void in how we can best invest in communities because those questions aren't elevated as significant in how institutions move forward in planning. Creative placemaking has been important in lifting up [the] importance of people. (WonderRoot, Atlanta program)

This same organization in Atlanta also has a very explicit process for how it practices creative placemaking. For WonderRoot there are five key elements:

- Must invest in cross sector partnership
- Incorporates or highlights the social landscape of an area
- Based around a geographic area or a defined community
- Must be publicly visible
- Must use equitable community partnerships

Unlike WonderRoot, AICHO did not have as clearly defined a practice. However, it also sees positive benefits from the creative placemaking they have done. Residents are more engaged in community-based activities and programming for the rooftop. It seems that even without a very prescriptive creative placemaking process, organizations are still seeing positive community benefits. Although all the creative placemaking practices were not exactly the same, there were several components that were shared across grantee groups. All of the grantee organizations used some sort of community participatory activity to engage and incorporate community voices into the project. Every project engaged other sectors and supported interdisciplinary partnerships to implement their projects. All of the projects highlighted some social issue in their community, such as violence or

discrimination. Lastly, every intervention was place-based and publicly visible.

These different criteria demonstrate that creative placemaking interventions can vary across different communities but there are some baseline criteria for creative placemaking interventions that can support certain community resilience outcomes (Table 8).

Table 8. C&CR Program Creative Placemaking Approach Criteria

CREATIVE PLACEMAKING APPROACH CRITERIA					
	AICHO	WonderRoot & Southface	Chi-Go	Chinatown	Coalfield
Community Committee for decision making	☒	☒	☒		
Artist led installation	☒				
Community led installation			☒		☒
Community participatory design activity/ design charettes	☒	☒	☒	☒	☒
Cross sector partnerships/ local institutions/ community groups	☒	☒	☒	☒	☒
Incorporates social issues	☒	☒	☒	☒	☒
Place-based interventions	☒	☒	☒	☒	☒
Publicly visible interventions	☒	☒	☒	☒	☒
Equal community partnership		☒	☒	☒	
Local artist/designer		☒	☒		☒

Did Creative Placemaking Advance Climate and Cultural Resilience?

Creative placemaking supported producing some climate and cultural resilience activities as well as community social outcomes that can create more resilient communities. However, it seemed to address more cultural resilience activities than climate resilient activities and it failed to address many of the other more pressing issues in communities that attribute to community resilience such as trauma and displacement and in some places was thought to spur it. Grantees and community members planned activities pairing climate resilience needs with cultural resilience efforts for added impact but not that focused on cultural resilience activities alone to lead to climate outcomes. This demonstrates a gap in understanding the ways in which cultural resilience directly support climate resilience or its inability to do so in practice (Table 9).

Table 9. C&CR Climate and Cultural Activities Criteria

ENTERPRISE C&CR ACTIVITIES CRITERIA					
	AICHO	WonderRoot & Southface	Chi-Go	Chinatown	Coalfield
1A) Learn from resident about climate impact		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
1B) Proactively address climate challenges	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
1C) Plan to address climate resilience needs to be paired with cultural resilience efforts for added impact	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2D) Partner w/ artists/designers and community to create product reflecting community identity	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2E) Conduct community engaged activities that focus on cultural expression of people involved	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2F) Partner w/ local culture bearers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2G) Use culturally competent practices to deliver services and gain stakeholder input	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
2H) Plan on how to support climate resilience efforts through building cultural resilience					

Table 9 shows clearly that creative placemaking processes across the board were able to facilitate Enterprise's community-engaged activities that focused on cultural expression and local partnerships with culture bearers. The next most common activities were creating partnerships with artists to create a product reflecting the community's identity and creating a plan for addressing climate resilience needs coupled with cultural resilience efforts for added impact. Only one of these top three activities are related to climate resilience. As explained earlier, climate resilience seems to be a less well-understood concept within communities and perhaps less climate activities are created due to this gap in understanding and prioritization. Climate resilience infrastructure or climate resilience planning processes were created with this program but whether communities or community development organizations were able to increase their impact by combining the two is not clear. It does, however, demonstrate a better understanding of cultural resilience concepts and the ability of creative placemaking to advance those concepts. It also shows that using creative placemaking to explore cultural resilience can be a pathway for discussing community resilience more broadly and highlighting some of the climate resilience challenges communities are dealing with. It is unclear if the creation of any sort of climate infrastructure is supporting climate resilience. If so, perhaps this program has made a significant impact because each grantee implemented some sort of climate infrastructure. If not, perhaps there needs to be more specific criteria for truly impactful climate infrastructure.

From the focus groups data, art, and creative and cultural practices support three main outcomes across grantee groups. Those outcomes are lifting resident voice and identity, empowering residents to feel pride and support in place, and fostering social

connection and communication. All three of these outcomes are cultural-resilience-focused. However, fostering social connections and communication, as mentioned in the literature, is a shared outcome that supports both climate and cultural resilience. There is a gap in knowledge for community development organizations in fully understanding this connection and being able to use it to plan and support for more impactful climate programming. Discussions of increased safety, political involvement and beautification were other underlying themes but were not highlighted across communities.

Voice and Identity. Although demonstrated in diverse ways across grantee communities, a shared mechanism for resilience seems to be the use of culture and creativity to connect within groups, and to innovatively overcome challenges in place. Creativity and cultural practices were discussed as tools or protective measures against trauma and other shocks and stressors that resident's experience. A resident from AICHO eloquently said:

I feel like the dominant culture is about the geography of nowhere. Creative placemaking is a reaction against that. That's really relevant to people who have been marginalized. It addresses trauma by giving a voice to . . . those stories and people feel valued. It's a path towards health equity and equitable opportunities for residents. (AICHO resident)

This implies that continuing to incorporate creativity into community development practices is important to resilience and scaling the mechanisms for this to happen throughout the organization is an opportunity to increase impact.

In the Chi-Go communities, residents felt they had a better understanding of art and culture and what it means to them in their community than creative placemaking.

However, many of the participants were using creative techniques to do work in their community even before beginning this project. “I paint murals to give voice to the people that live here. It shows that we are existing here even if you don’t see us” (Chi-Go artist). When other people interact with those art pieces it provides a similar feeling. It also adds a level of safety and security for many residents. One resident said, “to feel like people with talent, that care about this neighborhood live here gives you a sense of security in those places that you don’t feel when the street is dirty or run down” (Chi-Go resident).

Empowerment. In the Lee Street Corridor community residents discussed art and culture as an expression around difficult topics experienced by the predominantly African-American community. “The Corridor has a strong foundation of hip hop and entertainment culture . . . [but we must] ensure [the] community financially benefits from industry as well as the stories correctly represent the stories of the community. The state is generating billions of dollars in film industry, but the area isn’t feeling the economic impact” (Atlanta, Lee St. resident). They recognized creative expression as another opportunity to uplift voices that aren’t always heard. One local woman said, “I want the community to understand how wealthy it is in terms of creative expression” (Atlanta resident). Demonstrating the value creativity has to community members and the ways in which it might provide something for the community. The group was asked, “What’s your hope?” and a local man responded, “To remember that people who live here are creative, helping to facilitate the creative brings pride to the community and develops community out of the creative” (Atlanta resident).

Chinatowns across the country are steeped in the culture of Chinese Americans and immigrants. In San Francisco, the oldest Chinatown in the country, Chinese culture is very

apparent and equally as important. Creative placemaking was not a concept discussed by residents but they acknowledge that creativity, arts, and culture were important components of the community. “A lot of Chinatown people see it as their home, but it’s also a cultural hub. People come for lunar New Year, to buy groceries and goods, to shop for regular groceries, Asian vegetables, Asian food staples. That’s where it starts for a lot of people, culture starts with food” (Chinatown resident).

Food is very important to Chinatown residents. A food hall we had lunch at one afternoon was described as a “cultural hub,” a place where business meetings happened and families have been married for decades. The culture and creativity of food brings people together and provides a place of comfort for residents to freely express themselves. At the same time, Chinatowns and Chinatown food establishments are being threatened by rising property costs. Leveraging the cultural and creative component of Chinatown residents’ supports creative mechanisms that seem inherent in the way in which residents have always and continue to commoditize the neighborhood. “I think Chinatowns response to urban renewal in the 1960s was to create a ‘theme park’ . . . a Chinatown through the western eye. When we talk about culture and architecture, the urban form is unique, culturally distinct . . . it’s Chinatown” (Chinatown resident). Most residents understood culture and creativity as innate qualities they are born with and qualities that can be leveraged to bring people together and build collective action. “Chinatown culture/identity has shifted in the past 30 years, to be not only Chinese, but also a culture of activism. Regular folks have a practice of showing up at city hall and meetings . . . getting involved” (Chinatown resident). This demonstrates a level of ownership and connection to Chinatown for residents to actively engage in political processes. One resident proclaimed

in response to the threat of displacement, “I’m #madeinchinatown. We’re articulating what that means. We’re using this to defend our space.”

