

planning climate philanthropy

A Thesis Submitted to the Department of Urban Planning and Design
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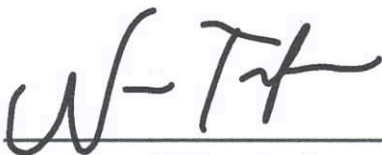
by

Nora Anne Tufano

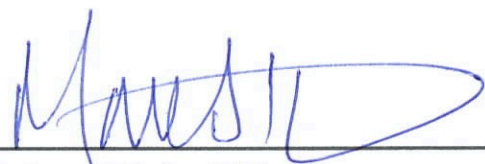
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An aerial photograph of a river delta, likely the Mississippi River delta, is shown in a dark blue, semi-transparent overlay. The river branches out into a complex network of channels and distributaries, creating a tree-like pattern. The background is a textured, light-colored surface, possibly a wall or a piece of paper, with some faint, illegible markings. The overall composition is centered and occupies most of the frame.

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Introduction

Why study climate philanthropy?

The acknowledgments page is an unsung key to understanding how planning gets done. Any report, plan, publication, or even playbill will generally tell you exactly how it came to be through the list of names and organizations at the very beginning or the very end of its pages. Out of habit borne of a few years in nonprofit fundraising, I began to seek these pages out every time I looked at a planning report. And as I began to study cities' responses to the climate crisis, most plans seemed to have a fair amount of help. In some industries, like the visual and performing arts, the presence of philanthropy is generally accepted as a necessary engine to keep afloat. In others, like infrastructure or waste management, projects are generally publicly financed, and the provision of grant dollars would seem like an odd whim. However, climate adaptation and mitigation sit in the middle of these two phenomena – though they are in many ways necessary, public expenses, the public sector has been slow to move, and philanthropy has stepped in.

Nearly every local climate plan in the United States is, in some way, funded by philanthropic sources, whether through direct underwriting of government programs, capacity building, sponsorship of academic research, or support for not-for-profit advocacy organizations. However, despite this pervasiveness, no research has examined the effectiveness of climate philanthropy as a whole; rather it has been examined only on a program-by-program basis. This thesis will endeavor to understand the full landscape of climate philanthropy using Boston's philanthropic ecosystem as a case study.

This research is split into two major sections. The first examines the historic intersections between planning, philanthropy, and climate, and makes the argument that current programs in climate adaptation represent an extension of the ongoing relationship between private funders and public purpose, and present a microcosm of the ongoing conversations and debates on adaptation, mitigation, and resilience at an international level.

The second section examines the City of Boston's foundation-funded climate adaptation programs in Boston to determine their success at leveraging future funding, creating policy change, and furthering equitable outcomes. It looks at three formal programs specifically, selected for their national and local impact. Utilizing this analysis, this thesis puts forth a framework for the evaluation of future funding and best practices for identifying needs moving forward into the next phase of climate philanthropy for adaptation.

Why Boston?

The City of Boston is no stranger to big projects. In fact, it is known for them – the Big Dig was, at the time of its completion, the most expensive highway project in history.¹ And while it was considerably less expensive than the Big Dig’s \$24 billion, the Boston Harbor cleanup cost roughly \$5 billion – and was found to have added more than ten times that amount in economic value to the City.² The City’s Climate Ready Boston plans have not been priced out in great detail but are estimated at between \$1-4 billion. The total number thrown around depends on who you talk to, but no estimate even comes to half the cost of the Harbor Cleanup in today’s dollars, let alone approaching Big Dig costs, to do every single project suggested. Boston has been heralded as a leader in planning for climate change, but its actual investment has, thus far, been limited. In the climate planning process, philanthropic organizations have invested as much, if not more, funding into adaptation planning as the City itself. Boston has gotten funding of some kind from nearly every national funder working in climate philanthropy and has its own unique addition in the form of its outside local actors: the Barr Foundation and the Green Ribbon Commission. These two organizations, along with Boston’s other unique asset, its educational institutions, have allowed philanthropy in Boston to outsource an outsize amount of its funding from the government itself. The precise results of philanthropy in Boston will not be generalizable beyond the city, but frameworks for evaluating need, success, and process may help inform future adaptation planning beyond the Boston context.



All of Boston's climate adaptation plans interact with philanthropic funding in some way

Why Adaptation?

Adaptation planning is the focus of this inquiry for three key reasons. The first relates to timelines; adaptation was not a focus of climate action until the 2010s, and even now remains somewhat behind mitigation in terms of progress and funding. Given this less mature timeline, there is still potential to shift the way that adaptation strategies are being implemented, since adaptation is still mostly in the planning stages – though it is moving now towards implementation in many cities. This is certainly the case in Boston, which seems to be at an inflection point between planning and implementation. Relatedly, this inflection point may mean that funders have to take on a new or shifting role in the way that they engage with public process. While philanthropy can be relatively central to the planning process, it is unable to fund the large-scale projects needed to build sufficient adaptive capacity.

Secondly, and perhaps more importantly, despite being a less central focus of planning, the success of adaptation planning will directly impact the lives and livelihoods of people living in areas that will be affected by climate change impacts like flooding, sea level rise, and extreme heat. Adaptation is also a thorny issue to address because it largely defies precise metrics and measures; success in physical outcomes is measured against a counter-factual of infinite worse possibilities, and many of the needed strategies are non-physical and involve qualitative more than quantitative progress – like social ties, awareness and preparedness. This also makes it less likely to engender itself to market-based solutions. Therefore, adaptation requires public or philanthropic investment. The Climate Policy Initiative (CPI) tracks public, private, and nonprofit climate spending globally. Their 2019 report found that the majority of financing went towards mitigation – with adaptation at only 5% of global climate finance.³ Mitigation sees vastly more private financing flows as there is generally more potential for measurability and monetization.

Finally, adaptation planning is inherently local; because it addresses the local effects of climate change on individual areas, it therefore requires the coordination and commitment of planners. While planners are rarely the sole contributors to climate adaptation plans, solutions generally require the implementation of physical open space projects, zoning regulations, transportation improvements, and more, and thus places itself squarely in the planning remit.

II. Evaluation Methods

The public, private, and nonprofit sectors all engage in their own versions of evaluation of adaptation-related programs. Within the planning profession, evaluation is most often completed in the planning process rather than in examining outcomes, and cost-benefit analysis is the most common project-based evaluation method.⁴ Foundations tend to practice evaluation much more actively and were major contributors to the development of the evaluation field. Foundations have seeded evaluation research and centers including the Equitable Evaluation Initiative, the Kellogg Foundation's evaluation guides, the Center for Evaluation Innovation, and more. Unlike planning evaluations, which typically occur before implementation in the planning process, foundation evaluations generally occur after the program has concluded. This incompatibility in time frame means that planners and philanthropists are looking at fundamentally different metrics when they undertake their evaluation processes. Neither of these methods examines the long-term effects of a given program.

Furthermore, the success of individual program or plan goals does not necessarily indicate how much progress is being made towards reducing vulnerability. Progress towards mitigation goals is generally more easily tracked, and several organizations, such as the Global Reporting Initiative and Carbon Disclosure Project, provide pathways for both cities and organizations to do so. Climate adaptation is more difficult to measure, and as a result, climate plans are often published without specific goals or targets. While sustainable development does not entirely encompass adaptive capacity, many cities use the United Nations' Sustainable Development Goals to benchmark their progress on confronting climate change at the highest level. Beyond this, many organizations have tried to develop sets of indicators specifically for resilience and adaptation, including the Rockefeller Foundation, the EPA, USAID, and the UNDP, but no indicator set is used consistently.⁵ Very specific metrics tend to need to be place-specific, and are difficult to apply across cities. New York's PlaNYC and OneNYC programs have some of the more specific indicators across city governments; all plan updates are published with individual project steps, agency owners, and – most uncommon – the funding status of the program.⁶

Because Boston's progress towards implementation has been limited, this thesis does not interrogate whether these plans have successfully reduced vulnerability; instead, it asks about the transference of private sector funding to public sector movement. While program evaluations tend to be extremely specific in their metrics, this thesis compares across programs based on three overarching themes in climate philanthropy. The primary metrics for evaluation used are: ability to leverage future funding, ability to achieve policy change, and ability to further equity and engagement. A fourth category used for programs that are no longer active – ripple effects – catches additional change brought about by the philanthropic program through its convening networks or building on its

existing work. While foundations often engage in knowledge-sharing, it is unusual to compare programs across foundation portfolios, and this deliberately broad framework enables us to see how different intervention methods compare, and how they might fit better together in the future.

EVALUATING PROGRAMS

This thesis looks to evaluate the programs on four metrics:

1. Leveraging Further Funding

At the most basic level, was the work that the program funded able to continue past the duration of the grant? More broadly, did the work of the program lead to greater public or private investment towards the overarching goals?

2. Creating Policy Change

Given that most major adaptation actions will eventually have to involve a change in policy at the State or local level, did the work of this program lead to any shift in policy?

3. Furthering Equitable Action

All of these programs center equity in their language and goals. Did the outcomes create a more just climate plan by: a) enabling more people seats at the table in the decision-making process or deepening the engagement of community actors? b) creating a plan that lessens socio-spatial inequality as it works towards adaptation? or c) prioritizing social vulnerability over financial or property vulnerability?

4. Ripple Effects

For programs that have concluded, what were the post-program network or programmatic effects that have continued beyond the program scope?



THESIS METHODS

This thesis utilizes the following primary research methods to learn about the success of climate philanthropy:

1. Stakeholder Interviews

16 semi-structured interviews were conducted with individuals in roles across city government, as well as with funders, grantees, and more.

2. Financial Documents

Since most organizations examined are public departments or nonprofits, it was possible to review of 990 tax filings for nonprofits, foundation grant data, and City budgets to determine financial success.

3. Program Evaluations

The national programs received formal evaluations by external consultants on their individual program success, which provided a benchmark for cross-program evaluation.



Part I

Examining the Intersections of Adaptation, Philanthropy, and Planning

Funding from foundation grants permeates nearly every aspect of the adaptation planning process. Grants from major foundations fund activists like the Sunrise Movement.⁷ They fund community participation in the planning process.⁸ They fund the consultants who produce the reports, often the academic centers producing the science that goes into the reports, capacity within governmental departments, and capacity in nonprofit organizations outside of it. In my research, I have yet to find a United States city executing climate planning that is not, in some way, utilizing foundation support in addition to public funding.

The purpose of this section is to provide context on the exchanges between philanthropy, climate, and planning. It first reviews the available literature on climate adaptation planning, and then explores the intersection of philanthropy and planning for clues about historic exchanges between philanthropy, government, and society. Finally, it examines philanthropic institutions have responded to the climate crisis on a national and international level.

Literature Review: Adaptation Planning

Climate adaptation literature is less developed than mitigation literature, which relies more heavily on measurable scientific outcomes centered around emissions and greenhouse gases. Different cities define adaptation vs. mitigation differently, with some including mitigation within adaptation and others keeping them as relatively separate, though obviously linked, concepts. The Fifth Assessment of the United Nations Intergovernmental Panel on Climate Change (IPCC) defines mitigation as “A human intervention to reduce the sources or enhance the sinks of greenhouse gases (GHGs)” and adaptation as:

The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.⁹

The IPCC’s definition of adaptation has evolved in some small ways from previous definitions in the Fourth Assessment: it refers to the “process of adjustment,” as opposed to just “adjustment,” and differentiates human and natural systems, which the previous definition does not.¹⁰ This switch from adjustment to process of adjustment, while minor, is significant. It implies a less fixed timeline and response, and allows for a broader understanding of what actions are included in adaptation. The City of Boston has not provided a definition of adaptation in either Climate Ready Boston or the Boston Climate Action Plan; the Boston Planning and Development Agency (BPDA) does provide a definition in its Coastal Flood Resiliency Design Guidelines, calling it “changes that respond to anticipated environmental risks,” but because this is not used consistently even within Boston, this thesis will assume the IPCC Fifth Assessment definition.¹¹

Resilience is the final term often used in the context of climate issues. The IPCC defines it as, “The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.”¹² The term resilience as mentioned above is extremely broad and can be used to apply to nearly any urban issue, well beyond climate. Popular usage of the term “resilience” has been critiqued as contributing to the idea of a return to an inequitable status quo, even as its usage has ballooned.¹³¹⁴ The context in which it is used also varies widely, even within the same city. In Boston, the Mayor’s Office for Resilience and Racial Equity, developed with 100 Resilient Cities funding, revolves around racial equity and focuses on climate almost exclusively through this lens, while the Resilient Boston Harbor Plan is primarily focused on physical interventions to prevent flooding. Because of this variety in meaning, I have endeavored to use more precise language than “resilience” in my writing, but the term will frequently appear in program and document names.

