POWER, AGENCY, AND EQUITY IN DECARBONIZATION: A MULTI-SCALAR ANALYSIS OF JUST TRANSITION POLITICS

A dissertation presented

By

Lauren Contorno

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ABSTRACT OF DISSERTATION

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ABSTRACT

This dissertation explores the political-economic, social, and cultural dynamics of coal plant closures and the emergent grassroots movement to facilitate a just transition for workers and communities who are disproportionately burdened by shifting energy economies. In the last few decades, the United States has seen a steady and significant decline in both coal production and consumption due to the decreasing cost of natural gas and increasingly stringent environmental regulations. Concurrently, national, state, and municipal governments are passing progressively ambitious climate policies and ramping up investment in renewables and energy efficiency. This historic transition’s effects on labor markets, local economies, land-use patterns, and energy resource distribution raise important questions related to power, agency, and social equity.

Employing a multi-scalar approach, this project includes a comparative case study of two municipalities in Massachusetts that have recently experienced coal plant closures to investigate the local politics of decarbonization, as well an analysis of the nationwide movement for a just transition in the United States. My analysis: 1) identifies political-economic and sociocultural obstacles to just and equitable decarbonization processes/outcomes, 2) demonstrates the effect of local context upon community response to coal plant closures and redevelopment politics, and 3) illuminates the political strengths and tensions of the growing movement for a just transition. Theoretically, this project builds on the work of scholars in disciplines such as political science, geography, science and technology studies, and public policy by applying a critical, sociological lens to the energy transition. More specifically, I draw from and contribute to the subfields of political economy, environmental justice, culture, and social movements.
This dissertation is comprised of three empirical papers. The first paper is an in-depth case study of Somerset, Massachusetts—a small town that has experienced two coal plant closures within the past nine years. My analytic approach integrates literature on the political economy of energy transitions, as well as sociological literature on community identity and quiescence, as diagnostic theoretical tools to identify barriers to a just transition. I conducted in-depth interviews (n=26) with community members (activists and non-activists), regional environmental NGOs, local and state government officials, former plant workers, and an industry representative; attended town hall meetings and private meetings among activists as a participant observer; and analyzed the content of all publicly available redevelopment planning documents (reuse studies, health reports), local and regional news articles, and conversations on community social media platforms. Ultimately, I argue that while a lack of policy support, private property regimes, and economic dependency on private capital serve as significant obstacles to local control over redevelopment planning and workforce retraining in Somerset, a disempowered and depoliticized civic culture also inhibits the growth of grassroots political power in support of a just and sustainable transition.

The second paper examines the mediating influence of local history, culture, geography, and politics upon community response to coal plant closures through a comparative case study of Somerset and Holyoke, Massachusetts. My analysis de-centers the internal dynamics of the grassroots movements in these communities, and instead focuses on contextual forces that impact the outcomes of contentious decarbonization politics. I conducted 41 in-depth interviews with community members (activists and non-activists), regional environmental NGOs, local and state government officials, former plant workers, and private industry representatives; attended town hall meetings and private meetings among activists as a participant observer; and analyzed
the content of all publicly available redevelopment planning documents (reuse studies, health reports), local and regional news articles, and conversations on community social media platforms. Ultimately, I argue that key differences in industrial history and community economic identity, local geography, and political and industrial opportunity structures played a formative role in shaping divergent transition trajectories in these two post-coal communities.

Finally, the third paper examines the emergent, nationwide movement for a just transition (JT). Through an analysis of 13 in-depth interviews with individuals in labor organizations, grassroots community/environmental justice organizations, environmental NGOs, and think tanks around the country, in addition to extensive content analysis of both primary and secondary textual and video sources, the paper: 1) clarifies the core claims and principles of the JT framework as presently articulated by activists and social movement organizations, 2) demonstrates how the framework has evolved and expanded through its adoption by multiple different social movements, 3) identifies inter-movement tensions, and 4) discusses JT organizing in relation to the existing literature on master frames, theories of justice, and social movement spillover or fusion.

In the interest of making this research relevant to policy practitioners and activists, I conclude with a chapter that synthesizes common findings across the three empirical papers, highlighting key policy implications and lessons for activists within the context of the newly proposed Green New Deal.
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connected me with other scholars in my line of work, and shared academic life-hacks with me. I am and will continue to be inspired by all of the great work you are doing.