As a result of the creative mechanisms leveraged during the CDC’s Eco Fair, residents walked away with more knowledge about climate issues and were better equipped to participate in the Portsmouth Square park engagement process.

Social Connection. Upon entering the AICHO building you immediately see a beautiful painting over the fireplace of intricate dot work depicting colorfully crafted animals. As you turn the corner into the community building you enter a gallery space with walls covered with paintings from artists young and old, across the community. Behind the stairwell you enter a room full of arts, crafts, and herbs for sale. The common theme across these spaces is of native cultural representation. This is also the first floor and lobby of their supportive housing unit that serves over 33 families. For these residents and others that frequent the shop and or community center, it is evident that native art is centered here, and this was also reflected in the responses we heard from community. “Culture is collective and it’s based in your understanding of the now. Sometimes we think of culture as historical—that’s DNA stuff, like our ancestral knowledge. It’s like, how do we connect and that learning is what’s going to be there. We do that through arts” (AICHO resident).

Although creative placemaking was not an expression that community members used they understood the value of art and creative expression in connecting residents to each other and residents to staff. A Chi-Go resident described the connection between culture and creative practices and language. “Culture and creativity—a lot of people use them as common language. The language of helping one another” (Chi-go resident). The residents at AICHO also felt that the art brought people together because it reminded them

of their shared culture that is sometimes hard to find when there are so many other challenges. “Drum leagues, choirs, dance troops, arts are helping keep the history and cultural needs [of the community] alive [but] other challenges have started to overwhelm/overshadow the work they are doing (AICHO resident).” Creative placemaking is a great start to highlighting the existing work of the community, sharing stories, and creating spaces to collaborate but it has limitations.

Mingo County residents also demonstrated a deep connection to their cultural heritage, using creativity in everyday life to survive. Their motto of “Grace, Grit, and Gumption” is meant to promote the idea that Appalachians have innate and learned skills that made them successful coal miners but that those skills are what define them and those skills can be transferred to more sustainable industries. *Gumption* is defined as “shrewd or spirited initiative and resourcefulness” (134). The word in itself supports the importance of creativity in problem solving for. “Family is important to the culture here; 2015 started losing jobs, people started going elsewhere, broke the family fabric that is unique to the culture here” (Coalfield resident). Even in using family as the thread that ties culture together, the underlying theme for people in Appalachia and that we’ve seen in other places is connection. Appalachians have been struggling to rebuild their cultural identity in the face of the disconnection as a result of the coal industry. When discussing the 22 Mine site project that is using a rotating fertilization model with goats, pigs, and chickens to till the land for sustainable agriculture, there was a revelation with one of the residents that this was creative placemaking. They are leveraging community needs for training and employment and their crew chiefs, who run the farm, are leading day-to-day decision-making processes all while transforming a physically destroyed place into one for public

use. They continue to engage many partners across multiple sectors in the process. The conversation ended with the staff member declaring, "Well, that sounds like creative placemaking to me!" (Coalfield employee). The language again was not as familiar, but the components of collaboration and building community voice and creativity were all present. "It's the power to explore WV's future here, because of the roots there is such a strength to open up to things [we] haven't experienced before. Brings a lot of power and support to what new careers [and] identity will be" (Coalfield employee). The residents working at these sites feel more connected than they can remember in recent years to the motto of Appalachia by reinforcing their creativity in ways that are tangible, reinvesting in their community, and exploring their identity.

Potential Negative Outcomes. It is important to note that community members were also very aware of the potential downsides of the artistic practices. For example, one resident from Atlanta spoke about how some local artists' voices are overlooked when more affluent artists move into the neighborhood or when artistic practices are coopted by people not from the community and are used as their own. These occurrences are another type of stressor that ends up silencing the voices of the community. One local woman said, "Artists come into the community and would like the spaces that are being created to be open to everyone. Anything that is brought into the communities, the people of the community are not involved . . . it's not fair for anyone else to come into this community and take over" (Atlanta resident). Residents recognized art and culture practices as a way to speak a common language that can not only be leveraged by local community members but also those not from the community. However, there needs to be a level of cultural humility and openness to understanding the people currently there, because without their

representation artists can also accelerate the neighborhood change that residents are afraid will displace them. This was another common theme across almost every community.

The Role of Intermediaries

Intermediaries are uniquely positioned to break down siloes across organizations and support interdisciplinary, cross-sector collaborations necessary to achieve greater impact in this work. One of the greatest expressed benefits to grantees was co-learning with other disciplines and collaborating with people from their field in different places experiencing similar challenges. For the purposes of this study an intermediary is an organization situated between a funding entity and a beneficiary organization. The funding entity can be an individual, a government agency, a foundation, or a corporation, but in this case it is a foundation. The beneficiary organizations are most often a community organization that provides direct social services to a particular community; in this case those organizations are Community Development Corporations (CDC). Intermediaries provide beneficiary organizations with assistance to fulfill the strategic goals of the funder. Intermediaries most often provide training, technical assistance, knowledge sharing, networking, organization assessment and, in this case but not all, the regranting of funds (135). A convening intermediary, in addition to providing funds and services to community development organizations, has the goal of bringing these organizations together to form a network, strengthening the collective ability of the organizations to provide their services (135).

As a pilot program, the first year of C&CR was meant to be exploratory. Because of that, there was no strict alignment of goals, objectives, and outcomes from Kresge to

Enterprise or from Enterprise to their grantee organizations. In the future, this alignment would be helpful in supporting the efficacy of the program. I am using the collective impact model as a framework for understanding and evaluating Enterprise's ability to support community resilience activities with a creative placemaking approach. The collective impact model is demonstrated in research to produce true alignment amongst stakeholders trying to effect systems level change. There are five necessary conditions for the model to work effectively: a common agenda, shared measurement systems, mutually reinforcing activities, continuous communication, and backbone support organizations. Collective impact supports the idea that "large-scale social change comes from better cross-sector coordination rather than from the isolated intervention of individual organizations" (122). Many nonprofits are focused on more isolated impact and in turn struggle to make real social change. Isolated impact is "an approach oriented toward finding and funding a solution embodied within a single organization, combined with the hope that the most effective organizations will grow or replicate to extend their impact more widely" (122). It is unclear what type of approach Kresge is attempting. However, Enterprise seems to be moving toward a more collective impact model in this C&CR pilot. In the future, Enterprise seems well suited to successfully apply this model, and this model appears to be a more viable approach to supporting social change.

A Common Agenda. A common agenda includes all participants having a "shared vision for change, that includes a common understanding of the problem and a joint approach to solving it through agreed upon actions" (122). Through the grant process, Enterprise accepted grantees whose program applications most aligned with the vision of the C&CR project. The selection inherently incorporated vision alignment. Similarly,

Enterprise's proposal for the C&CR project was accepted and funded by Kresge because it met some portion of the Kresge vision. However, these agendas are less shared because there has been an absence of discussion around shared goals. There is an assumption that goals are shared because proposals have been funded but in reality Enterprise is not sure how their project intersects with other Kresge-funded intermediary projects to promote outcomes at a systemic level. Perhaps this does not matter for the impact Enterprise hopes to have with their grantees. However, Enterprise is one of multiple organizations being funded by Kresge. Kresge has an opportunity to share lessons they are learning at their level that could positively impact the work Enterprise is doing at they're level. To be truly successful, this model states "all participants must agree on the primary goals for the collective impact initiative as a whole" (122). Not knowing the specific goals of Kresge makes it difficult to ensure and track alignment overtime. This causes particular issues with evaluating and potential measurement. Simultaneously, in theory the C&CR grantees have similar goals. They applied for the C&CR Program with proposals that presented alignment across the required activities of Enterprise. However, it is clear from the focus group analysis there is not a common agenda for supporting climate resilience efforts through building cultural resilience or how the two components together create more effective projects than the climate and cultural resilience projects separately.