Climate adaptation planning in the United States has largely been undertaken at the local level in the absence of major federal policies. Adaptation planning became common after the onset of mitigation planning, and most early climate plans, based on analysis done in 2008, did not offer much in the way of adaptation solutions.¹⁵ Even as cities have adopted more detailed plans for adaptation recently, the provision of implementation plans within the adaptation goals has been limited.¹⁶ A note on terminology: if you see something described as a “Climate Action Plan,” you are likely looking at a strategy primarily focused on mitigation – though not an official designation and perhaps not a universal truth, this has consistently been the case in my observation. Adaptation planning terminology can vary widely; in cities that participated in 100 Resilient Cities and focused heavily on climate in that work, often adaptation is couched within resilience work. In other places, adaptation measures are included in sustainability plans.

In its current stage, adaptation planning is still dependent largely on private funding, like philanthropy, and lacks a consistent governance and funding structure. A 2015 analysis of adaptation planning across 156 United States cities by Linda Shi and Eric Chu analyzed the most critical factors in determining a city’s adaptive capacity, and did not find that state policies were a significant influence; rather, political leadership and availability of resources were the strongest predictors of adaptation progress.¹⁷ This piece further notes that philanthropic funding has been essential, particularly in small cities that have made the most progress in adaptation planning. Suzanne Moser and Julia Ekstrom’s framework for identifying barriers to adaptation notes that “inadequate resources” is what practitioners first identify as their limiting factor in adaptation planning.¹⁸ The constraints of both financing and governance in implementing climate adaptation have also been explored by Jesse Keenan, who has argued that reliance on private, including philanthropic, funding and lack of more straightforward funding mechanisms make local governments less prepared to act.¹⁹ The lack of straightforward financing options for implementation is one of the major challenges adaptation planners face today, and philanthropic programs may help to defer searching for the answer.

Finally, given the past environmental injustice, considering equity and justice is an important piece of adaptation planning and one that is often disadvantaged in the planning process. In “Green Cities, Growing Cities, Just Cities?” Scott Campbell developed the concept of the



*“Planners Triangle” adapted from Green Cities, Growing Cities, Just Cities?
(Scott Campbell, 1996)*

“planners’ triangle” for sustainable development which describes the tensions planners face between economic development, environmental protection, and social equity.²⁰ Campbell lays out possible paths for planners to reach the elusive goal of sustainable development and questions the role of planners as leaders or followers in achieving this goal, ultimately advocating for a pluralist solution with planners taking on different roles within the triangle and attempting to mediate interests. These tensions between economic, environmental, and social goals apply equally to adaptation planning today. More recent research on adaptation and equity has found that the trade-offs of adaptation are understudied and that many plans preference property preservation over social equity through measures such as through the privatization of resources or through concentrating economic activity in specific areas.²¹ A “Roadmap Towards Adaptation Justice” put forth by several adaptation scholars summarizes these issues and lays out four steps towards adaptation justice:

- Broadening participation in adaptation planning across municipal and civil society actors.
- Expanding adaptation support to rapidly growing cities and to those with low financial or institutional capacity.
- Adopting multilevel and multi-scalar approaches to plan, fund and implement adaptation actions.
- Integrating justice criteria into infrastructure systems and urban design processes to catalyse equitable adaptation on the ground.²²

Foundations’ intervention in adaptation tends to deal most directly in broadening participation in adaptation planning, which is the focus of most of the philanthropic programs examined here.

Philanthropy & Planning:

While models for philanthropic involvement in government have evolved throughout the past century, the presence of philanthropic capital has been a near-constant in issues of urban planning. In fact, foundations and the urban planning profession developed almost in tandem – in 1907, the Russell Sage Foundation was established as the first general purpose foundation, and in that same year sponsored the first city-wide survey in Pittsburgh.²³ John D. Rockefeller established the Rockefeller Foundation in 1909. The parallel professionalization of the two industries shared key watershed moments a few years later, too; many note New York City’s 1916 introduction of zoning as a key element in the professionalization of planning, while the personal income tax deduction for charitable giving, a key driver for the philanthropic sector, was introduced in 1917.²⁴ Similarly, when the Standard City Planning Zoning Enabling Act was published in 1927, the Russell Sage Foundation worked alongside government-led changes to further the development of city and regional planning, supporting the National Conference on City Planning, the National Housing Association, and the Regional Planning Association.²⁵ The support of foundations provided the scaffolding on which the planning profession was built.

In the second half of the twentieth century, philanthropy continued to be deeply intertwined with both planning and government, particularly through the issues of urban renewal and community development. The Ford Foundation’s Gray Areas Program, which aimed to address urban decline in the face of rapid suburbanization by providing social services, served as a demonstration program to the Community Action Program introduced by Lyndon B. Johnson’s administration as part of the War on Poverty.²⁶ While by no means an unqualified success, the philanthropic program served as a demonstration not just of a program replicable at the government level, but also as a demonstration of a more holistic type of planning beyond physical revitalization. Alice O’Connor describes the critiques of the program thus:

Committed at least nominally to indigenous participation, Gray Areas was actually far more concerned about making services more comprehensive and efficient than about involving community residents in bringing about reforms. Like the “executive centered” urban mayoralities it funded, the program adopted an unapologetically top-down approach—in which the foundation, and other elite institutions established for the purpose, would act as outside “catalysts” to spark system wide change.²⁷

This quote encapsulates a critique of philanthropic involvement in planning that goes well beyond the Gray Areas program alone; many lob similar critiques towards current programs – including resilience initiatives²⁸ – particularly those centered around strategic philanthropy.

The Ford Foundation also helped to seed the model for financing Community Development

Corporations (CDCs). After the passage in 1978 of the Community Reinvestment Act, the Ford Foundation provided funding to start the Local Initiatives Support Corporation (LISC) to serve as an intermediary financial institution for community development.²⁹ The Ford Foundation had already developed some financial intermediary programs through their earlier Cooperative Assistance Fund, developed in partnership with the Taconic Foundation and seven additional contributing foundations, which invested in minority-owned businesses. In addition to defining a role for nonprofit intermediaries, this fund also created a model for Program Related Investments (PRIs) that foundations use today to fund concessionary return investment projects in addition to pure grants.³⁰ The LISC model is still dominant in financing community development, though it now operates in a far more populated universe of community development financial institutions.

This history shows that while some argue that recent philanthropic initiatives have been becoming more deeply entwined in public policies (as explored in David Callahan's *The Givers*), the practice of exchange between government and philanthropy is not a new phenomenon.³¹ The interaction of philanthropy and planning generally follows the development of macroeconomic trends, including the availability of federal funding, the strength of the economy, and the relative constraints of local governments, all of which can lead to increased demand for private philanthropy. In the same era that disinvestment in cities led to the creation of CDCs and Community Development Financial Institutions (CDFIs), private funding also enabled the proliferation conservancy models for park upkeep and business improvement districts for neighborhood maintenance. However, the direction of exchange between philanthropy and government has varied in different eras; in the early stages of the planning profession and the community development movement, philanthropic programs tended to provide structure to existing governmental policies, while in the urban renewal era, philanthropic programs provided demonstrations of program viability that were later incorporated as public programs. Recent programs of direct funding for governmental capacity further collapse the distance between the public and philanthropic spheres.

James Ferris argues that a major development in philanthropic-government partnerships is the presence of new forms of strategic partnerships.³² Ferris specifically discusses governments that have created Offices of Strategic Partnerships whose dedicated purpose is to find ways for government, philanthropy, and the private sector to collaborate. However, many philanthropic programs from the past few decades indicate a proliferation of another partnership – philanthropy-funded positions within governmental offices. Bloomberg Philanthropies' What Works Cities program, which sends data and technology specialists to improve government process, is one such example of this sort of partnership. Bloomberg and Rockefeller also funded Cities of Service, which provided grants for cities to hire Chief Service Officers. Rockefeller's 100 Resilient Cities is another prominent example – funding primarily went to hiring a Chief Resilience Officer in participating cities. Other programs provide training for existing city leaders, including the Broad Institute's Residency in Urban Education and Bloomberg Harvard City Leadership Initiative.

These strategic partnerships have developed alongside a shift in models of philanthropic giving towards “strategic philanthropy” – which includes several terms and subsets such as venture philanthropy, philanthrocapitalism, social entrepreneurship, and hacker philanthropy.³³ Though these subfields vary in emphasis, the overall development of strategic philanthropy is a move away from the more academic philanthropy of earlier eras and towards a more results-oriented model, often mirroring business practices. Strategic philanthropy can take many forms, including targeting programs designed to improve entrepreneurship and managerial skills in government, as with the What Works Cities example above, and projects that meld impact investing with grantmaking through PRIs. Examples of this latter trend include several place-based impact investment funds housed in or largely funded by foundations such as Benefit Chicago or ImpactPHL.³⁴ These place-based investment funds are also often highly linked to planning issues, funding real estate and economic development programs. Strategic philanthropy places emphasis on results-oriented evaluation and has been deployed frequently in funding for climate change, particularly for planning around mitigation.

Critiques of philanthropy:

Few argue that philanthropy in its current state performs a straightforward public good – even actors within the sector acknowledge the complications that come with the flow of large amounts of capital from corporate or personal fortunes to address social issues and market failures. Peter Frumkin identifies the three issues in philanthropy as effectiveness, accountability, and legitimacy.³⁵ Within the issue of legitimacy, two key critiques emerge frequently in academic and popular scholarship: first, the critique that philanthropic giving is structurally undemocratic and removes agency from the public sector, and second, that the solutions offered by philanthropy are often watered down to be more palatable to elite actors. Perhaps the most prominent recent iteration of the former critique is Robert Reich's "Just Giving: Why Philanthropy is Failing Democracy and How It Can Do Better." While Reich sharply critiques the current tax-subsidies for charitable giving, arguing that they effectively remove public funds towards privately decided purpose, he argues that foundation functions that work towards "pluralism and discovery" have merit – but lack accountability and transparency.³⁶ Similarly, Ruth Wilson Gilmore calls philanthropy "twice-stolen wealth," referencing extractive wealth-generating practices and tax exemptions given to foundation-sheltered assets, but charts a narrow course to the effective use of philanthropic funds through community-led practices and general operating rather than project-based support.³⁷

The latter critique – of philanthropy and democracy – has been explored in the context of the Civil Rights Movement of the 1960s (Francis, Allen)^{38,39}, migrant farm workers (Kohl-Arenas)⁴⁰, and the Women's Movement (Girard, Johnson).^{41,42} In each case, fungibility elevated some issues over others – in the case of Francis's work, for instance, of educational equity over anti-Black violence in the Civil Rights Movement in what Francis terms "movement capture." More broadly, other scholars have found that the foundations' work on consensus building can actually be a way to marginalize dissent and outside voices (Roelofs).⁴³ Anand Giridharadas's "Winners Take All" also examines the tendency of philanthropy to perpetuate the status quo, and critiques the tendency of "winners in our highly inequitable status quo [to] declare themselves partisans of change," arguing that the top-down approach of elites working to solve problems is often undemocratic and fails to address the root causes of injustice and inequity.⁴⁴ Giridharadas calls it the "MarketWorld method of social change."⁴⁵ The MarketWorld critique is particularly levelled at strategic philanthropy, and attempts to treat philanthropic giving with the same methods as a business. These critiques have been issued against the much larger flows of resources towards mitigation and technical solutions versus climate justice and equity.

Finally, there are many larger critiques around the system that enables philanthropy – and individuals – to generate and hold on to extraordinary wealth. This thesis focuses on historical and short-term actions that foundations can take to address the climate crisis, and as such the structural change required to address this critique is largely outside the scope of my investigation.

However, within this thesis, it is important to acknowledge the irony that many of the foundations discussed operate off the largesse of extractive industries that led to the climate crisis in the first place – from Ford’s automobile to Rockefeller’s oil to Carnegie’s steel. In the context of climate philanthropy, Naomi Klein’s “This Changes Everything” puts forth an argument that the goals of climate action and justice are fundamentally incompatible with the capitalist economic structures that have allowed foundations to flourish.⁴⁶ She argues that partnerships centered around “green growth” will not provide the level of change necessary to have sufficient climate impacts. Similarly, Edouard Morena identifies that most foundations take a “win-win” approach to the climate crisis, believing that solutions are not incompatible with current market structures.⁴⁷ This critique is especially salient in international climate debates, where lower-income and lower-emission nations tend to be in more danger from climate effects than wealthier and higher-emitting nations that contributed more to the problem and are better able to protect themselves. But this same debate appears on a micro scale at the local level, too, and requires us to ask questions about whether climate philanthropy proposes transformative change and societal value or whether it takes an approach to preserve property values and the status quo.

Recent developments:

The Covid pandemic has forced foundations to experiment with new models of giving, some of which address the critiques issued against the industry. One key development during the pandemic has been a movement towards “trust-based philanthropy.” This grantmaking strategy gained traction in 2020, with over 800 foundations signing on to a giving model – at least during the pandemic – that addresses several of the critiques of the industry.⁴⁸ Led by the Trust-Based Philanthropy Project (itself a foundation-funded initiative established in 2018), the movement calls for six key reforms: multi-year, unrestricted funding instead of project support; funder research on grantees instead of vice versa; simplified reporting; transparency; feedback; and non-monetary support.⁴⁹ While the movement’s momentum was certainly led and sped by the pandemic, a move towards this type of giving predates 2020 and mirrors models put forth by Reich and Wilson Gilmore.