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INTRODUCTION

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) released a special report that alarmingly indicated we are nearing the end of a critical window of time to take action to prevent climate catastrophe. The panel of scientists concluded that in order to limit global warming to 1.5°C, anthropogenic CO2 emissions would need to fall by 45 percent from 2010 levels by 2030 and reach net zero around 2050 (IPCC 2018). They noted that “Limiting warming to 1.5°C is possible within the laws of chemistry and physics, but doing so would require unprecedented changes,” and more specifically, “rapid and far-reaching transitions in land, energy, industry, buildings, transport, and cities.” The report further underscores the importance of equity and ethics considerations in decarbonization, and emphasizes that successful mitigation is not only dependent on enabling geophysical, environmental-ecological, economic, and technological conditions, but also sociocultural and institutional factors. Indeed, a 2015 report by Jacobson et al. that mapped the possibilities for achieving 100% renewable energy in the United States by 2050 concluded that “Based on the scientific results presented, current barriers to implementing the roadmaps are neither technical nor economic. As such, they must be social and political” (2115).

Beyond being a simple process of technological innovation and substitution, the transition to renewable energy is a complex sociotechnical phenomenon shaped by political-economic factors, and it entails profound social and cultural impacts. As a result, energy scholars conceptualize the transition from fossil fuels to renewable energy as a “sociotechnical transition” (Geels 2004, 2010; Smith and Stirling 2010). Depending upon how decarbonization and the subsequent implementation of renewable technology is handled, there could be profoundly different impacts for labor markets, local and national economies, land-use patterns, and resource
distribution. One of the biggest issues of uncertainty and political controversy with this historic transition is the anticipated negative economic impacts for regions long dominated by fossil fuel economies, and the displacement of workers in the building and energy trades. There are also sociopolitical debates over how new energy technologies should be implemented and managed so as to meet social needs without reproducing the environmental and economic inequalities intrinsic to the incumbent fossil fuel regime. All of these issues raise questions related to power, agency, and equity—concepts that are foundational to sociological inquiry. However, sociological analyses of the renewable energy transition, and social science analyses more broadly, are notably scant in the existing academic literature (Geels 2004; Sovacool 2014a; Sovacool 2014b).

The Social Science of Energy Transitions—A Place for Sociology

In a recent review of three leading journals in energy studies, Sovacool (2014b, 5) found that “only 19.6 percent of authors reported training in any social science discipline, and less than 0.3 percent of authors reported disciplinary affiliations in areas such as history, psychology, anthropology, and communication studies. Only 12.6 percent of articles utilized qualitative methods and less than 5 percent of citations were to social science and humanities journals,” leading him to conclude that social science theories and concepts remain “underutilized, and perhaps underappreciated” in energy studies research. This has led esteemed scholars in the field to advocate for more qualitative research approaches and interdisciplinary collaborations, as well as incorporation of sociological theories and perspectives (Geels 2004; Sovacool 2014b; STRN 2017).

Environmental sociologists have long been at the forefront of analyzing the bidirectional relationship between social structures and ecological sustainability. However, while there are
exceptions, most of the American sociological work on climate change has focused on studying the social causes of climate change. For instance, at the macro level, theories of political economy have helped elucidate how capitalist arrangements of economic production have driven the ecological crisis (Schnaiberg and Gould 2000; Foster, Clark, and York 2011; O'Connor 1998). At the individual, scholars have studied people’s beliefs/attitudes/emotions around climate change and how this is influenced by larger sociopolitical factors (Dietz, Dan, and Shwom 2007; McCright et al. 2016; Norgaard 2011). However, there is a relative paucity of research and theorizing on reform theories for climate change mitigation and adaptation, including energy transitions (Buttel 2003; Dunlap and Brulle 2015; Lidskog et al. 2015; White et al. 2015). A search for articles on “energy” in top journals of the field such as the American Journal of Sociology, American Sociological Review, Organization & Environment, Environmental Sociology, and Social Problems renders few results. Rosa, Machlis, and Keating (1988, 149) note that while energy is a critical social variable that was recognized at the birth of the discipline by scholars like Max Weber and Herbert Spencer, it has only “sporadically been of interest to sociologists.” In their historical review of the literature through the late 1980s, they observed that most sociological research on this issue could be grouped into four categories: energetic theories of society, macrosociology of energy, microsociology of energy, and energy policy and other special topics.

These categories generally still hold true today, with most sociological research on energy revolving around the political economy of carbon emissions (Fitzgerald, Jorgenson, and Clark 2015; Jorgensen 2006; Jorgensen and Clark 2012; Lutzenhiser and Hackett 1993), energy consumption and energy insecurity (Byrd and Matthewman 2014; Hall 2013; Hernández 2013; Shove and Ward 2002), the social impacts of energy-related disasters (Dyer, Gill, and Picou
1992; Farrell 2014; Freudenburg and Gramling 2011; Gavenus, Tobin-Gurley, and Peek 2013; Mayer, Running, and Bergstrand 2015), and community opposition to extractive energy projects (Bell 2016; Dokshin 2016; McCormick 2006; Vasi et al. 2015; Widener 2011). The last two categories are perhaps the areas where the greatest growth in critical sociological research has occurred, especially with the rise of the environmental and climate justice movements. Nonetheless, contestations surrounding energy have received far less attention in the environmental justice literature as compared to issues like toxic waste, transportation, or water (Hernández 2015; Hess and Ribiero 2016).