Shared Measurement Systems. Another important component to collective impact are shared measurement systems. "Agreement on common agenda is illusory without agreement on the ways success will be measured and reported" (122). Consistent measurement helps to ensure alignment across initiatives while holding the group accountable to one another (122). Kresge did not require any specific indicators for

Enterprise to report, so in turn Enterprise did not collect any specific indicators that align with the broader Kresge mission. Enterprise did, however, list potential outcomes anticipated from the project. I created draft logic models with each of the grantee community development corporations and with Enterprise based on the proposals they submitted (see Appendix 5). Each had different outputs and outcomes to measure but there were some consistencies across the board. Unfortunately, the consistencies were either programmatic in project components they were required to complete or long term outcomes, which, in a yearlong grant cycle, are unrealistic to measure. The approach of this grant, however, was to create space to learn from the CDCs and communities about their resilience challenges and how they felt best suited to address them. These logic models set good frameworks for how CDCs conceptualized these projects and are useful to confirming discrepancies between funder level theories and community practices. Based on the community learning, Enterprise is well positioned to use the qualitative themes as outcomes to measure. However, they must first truly understand Enterprise's conceptual model for creative placemaking and community resilience.

Mutually Reinforcing Activities. Collective impact requires diverse stakeholders to invest in coordinated activities that reinforce one another. It does not expect that all the initiatives are the same but that they correspond in a combined effort to reach a common goal. In this pilot grant, Enterprise is trying to learn lessons from how climate and cultural practices might come together for community resilience. Over the course of the pilot, they have invested in learning the strengths of the different grantee groups and leveraged them toward group learning. Within Enterprise, the C&CR program, as part of an overall resilience plan, plays a particular role based on its capabilities. From this program,

Enterprise will be able to integrate more culture and creativity work into platforms across the organization. From Kresge's vantage point, it is hard to see how all the different intermediary initiatives come together toward a particular systemic goal. It would be helpful to be explicit about the roles that intermediary organizations are playing toward systemic change so they can be accountable to that role and leverage that information in the way they implement initiatives. For Enterprise grantees, it is important to not only have logic models but also ensure those models are fitting together to meet a collective goal. The activities that each of the grantees does should fit into a larger model that Enterprise is using to effect change at their level amongst their resilience efforts.

Continuous Communication. Continuous interaction and trust building is necessary for collective impact. This type of relationship building takes time but Enterprise is taking the necessary steps to ensure that participants "interests are treated fairly, and that decision will be made on the basis of objective evidence and the best possible solutions to the problems" (122). There were site visits with Enterprise staff, grantees, and community members at each site, to create a space of multidirectional learning. The C&CR program has also had two meetings with grantee CDCs to build a cohort for program staff and participants to learn from one another and build lasting relationships. The second meeting was created after in-depth surveys and correspondence of grantees indicated this was the type of opportunity they wanted to experience most. This is only the first year and participants need several years of regular meetings to build up enough experience with each other to recognize and appreciate the common motivation behind their different efforts (122), but these are the type of actions that need to be built in for collective impact to be successful. From the focus groups, grantees expressed the convenings were the most

valuable and unique part of participating in this program compared to others. These convenings created environments for to get to know one another on a deeper level and recognize the shared experiences they have across regional, ethnic, and disciplinary siloes, and being to collaborate toward more collective action. These experiences present an opportunity for scaling the program components that are working well.

Backbone Support Organizations. There are particular skills required of an organization and its staff to provide the necessary support for collective impact. “The backbone organization requires a dedicated staff separate from the participating organizations who can plan, manage, and support the initiative through ongoing facilitation, technology and communications support, data collection and reporting, and handling the myriad logistical and administrative details needed for the initiative to function smoothly” (122). Enterprise serves as this backbone organization and intermediaries are well suited for these types of activities. Enterprise has the reach and resources to build collective capacity by creating and communicating a common agenda, aligning mutually reinforcing activities that break down siloes and producing a shared measurement system for creative place making’s impact on community resilience that is better aligned with initiatives that recognize and promote cultural resilience.

7. Recommendations

Based on my findings, there are four recommendations to organizations participating in or considering supporting this work:

Finding 1. There are alignments and misalignments in understanding climate and cultural resilience with clear prioritization of other more critical issues.

Recommendation: Recognizing community resilience to incorporate more components than climate and cultural resilience, such as economic resilience, social resilience, and trauma, which are closely tied with social determinants of health.

Finding 2. Creative placemaking is a concept not well understood on the ground and the application of creative placemaking projects varied across communities with a few primary required creative placemaking activities. Much like understanding climate and cultural resilience, the creative placemaking interventions were most successful when focused on processes that best addressed place based, community expressed needs.

Recommendation: Intermediaries should put forward some guidelines for creative placemaking success while incorporating flexibility for place-based context

Finding 3. Creative placemaking supported producing climate and cultural resilience activities as well as producing community social outcomes. However, it did not effectively address many of the other more pressing issues in communities.

Recommendation: Organizations need shared metrics to begin evaluating the impact of and interaction between creative placemaking and community resilience efforts.

Finding 4. Intermediaries are uniquely positioned to break down siloes across organizations and support interdisciplinary, cross-sector collaborations necessary to achieve greater impact in this work.

Recommendation: Intermediaries must build a system by which different resilience teams can learn from one another, disrupt siloes, and jointly engage in a shared learning agenda to build collective capacity.

Below I elaborate more fully on each of the recommendations.

Recommendation 1. Recognizing community resilience to incorporate more components than climate and cultural resilience such as economic resilience, social resilience, and trauma that are closely tied with social determinants of health.

Based on the findings, it is clear that climate and cultural resilience are both important components of community resilience. However, it is also clear that there are other important components that are not highlighted in this program. In addition to climate and cultural resilience, other factors such as economic resilience, social resilience, and healing from trauma are also important. These components should be incorporated in the goals and criteria of future programming. Based on community voices, these are equally necessary components for community resilience. From this research and a public health standpoint, community resilience seems to be closely aligned with the social determinants of health and perhaps investing in the social determinants of health also supports increased adaptability to climate related events. After a workshop about trauma and resilience the word adaptability came up. One Coalfield staff member said,

I think it's more of adaptability than resilience . . . how much resiliency does a person have to have to live? This has helped us think through our language—it's a healthier message in some ways to talk about adaptability. Resiliency is like, "do, go on." We are moving into talking about the community being more adaptable to economic drivers, social, environmental drivers, and that will

help us frame our work in a more positive way. It means adaptability more so. (Coalfield staff member)

If Enterprise focuses resilience in an adaptability framework related to the social determinants of health, then resilience is one mechanism to decrease a community's vulnerability to a number of challenges and outcomes that are well documented.

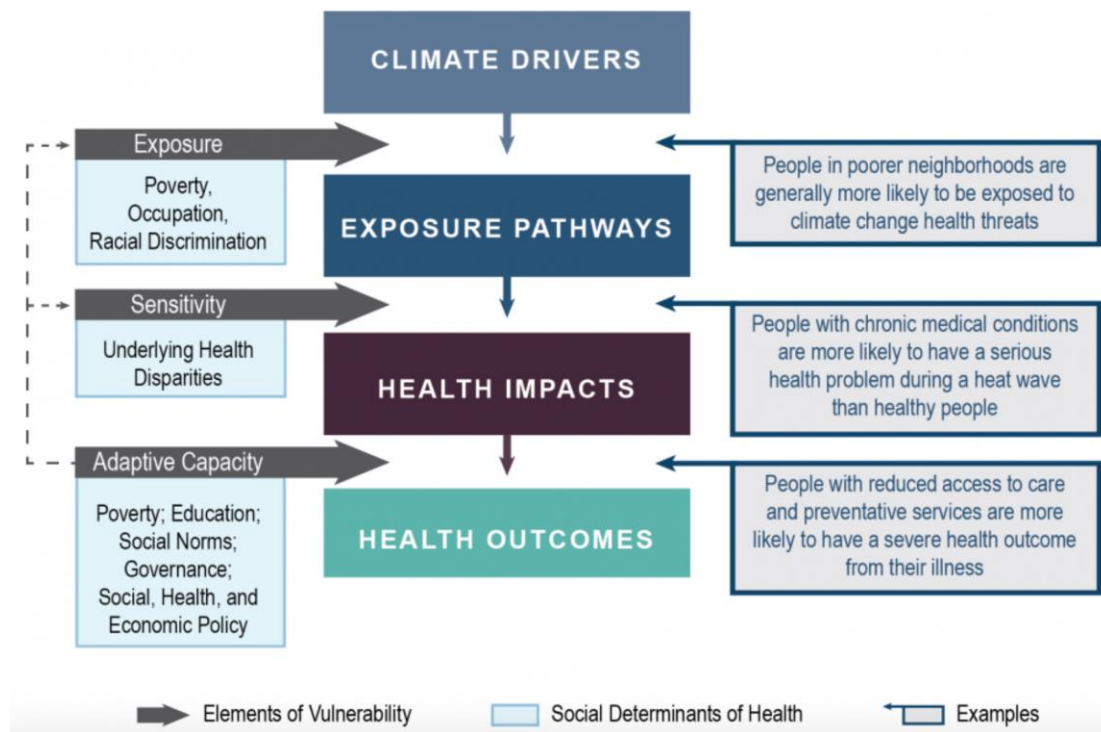


Figure 9. Intersection of Social Determinants of Health and Vulnerability. original figure provided by Balbus, J., Gamble, J., Jantarasami, L , Retrieved January, 15 2018, from <https://health2016.globalchange.gov/populations-concern>