Similarly, as foundations have been forced to confront the social and racial equity implications of their programs, there has been an increase in funds going to regranting organizations that are more connected to the communities that are the focus of intervention. Regranting organizations can be organized by subject area expertise (i.e. the Energy Foundation) or by distributional goals (i.e. Borealis Philanthropy, which resources social justice movement leaders). In 2021, a consortium of climate funders made a commitment that at least 30% of their climate grants would go towards Black-led climate groups in order to further address the links between climate and racial justice.⁵⁰ However, the fact remains that it is difficult to penetrate a foundation program without existing connections, particularly since many foundations have invitation-only grant applications or limited windows of time to apply.

The pandemic has also forced foundations to reckon with whether the 5% legally obligated endowment payout is sufficient. The five percent rule theoretically allows the foundation to operate in perpetuity, as opposed to a “spend down” model. Roughly a third of foundations operate with limited time horizons of some kind.⁵¹ This is more common with personal and family foundations associated with individuals; the Bill and Melinda Gates Foundation and Chan-Zuckerberg Initiative, for instance, both have a nonspecific time limitation couched around their founders’ lifespans. None of the primary foundations discussed in this thesis have a limited time horizon, but the environment and conservation sector is one of the more common program areas for spend down foundations.⁵² An alternate approach to increase spending without moving fully away from the perpetuity model was piloted in June of 2020 by five major foundations: bond issuance. Led by the Ford Foundation, along with the MacArthur, Kellogg, Mellon, and Duke Foundations, the project will leverage endowment funding to issue social bonds that will be repaid by endowment returns.⁵³ The project is managed by Wells Fargo and Morgan Stanley on the financing side and will make an additional \$1.8 billion available to grantees in 2020 and 2021. This is an emergency relief measure and unlikely to become a consistent operating model; it is possible largely thanks to historically

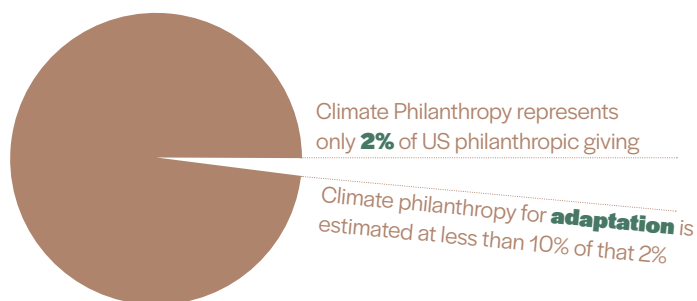
low interest rates and would not be feasible in other financing environments. In the case of the Ford Foundation, the grants issued as part of the project will largely be aligned with the trust-based model, with a large portion of funding going to longer-term, general operating support to stabilize nonprofit organizations.⁵⁴

In the context of climate philanthropy, these models map more easily onto post-disaster recovery and response funding, but the trust-based model in particular, if it continues to hold traction, could predict a shift away from project support, which has been the dominant form of climate philanthropy to date. This would likely also represent a movement away from the strategic philanthropy models that have been dominant in foundations like the Rockefeller Foundation and Bloomberg Philanthropies. While each foundation has its own method of giving and all of these models are and can be simultaneously present, more than one interviewee described a strong network and herd mentality among foundations, which makes these programs potential signifiers of larger movement in the industry as a whole.

Philanthropy & Climate:

While climate is certainly a central topic on political and social agendas, climate philanthropy makes up only a small portion of philanthropic giving. As of 2018, it represented only two percent of total philanthropy in the United States.⁵⁵ This is poised to change; in 2018, a consortium of 29 foundations committed \$4 billion to climate action at the Global Climate Action Summit, while Jeff Bezos's Earth Fund has committed \$10 billion towards climate action in the next decade. Overall, the literature on climate philanthropy is limited, and focuses primarily on large-scale actions taken at an international level (i.e. the involvement of NGOs with the Intergovernmental Panel on Climate Change or the Paris Agreement). However, the history of the movement showcases two key trends: convening power and a focus on mitigation.

Climate philanthropy was largely borne of the environmental movement of the 1960s and 1970s. It was not initially mainstream but was popularized in its earliest form by several major funders still active today, with the Ford, Mellon, and Rockefeller Foundations all establishing environment programs as early as the 1960s.⁵⁶ Those movements, often centered around conservation, began to more directly address climate change and global warming by the 1990s. In the United States, domestic contributions to climate philanthropy have largely come about because of a lack of federal leadership, and thus often focus more on state and local effort. Some pin this shift to the state and local as particularly pronounced after the failure of federal cap and trade legislation in 2010.⁵⁷ Post-2000, climate philanthropy began to work more directly on the mitigation of greenhouse gas emissions. Adaptation planning came slightly after the focus on carbon, and remains a less studied and less funded piece of climate philanthropy. Some analysis pins philanthropic funding for adaptation as low as 4% of total climate funding.⁵⁸



The largest expenditures of climate philanthropy have focused on technological solutions to the problem of greenhouse gas emissions. Many of the largest climate programs are linked to the move towards strategic philanthropy, and, in fact, "Money Well Spent: A Strategic Plan for Smart Philanthropy," which details the rise and methods of strategic philanthropy, is coauthored by the former President of the ClimateWorks Foundation.⁵⁹ In recent years, there has been an increased focus on climate justice, equity, and social vulnerability, but many

of the largest expenditures have still gone towards technological solutions. In Matthew Nisbet's analysis of \$556 million in climate philanthropy grants from 2011-2015 from major foundations, he found that 25% went towards technological solutions, 27% towards communication and mobilization, 13% towards fighting pollution, and less than ten percent to, broadly "sustainable and resilient cities," the category under which most adaptation programs work would fall, though some portion of the communication and mobilization funding is likely also adaptation-related.⁶⁰ Though it is difficult to precisely parse adaptation versus mitigation focused programs given large overlaps and often broad program definitions, this mirrors trends in general climate funding. The emphasis on mitigation is also closely linked to the rise of strategic philanthropy; mitigation targets tend to be measurable, possible to be applied across geographies, and sometimes linked to potential future revenue streams, whereas adaptive strategies tend to require place-specificity and are less easily measured.

Mitigation is also an issue on which major funders often work in collaboration. A key moment in the development of collaboration in climate philanthropy was the 2007 Design to Win report sponsored by the David and Lucile Packard Foundation, the Doris Duke Charitable Foundation, the Energy Foundation, the Joyce Foundation, the Oak Foundation, and the William and Flora Hewlett Foundation. The report examined the potential of philanthropy to "turn the tide against global warming."⁶¹ This collaboration also led to the creation of the ClimateWorks Foundation, which pools resources from other foundations and regrants them to programs working to mitigate the climate crisis.⁶² One of Design to Win's key funders, the Energy Foundation, is itself a foundation borne of other foundations, and was created in 1990 with grants from the MacArthur Foundation, Pew Charitable Trust, and Rockefeller Foundation.⁶³ To make matters further entangled, the ClimateWorks Foundation now funds the Energy Foundation regularly. Additionally, large convening foundations have also served as a nexus for new wealth to enter into climate philanthropy; ClimateWorks received a \$50 million grant in the first round of funding from Jeff Bezos's Earth Fund.⁶⁴ There may be other interests involved in these gifts – the Bezos ClimateWorks grant will go towards developing zero-emission trucking and shipping, a development that would be of nonzero import to the Amazon chief – but it nonetheless represents a departure from single-actor funding. Cross-foundation collaboration also resulted in the \$4 billion, five-year pledge that came of the 2018 Global Climate Action Summit, at the time the largest commitment to climate philanthropy ever made.⁶⁵ The group of foundations making this pledge included many overlaps with the ClimateWorks funders. These collaborations allow philanthropy to leverage considerably more funding than any one of its participant foundations could execute alone, though the circle is largely limited to well-endowed foundations working on mitigation.

Perhaps more directly relevant to adaptation planning, foundations also convene climate leaders in ways beyond direct funding. The C40 network of cities is a consortium of city leaders from 97 cities globally working to deliver on Paris Agreement climate goals; its creation was led by Michael Bloomberg and Bloomberg Philanthropies. The Rockefeller Foundation's 100 Resilient Cities did

not just provide funding and technical support, it also aimed to put cities in conversation with each other, and put together summits and opportunities for cross-city collaboration; though the program is no longer active, an outgrowth of the program, the Resilient Cities Network, still aims to bring actors in resilience into conversation. It is still primarily funded by the Rockefeller Foundation, in partnership with the Economic Development Board of Singapore.⁶⁶ The Climate Mayors is a partnership between United States Mayors committed to climate action which currently has nearly 500 mayors on board; it was funded with a \$1 million grant from the Clinton Global Initiative.⁶⁷ Boston is part of every one of these networks, as are most major cities who consider themselves climate leaders. Furthermore, these formal consortia represent only a small portion of the work funders do on encouraging collaboration and communication across sectors. At a more local level, community foundations and major local players often play the role of matchmaker, bringing together people and organizations working on similar issues.

In addition to mitigation's comparative advantage in tangibility and measurability, it also became dominant in climate philanthropy because adaptation was a relatively taboo topic until the last decade. A white paper on adaptation published by the Kresge Foundation notes that until the 2010s, it was "akin to giving up on the climate crisis," given its acknowledgment that some impacts of climate change will be unavoidable regardless to changes in greenhouse gas emissions.⁶⁸ However, despite the comparatively minuscule stature of adaptation within the world of philanthropy, funders still touch nearly every aspect of local adaptation planning in one way or another. Adaptation tends to be more popular with local funders, and community foundations are often major players in a way that they are not with large-scale mitigation efforts. For example, the San Diego Foundation funded a major independent demonstration study that kicked off government work in climate adaptation.⁶⁹ In New Orleans, the Greater New Orleans Foundation funded a fellowship position to project manage the production of Climate Action for a Resilient New Orleans.⁷⁰ In Miami, the Miami Foundation funded the community engagement and outreach portion of the Miami Forever Climate Ready strategy.⁷¹ Given the ubiquity of philanthropy in funding for adaptation planning, it is essential to understand the role that these funders play in convening actors and setting the agenda for climate action.

How Climate Philanthropy Takes Shape

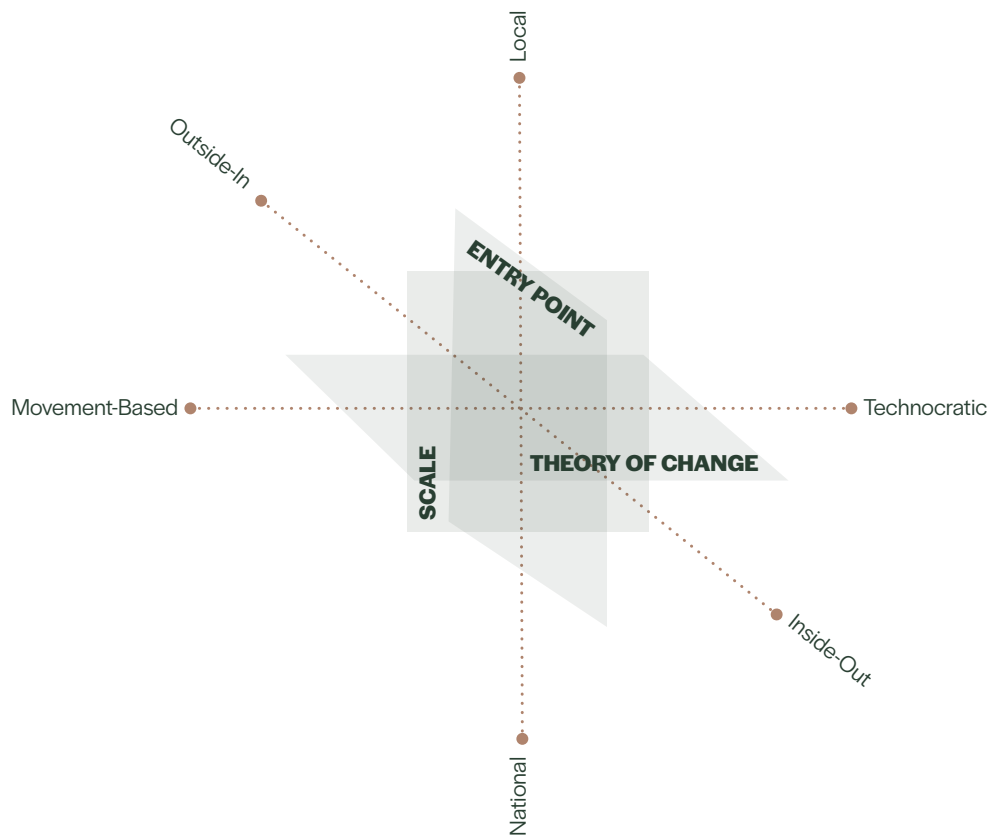
Foundations typically employ theories of change to define their giving programs and methods. The term "theory of change" has been defined by Paul Brest, former President of the Hewlett Foundation, as "the empirical basis underlying any social intervention."⁷² Generally, they are developed in a participatory process that involves first stating the goal of a given intervention or type of change and then defining the path forward towards undertaking those changes.