**Social Movements and Energy Justice**

This dissertation shifts away from the traditional sociological foci of diagnosing the structural determinants of energy-related environmental inequalities and studying political opposition to fossil fuel use. Instead, I sought to develop theoretically-informed insights concerning the politics of decarbonization and renewable energy deployment and its associated social movements for justice and equity. Because technical opportunities simultaneously represent sociotechnical controversies (Mitchell 2009), there are always various forms of social governance that can materialize in correspondence with new technologies. As Miller, Iles, and Jones (2013, 139) argue:

…neither fuels nor their associated technologies of extraction, generation, and use determine the social and economic forms that energy systems take over time…Thus, the key choices involved in energy transitions are not so much between different fuels but between different forms of social, economic, and political arrangements built in combination with new energy technologies.

Clean energy does not necessarily constitute just energy. This has been exemplified by recent escalating land grabs over lithium deposits in Bolivia for the production of EV car
batteries (Hindery 2013), the private appropriation of indigenous lands for large-scale wind energy projects in central America (Avila-Calero 2017; Finley-Brook and Thomas 2011), and the dismissive institutional response to community environmental health concerns over commercial scale wind projects in the U.S. (Ottinger 2013). How we choose to build infrastructure and implement renewable technologies—from natural resource extraction, generation, to disposal—will shape our political-economic institutions, our labor market and working conditions, and well as health outcomes (Miller et al. 2013). In this sense, energy systems are sometimes conceptualized as a sociopolitical tool (Sovacool et al. 2016). The recognition of this critical political juncture precipitated by the climate crisis and the rapid push toward renewables has given rise new concepts like just transition, energy justice, and energy democracy, and has mobilized labor, environmental, and community activists at the local, national, and international levels (Burke and Stephens 2017; Healy and Barry 2017; Healy et al. 2019; McCauley and Heffron 2018).

Research Questions and Overview of Empirical Papers

This dissertation begins to fill the sociological gap in the energy transitions literature by exploring the local politics of coal plant closures in the U.S. context, and the movement to facilitate a just transition for impacted workers and communities. The underlying principle of the concept just transition is equity; it refers to a range of social interventions needed to provide economic and social support to communities and workers who are disproportionately burdened by decarbonization and shifting energy economies. It also emphasizes democratic and inclusive decision-making processes, and the necessity of building a renewable energy economy that does not reproduce the social, economic, and racial inequalities associated with the incumbent fossil
fuel regime. The two components of my fieldwork and data collection included qualitative, in-depth case studies of two municipalities in Massachusetts that have recently experienced coal plant closures and are exploring redevelopment pathways toward renewable energy production, as well as a field analysis (Brown et al. 2010) of the emergent, nationwide movement for a just transition in the United States. My initial guiding research questions were:

1) What are the political-economic and sociocultural barriers to implementing a just transition for workers and communities that are burdened by coal plant closures?

2) How does community economic identity and local politics influence grassroots community mobilization and local government response to coal plant closures?

3) How is the term just transition conceptualized and pursued politically across different labor, environmental, and other social movement organizations (SMOs) across the United States?

This dissertation is comprised of three separate but interrelated papers. Paper 1 is an in-depth case study of Somerset, Massachusetts — a small town of 18,000 that has experienced two coal plant closures within the past nine years and is facing a highly contested and uncertain economic future. This paper addresses both my first and second research questions. I conducted in-depth interviews (n=26) with community members, environmental activists, local government officials, dislocated plant workers, and industry representatives, as well as participant observation at public planning meetings and content analysis of online public forums and documents, to investigate the local politics of decarbonization and identify the barriers to a just transition for Somerset workers and residents.

Paper 2 is a comparative case study of Somerset and Holyoke, Massachusetts and addresses my second research question. Like Somerset, Holyoke also dealt with a blow to their
local economy when their coal plant closed in 2014. However, unlike in Somerset, grassroots activists and local government officials successfully advocated for a transition to a solar farm, making it the first case of clean energy installation on the same site as a decommissioned coal plant in the United States. My analysis examines the mediating influence of local history, culture, geography, and politics upon community response to coal plant closures and redevelopment trajectories. It is based on 41 total interviews between the two municipalities with community members (activists and non-activists), regional environmental NGOs, local and state government officials, former plant workers, and private industry representatives. I also attended town hall meetings and private meetings among activists as a participant observer, and analyzed the content of all publicly available redevelopment planning documents (reuse studies, health reports), local and regional news articles, and conversations on community social media platforms.