There are three elements of vulnerability: 1) exposure, which is what members of a community might be exposed to on a continual basis like poverty and racism; 2) sensitivity, which are underlying conditions individuals or communities might already be predisposed

to; and 3) adaptive capacity, or what this program calls resilience, which includes all the social determinants of health that access to can be protective factors to negative health exposures but lack of access to can increase the probability of illness. In reviewing the causal chain from climate drivers to health outcomes, each of the elements of vulnerability can ultimately impact individual and community health outcomes (Fig. 9). By building a better conceptual model based on these findings, there is an opportunity to focus on more holistic models for building community resilience.

Even in understanding that the social determinants of health are imperative to community resilience, different communities still face different social determinant challenges. This work can begin to bring forward the conversations about what pressing community challenges are, how people are currently addressing them and what support they need in overcoming them.

Sometimes creative placemaking can give people that language to say “this is what we need and can have.” Oftentimes, nobody asks, “what do you need/want” Then figuring out how those resources or objects or opportunities can be made possible in that place or space. Part one is identifying what that is—giving the language to identify what that is. Then we come in. (Chi-Go employee)

This process is helping residents to reimagine space and including them in the reimagining. However, there are limitations to what this work can solve in the short term and in isolated initiatives. “Race, ethnicity, and economic status consistently are the most powerful influences on social wellbeing” (123). Creative placemaking alone without improving racial and social barriers cannot produce transformative societal change. The

reality is that many of the issues underserved communities are dealing with are complex, structural, and deep-seated. Issues like racism and disinvestment cannot be solved by discrete projects.

It feels great creating an infrastructure for people to be participatory in process [but] also frustrating, because the list of stressors continues to multiply and grow. It's a challenge—to be saying let's rally, but we're limited in our agency to impact long systematic changes. That problem will exist—we're going to propose small changes; we're putting a small dent in systematic issues around the neighborhood. Great that we've given voice but also heartbreaking that we're limited, and unable to do transformational work. (WonderRoot employee)

It is challenging to think about all that needs to be undone in many communities before feeling impactful but recognizing these systems exist and making an effort to counteract processes that didn't include these voices before is moving in the right direction. Community development organizations can't do the work on their own but if intermediaries and funders are working towards collective impact systemic change may be possible.

Trauma.

Overcoming trauma is a crosscutting theme that emerged again and again in this program. In describing their resilience, participants described experiences of trauma that they have overcome. Being resilient implies that you have been through something you have had to be resilient in the face of but we do not discuss how those experiences change people. There is a depth of research that shows experiencing traumatic events increases an

individual's risk of long-term physical and behavioral health issues. We know that physical and behavioral health issues decrease an individual's ability to be resilient. Thus, there is a significant need for not only health practitioners, but also any practitioner working with communities, particularly those that have experienced persistent and prolonged traumatic experiences to understand trauma. Members of historically marginalized populations appear to have a disproportionately higher prevalence of trauma than the general population. For community development organizations and organizations focused on particular populations this is even more important because groups include (but are not limited to) people living in low-income communities, Individuals with disabilities, Black, Hispanic, and other racial minorities, women and girls, and lesbian, gay, bisexual, and transgender individuals (124–127).

Trauma-Related Definitions

The Substance Abuse and Mental Health Services Administration defines trauma as resulting from: “an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being.” Following are definitions of terms related to trauma:

- **Toxic Stress:** Strong, frequent, and/or prolonged adversity that stimulates the body's natural protections against stress and can have a long-term negative impact on neurobiology, psychology, and physical health. (128)
- **Allostatic Load:** Wear-and-tear on the body from toxic stress that can lead to poor health and health risk behaviors. (129)
- **Protective Factors:** Social conditions or personal attributes that help lessen

the risks of trauma for an individual, family, or community. (130)

Toxic stress not only comes from extreme events like abuse or natural disasters but can also come from chronic experiences like racism and discrimination. As these experiences accumulate over time they can increase one's allostatic load, leading to various poor health outcomes. However, there are protective factors that can support individuals and communities in adapting and thriving. "Protective factors, such as having supportive relationships and a positive future outlook, can help shield individuals from the effects of trauma (131). Protective factors included having strategies for supporting staff internally as well as grantees and their communities externally. Creative placemaking can potentially be a tool for better understanding communities experience and addressing needs to build supportive responses.

The potential health implications of traumatic events do not have to be lifelong. Perhaps people can never go back to where they were but they can adapt and continue to thrive. For Enterprise and other intermediary organizations, it is important to be informed of the potential traumatic experiences of the organizations you're working with and the communities they serve. Having the tools that support staff within their own organization as well as those they work with is imperative. Creating social service systems that employ trauma-informed principles can potentially help participants begin the healing process.

A future program might be the Cultural and Community Resilience Program instead of the Climate and Cultural Resilience Program that recognizes that communities might be experiencing different and varied resilience challenges in place. A funding organization should be open to communities defining their most pressing challenges for themselves as they impact their community. For example, our Chi-Go partner, given a more expansive

definition of community resilience might have chosen economic resilience, social resilience, and cultural resilience as their most pressing resilience challenges to be addressed during this program cycle. In that case, Enterprise could have funded their programming while providing the technical expertise to also think of solutions for addressing climate resilience. New goals and criteria for this program could include the following.

Goals

Leveraging creative placemaking to support cultural resilience that highlights, builds partnerships around, and collaborates towards community resilience interventions.

Criteria

- 1) Define the place-based population that is experiencing resilience challenges
- 2) Create a collaborative body to guide decision making for the group
- 3) Present the most pressing resilience challenges that you would like to explore solutions to. It could be related to economic, social, political, cultural, climate resilience or something we may be missing.
- 4) Propose a culturally relevant and creative intervention to help address that challenge that is aligned with goals
- 5) Develop a way to know in what ways the challenge was addressed.

These criteria could help guide a process that is more flexible to community context while supporting criteria for a community participatory, culturally relevant, and equity-focused process.

Recommendation 2. Intermediaries should put forward some guidelines for creative placemaking success while incorporating flexibility for place-based context.

Even though organizations seem to be seeing positive benefits from creative

placemaking practices with or without defined practice criteria, it is hard to know whether or not process matters without testing if different processes can create different outcomes. Neither Kresge nor Enterprise has defined criteria for how to apply creative placemaking interventions, which in turn makes it difficult for grantee organizations to measure how successfully they are meeting their creative placemaking goals. At a minimum there needs to be a conversation about the important components for each organization and how those components contribute to a shared goal. The process does not have to be as prescriptive as WonderRoot's process, but it does need to have some guidelines for accountability and measurement. It is up to Enterprise to learn from communities and grantee organizations to support setting those guidelines and to manage the monitoring and evaluation process.

Through the C&CR project, Enterprise has gained insight on what working examples of creative placemaking can be. Based on Enterprise's core values the process should be:

- Equity-Focused: Grounded in the understanding that if we don't think about underrepresented voices then we are perpetuating the status quo
- Creatively Motivated: Recognizing that creativity is an innate tool we all share and can be leveraged to support community cohesion processes
- Culturally Uplifting: Acknowledging that culture is a mechanism for understanding community identity and supporting underrepresented voices

Enterprise should leverage these foundational principles with what we know works from grantees to test its future processes.