The first step in establishing a theory of change for any of these programs is to define the problem. In climate philanthropy, including adaptation in the problem definition is not a given – as discussed, many programs focus solely on mitigation. However, there is a growing acknowledgment of linked effects, and all of the programs examined in this thesis address adaptation directly, though program titles often use the term resilience to broaden the project scope even when primarily describing adaptive actions (as with Boston's "Coastal Resilience Solutions" series of reports).

Once the problem is defined, funding can be broken down along three axes that define a foundation's theory of intervention. The first is a local versus national scope of impact. In the national category, large funders like the Kresge Foundation and Rockefeller Foundation have put together national and highly visible campaigns, working in cities across the country all with the same rough goal and methods. The other method is to take a local view, and fund climate activities within a certain city or region. This role is most often undertaken by community foundations or other place-based philanthropists, but some large philanthropies with a national profile also focus their giving locally, as with Pittsburgh's Heinz Foundation.

The second axis along which to divide funders is what I am deeming Inside-Out versus Outside-In funding. Inside-Out funding allows for direct grants to shore up governmental capacity internally and provide expertise. At the national level, Rockefeller's 100 Resilient Cities program provides the most well-known incidence of this phenomenon, but foundation-funded employee positions centered around resilience are relatively common at smaller scales as well. The second model, Outside-In Funding, funds outside actors to create programs and advocacy centered around community-generated ideas for adaptation. The Kresge Foundation's Climate Resilience and Urban Opportunity Program is the largest nationwide program explicitly following this strategy. Many foundations combine the two strategies in different ways, though, most tend to lean in one direction or the other.

Finally, giving in climate adaptation, as with the philanthropic field in general, can be split along the lines of a technological approach (i.e. funding climate science, technical reports, or data collection) or a capacity approach (i.e. operating funding for nonprofits working on climate or environmental justice or for governmental departments). While similar to the Inside-Out vs.



Outside-In dichotomy, this split has less to do with the point of entry for funding and more to do with the goals of the program.

Even within the confines of a single broad goal of equitable climate adaptation, there is a large variety in funding mechanisms and types. Hurricane Sandy provided a wake-up call to funders as well as city governments; while many foundations were funding mitigation strategies prior to 2012, each of the adaptation funding strategies explored in this thesis began after Sandy proved the need for strategies in both adaptation and mitigation. Hurricane Sandy also provided the impetus for the Bridgespan Group to publish a guide to philanthropy in adaptation. They had five recommendations:

1. Support local science by local scientists
2. Invest in neutral conveners
3. Support community advocacy for change
4. Build the field to share adaptation strategies
5. Reframe the dialogue around people and social benefits⁷³

Moving into the Boston case study, it is clear that funders took note: each one of these strategies has been funded in Boston, though with varying frequency. The only major strategy missing from this list but nonetheless central to several funding strategies is direct community engagement – but most programs closely align with this report’s five recommendations.

Part II

Confronting Climate in Boston

State of Climate Action in Boston

Climate action in Boston has two origin stories – one for mitigation and one for adaptation. The former begins in earnest in 2007 with former Mayor Thomas M. Menino, who signed the City’s first major Executive Order related to climate action and released the City of Boston’s Climate Action Plan. Then-Representative Ed Markey, who had just been appointed to the House Select Committee on Energy Independence and Global Warming, recalled the American Revolution when he called it “the shot heard round the world” while NPR noted that “some say it’s the most ambitious climate change initiative yet launched by an American city.”⁷⁴ This 32-page report was published without a listed author, funder, or list of collaborators. In contrast, the 2019 update of the Climate Action Plan reads at 85 pages, several of them dedicated to listing the project’s 179 contributors.

Also in contrast to 2007, the Climate Action Plan no longer makes up the entirety of the City’s actions around climate; it addresses mitigation, not adaptation. Adaptation falls into the realm of Climate Ready Boston, the City’s other major initiative – and its other climate origin point. Many of the individuals involved will point to Hurricane Sandy as the City’s wake-up call in 2012, as does the original Climate Ready Boston document from 2013. Boston was spared from major storm damage only by the timing of the tides when the storm rolled in. Seeing damage wrought in New York City – again largely a factor of tide timing – was a sobering reminder to city officials that ambitious emissions-reduction and carbon neutrality goals would not be enough to protect the city from Sea Level Rise and extreme weather events.

Another impetus to plan was a new Mayoral administration. Mayor Menino was Boston’s longest-serving Mayor, in office for a 21-year tenure. He was known in town as a ‘doer’ without much of a penchant for the formal planning process. Following the conclusion of Mayor Menino’s highly respected tenure in 2014, Mayor Walsh turned to planning as one of his signature initiatives, potentially as a differentiator from his very popular predecessor. In his first two years in office, Mayor Walsh initiated Imagine Boston 2030, hailing it as the first master plan for Boston since 1965, and rebranded the Boston Redevelopment Authority into the Boston Planning and Development Authority.

However, the impetus to plan did not come from within the government alone. According to Foundation Directory data (which likely lacks grants from individual and family foundations whose 990 tax forms are less often published), the City of Boston has received roughly \$25 million in foundation grants between 2015 and 2019 – a tiny portion of the overall city budget, but responsible for an outsize number of signature initiatives, including contributions to the City’s Imagine Boston Master Plan, Climate Ready Boston, establishing an Office of Resilience and Racial Equity, an Economic Development Lab, and an Innovation Team.⁷⁵ The Barr Foundation was the City’s largest foundation donor, giving the City roughly \$4 million directly in the course of the last

Boston's Plans



Climate Action Plan

Plan primarily focused on mitigation, originally issued in 2007 under Mayor Menino and most recently updated in 2019

Imagine Boston 2030

Boston's Comprehensive Plan, released in 2017. Mayor Walsh initiative, considered Boston's first master plan in half a century

Resilient Boston

Funded by the Rockefeller Foundation

Plan for Resilience and Racial Equity, released in 2019 as part of Boston's 100 Resilient Cities effort

Climate Ready Boston

Funded by the Green Ribbon Commission (2/3) and State Municipal Vulnerability Preparedness Grant (1/3)

Plan for adaptation, released in 2016. Issued in partnership with the Green Ribbon Commission

Go Boston 2030

Community Engagement expenses funded by the Barr Foundation

Mobility Plan, released in 2017 with Imagine Boston.

Coastal Resilience Solutions

Funded by a combination of Barr, Green Ribbon, and State funding

Neighborhood Specific plans released for:

- East Boston & Charlestown I (2017)
- South Boston (2018)
- North End & Downtown (2020)
- Dorchester (2020)
- East Boston & Charlestown II (upcoming)

decade, much – though not all – of that going towards climate adaptation and mitigation. The Barr Foundation funds a whole ecosystem working on climate in Boston, far from just its direct government grants, but their influence is most visible on the title pages of each Climate Ready Boston Report. They are not, however, the only philanthropic entity whose influence can be felt within Boston’s plans.

Boston’s Climate Ready Boston initiative began in earnest under former Mayor Walsh’s tenure, while the Climate Action Plan and Greenovate engagement programs had been established under Mayor Menino. The major Climate Ready Boston report was released in December 2016, following the release of a unified set of climate projects by the Boston Research Advisory Group released in June 2016. Since the initial report, the City has layered on neighborhood plans for most of Boston’s Waterfront, including South Boston, East Boston and Charlestown, Downtown and the North End, and Dorchester, and they are now working on the second piece of the East Boston and Charlestown waterfront, at which point all of Boston’s waterfront neighborhoods will be covered.

The plans produced through the Climate Ready Boston process – like the City’s Imagine Boston 2030 master plan and many similar initiatives – are not legally binding. They provide roadmaps for future action, but they are not adopted by City Council, and there is no built-in evaluation of or accountability for completing their suggestions. The City does keep a progress chart on their website in the interest of transparency, but current progress trackers have not been updated in over two years, since February 2019. At that time, only two of the layered Climate Ready Boston suggestions were marked “Complete” – updating local flood maps, and conducting a harbor-wide feasibility study (which concluded that a harbor-wide barrier system would be more costly and less effective than shore-based solutions).

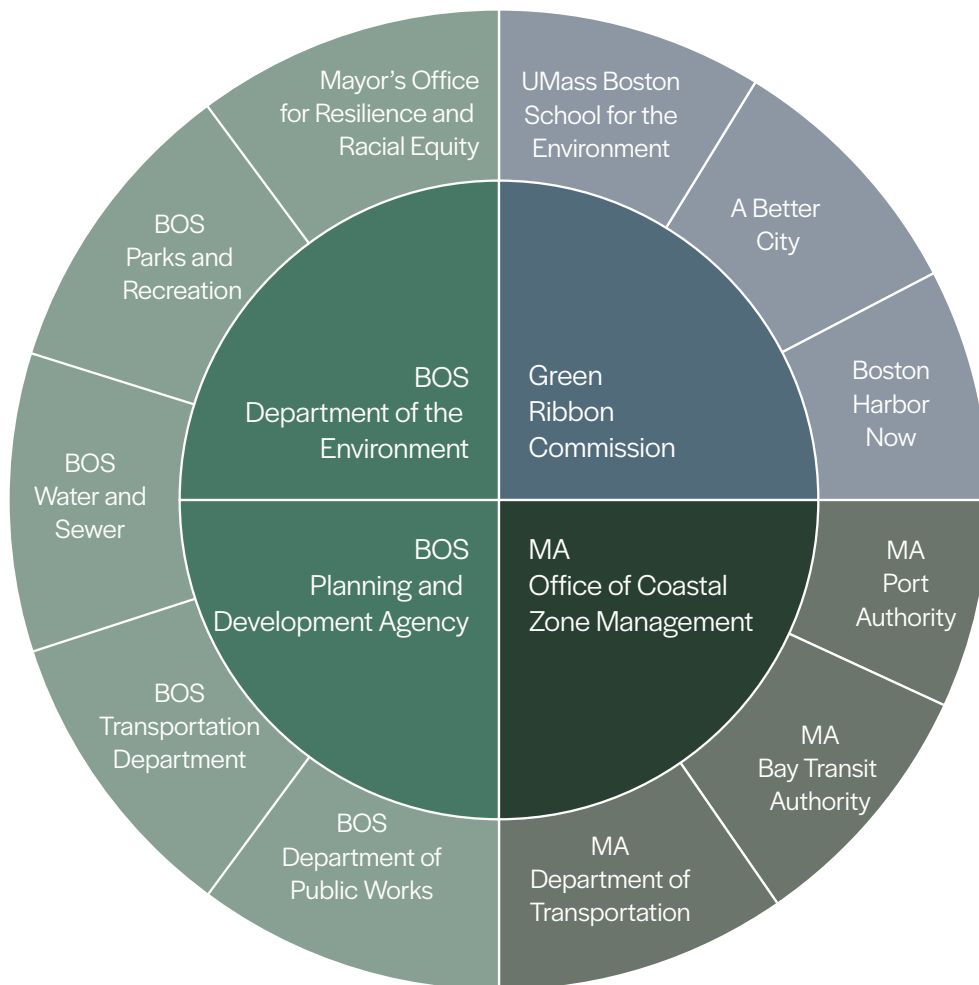
A few regulations have been updated. The City Council passed a Local Wetlands Ordinance in 2019 that was adopted by the Boston Conservation Commission in October 2020. The ordinance expands the Conservation Commission’s authority to regulate flood-prone areas. The BPDA also introduced the first major zoning initiative in January 2021, though it has yet to be ratified: Coastal Flood Resilience Overlay Districts (CFROD), which makes adaptive design requirements for any new construction in district zoned under the flood overlay. The BPDA also introduced Coastal Flood Resilience Design Guidelines into the Article 80 project approval process in 2019, which have been largely followed though they are nonbinding. These projects did not rely on any private funding, though they were supported by State grants.

Past the initial planning process, the City has invested more of its own funding into projects, though its progress thus far has been limited. In December 2020, Mayor Walsh announced the City’s first Green Bond offering, which allowed for \$25 million to fund four projects: two projects with adaptation implications (the Boston Center for Youth and Families Curley Community Center and Langone Park/Pupolo Playground) and the Renew Boston Trust focused on energy

efficiency, and the New Boston Arts Academy's LEED Silver building.⁷⁶ More broadly, Mayor Walsh pledged that a minimum of 10% of capital spending would go towards projects with resilience benefits. This commitment is a good first step, but the confines of what is considered a project with resilience benefits are fairly broad and may not require all that much deviation from the city's existing planned capital projects. Other investments into resilience projects have been made by non-City actors, such as the Boston Water and Sewer Commission and MassPort. These projects have been possible thanks to their co-benefits; the agencies have been able to add resilience on to an existing project, following the adage of former Environment Chief Brian Swett: "If you touch it, raise it." However, funding for resilience-first projects has been hard to find. While most projects are still in the planning pipeline, a few have come to fruition. The City opened Martin Richard Park in partnership with the Children's Museum in the Seaport. Martin's Park was the result of several public-private partnerships, including private donations and contributions as part of community benefit agreements with developers. The Green Bond-funded Langone Park and Pupolo Playground in the North End, on the other hand, is fully City-led and opened to community in February 2021. In terms of larger projects, the City anticipates receiving a FEMA grant to execute its Fort Point Channel project, which would be the next major initiative. The crown jewel of Climate Ready is Moakley Park, which has no precise funding plan or timeline in place – though a majority of Boston-based interviewees identified this project as the one they would execute first, were funding streams available.