Paper 3 addresses my third research question by zooming out from the local level to examine the emergent, nationwide movement for a just transition. My analysis summarizes the historical genesis, evolution, and diffusion of the just transition framework among social movement organizations and institutions of civil society, as well as discusses both the strengths and inter-movement tensions that have developed as a result of this concept’s widespread adoption. It is based on 13 in-depth interviews with individuals in labor organizations, grassroots community/environmental justice organizations, environmental NGOs, and think tanks around the country, in addition to extensive content analysis of both primary and secondary textual and video sources.
In my conclusion chapter, I synthesize the findings of the three empirical papers to discuss the policy implications of my research within the context of the newly proposed Green New Deal resolution in addition to offering insight and points of reflection for activists.

*Research Context and Political Saliency*

The unique political and geographical context of New England make Massachusetts a critically important case for sociological analysis of the renewable energy transition. Enactment of progressive environmental policies at the state level have made the transition away from coal especially aggressive in New England, with coal consumption falling 30% from 2016-2017—the sharpest decline of any region in the U.S (US Energy Information Administration 2017). There is also a significant push for harnessing the potential of offshore wind in the region, as evidenced by a 2016 Massachusetts law that requires its three electrical distribution companies—Eversource, National Grid, and Unitil—to purchase 1,600 MW of offshore wind power through long-term contracts within the next decade. While environmentally commendable, the relative rapidity at which this transition is happening begs investigation into whether there has been adequate attention to issues of justice and equity in the wake of the socioeconomic disruption that coal plant closures create for communities. While each of the 50 states have a unique regulatory and policy context, with even further political differentiation at the community level, my case studies of Somerset and Holyoke offer early lessons on policy shortfalls that are leaving affected workers and communities behind, most of which is generalizable beyond Massachusetts to the broader U.S. as the rollout of coal continues to spread.

At the federal level, Representative Alexandria Ocasio-Cortez and Senator Edward Markey’s recent legislative resolution for a Green New Deal propelled the term *just transition*
into national media discourse, raising people’s attention to potential solutions for rapidly decarbonizing the economy while addressing other pressing issues such as rising economic inequality, racial injustice, and our inadequate healthcare system. The Green New Deal is not a new idea, but it has recently gained significant traction after the Sunrise Movement, a youth-led climate justice organization, staged a sit-in at Speaker Nancy Pelosi’s office in November 2018 to demand swift and substantial legislative action to address the climate crisis. In this unique political moment, it is more important than ever to amplify the visibility of just transition activism and the struggles of workers and communities on the ground. Moreover, a historicized and pluralistic understanding of how social movements have been using this term is critical in order for policymakers to fully comprehend the meaning of the just transition framework and its necessary component parts. My third paper provides just that.

Researcher Positionality

My interest in exploring the contentious politics of coal plant closures and the movement for a just transition began during my first year of graduate school after participating in the 2014 People’s Climate March in New York City. After the march, I interviewed labor activists who were in attendance to learn more about climate politics within the labor movement and labor-environment (“blue-green”) coalition building. Through this project, it became clear to me that while there are many unions who take proactive stances on issues of climate change and environmental justice, there is an undeniable rift within the labor movement around the issue of decarbonization. Great tension exists between unions whose members’ livelihoods are directly threatened by the decline of fossil fuels (e.g. building trades, manufacturing, mining), and those unions with memberships that will not see job losses. Transcending this tension is directly dependent upon activists’ ability to build power and win political support for just transition
policies—hence my focus for this dissertation. My connection to the labor movement and interest in studying the intersection of labor and environmental politics was further deepened when I became an organizer for GENU-UAW, a union for teaching and research assistants at Northeastern University.

As a scholar-activist who is engaged in both environmental and labor struggles in the Boston area, my research and analysis is predicated upon the assumption that there is a both a political and moral imperative to facilitate a rapid transition away from fossil fuels while simultaneously dismantling the social, racial, and economic inequities that exist in the incumbent energy regime. Consistent with the ideals of the broader movement, I believe a just and equitable transition to a renewable energy system requires critical political-economic analysis of transition dynamics, an ideological commitment to democratic and inclusive models of decision-making and ownership of energy infrastructures (procedural justice), social supports for those who have been disproportionately disempowered and harmed by the fossil fuel regime (restorative justice), and equitable and affordable access to clean energy resources (distributive justice). This political orientation informs my interpretation of the data I collected. My status as a white woman who grew up in an upper-middle class family in a non-fossil fuel-dependent community also distances me from the coal communities that I studied.