1. Create a collaborative body to guide decision making for the group
 - a. This body must include representatives from cultural institutions, artists, community service organizations, and community residents.

2. Use this body to assess community resilience challenges
3. Propose a culturally relevant and creative intervention to help address that challenge that is aligned with goals
 - a. Must have a community participatory activity to engage and incorporate community voices into the project
 - b. Must engage other sectors and support interdisciplinary partnerships to implement project
 - c. Must be reflective of social issues in the community
 - d. Must be place-based
 - e. Must be Publicly visible
4. Develop a way to know in what ways the challenge was addressed

Having these defined criteria is valuable not only to Enterprise but also to the grantee organizations because it gives Enterprise criteria to test and activities to align outputs and outcomes toward. Enterprise cannot truly measure if the process is working without a process that is understood across interventions. Many organizations struggle with what sort of creative placemaking interventions to leverage for different desired outcomes. Ultimately, a community-based process will help in uncovering what the creative intervention is attempting to address and what desired creative intervention the community would like to see. However, a guide for creative placemaking processes associated with certain outcomes could be extremely valuable to organizations attempting to use and measuring creative placemaking initiatives. Opportunity360 is the premiere Enterprise analytic platform that provides a comprehensive illustration of the factors that

drive positive outcomes, changing the way organizations address issues such as poverty, inequality and community resilience. It is a comprehensive approach to understanding and addressing community challenges by identifying the pathways to greater opportunities using cross-sector data, community engagement and measurement tools. This is a window of opportunity for Enterprise to incorporate a qualitative community engagement tool that supports communities in implementing creative placemaking projects with community resilience outcomes in mind. Figure 10 illustrates a potential Creative Placemaking Guidance Tool.

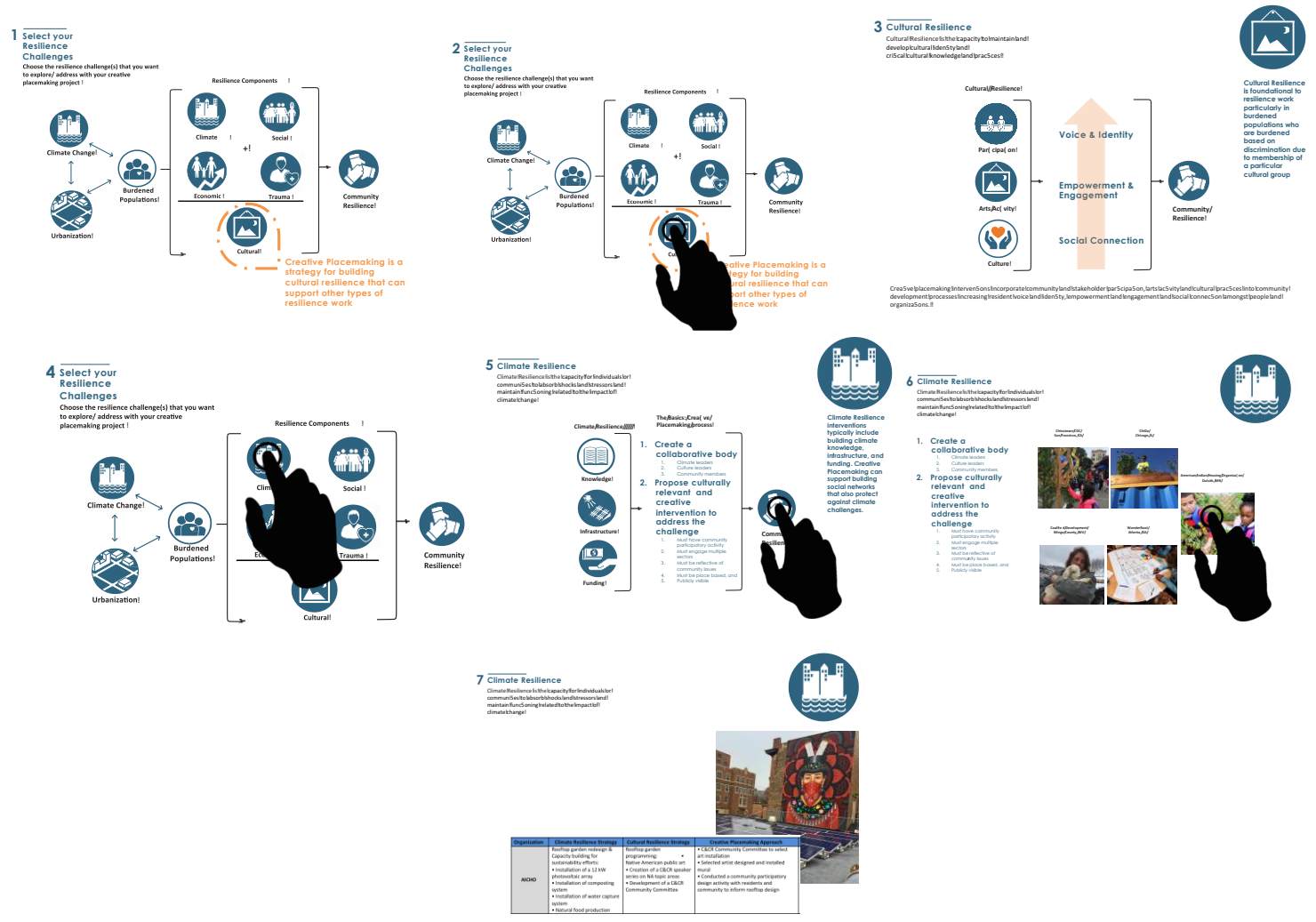


Figure 10. Potential Creative Placemaking Tool

This tool would be an opportunity for Enterprise to not only share their approach to creative placemaking but also put into place a more comprehensive approach for grantees to use and align their goals around. It would also present an educational opportunity to be leaders in educating community development organizations about the importance of cultural resilience and the positive benefits it can add to resilience work.

Recommendation 3. Organizations need shared metrics to begin evaluating the impact of and interaction between creative placemaking and community resilience efforts.

After better understanding the conceptual model for creative placemaking and community and cultural resilience, it is important to begin testing and evaluating metrics for the impact of this work. Based on the research there are several key impacts that come from this work that could support Enterprise in measurement. The 2009 report of the Commission on the Measurement of Economic Performance and Social Progress, convened by the president of France and headed by Amartya Sen and Joseph Stiglitz, has been particularly influential on the data collection in the field of social well-being. Their report proposed eight dimensions on which wellbeing could be measured (132): (1) Material living standards, (2) Health, (3) Education, (4) Personal activity, including work, (5) *Political voice and governance*, (6) *Social connection*, (7) *Environment*, (8) *Insecurity—both social and physical*.

As demonstrated by this program, arts and cultural measurement are critical components within social connection. Enterprise's Opportunity360 contains two distinct sets of indices: those capturing the outcomes of people and those capturing the pathways

that make it possible for people to achieve those outcomes. There are five outcome dimensions measured by indices in the Opportunity360 Measurement Report: Housing Stability, Education, Health & Well-being, Economic Security, and Mobility. The italicized words above represent evidence-based components also uncovered in the C&CR program but not yet represented in Opportunity360.

Based on the research, adding the social connection and environment/climate dimensions to the Opportunity360 measure of opportunity, could improve its ability to meet community needs. Based on several National and Market based Initiatives of Enterprise, social connection and environment are dimensions of opportunity that matter to Enterprise, its partners, and the people they serve but are not incorporated. For the purposes of this study, I will focus on social connection. From the literature mentioned throughout this paper, plus the data around themes collected throughout this study, Table 10 lists metrics that could be a viable starting place for quantitative and qualitative exploration (see Appendix 6 for survey tool):

Table 10. Potential Community Resilience Indicators

Trust	Healing/Support
<ul style="list-style-type: none"> Percentage of individuals who agree that ‘most people are honest’ 	<ul style="list-style-type: none"> # Public facilities for recovery
Agency	Arts & Cultural Activity
<ul style="list-style-type: none"> % of individuals who attended public meetings on town or school affairs in last year 	<ul style="list-style-type: none"> Proportion of employees of diversity working in arts-and-entertainment Arts, culture, and humanities non profits per 1,000 pop
Empowerment	Community Knowledge
<ul style="list-style-type: none"> Score of involvement in community decision making processes Score of aspiration to be involved in more or less decision making processes 	<ul style="list-style-type: none"> # Cultural awareness events per month

This tool, Figure 10, could be incorporated into an online platform that is easily accessible and embedded within Opportunity360. This could provide an instrument for teaching research initiatives and for supporting a baseline of understanding for Enterprise’s work that can be used internally and externally as a template for evaluation. This creates a more structured process for evaluation that is consistent across programs and projects while allowing for context and place based distinction. Additionally, it is flexible to the needs of specific projects in diverse places. This allows for another point of analysis of the different indicators that communities select over others. This tool might look something like Figure 11 and ideally be connected to the previous tool so that the user has an easy-to-use evaluation framework from project start to finish.