Major Stakeholders

Boston’s climate plans are generated by a core group of stakeholders, with the participation of many additional governmental and private groups across the city and state. While participants vary on each plan, the following stakeholders are consistent across every document produced as part of Climate Ready Boston:

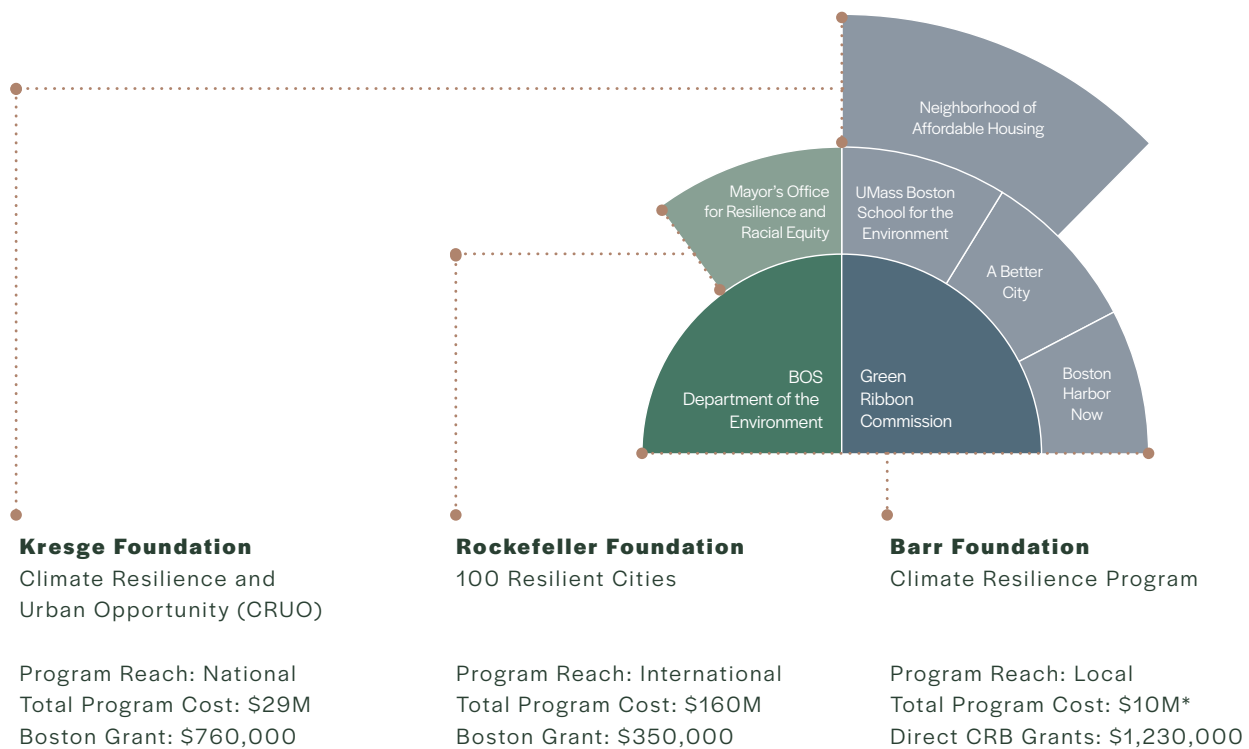


Within the core stakeholders, the most central to the planning process are the Boston Planning and Development Agency, the Boston Department of the Environment, the private Green Ribbon Commission, and the state Office of Coastal Zone Management. Different reports use different terminology to describe the roles of participants, but of this stakeholder list, the core four are generally on the main project team while other members have smaller roles. Depending on the specifics of the plan, positions may vary. Given the active port and maritime area, for instance,

Massport, a major landowner and operator of the port was more involved in the South Boston planning process, while in the planning for the North End, community groups were the primary addition to the core stakeholder list in the planning process.

Absent from this stakeholder list but nonetheless key to the process are external consultants hired to produce each plan. Each plan requires five or six consultant teams to handle different aspects of the project. Each plan utilizes a different consultant team; the only constant is the Woods Hole Group, whose coastal engineers and scientists have contributed to all the Climate Ready plans.

Foundation funding is central to roughly half of the major stakeholders on the above list. The Barr Foundation has been funding departmental capacity in the Environment department in some form for the past fifteen years. The Mayor’s Office of Resilience and Racial Equity was founded in response to the Rockefeller Foundation’s 100 Resilient Cities program. The Green Ribbon Commission represents the city’s major business and institutional communities, and was for many years chaired by Amos Hostetter, the Chair of and primary donor to the Barr Foundation. Barr also provides major funding for Boston Harbor Now and the University of Massachusetts’s Sustainable Solutions Lab, whose reports are often folded into Boston’s climate planning process.



*Total Climate Resilience Spending 2011-2018



2016 Climate Ready Boston Main Report Stakeholders

Funding Overview

The Barr Foundation

The Barr Foundation was universally acknowledged in interviews as the most influential climate funder in Boston. The Foundation's President was ranked by Boston Magazine in 2021 as the sixth most influential person in Boston, ahead of both Massachusetts Senators, several Representatives, and even the current Mayor. While a highly unscientific indicator, this press coverage indicates an undercurrent that emerged across interviews, press coverage, and financial digging: Barr has as much claim to Boston's climate adaptation plans as the City itself.

The Barr Foundation has existed since 1999, but its visibility has increased in the past decade; until around 2010, most of its grants were anonymous.⁷⁷ The Foundation's pledge to fund \$50 million in its climate program was one of its first major public announcements. Since making that announcement in 2010, it has in fact granted more than \$100 million, and in 2018 committed to giving away at least another \$100 million by 2023 as part of the \$4 billion pooled pledge at the Global Climate Action Summit in 2018.⁷⁸ These funds have been dispersed across the City itself, nonprofits working on both waterfront access and climate justice, neighborhood groups advocating for their role in the planning process, and organizations working towards technical assistance. For all its visibility, Barr's climate program area is in fact the smallest of its three programs; the arts and education program areas have larger grant expenditures. Climate Ready Boston is also far from the only program it has had a hand in pushing along. It funded much of Boston Creates, Boston's cultural plan, and Go Boston, the City's transportation plan. The Climate Ready Boston initiatives are not the sole focus of Barr's climate spending, either – though Barr is Boston's leading funder of adaptation planning, they only devote about 10% of their total climate funding to adaptation, which they couch within the resilience label. The majority – as is consistent with national and international trends – goes to mitigation-focused activity.

Barr's \$50 million 2010 announcement was hardly the beginning of the Foundation's engagement with Boston's waterfront. Though much of their earlier giving was anonymous, interviewees let on that Barr was also the major philanthropic supporter for the creation of the Boston Harbor Islands National and State Park, an initiative that was a “partnership park” and an early example of the public-private park funding model that has become common.

Perhaps because of the Barr's longstanding links to the Harbor, in addition to funding climate programs, the Foundation has also prioritized waterfront access. A Boston nonprofit leader noted that around 2016, Barr “announced that they were going to make the Harbor a priority of the Foundation and that's when they started to grow the number of groups around the Harbor and really build the nonprofit activity on the waterfront.”

Though small on the scale of billions that many people assume needs to be associated with climate influence, the Barr Foundation's small infusion of funding for Greenovate fellows in Fiscal Year 2013 moved the Environment Department's budget upwards for the first time in several years and gave the Department the capacity needed to devote full staff positions to climate action.

They also preceded the City in beginning to plan for the waterfront, funding Michael Van Valkenburgh Associates and a team that included HR&A Advisors and Greenberg Consultants to design a "Vision for the Boston Waterfront" in 2014.⁷⁹ A reconfiguration of this same team ended up winning the City's Request for Proposals for Imagine Boston 2030 the following year, no doubt benefiting from this commissioned pre-work and incorporating these resilience visions into the larger Imagine Boston plan. HR&A, with different engineering and landscape partners, also project managed the 2016 Climate Ready Boston report, which again included several themes from the original Vision. Tracing this progression from exploratory private project to official city vision reveals the Barr-planted seeds of much of Boston's climate work. The Barr Foundation has several internal programs led by its program officers, including the Waterfront Initiative, but by far the Foundation's largest point of influence on Boston's climate planning happens outside its formal grantmaking program through the Green Ribbon Commission.

Other Local Funders

While Barr is by far the most active funder in local climate adaptation, it is not the sole actor in this space. One brand-new program that takes a different approach to public-private-philanthropic partnerships for climate adaptation is the Stone Living Lab, funded primarily by the James and Cathleen Stone Foundation, and executed in partnership with the National Parks Service, City of Boston, and UMass Boston School for the Environment. This is the largest initiative by the Stone Foundation around climate issues, but Cathleen Stone served as the first Chief of Environmental Services under Mayor Menino and has had extensive exposure to climate adaptation in Boston through her experience on the boards of the Boston Water and Sewer Commission and Boston Harbor Now. The Stone Living Lab will undertake nature-based solutions research projects on one of the Boston Harbor Islands, and will elevate citizen science around climate issues. While the City is a partner in the project, this is not a planning project, and instead will work to create solutions and execute research, perhaps a return to the "piloting solutions" model of philanthropic-government exchange. This model works with the idea that foundation-funded programs might execute research that will eventually seed future government programs, rather than directly working on creating plans. It is still in its initial stages so cannot yet be evaluated, but it presents a different type of community engagement model that aims to dramatically expand access to climate knowledge.

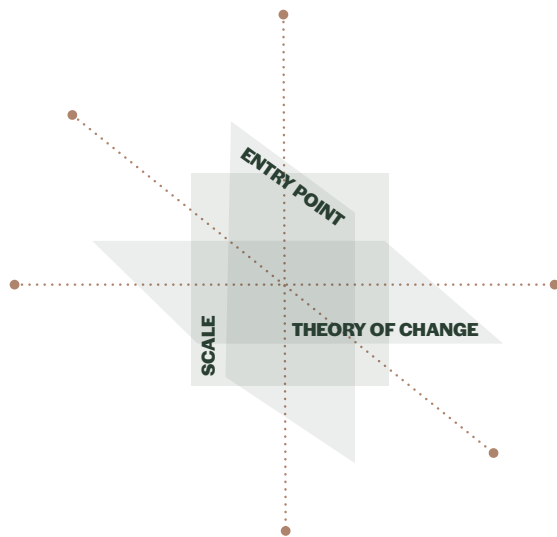
The Boston Foundation has also engaged on environmental issues in the past, though its involvement

in climate adaptation has been very limited. In the early 2000s, the Boston Foundation did have a program area titled “Urban Environment,” but they do not seem to have made grants in that area since roughly 2008.⁸⁰ They did also provide some seed funding for the initial Climate Ready initiatives, though, and have partnered with the Barr Foundation on various initiatives, particularly in the Covid pandemic. Interviewees speculated that since the Boston funding landscape is relatively small, most people consider the foundations as having specialized into their subject areas, so few foundations beyond Barr have ventured extensively into involvement in climate planning or have channeled funding through the GRC.

National Programs in Boston

While local funders have been more active and given larger dollar amounts in Boston, the City has had luck in winning grants from several major programs like the Rockefeller Foundation and Kresge Foundation, as well as funding from financial institutions, State and Federal governments, and more. The two programs examined in this thesis, the Rockefeller Foundation’s 100 Resilient Cities program and the Kresge Foundation’s Climate Resilience and Urban Opportunity Program, are both national initiatives which represent two different styles of intervention in climate philanthropy. Despite their disparate methods of intervention, both programs prioritize “resilience” and attempt to build social and racial equity into the climate planning process.

Program I: The Green Ribbon Commission



KEY CHARACTERISTICS

Scale: Local

Entry Point: Outside-In, accompanied by deep public sector partnership

Theory of Change: By engaging leaders of Boston’s institutions and major businesses with the public sector, it is possible to further climate goals. Output leans technocratic - the Green Ribbon Commission has commissioned almost all of the City’s technical reports on climate issues.