Being reflexive of this positionality throughout my analysis, and especially in my discussion of ideology and community immobilization (Paper 1), I present my informants’ thoughts and understandings of their situation honestly and in their own words, followed by my critique of how these subjectivities may serve as barriers to progressive social change and a sociological analysis of the sociopolitical conditions that produce these subjectivities. Though some individuals’ ideological orientations may have differed from my own, I fully empathize
with the precarity and uncertainty felt in decarbonizing communities and understand and validate the multiple personal and political responses this may provoke. I also recognize that I am not working as an activist on the ground specifically on the issue of just transition. Therefore, there are limitations to my insight and critiques of current organizing and movement dynamics. However, my discussion of movement obstacles and tensions is thoughtfully grounded in my in-depth interviews with activists who are engaged in this work on a daily basis.

*Intellectual Merit and Broader Impacts*

This dissertation’s central contributions to the academic literature are threefold, constituting substantive, methodological, and theoretical interventions. Substantively, it is unique in exploring the emergent movement for a just transition, and it is one of the first local-level case studies of the energy transition in the U.S. context. To my knowledge, it is the first *comparative* case study of coal plant closures that specifically examines barriers to a just transition and the contentious politics of redevelopment. Methodologically, my use of qualitative social science research methods adds depth and nuance to the field of energy studies, which is dominated by techno-scientific and managerial analyses of transition processes. My multi-scalar approach that examines just transition politics at the municipal level, but also at the level of the national movement, provides insight on how local/community context matters while highlighting shared obstacles that activists and advocates face around the country. Lastly, due to the limited existing sociological literature on decarbonization, this dissertation creatively synthesizes the work of scholars in disciplines such as political science, critical geography, science and technology studies, and public policy to frame and contextualize my analysis; but ultimately, my interpretation and theoretical discussion of the data is through a sociological lens, grounded in
the subfields of political economy, environmental justice, culture, and social movements. As a result, the empirical results and theoretical implications of this work have interdisciplinary relevance for scholars across the disciplines of sociology, political science, critical geography, labor studies, public policy, and more.

My research questions were intentionally chosen to fall within the realm of “public sociology” (Burawoy 2004), so as to produce work that enriches public debate and discussion outside of academia. Given the urgency of rapid decarbonization, this research is necessary for grappling with essential questions of economic and social justice that will become increasingly salient as the renewable energy transition unfolds, and for identifying the sociopolitical constraints that are impeding a truly just transition. As Heffron and McCauley (2017, 661) note:

…scholars need to ensure that the energy justice concept has internal aims within academia (constant normative and evidence-based evolution of the concept) and external aims beyond academia, i.e. where decision-making and policy formulation in the energy sector is made with energy justice ‘thinking.’

With that in mind, the discussion sections of my three empirical papers, as well as the concluding chapter of this dissertation, present actionable policy suggestions in the realm of green job creation and assistance to dislocated workers and fossil fuel communities, as well as insight for just transition activists seeking to bolster the political efficacy of their organizing. In the interest of making this research accessible and relevant to NGOs, activists, and policymakers working on energy issues, I intend to publish research summaries, policy briefs, journalistic articles, and/or blog posts from this dissertation for dissemination to those individuals whom I interviewed and beyond.
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Community (Im)mobilization and the Political Economy of Energy Transitions: A Case Study of Somerset, MA

Abstract: This paper examines the political-economic and sociocultural barriers to a just transition away from fossil fuels through an in-depth case study of Somerset, Massachusetts. Residents of this small town of 18,000 have experienced two coal plant closures within the past nine years and face a highly contested and uncertain economic future. To investigate the local politics of decarbonization, I conducted in-depth interviews (n=26) with community members (activists and non-activists), regional environmental NGOs, local and state government officials, former plant workers, and an industry representative; attended town hall meetings and private meetings of activists as a participant observer; and analyzed the content of all publicly available redevelopment planning documents (reuse studies, health reports), local and regional news articles, and conversations on community social media platforms. Ultimately, I argue that there are both material barriers (political-economic and institutional) and non-material barriers (ideological and cultural) to just transition advocacy and implementation. A lack of policy support, private property regimes, and economic dependency on private capital serve as significant obstacles to local control over redevelopment planning and workforce retraining. Moreover, a disempowered and depoliticized civic culture characterized by a stanch defense of private property rights in this community stifles the emergence of “injustice” mobilizing frames and inhibits the growth of grassroots political power in support of a just and sustainable transition. I conclude with this case study’s policy implications, as well as theoretical insight for activists working in post-coal communities.

Introduction

In the last few decades, the United States has seen a steady and significant decline in both coal production and consumption due to the decreasing cost of natural gas and increasingly stringent environmental regulations. Since 2010, 270 coal-fired power plants across the U.S. have closed or announced intent to retire (Sierra Club 2019). In 2018 alone, 11.4 GW of coal-fired power was taken offline, with another estimated 38 GW to be retired through 2022 (Buchsbaum 2018; US Dept of Energy 2017). Just recently in April 2019, the Institute for Energy Economics and Financial Analysis announced that renewable energy was projected to produce more electricity than coal-fired plants for the first time in history (IEEFA 2019).