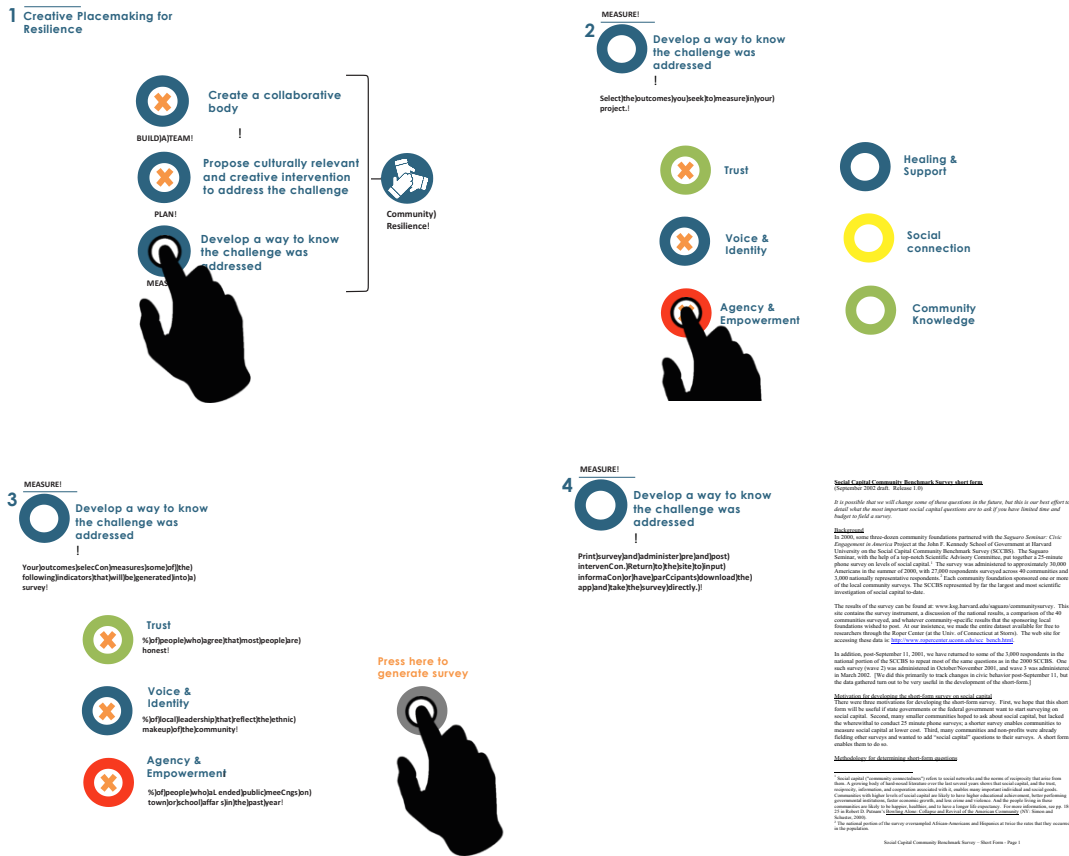


Figure 11. Potential Evaluation Tool

Recommendation 4. Intermediaries must build out a system by which different resilience teams can learn from one another and disrupt siloes while jointly engaging in a shared learning agenda to build collective capacity.

One such approach to building collective capacity is the Problem Driven Iterative Adaptation (PDIA) Approach. This approach supports local solutions to inform local problems, directing problem-driven positive deviance, and fostering active experimental

and experiential learning from evidence (136). To be effective and feasible this approach must include cross sector engagement from beginning to end (136). This framework enables a strategy for approaching this work that Enterprise could leverage to move outside of the traditional notion of individual impact into collective and community responsive impact.

Local Understanding to Inform Local Solutions

Much of all grant-making work across fields is top-down and replicated across organizations. These programs miss the nuance of understanding the depth of local problems and the solutions communities have created for themselves. System-level problems are often complex and require deconstruction to actually understand the crux of the problem. Andrews et al. presented in *Building Capability by Delivering Results* that a good problem, therefore, is one that is “locally driven, where local actors define, debate, and refine the problem statement through shared consensus” (136). Much like the collective impact model, community should not only have a seat at the table but also collectively be a part of defining the problem and the goals. Enterprise has the opportunity to support this process where by constructing local problems can be an entry point to understanding solutions that drive change (136).

Directing Problem-Driven Positive Deviance

This requires building a team of people that have a broader connection to the problem at hand. Enterprise has the opportunity to reach across the different disciplinary siloes within and outside of Enterprise that are related to community resilience and bring those voices to the table along with the community development experts on the ground. At Enterprise within the National Initiatives team alone, there are teams focused on relevant

topics such as Health and Housing, Green and Environmental Sustainability, Knowledge and Impact, Transportation Oriented Development, and other place-based Resilience work. All of these proponents should be coming together to discuss the broader problems the organization is attempting to address around resilience. This could be in an Enterprise-led Resilience Summit that comes together in collaboration about resilience issues and brings different stakeholders to the table to learn from one another and think about future solution building.

Fostering Active Experimental and Experiential Learning from Evidence

Figure 12 illustrates a model that supports a process that is iterative and adaptive (136) that allows organizations to learn and respond to what they are learning in real-time. Below is an example of how the model works in practice to “foster the gradual but progressive identification and implementation of reforms” (136). For Enterprise, steps 1–3 could be used at the initial resilience summit where the groups come together to identify the problem, and present steps toward addressing and implementing the determined actions. Steps 4–5 is where Enterprise and partners could use the lessons learned to build legitimacy for their work and create a communication plan that shares the increased impact of the collaborative process versus the siloed process of previous programs. Then the group would use evidence to inform and iterate through steps 3–4 until a solution is reached. For decisions to be grounded in evidence, there must be the technical capabilities as well as the incentives and motivation to access, appraise and apply data and evidence. This is where Enterprise has an opportunity to promote their evaluation tools to not only make the iteration process easier but to also test the effectiveness of the evaluation tool across different sectors.

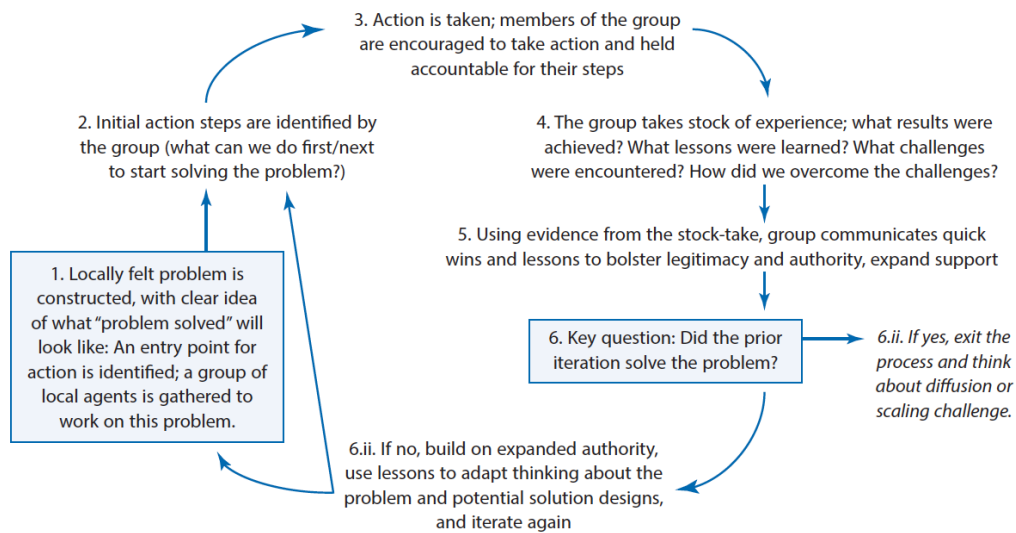


Figure 12. A six stage “find and fit” iteration within the PDIA approach (136)

8. Conclusion

Based on participation in this program, I am inspired by the work that community development organizations are doing around the country and the leadership of intermediaries like Enterprise Community Partners. There is passion, compassion and creativity in every community I have visited but there are still challenges and there is still work to be done. My goal was to investigate how climate resilience, cultural resilience and creative placemaking are understood among different stakeholders engaged in community development, the role of creative placemaking in advancing climate and cultural resilience, and the role that an intermediary might be best suited to influence toward these strategies. From this research, it is clear that cultural resilience is a component of community resilience that if not included leaves significant value on the table for community development organizations and their funders. Enterprise is a backbone support for implementing, monitoring, and evaluating the complex mechanisms required to address community resilience challenges. They have the resources and the connections to break down siloes and enable collaborative approaches with community development and other intermediary organizations to build more resilient community. There are however, places for improvement.