Program Overview

Boston’s Green Ribbon Commission is a unique entity. The Commission was founded in 2010 by Barr founder Amos Hostetter in partnership with Mayor Menino. The concept was for the City’s largest businesses and institutions to be convened to work together on meeting climate targets, so the membership was – and is – largely made up of the largest emitters in the City: universities, healthcare institutions, and commercial real estate owners. The members meet monthly, set their own emissions targets, and engage in working groups on different topics related to climate. Though the Green Ribbon Commission has been instrumental in Boston’s climate planning, it is not an incorporated 501(c)(3) nonprofit – or an incorporated organization at all. Technically, it is a “project,” and receives grants to execute climate work through a fiscal sponsor, the Innovation Network for Communities (IN4C) led by its Executive Director, John Cleveland. Therefore, unlike most climate planning efforts, its financial records are not public, though most of its incoming grants are recorded through IN4C. The Green Ribbon Commission is an independent entity, but like many climate actors in Boston it is difficult to fully separate from the Barr Foundation, given Mr. Hostetter’s role as the Commission’s chair and its primary funder. One member mentioned that the Commission was attempting to “wean itself” of exclusive Barr support and is now down to “only” around 50% Barr Foundation funding.

Sitting with Mr. Hostetter as Green Ribbon Commission co-chair has been, for the last decade, the

Mayor of Boston – Menino, Walsh, and now Janey. The Commission has the Mayor’s ear monthly, if not more, at their Board meetings. In addition to the Mayor, the Chief of the Environment, Energy, and Open Space Department has also sat on the Commission’s Executive Committee for the past decade, across multiple administrations and individuals in the role. A commission member described the relationship as an “interlocking mechanism,” if not a formal tie. Most projects begin with a letter from the Mayor, which gives the Commission the authority to raise funding, hire project managers, and generally move forward.

In interviews, the Green Ribbon Commission was frequently cited as a major driver behind Boston’s climate push. The press often describes the Commission as playing a “watchdog” role. But while the Commission has been an advocate for Boston’s business and institutional community’s stake in ensuring Boston plans for climate change, the Commission’s role goes well beyond the position of an advocate. The Green Ribbon Commission and its members’ role in Boston’s climate planning process may not be obvious to the casual observer searching through the reports on the City of Boston’s website – their presence is largely limited to the logo at the front of the report – but the major Climate Ready Boston work is as much their work as that of the City.

Evaluating the Program

The GRC’s programs have not been officially evaluated. These insights are the result of stakeholder interviews and budget and document analysis. Overall, the Green Ribbon Commission is in some ways the most successful philanthropic program operating in Boston, having achieved many of its members’ goals towards planning for adaptation – but some major questions remain about whether the GRC’s prominence subverts or distorts public process and whether the plans produced by the GRC will be put into effect.

Policy Change

The GRC has, in many ways, provided guides to the City in how to perform its adaptation planning. The Green Ribbon Commission contracted with Rebuild by Design to strategize about Boston’s climate planning in September 2014. Rebuild by Design is likely the largest and certainly most visible adaptation planning process in the United States. Launched as a \$1 billion initiative by the United States Department of Housing and Urban Development (HUD), the initial program was a design competition for rebuilding the New York area after Hurricane Sandy. The Rockefeller Foundation was the project’s Lead Funding Partner, though several other foundations including the JPB Foundation and the Surdna Foundation contributed as well. Based on the competition’s success, the Rebuild by Design team began consulting with other cities – including Boston – on how to move forward with adaptation planning before a major disaster hit. In Boston, the Rebuild team built out the strategy that would become Climate Ready Boston; though they are not credited on any of the major reports, the structure they developed for the Green Ribbon Commission was the structure the City eventually followed, including first updating projections, then executing the

neighborhood-level plans.⁸¹

As has already been mentioned, the GRC also supported – as at minimum a co-sponsor in name, but more often also as a funder – all of the Climate Ready reports produced by the City of Boston. The binding BPDA programs (CFROD and Resilient Design Guidelines) are some of the only policy initiatives in which the GRC is not intimately involved – but even there, they commissioned reports on both topics before the public sector made their own rules. The GRC stretches the limits of the potential of philanthropic involvement – no philanthropic actor can (or should) be able to modify zoning regulations, but the GRC has come as close as any funder could. In general, GRC Climate Ready reports have been adopted by the City and become one and the same with City strategy, indicating an unusually high level of policy influence.

Further Funding

While the Barr Foundation has been the largest funder of the Green Ribbon Commission, it has also served as a destination for climate funding from its members' associated foundations, even from those who follow alternative theories of change in climate philanthropy. For instance, Jeremy Grantham, a member of the Green Ribbon Commission who is also sometimes credited as a co-founder of the organization, directs the giving of the Grantham Foundation for the Protection of the Environment. In 2019, Grantham pledged \$1 billion towards climate philanthropy.⁸² The vast majority of the Grantham Foundation's giving generally goes to national and international initiatives rather than the hyper-local ones that Barr favors.⁸³ The Grantham Foundation also tends to favor work on climate science, rather than on-the-ground climate response or local government support and includes agriculture and food systems as a major program area within its climate portfolio. Despite this opposite theory of giving to Barr's model, the Green Ribbon Commission has still succeeded in gaining funding from the Grantham Foundation (\$150,000 in 2018, for example), indicating the GRC's agility at securing funding from Boston's power players regardless of their programmatic strategies.

The Green Ribbon Commission assembled two-thirds of the funding for the 2016 Climate Ready Boston report from the Barr Foundation (\$460,000) and from the Sherry and Alan Leventhal Family Foundation (\$325,000) – Alan Leventhal, the founder of Beacon Capital Partners, is another member of the GRC. These grants were paired with a State Municipal Vulnerability Preparedness (MVP) Planning Grant for \$350,000. Though the City itself contributed staff time and resources likely equal in value to these grants, it does not seem to have funded any of the report out of its own pocket. Similarly, Barr and/or the GRC funded several of the neighborhood-level reports; four UMass Sustainable Solutions Lab reports on financing and governance for the Climate Ready plans, the most complete concrete steps towards fully operationalizing the plans; and many other reporting and planning initiatives.

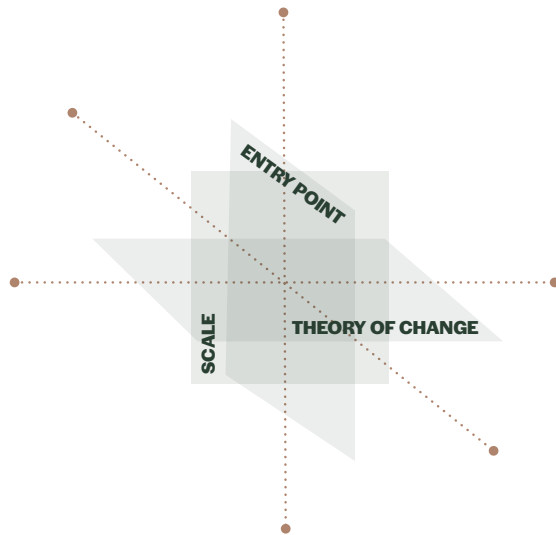
As these initiatives show, the GRC has been successful at leveraging further funding from other foundations for climate projects, but since the GRC's goals tend towards the implementation of physical adaptation projects, it remains to be seen how successful it will be in helping the City to actually work towards its climate plans.

Engagement and Equity

The GRC has been extremely effective at engaging institutional and business leaders in the climate planning process. Many of its members have since made their own climate plans, including several of the large universities and hospitals. The GRC's engagement with business leaders is not something that would typically be considered "community engagement," and yet its success at maintaining interest and buy-in from planning stakeholders may be replicable in other contexts. One key difference leading to the success of the GRC is that it is structured around continual, rather than project-based, engagement with both the City and with its members, and brings its stakeholders directly into contact with the public sector at the leadership level.

Equity is not a central goal of the GRC, who fundamentally represent the interests of business and institutional leaders. As the GRC enters the strategic planning process for its next decade, it is reconsidering what their membership might look like in the future and whether it might expand the definition of what kinds of power its membership represents to include neighborhood or advocacy leaders. However, in its current form, the group represents a limited set of actors and focuses more on the depth of engagement with that group than on citywide engagement. As one GRC member put it, "Sometimes people ask, 'what about the neighborhoods?' We were not set up to do that – a lot of excellent advocacy organizations fill that very important piece of the field." However, given the level of exposure and leverage afforded to the group and its lack of an equivalent with representation from neighborhood or community leaders, the group's interests may be more highly represented in the planning process than other voices.

Program II:



KEY CHARACTERISTICS

Scale: National

Entry Point: Inside-Out

Theory of Change: “Would cities adopt different and more universally protective policies and practices to advance climate resilience if organizations deeply committed to equity were resourced to fully participate in the policy-formation process?”

Kresge Climate Opportunity and Urban Resilience Program

Program Overview

The Kresge Foundation spent several years researching different theories of change for climate philanthropy before premiering the Climate Resilience and Urban Opportunity (CRUO) program in 2014. They had been researching adaptation techniques since the early 2000s, and in 2012 convened 80 practitioners – most of them grantees – to learn about engines and roadblocks for adaptation. At that gathering, the participants’ comments are eerily similar to those heard today, almost a decade later: it is difficult to move from planning to implementation, there are many silos when attempting to get adaptation work done, and it is important to engage with people where they are.⁸⁴ The White Paper that summarized the results of the gathering concluded by stating that:

“By adapting to a changing climate and to the interests of multiple groups whose support is necessary to implement our plans, we are also making a difference in protecting things each of us values in our natural and human environments. There are many steps yet to be taken on many paths. Taking those steps and finding those paths depends in large part on organizing, communicating, and collaborating.”⁸⁵

With the CRUO initiative, Kresge attempted to do just that. The central question it attempted to ask

was “would cities adopt different and more universally protective policies and practices to advance climate resilience if organizations deeply committed to equity were resourced to fully participate in the policy-formation process?”⁸⁶ The program identified a void in local climate funding and the domination of national environmental nonprofits. Over five years, the Kresge Foundation funded \$29 million in grants towards 15 organizations selected after an open call for proposals, as well as some natural organizations who provided expertise and guidance.

In addition to their funding for local initiatives, Kresge also funded several pieces of work on the state of climate adaptation progress throughout the course of the program. In 2015, they commissioned “Pathways to Resilience: Transforming Cities in A Changing Culture,” which put forth a vision for “people-centered resilience.”⁸⁷ In 2016, they took a more technical approach, commissioning “Climate Adaptation: The State of Practice in U.S. Communities” from ABT Associates.⁸⁸ In 2017, they funded “Rising to the Challenge, Together: A Review and Critical Assessment of the State of the US Climate Adaptation Field.” This report credits philanthropy with “branding and mainstreaming adaptation and resilience issues,” but notes that the foundations were not collaborating effectively with each other.⁸⁹ It also noted a lack of progress on transformative adaptation versus existing piecemeal or incremental approaches.

CRUO was not Kresge’s first engagement in Boston; in 2015, prior to the program start, they were also part of Boston’s Living With Water design competition. Though they were not a funder of the event, Kresge funded the Urban Land Institute to produce a report on Living with Water Strategies in Boston that came out of the event.⁹⁰

In Boston, the CRUO program supported the ClimateCARE program led by the East Boston-based Neighborhood of Affordable Housing (NOAH). ClimateCARE executed engagement around the Climate Ready East Boston planning process, and convened what they deemed the Adaptation Planning Working Group bringing together community members with public officials in the planning process.

While the CRUO initiative was deemed a success in many ways, the Kresge Foundation did not continue the program past its conclusion in 2019. Instead, grantmaking in Kresge’s Environment Department shifted to another initiative, Climate Change, Health, and Equity, which – in addition to emergency grants related to the pandemic – made up the majority of the Department’s giving since. This narrowing of focus took the program past the broadest definition of resilience into more specific health and equity focused parameters, but continued the theme of working to right environmental injustice in the face of a changing climate. NOAH continues to work on many of the same programs it began through ClimateCARE, and remains involved with climate planning in East Boston. Currently, the second iteration of East Boston’s climate planning process is underway, and NOAH is the designated community partner assisting with engagement activities.

Evaluating the Program

Kresge commissioned an external evaluation of the CRUO program from the Spark Policy Institute, which was split into two separate evaluation types: one on developmental evaluation during the program and an outcome evaluation following its conclusion.⁹¹ The evaluations were conducted using the Equitable Evaluation Initiative's framework, which was still in development at the time and which the Kresge Foundation helped to fund in its early stages.⁹² While the findings were largely positive, the lack of program continuity may indicate that funders thought another tactic might lead to stronger responses.

Policy Change

Though not directly attributable to the ClimateCARE program, NOAH is the only neighborhood nonprofit to be credited on a neighborhood plan as a member of the steering committee versus a more typical advisory acknowledgment, as was the case with all other community groups involved in neighborhood resilience plans. This elevation of their status happened concurrently with the ClimateCARE program, and NOAH staffers mentioned that their ability to deploy Kresge funding towards an active policy role was key in the Climate Ready East Boston planning. The program was also successful in bringing together local concerns with government and academic experts through its Adaptation Planning Working Group, which played an active role in providing feedback on the East Boston climate planning process. However, no interviewee who was not directly involved with ClimateCARE identified the program as a high-impact initiative – even those who did applaud NOAH's work. This indicates that the program's visibility was limited, or took a back seat to the on-the-ground work that NOAH was already involved in and has been able to continue.