The energy industry is one of the largest human enterprises in terms of capital accumulation and ongoing technological development and therefore is determinative of how
industrial societies are organized technically, politically, and socially (Miller, Iles, and Jones 2013). Significant shifts in a country’s energy production not only entail technical and physical transformations in infrastructure, but also reconfiguration of labor markets, disruptions in local and national economies and governance structures, shifting land-use patterns, and changes in people’s social and cultural notions of energy use. Perhaps one of the largest areas of uncertainty and political contention with this historic transition is the anticipated economic impacts for regions long dominated by fossil fuel economies, and the displacement of workers in the building and energy trades. However, sociological analyses of the social justice implications of decarbonization, and particularly community-level case studies, are limited in the existing academic literature.

This paper investigates the political-economic and sociocultural barriers to a *just transition* away from fossil fuels toward a renewable energy economy through an in-depth case study of Somerset, Massachusetts. Residents of this small town of 18,000 have experienced two coal plant closures within the past nine years and face a highly contested and uncertain economic future. The underlying principles of the concept just transition are equity and justice—that no labor sector nor community should have to bear a disproportionate burden of the cost of transitioning to a cleaner energy economy. Drawing on in-depth interviews (n=26) with community members, environmental activists, local government officials, dislocated plant workers, and industry representatives, as well as participant observation at public planning meetings and content analysis of online public forums and documents, my analysis explores: 1) the barriers that dislocated plant workers have faced in securing social protections amid increased unemployment and economic downturn, 2) the financial and regulatory controversies surrounding demolition, remediation, and redevelopment of the retired plants, and 3) the
community’s political response to the closures and local mobilization for a just transition.

Ultimately, I argue that there are both material barriers (political-economic and institutional) and non-material barriers (ideological and cultural) to just transition advocacy and implementation. While a lack of policy support, private property regimes, and economic dependency on private capital serve as significant obstacles to local control over redevelopment planning and workforce retraining, a disempowered and depoliticized civic culture dominated by a stanch defense of private property rights in this community stifles the emergence of “injustice” mobilizing frames and inhibits the growth of grassroots political power in support of a sustainable transition.

Not only does this research fill gaps in the academic literature through a theory-driven analysis of energy transitions, but it is also important for political praxis. By revealing the sociopolitical hurdles that the labor and environmental movements must surmount to ensure social, environmental, and economic justice in the decarbonization process, this in-depth case study offers important lessons for activists, as well as identifies gaps in policy for practitioners. Accordingly, I conclude with this case study’s policy implications, as well as insight for advocates and activists working in post-coal communities.

**Literature Review**

The analytical lens of this case study is grounded in the just transition framework and therefore is predicated upon the normative assumption that there is a both a political and moral imperative to facilitate a rapid transition away from fossil fuels while simultaneously dismantling the social, racial, and economic inequities that exist in the incumbent energy regime. Using this frame as a departure point, I integrate literature on the political economy of energy transitions, as
well as sociological literature on community identity and quiescence, as diagnostic, theoretical
tools to identify barriers to a just transition in decarbonizing communities.

*Just Transition*

The term just transition has its origins in the American labor movement. Originally
coined a “Superfund for workers” by Tony Mazzocchi, a leader and high elected official within
the Oil, Chemical, and Atomic Workers Union from 1977-1991, the plan called for financial and
educational support for workers whose jobs were threatened by increasingly stringent
environmental regulations (Labor Network for Sustainability 2016). In the 90s, the framework
began to be called “just transition” and quickly spread within the American and international
labor movement. It has since been adopted by the mainstream environmental movement, as well
as the environmental and climate justice movements.

The undergirding principles of this framework are justice and equity; it holds that
workers and communities that have been most negatively impacted by the extractive economy
should not bear the cost burden of transitioning to a cleaner energy economy. It also emphasizes
democratic, inclusive decision-making processes and community self-determination (LNS 2016;
Weller 2018). As a policy platform, it emphasizes the need for legal and policy interventions to
urge a transition to a low-carbon economy and create safe, living-wage jobs, along with
interventions to provide economic and social support to communities and workers who are
disproportionately burdened by shifting energy economies (Doorey 2017; Newell and Mulvaney
2013).