By exploring five different exemplars for using creative placemaking as a tool for building community resilience and analyzing their alignment with expressed community needs I was able to uncover how the communities of the C&CR Program were conceptualizing the concepts of creative placemaking and community resilience and if, in fact, these conceptualizations aligned across stakeholders. In order to evaluate the impact

of these concepts it was important to first understand the ways in which these concepts were realized in practice. Through focus groups, interviews, observations, existing data and research, and my own participant observations, I created a case study of these five exemplar organizations participating in the C&CR Program. Based on my four major findings, there were four recommendations to organizations participating in or considering supporting this work:

My first finding was that there were alignments and misalignments in understanding climate and cultural resilience between stakeholders with clear prioritization of other more critical issues. My recommendation is that organizations must be adaptive to redefining community resilience to incorporate more components than climate and cultural resilience such as economic resilience, social resilience, and trauma that are closely tied with social determinants of health. This distinction provides a more accurate conceptual framework for understanding resilience that further supports the connection between creative placemaking, culture and community resilience. Additionally, it further connects this resilience work to other disciplines like public health doing the same work. This broadens the field of literature, practice, and expertise that can be accessed to advance resilience work. That same evidence and knowledge sharing is necessary to support the connection between creative placemaking and climate resilience.

My second finding was that creative placemaking is a concept not well understood on the ground but creativity, art and cultural practices were understood as important to resilience. Additionally, the application of creative placemaking projects varied across

communities with several shared creative placemaking activities. Much like understanding climate and cultural resilience, the creative placemaking interventions were most successful when focused on processes that best addressed place based, culturally relevant, and community expressed needs. My recommendation is that organizations should better define or change the language around creative placemaking and put forward some guidelines for creative placemaking success that incorporates place-based context. I presented a community participatory tool that presents the creative placemaking components shared across the different C&CR grantees as a baseline for successful work. Based off of the desired outcomes communities seek to achieve, the tool presents other criteria that might be helpful in implementing a creative placemaking project. As the user expresses these objectives within the tool, the tool can construct a creative placemaking process or plan that might be most useful to the user. This tool is really a mechanism for sharing lessons learned, supporting communities to implement more evidence-based projects, and teaching about the different components.

The third finding was that creative placemaking supported producing climate and cultural resilience activities as well as producing community social outcomes. However, it did not effectively address many of the other more pressing issues in communities. My recommendation is that organizations need shared metrics that cross disciplines to begin evaluating the impact of and interaction between creative placemaking and community resilience efforts. I again presented a tool that creates an indicator model leveraging the outcomes uncovered in this program, connecting them to evidence based indicators, and putting them into a survey tool that can be used at the project level for evaluation. For this

program it seems that creative placemaking is more impactful in supporting community resilience than climate resilience. However, more resources need to focus on better understanding how well creative placemaking is addressing cultural resilience and what the true impact of cultural resilience is on overall community resilience.

The last finding is that intermediary organizations are uniquely positioned to break down siloes across organizations and support interdisciplinary, cross sector collaborations necessary to achieve greater impact in this work. One of the greatest expressed benefits to grantees was colearning with other disciplines and collaborating with people from their field in different places. My recommendation is that intermediaries build out a system by which different resilience teams can learn from one another, disrupt siloes and jointly engage in a shared learning agenda to build collective capacity. By leveraging the Problem Driven Iterative Adaptation (PDIA) Approach, Enterprise could direct resilience summits that bring together their different resilience related stakeholders where they learn, interact, share, and build an actionable and iterative approach to this work at the systems level. Different stakeholder groups would not only feel more invested in overall resilience work but would be champions for this work elsewhere.

There must be an understanding that creative placemaking cannot solve all acute or chronic stressor particularly because the issues exacerbated by the impacts of climate change are those created by community disinvestment over time. However, cross sector partnerships and collaborations have a better opportunity of collectively addressing these very complex and interdisciplinary issues. Creative placemaking can be a mechanism for

bringing diverse voices to the table. Enterprise can better use its capacity to provide backbone support for resilience efforts and work more collaboratively internally to align efforts. Continuity around evaluation that supports this work is imperative not just to funders but also to push the field to continually do better. Recognizing the importance of cultural resilience, as a viable approach for community development and community building is extremely important because research, health, and community development decisions are still being made without the inclusion or voice of those most impacted by the decisions. We are seeing that this is a mechanism for inclusiveness. When we think of resilience as a privilege unequally supported across different communities, it changes the responsibility of stakeholders in investing in equitable interventions.

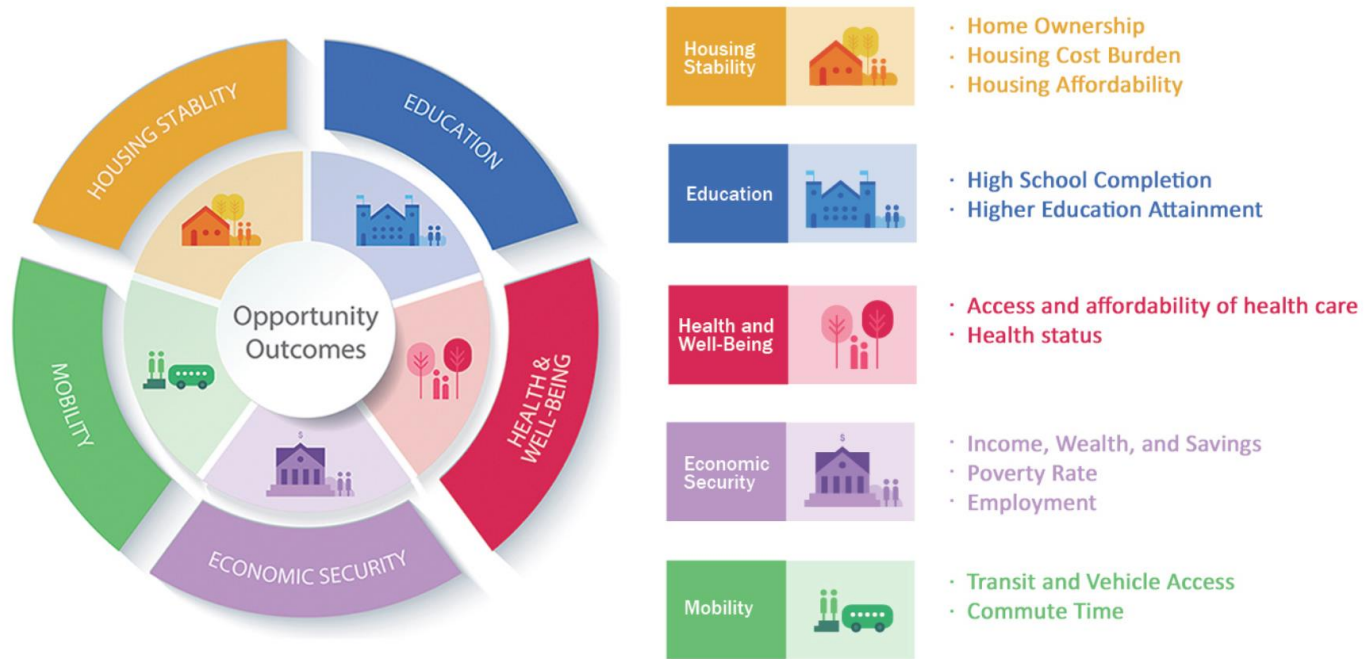
Inequity is easy because it only requires institutions to continue to sustain the status quo. Equity building is difficult because it requires organizations to change habits, to make space for other voices that are not typically included and to leverage tools that work best for those most impacted. If nonprofit, community and government organizations missions are to serve “low-income” communities then strengthening community resilience must be part of that responsibility. This starts by creating environments for collaboration, lifting resident’s voices, and building social cohesion and capital. Communities most resilient to disaster are not only structurally sound but also socially empowered and connected. I believe cultural resilience efforts with creative placemaking strategies are tools to support organizations and communities in thinking, sharing and interacting differently that will ultimately advance community resilience.