Further Funding

NOAH was successful in leveraging funding for continuation of ClimateCARE activities from the Robert Wood Johnson Foundation for several years following the conclusion of the Kresge grant. While this direct funding for the initiative has also now stopped, NOAH has continued their involvement, now acting as a paid consultant: the City is now undertaking the second half of the planning process for Climate Ready East Boston, and instead of leading their own Adaptation Planning Working Group, NOAH was asked by lead consultant Arcadis to be the designated "Community Partner." They now receive a stipend for their engagement work, which they did not in the original planning process, instead writing the same kind of work into the ClimateCARE budget.

Engagement and Equity

Where ClimateCARE had the most success was in community engagement activities, particularly those surrounding the creation of the Coastal Resilience Solutions for East Boston and Charlestown report. The program employed “climate canvassers” to work with local residents on building knowledge and engagement on climate issues. However, the program’s major event – the Climate Summit, which attracted Mayor Walsh and Senator Markey in addition to many neighborhood residents – occurred after the release of the Climate Ready East Boston plan, giving residents limited input in true process.

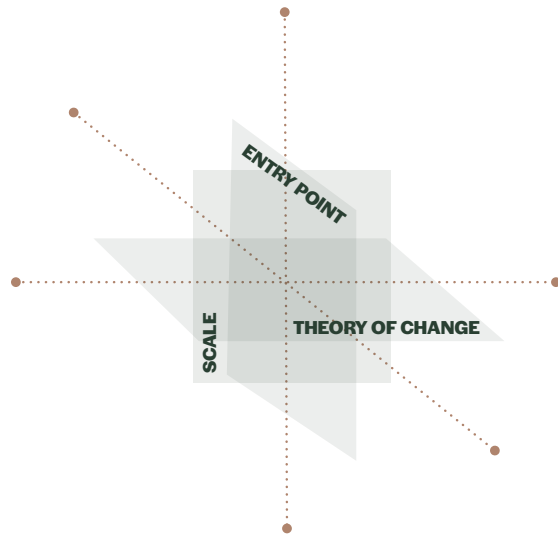
One of the major community concerns identified in the ClimateCARE process was around green gentrification resulting in displacement of the working-class community in East Boston. Some nonprofit groups did not feel that the program went far enough in protecting residents against this threat – and in fact, some individuals involved in the ClimateCARE program went on to found and run their own community groups to address these concerns.

Network and Ripple Effects

The national evaluation of CRUO strongly emphasized the value of convening actors in climate adaptation and resilience. In addition to local capacity, the evaluation found that one of the most important pieces of the CRUO initiative was the access that it gave equity-focused local leaders to national field-builders – and to each other. The evaluation noted that formal convening between community organizations and national organizations were important, but needed to take multiple forms so that each organization could find the best partnerships, and that pathways for informal learning also emerged between the peer networks. One of the evaluation’s takeaways at the local level was that “the foundation for sustainability lies in organizational commitment, fostering strong relationships across partnerships and networks, and maintaining inside game strategies.”⁹³ Resourcing the ClimateCARE program enabled NOAH to work more actively to build these relationships through their staff and partners; the relationships formed were more often cited as outcomes of the programs than any piece of planning.

However, it is unclear whether this impact can truly be attributed to the CRUO program or whether NOAH would have achieved these outcomes regardless; the organization is well-established and was certainly not an outside in Boston. In fact, NOAH learned about the opportunity through their existing relationships with climate actors in Boston – through the Urban Land Institute, who had previously been connected to Kresge through Boston’s Living with Water design competition reporting. While none of this had a substantive impact on the quality of their programming, these kind of required insider connections are important to note; without them, the nonprofit may not have even been aware of the program, even though it was ostensibly an open call for proposals.

Program III: 100 Resilient Cities



KEY CHARACTERISTICS

Scale: National

Entry Point: Inside-Out

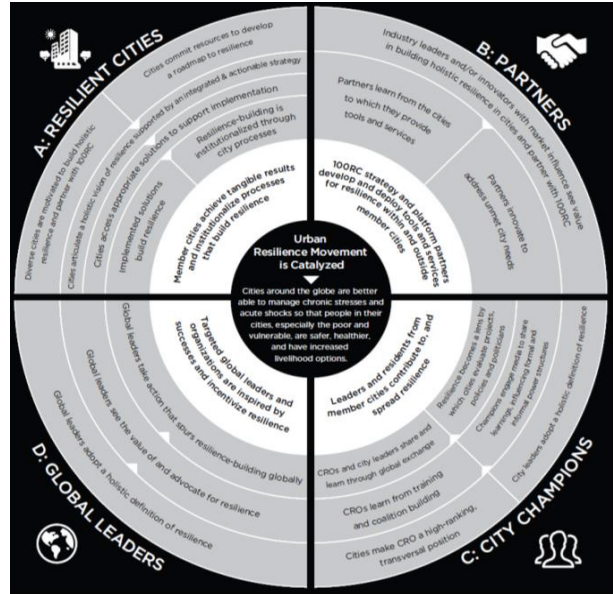
Theory of Change: Installing resilience-focused leaders in high-level positions in local government will catalyze the public sector to incorporate resilience into their government practice and, with the additional of technical support and cross-city convening, enable cities to make progress towards reducing vulnerability.

Program Overview

The Rockefeller Foundation developed the 100 Resilient Cities initiative in 2013 as an independent offshoot of the foundation. The initiative cost roughly \$164 million over the five years it was active.⁹⁴ The primary method of intervention was to install a Chief Resilience Officer in all cities that were part of the initiative, a position that was funded for two years. The Rockefeller funding also came with strategic advice, consulting services from HR&A, and a resilience framework developed by ARUP from which to work. It additionally aimed to institutionalize knowledge-sharing across 100RC cities by bringing CROs together formally and informally. Overall, the program's theory of change was that installing a senior-level official and providing technical support would enable cities to incorporate resilience principles across their departments and planning processes.

Boston won a place in the Rockefeller Foundation's 100 Resilient Cities initiative in 2014. The City of Boston hired Dr. Atyia Martin as Chief Resilience Officer in September 2015 and created the Mayor's Office of Resilience and Racial Equity (MORRE). The City made the decision to focus on racial equity as its key driver of resilience; this decision came on the heels of the release of "The Color of Wealth in Boston," a still-widely-cited report by the Federal Reserve Bank of Boston which laid bare the grave disparities in wealth outcomes across racial lines that famously revealed the median Black household wealth

to be \$8 compared with close to \$250,000 for white households.⁹⁵ Dr. Martin undertook another strategic plan, Resilient Boston, which paired with the Imagine Boston and Climate Ready Boston plans and identified strategies for increasing resilience and racial equity in Boston. The MORRE engaged with roughly 12,000 individuals in the process of generating the report, which was released in July of 2017. Separated into four thematic Visions, the strategies in Vision 4: Connected, Adaptive City, most directly pair with Climate Ready initiatives.⁹⁶



100 Resilient Cities Theory of Change (©100 Resilient Cities)

100 Resilient Cities shuttered in 2019. Both the now-independent Resilient Cities Network and the Rockefeller Foundation are still involved with Boston, the former as a convener of resilience actors across cities and the latter as a funder of Boston’s Economic Mobility Lab. They are not, however, formally connected to each other – nor are either referenced in Boston’s climate planning pages. The MORRE is also still in existence, now led by Chief Resilience Officer Lori Nelson and funded by the City itself.

Evaluating the Program

Overall, the outcomes of 100RC were ambiguous both in Boston and nationally. The program’s greatest successes were qualitative and difficult to measure. It unquestionably raised the profile of the concept of resilience across city governments – and in fact, its evaluation report is titled “Institutionalizing Urban Resilience.” While the resilience concept predates the program, 100RC’s prevalence in high-profile city governments worldwide made the term considerably more common. Whether it moved cities towards a more consistent definition of resilience is, however, still up for debate.

Policy Change

100 Resilient Cities commissioned an interim evaluation report from the Urban Institute in 2018. A postmortem evaluation report has not been released. The initiative has also been the subject of a few academic studies and investigations. The interim evaluation’s key findings were that the success of the program depended on the preexisting capacity of city governments – cities that had the most success already had strong planning capacity. However, highly bureaucratic cities tended to have more trouble integrating Chief Resilience Officers into their governments.⁹⁷ The report also

identified that the program's limitations became increasingly apparent as the planning stage began to move towards implementation.⁹⁸ Specifically, the report identifies barriers to implementation as 1) political will, 2) funding, 3) technical assistance and 4) the CRO's ability to drive action. While all but technical assistance are largely outside the scope of the program, these challenges emerged in Boston as well. As a result, in Boston, there was little direct policy change as a result of the program beyond the output of the Resilient Boston report.

Further Funding

In terms of further funding for the global program, the interim report estimated that cities had further spent or leveraged \$3.35 billion on resilience initiatives beyond program expenditures.⁹⁹ This return on investment is impressive, but given the program's extremely broad definition of resilience it is unclear how specific these expenditures are to program outcomes. In Boston, one criticism of the program was that while it provided the impetus for the CRO, it did not fund much beyond the position itself. Therefore, the City would have needed to provide further resources to empower the MORRE to be more active. Interviewees felt that the office was then under-resourced and unable to fulfill its full potential. This sentiment is backed up by budget data, which shows that no additional budget went to the MORRE beyond what the grant funding had originally provided and maintenance of the position after the grant term. Several interviewees termed this a missed opportunity. It is not clear whether this is a criticism of the 100RC program or of the city government – while the program could have put further emphasis on, for instance, matching resource commitments from the public sector, this also might have made the program excessively burdensome on cities and therefore less attractive. This may be an inherent tension of installation of government positions via foundation funding – though creating a CRO position is a net positive outcome, without additional resources, the potential for change is relatively shallow.

Engagement and Equity

Independent research on the program outside of the commissioned evaluation also found that the way 100RC incorporated equity into the context of resilience was insufficient and led to uneven social equity impacts of the program.¹⁰⁰ The 100RC framework was deliberately vague on specific resilience focuses to allow for variation across member cities, unlike the CRUO program, which was explicit in linking climate to racial and social justice. Boston's approach, largely due to Dr. Martin's personal background, worked more specifically to link resilience to racial equity and was thus more successful at defining and centering equity in its plans. In Boston, Dr. Martin, while the Director of Boston's Public Health Commissions Office of Public Health Preparedness and an Adjunct Faculty member at Northeastern University prior to her term as CRO, published "A framework to understand the relationship between social factors that reduce resilience in cities: Application to the City of Boston."¹⁰¹ The social vulnerability indices that Dr. Martin established in this report were used by the City to establish social vulnerability assessments in Climate Ready

Boston. The work done on social indicators in the Climate Ready reports was hugely facilitated by Dr. Martin through 100RC. However, several officials, including Dr. Martin, have expressed that while there were connections between the research planning initiatives, equity was not sufficiently central to the action plans of Climate Ready Boston and Imagine Boston processes.¹⁰² The City's plans identify social vulnerability, but ultimately prioritize action based on the dollar value of property loss predicted. City employees noted that particularly after the departure of Dr. Martin, the MORRE became increasingly disconnected from the Climate Ready planning process. Throughout the duration of the 100RC program, interviewees mentioned that further incorporating the MORRE into the climate planning process would have been beneficial, and that it was a missed opportunity that it was not.

Legacies and Ripple Effects

Boston's connections to 100 Resilient Cities go beyond the formal program and reveal a network effect centered around the Rockefeller Foundation that continues to permeate the planning process. Dr. Martin departed the CRO post in early 2018 but has remained involved, primarily as a consultant through the Green Ribbon Commission. Her firm, All Aces, was hired as a consultant on the City's Coastal Resilience Solutions for Dorchester report released in October 2020. All Aces was also on the consultant team for the Green Ribbon Commission's 2019 Carbon Free Boston Report, which it published with a companion Carbon Free Boston Social Equity Report. Unlike the Climate Ready reports, these were not co-produced with the City, though City staff were involved.

Furthermore, 100RC connections explicitly linked Boston to other member cities both formally and informally. Boston officials, for instance, consulted with Miami officials for the Miami Forever Climate Ready plan, and are credited in the report's acknowledgments as having connected through 100RC. These network effects of the program embed the 100 Resilient Cities more deeply into the cities' activities, and hint at the final major activity of national foundations in Boston: convening.

Other Programs: Convening Networks

Writing of the Green Ribbon Commission in the *Washington Monthly*, Barr program officer Marielle Puerto wrote, “Sometimes the most powerful tool in the philanthropy toolkit isn’t a grant.”¹⁰³ The convening power of philanthropy is a key piece of several national strategy initiatives as well as local ones.