Further broken down into component parts, just transition encompasses three interrelated
dimensions: distributive justice, procedural justice, and restorative justice (Heffron and
McCauley 2018), as shown in Figure 1. As applied to decarbonization, distributive justice entails equitable and affordable access to clean energy resources as well just distribution of investments and cost burdens. Procedural justice demands inclusive and democratic decision-making processes at all stages of policymaking and redevelopment planning. The third dimension, restorative justice, refers to “restoration of a community’s economic and social viability and environmental quality” as “a form of reparations for previous systemic inequities” (Dorsey 2009). Loss of jobs in fossil-fuel dominated industries, as well as economic and environmental damages to local communities, require restorative solutions (McCauley and Heffron 2018). Therefore, just transition advocates call on corporate entities and public officials to recognize and rectify past harms done to communities, emphasizing the inextricable link between the environmental and social processes of remediation (Dorsey 2009; McCauley and Heffron 2018). In the place of extractive, economically dependent economies, just transition advocates call for healthy, regenerative, “local living economies” (Gilbert et al. 2018; Reyes 2015).

![Figure 1: Just Transition Framework](image)

But despite extensive theoretical elaboration of the just transition framework in scholarly
research and among activist networks, current policy approaches to decarbonization remain piecemeal and inadequate, and there is a long way to go before just transition becomes a policy norm (Doorey 2017). Therefore, it is of critical importance that scholars of energy transitions ensure that their work not only has academic relevance, but has action-oriented insight and applicability to policy formation (Heffron and McCauley 2017).

While there are a multitude of social, economic, and cultural impacts of the fossil fuel industry’s decline, just transition advocates generally focus on three areas of policy interventions: 1) unemployment and/or retirement benefits, retraining, and relocation assistance for dislocated workers, 2) environmental remediation of impacted land, and 3) diversification and redevelopment of local economies. My analysis of Somerset, MA illuminates several existing regulatory and policy deficiencies in all three of these areas. It also illuminates how broader political-economic arrangements governing property and renewable energy deployment serve as barriers to a just energy transition.

Political Economy of Energy Transitions

While there is a rich body of literature on the political economy of the environment dating back to the 1970s (Rudel, Roberts, and Carmin 2011), there has been limited theoretical attention specific to the political economy of energy transitions (Healy and Barry 2017; Meadowcroft 2005; Newell and Mulvaney 2013). In a world of gross disparities in wealth and power, the political economy of energy transitions concerns normative questions of who will benefit and who will be disproportionately burdened by decarbonization, how inequitable patterns of capital accumulation will be disrupted or reproduced, and who will have control over energy resources and power in decision-making (Finley-Brook and Holloman 2016; Healy and
Decarbonization is more than a simple process of technological innovation and substitution; it is an inherently political struggle (Burke and Stephens 2018; Laird 2013). As Miller et al. (2013, 140) describe:

> Energy transitions are about who benefits and who is put at risk. They are about the power of regulatory institutions, the structure of markets, and the distribution of wealth. And they are about how people of all sorts work and live. Without understanding this, policy-makers, researchers, activists, and investors hoping to direct energy transitions are likely to encounter political opposition and may contribute to unintended adverse impacts.

To gain a full understanding of the political-economic forces that shape decarbonization, analysis at the international, national, and local level is necessary. This paper, however, focuses on sociopolitical dynamics at the state and municipal level—a level of analysis that has been neglected in existing literature on sustainability transitions (Markard, Raven, and Truffer 2012). Though a small body of research exists on the local politics of decarbonization, the majority of these case studies are outside the U.S. and primarily focused on Europe—usually Germany or the Netherlands (Baker, Newell, and Philips 2014; Bauwens, Gotchev, and Holstenkamp 2016; Kalkbrenner, Bernhard, and Roosen 2016; Oteman, Weiring, and Helderman 2014), though there are exceptions (Hess 2014; Morris 2013; Stephens et al. 2015, 2018). To my knowledge, this project is one of the first qualitative case studies of coal plant closures in the U.S. context that specifically examines the equity implications for displaced workers and the host community. The scale of this study is particularly important for illuminating barriers to a just transition, as it identifies how systemic political-economic-power dynamics manifest at the local level to affect decarbonization and redevelopment outcomes in vulnerable communities.
Ideology, Culture, and Community Mobilization

Previous sociological/anthropological work has established that political culture and community identity can become embedded in local industries (e.g. coal mining or steel production), making residents and political actors resistant to sociotechnical change and less likely to mobilize around issues of environmental justice (Bell and York 2010; Malin 2015; Walley 2013). Lewin (2017) refers to this as the “cultural politics of coal production,” observing the tendency of Appalachians to view decarbonization not only as an attack on their prideful history and community identity centered on mining, but also their right to economic opportunity. Through their ethnographic fieldwork in Pennsylvania fracking communities, Jerolmack and Walker (2018) also found that partisan identities, community solidarity, and devotion to rural self-reliance led residents to support the industry, despite experiencing limited personal benefits or even adverse impacts of drilling operations.