Appendix 1: SAIP Indicator List

INDICATOR		GEOGRAPHICAL LEVEL
RESIDENT ATTACHMENT TO COMMUNITY		
C1	Capacity for homeownership (proportion of single-unit structures)	Census Tract
C2	Length of residence (median length)	Census Tract
C3	Proportion of housing units owner-occupied	Census Tract
C4	Proportion of housing units occupied	Census Tract
C5	Election turnout rate	County
C6	Household outflow (tax returns leaving)	County
C7	Civic engagement establishments per 1,000 population	Zip Code
QUALITY OF LIFE		
Q1	Median commute time	County
Q2	Retail and service establishments per 1,000 population	Zip Code
Q3	Violent crime rate	County
Q4	Property crime rate	County
Q5	Percent of residential addresses not collecting mail	County
Q6	Net migration	County
ARTS AND CULTURAL ACTIVITY		
AC1	Median earnings of residents employed in arts-and-entertainment-related establishments	Census Tract
AC2	Proportion of employees working in arts- and-entertainment-related establishmentsw	County
AC3	Relative payroll of arts-and-entertainment-related establishments	County
AC4	Arts, culture, and humanities nonprofits per 1,000 population	Census Tract
AC5	Arts-and-entertainment-related establishments per 1,000 population	Zip Code
ECONOMIC CONDITIONS		
E1	Median home purchase loan amounts	Census Tract
E2	Median household income	Census Tract
E3	Active business addresses	Census Tract
E4	Unemployment rate	Census Tract
E5	Income diversity	Census Tract

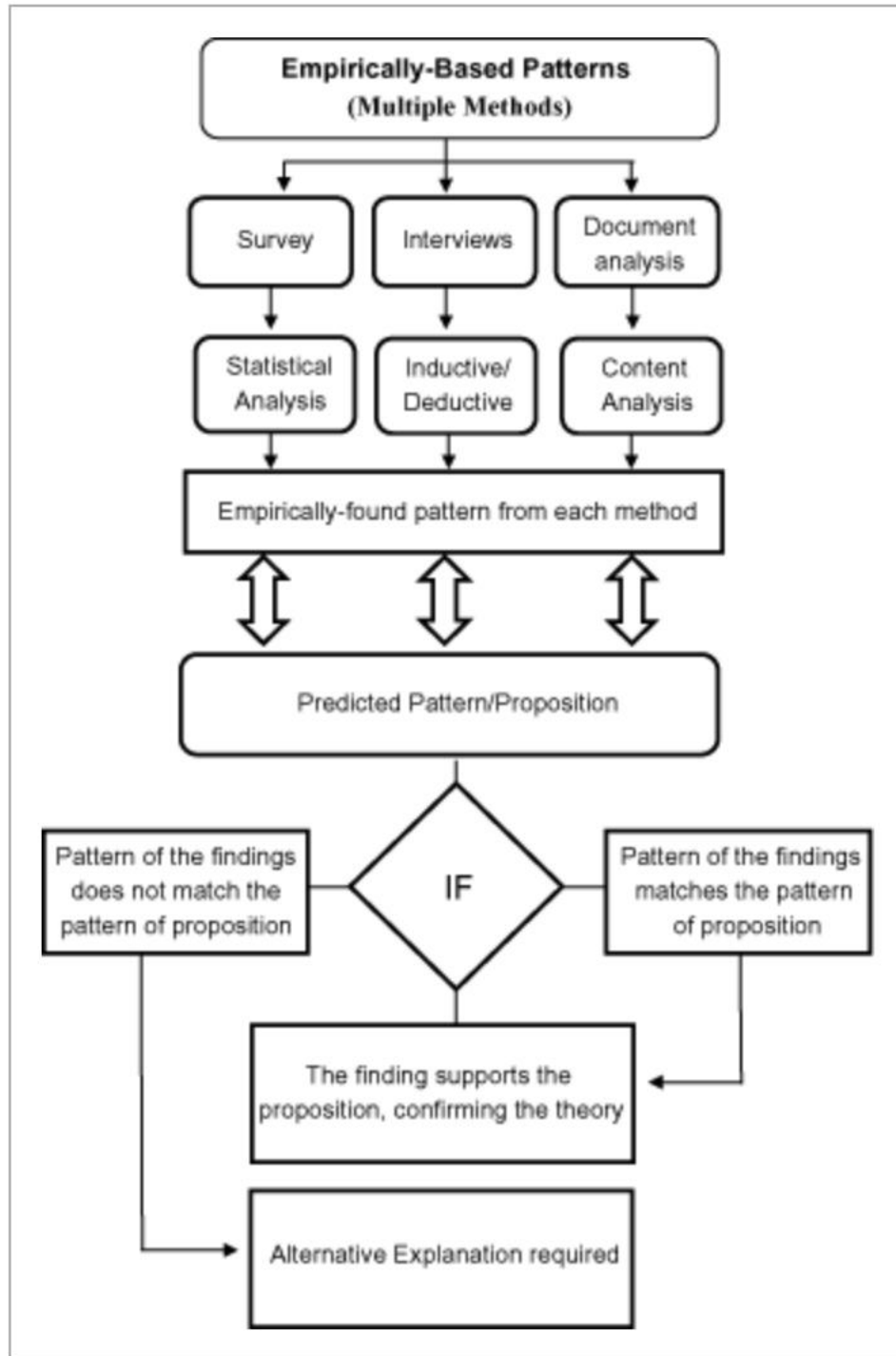
Source: Morley and Winkler, VALI Study (2014)

Appendix 2: Enterprise Opportunity 360

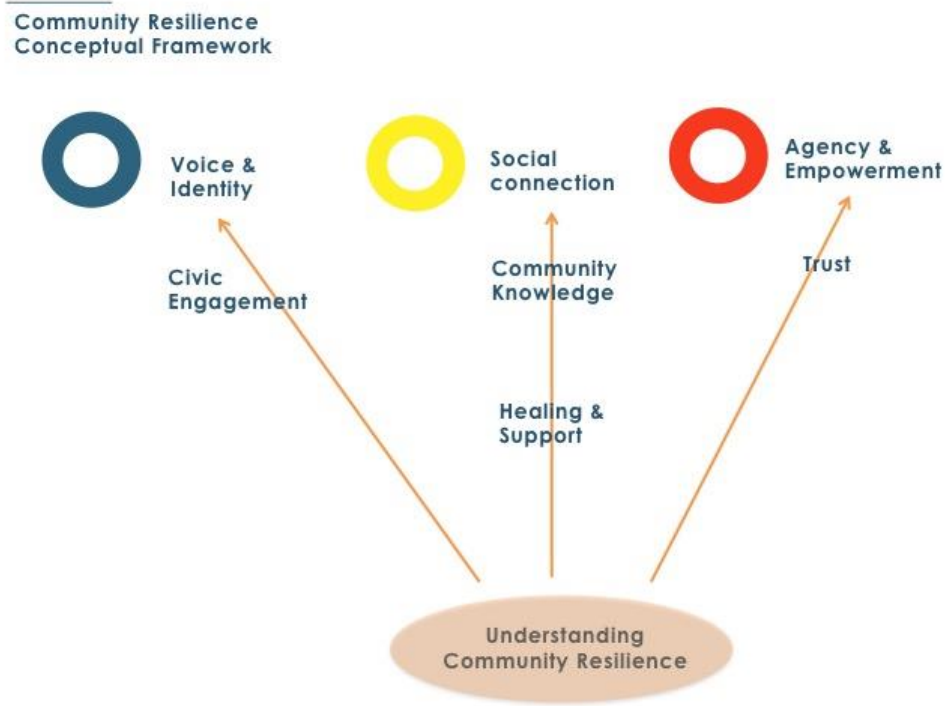


Opportunity360 Measurement Report

Appendix 3: Pattern Matching Flow Chart



Appendix 4: Community Resilience Conceptual Framework (from focus groups)



Appendix 5: C&CR Logic Models

See C&CR Grantee Logic Models in Supplemental Files

Appendix 6: Survey Tool

See Social Capital Short Form example in Supplemental Files

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