Bloomberg Philanthropies has been absent from this thesis thus far not because they are absent in Boston – they aren’t – but because their work in Boston has focused on mitigation in their climate grant activity. But Bloomberg is perhaps the most prominent funder operating in city government-focused philanthropy at a national scale, and the foundation’s presence in Boston is by no means absent. From 2015 onwards, the City of Boston received Bloomberg funding for its Innovation Team. In 2018, Boston was also named a winner of the Bloomberg American Cities Climate Change Challenge, which came with a \$2.5 million grant for increasing low-carbon mobility and improving building energy performance.¹⁰⁴ Outside of these direct grants, Bloomberg has been one of the most active funders of convening networks for city leaders, and Boston is a part of several of them. Bloomberg funded the C40 Cities, a global convening network for cities committed to meeting the Paris Agreement goals, a network in which Boston is a member. Though this program is focused on mitigation, the member cities tend to be active on climate in both adaptation and mitigation, and few cities have separate departments or teams for these issues, particularly at the leadership level where C40 cities are convened. Bloomberg also convened sustainability directors in Boston through the Our Cities, Our Climate program in 2015, with Boston and the Green Ribbon Commission playing host to the network.¹⁰⁵ Bloomberg activities also often bring city leaders together in other contexts – such as the Bloomberg Harvard City Leadership Initiative, the Bloomberg Philanthropies’ Mayors Challenge, and What Works Cities activities. Each of these programs funds city governments to undertake different initiatives, and often intersect with climate goals, but more importantly, they consistently bring city leaders to the same location to share ideas and initiatives.

Convening networks are also one of the few places where many funders have been able to work together – the Urban Sustainability Directors Network (USDN)’s funders include every foundation mentioned thus far (except the Rockefeller Foundation – instead, the Rockefeller Brothers Fund contributes), plus several others, who all work to convene local government officials working in sustainability. The Innovation Network for Communities (the Green Ribbon Commission’s fiscal sponsor) also helped to structure the USDN, further cementing the very tight network of individuals working on local climate policies.

Similarly, despite shutting down the 100RC program, the Rockefeller Foundation continues to fund

some of the convening activities through the now-independent Resilient Cities Network. Though rarely a headline initiative, convening was listed as a crucial benefit in both the 100RC and CRUO evaluation reports, and the networks created by philanthropic programs are often one of the few venues for formal interaction across cities.

Conclusions and Recommendations

Taken individually, none of these programs made a complete success of leveraging future funding, furthering policy change, or generating equitable outcomes. Taken together, they have on balance achieved some success in all three areas – particularly in policy change – but have not had runaway success. Given that most projects suggested by all three initiatives have not yet been implemented, it is likely that some of these outcomes will improve over time. However, at this inflection point between planning and implementation, it is still possible to observe some trends in the programs’ successes and areas for improvement.

How far can philanthropy intervene into government?

The underlying question behind policy change as it relates to foundation giving is how much philanthropy should be involved in policy. This question brings us back to the fundamental critiques of the system of philanthropy – that it enables extremely well-resourced actors to effectively dictate public process. At the same time, many of these programs would not have been produced without the prodding of philanthropic actors – and especially where climate is concerned, Boston is just one bad storm away from detrimental effects and has little time to waste.

While planning for the future may seem like a continual necessary operating expense, in Boston (as in most cities), climate planning is a capital expenditure, and therefore the City has to find funding outside of its operating budget. While the City can request Federal funding for shovel-ready projects like the Fort Point Channel Park, planning grants are less common and generally most readily available through the State’s MVP program. In some ways, philanthropic funding can be more stable than governmental funding – its time horizon is less constrained by political election cycles, and it is unlikely to need to be diverted in the case of changing priorities. In other ways, though, this creates a dependency on grants that is difficult to plan for and execute. Extensive philanthropic spending on climate planning has enabled the City to make progress that might not have otherwise been possible, but at the same time, it hides the fact that the City may not, in fact, be as invested in taking action towards adaptation as it appears to be – or at least, that it has not been forced to make difficult budget choices to really invest “skin in the game.”

The Green Ribbon Commission’s deep involvement with City leadership exemplifies this tension. Their intervention is the clearest track towards using philanthropy to create actual change at the policy level. The Green Ribbon Commission funded the original Climate Ready Plan, funded the reports that go alongside it, meet with the Mayor regularly, and directly contract with many of the consultants working on the planning process. It is possible that they have put more funding into Boston’s climate adaptation plans than the City itself. As a result, they hold enormous leverage over

the City when pushing for policies and programs, and the plans do an excellent job at addressing the concerns of their membership – which does not represent the entire City of Boston, nor is it intended to. In contrast, the 100 Resilient Cities method directly intervened in government while working along more typical lines between public and private sector intervention – which inevitably led to shallower results.

Ultimately, both programs enable the city to make progress on their adaptation and resilience planning agendas without fundamentally answering more difficult questions of how to fund and implement the plans produced. Governance is beyond the scope of philanthropic actors. And yet philanthropy has enabled the City to make significant progress in planning for adaptation while obscuring the fact that they lack the governance structures to actually complete many of the projects proposed. For instance, in East Boston, Jones Lang LaSalle was commissioned by the BPDA to put together a report on funding for East Boston projects. The report, among other things, recommends against a piecemeal approach and recommends the creation of a public agency or authority to act on climate resilience. The report states that, “The challenge, however, is that the City does not have a single department, entity or office dedicated to overseeing, regulating, implementing and/or enforcing resilience measures.”¹⁰⁶ An interviewee mentioned offhand that he “did not think the City liked that [report] very much,” and its solutions were not mentioned by any City interviewee. Similarly, when the Green Ribbon Commission contracted with Rebuild By Design to figure out a plan for acting on climate adaptation, the consultants laid out five steps towards action: 1. Climate Forecast Consensus, 2. Integrated Vulnerability Assessments, 3. Resiliency Standards for Infrastructure Investments and Community Planning, 4. Neighborhood and Infrastructure Design Solutions, and 5. Regional Governance Infrastructure.¹⁰⁷ That last step has been minimally acknowledged and addressed thus far in the planning process. The presence of philanthropic programs and outside funding has enabled them to avoid that question, since it enables the City to make serious progress in adaptation planning without creating the governance structures that will ultimately be central to implementation.

Raising the stakes for the public sector

What the City effectively has now is a catalog of physical projects ready for implementation, but its plan for that implementation is fuzzy at best. According to interviewees, the City has no prioritized list of all projects or overarching plan for funding. Instead, it is working with a more piecemeal approach that relies on waterfront developers and public owners like MassPort and Boston Water and Sewer to make improvements gradually and hoping that State or Federal grants (like the anticipated FEMA grant for Fort Point Channel) can cover other projects. It seems that the City will also be looking to the private sector for help with its projects; Mayor Walsh announced his commitment of 10% of the capital budget towards resilience at a Chamber of Commerce meeting to an audience that will likely be asked to outlay some of their own profits – perhaps even through

the Green Ribbon Commission.¹⁰⁸ This heavy reliance on the private sector is also revealed by comparing the Climate Ready and Imagine Boston 2030 plans, released in the same 12-month period: Climate Ready vulnerability areas directly overlap with five of six of the areas signaled for development in Imagine Boston 2030.¹⁰⁹ Given Boston's success so far at folding the private sector into climate planning through the Green Ribbon Commission, it makes sense that they would be trying to pursue this strategy further for implementation.

However, private sector improvements bring with them concerns about equitable distribution of protection and action, which has been one of the major criticisms of Boston's plans.¹¹⁰ Increased waterfront development may also lead to increased gentrification in low-resource areas, as was the case in the East Boston planning process, and likely means that more protection will be afforded to high-resource areas such as the Seaport, whose developments are largely flood-ready. Coastal flood protection is only effective if it is comprehensive and if the City takes a piecemeal approach wherever it can find projects that can be funded, there is a danger of maladaptation that leaves the areas with incomplete projects – likely to be underserved areas – more vulnerable to the effects of extreme weather or sea level rise.

This reliance on public-private partnership also means that non-physical programs may get left behind. Existing implementation plans are focused on physical development and provide few routes to the social initiatives to increase communities' capacity to cope with climate change suggested in Resilient Boston and Climate Ready Boston, both of which put forth some strategies that are more focused on social initiatives. This has been acknowledged only nominally by the funding community at a high level – in research funding, for instance, about eight times more funding goes to physical than social sciences in climate – and seems to be similarly secondary on the ground in Boston.¹¹¹ In Boston, the fact that different funders seem to have specialized in different issues seems to suggest that funders would benefit from a more intersectional approach, collaborating on how to incorporate social and racial equity into climate plans, rather than producing siloed topic-specific interventions. Former CRO Dr. Martin recently published an op-ed on this topic in the Boston Globe in response to proposed Federal administration policies, writing that “Historically, environmental justice issues have been afterthoughts or add-ons in climate planning” and lauding “a more integrative one commensurate with the dynamic of climate and justice issues.”¹¹² While attempting to address all these issues at once is not easy, attempting to connect issues more directly would better address concerns about the impacts of adaptation on people, rather than just on the floodplain.

Mechanisms for Accountability

In order to avoid this outcome, the City needs better systems for implementation and financing, but it also needs to have better systems of accountability, a place where foundation funding might go on to play a key role.

On the surface, different foundations appear to have very different approaches to funding for climate adaptation planning. However, digging slightly deeper into the programs reveals that many are all attempting to do roughly the same thing: engagement. The key victory of 100 Resilient Cities in Boston were the 12,000 residents engaged through the Resilient Boston process; a former Greenovate Fellow described her work as “internal community engagement.” ClimateCARE reveals its purpose in its name: Community Action for Resilience through Engagement. However, each of these programs executed project-based engagement work rather than ongoing engagement.

Engagement was also consistently cited as the piece of planning for climate change that would fall away without the infusion of philanthropic dollars. This reliance on philanthropy for community engagement sets an unstable precedent and makes government reliant on philanthropic dollars to do good planning. Instead, foundations might think more deeply about how to build the capacity of community leaders who could do the work of ongoing engagement. This would be aligned with two growing trends in philanthropy: trust-based philanthropy and regrants activity. For local funders, trust-based philanthropy enables foundations to give general support to advocacy organizations pushing for change, without the constraints of rigid program requirements. Because it is not tied to a specific program or outcome, this type of support might enable deep field building on an ongoing basis. Even without following the trust-based philanthropy model, the provision of general operating support rather than project support might help to further this mission. Regranting activities could also be helpful, particularly for national funders who may not be on the ground in communities, but even for local foundations with small staffs, regrants organizations can help connect philanthropic dollars with community activists and movement builders. The New England Grassroots Environment Fund is one such organization in Massachusetts that Barr has supported in 2020 after making a trust-based philanthropy pledge in the context of the Covid pandemic.

In addition to building an advocacy movement for accountability, this could help to combat the insider dynamics of foundation giving. Almost all foundation funding examined here works to center underserved places and populations. However, foundation grantmaking activities also paradoxically heavily rely on their institutional and staff networks, making the call for openness and inclusion somewhat hollow. A popular phrase among funders interviewed was the need for “deep relationships.” Funders spend much of their time working to cultivate relationships with grantees, but are in many ways limited only to their own networks and those of their peers. As such it is often much easier for established groups to gain funding once they have the “seal of

approval” from one major funder. The many-pronged webs of connections between each one of these funders, the city, and their consultants is just one example of this trend. Though Boston is not definitionally a small city, it often feels like one given the deep overlaps in its small community working on adaptation. The philanthropic community acts similarly; with only a handful of major funders responsible for so many different activities, it can begin to feel like the same names appear over and over in program descriptions. Working with the Grassroots Fund or similar organizations could help foundation funding reach potential advocates not yet in these small networks.

Finally, building public support through organizing and advocacy is likely to prove important to get people on board as projects approach implementation, which will require community buy-in on a project basis – or possibly even broader consensus if the City. Many proposed solutions to addressing the governance and financing concerns that philanthropy has been able to delay could require a citywide vote, or statewide vote if regional governance becomes a possibility. Having a strong coalition to organize and inform on climate issues could be key to passing legislation and budgets that would enable more transformative action.

Turning the Page

No strategy will be effective unless it is implemented, and this is the largest area where the existing programs have failed: though the City has a relatively high level of transparency, there is very little accountability built into the programs. The adaptation process is far from over, though, and there is ample opportunity for the public sector to act on its plans catalyzed by foundation funding. However, funders’ and advocates’ ability to push these programs into fruition will be necessary in order to push the City to make a real investment in climate adaptation. At the end of the day, Boston did not clean up its harbor because it was the right thing to do; it cleaned it up because it lost a massive lawsuit and was mandated to do so. Hopefully, it will not take that level of conflict to achieve a protected Boston – but if it does, the Green Ribbon Commission in partnership with the Conservation Law Foundation has already published a report on what the process might look like. More optimistically, there is also opportunity in the present: Boston is in the hands of new leaders, both in the Mayoral office and the Department of the Environment. Federal funding possibilities are expanding rapidly under the Biden administration, and foundations have been forced to break from conventions in their giving by the Covid pandemic. Foundations have helped to set the stage, but it is now up to the public to push for action.

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