My analysis of transition politics in Somerset builds on this existing theory to explore the non-material dimensions of power (ideological and cultural) that can hamper community mobilization, thereby attenuating grassroots political demands for a just transition. While there are a few ethnographic studies that explore the phenomenon of quiescence in environmentally burdened communities (Auyero and Swistun 2009; McAdam and Boudet 2012; Shriver et al. 2014), and more specifically coal communities (Bell 2016; Bell and York 2010; Gaventa 1982), research on social movements is overwhelmingly biased toward successful case studies of mobilization as opposed to examining reasons why mobilization fails to materialize in the face of injustice. As I will detail below, while there was a small, grassroots push for a just transition in Somerset, activists failed to attain widespread support and legitimacy from both political leaders and residents.
Research Setting

Somerset is a predominantly a white (98.4%), middle-class town of 18,000 residents in the South Coast region of Massachusetts, about an hour from Boston. Though only seven square miles, this small town was home to two coal-fired power plants for many decades—Brayton Point Power Station (built in 1963 and retired in 2017) and Montaup Power Plant (built in 1924 and retired in 2010). At 1,600 MW capacity, Brayton Point was the largest fossil fuel power plant in New England. At peak power production, these two plants constituted around 40% of Somerset’s tax base—a staggering level of economic dependency that closely resembles that of many Appalachian coal mining communities. To date, both plants have yet to be entirely demolished and undergo full environmental remediation, and future reuse of the sites is highly politicized and contested. Since closure, a number of private investors have come through town with an array of redevelopment proposals for each of the parcels, including a biomass gasification plant, a liquid natural gas terminal, a marine science park, wind turbine manufacturing, and an offshore wind power substation.

Communities are faced with a number of socioeconomic and environmental concerns when coal plants close, the most obvious of which being reduction in tax revenue. Industrial and commercial tax revenue is used to finance a number of municipal services and programs, including trash pickup, sewerage, public schools, fire and police service, and more. In addition to grappling with budget cuts, the closure of Montaup and Brayton Point directly displaced around 300 workers. The economic effects also reverberated more broadly throughout the local economy, as many local construction, logistics, and other businesses’ primary customers were the power plants. Other, perhaps less foreseen problems, include impacts on local infrastructure that may already be old and dilapidated. For example, Brayton Point was Somerset’s largest
water consumer, using a third of all water in the town’s system each day—a system that dates all the way back to 1927. Soon after Brayton Point went offline, many residents started noticing brown water coming out of their faucets—a hazard they later learned was caused by idle water from the substantially decreased flow. Lastly, the legacy environmental contamination left behind by coal-fired plants not only poses a public health hazard, but also amounts to millions of dollars in clean-up costs.

Research Design and Methods

Data Collection and Analysis

My fieldwork took place between May 2017 and November 2018, meaning I entered the community just as Brayton Point officially went offline, and remained engaged through the sale and preliminary marketing and reuse planning of the property. My primary source of data are 26 semi-structured, in-depth interviews with community members (activists and non-activists), regional environmental NGOs, local and state government officials, former plant workers, and private industry representatives. In addition to these stakeholder interviews, I logged 12 hours of participant observation at public meetings concerning redevelopment planning, as well as private organizing meetings of grassroots activists. Lastly, I did content analysis of all publicly available redevelopment planning documents, local and regional news articles, conversations on community social media platforms (Facebook), and other relevant print materials related to the plant closures within the last 5 years, yielding ~130 documents. The content analysis was primarily used to reconstruct the political history of these two coal plants prior to me entering the field, providing a level of detail beyond my interviewees’ personal accounts.
I met and recruited many of my initial interviewees at the meetings I attended as a participant observer, while others I contacted via snowball sampling. Most of the community members I spoke with were long-time residents of Somerset (30+ years) and homeowners, and most former plant workers I spoke with had started and ended their careers employed at Brayton Point. All of the plant workers were white men, and the four grassroots community activists were white women. Of the non-activist residents, three were white men and one was a white woman. While both the current and previous owners of Brayton Point declined to be interviewed, I did speak with one former plant manager of Montaup. Interviews were audio-recorded and transcribed with the consent of participants.

All transcripts, fieldnotes from participant observation, social media conversations, and textual documents were coded and analyzed using the qualitative analysis software MAXQDA-10. I employed an open-coding approach, reflecting an inductive, *grounded theory* methodology (Glaser and Strauss 1967). I began with a provisional round of free-coding to identify reoccurring themes and concepts. During the second round of coding, I refined and condensed codes into those that were most useful and important for analytical elaboration, and organized them into a hierarchical structure of categorical and subcategorical codes, or an *axial* scheme (Lofland et al. 2005). After coding, I composed analytic memos to elaborate upon dominant themes to dimensionalize, make comparisons, and explore relationships between concepts and

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
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<tbody>
<tr>
<td>Local/State government officials</td>
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</tr>
<tr>
<td>Grassroots community activists</td>
<td>4</td>
</tr>
<tr>
<td>Regional environmental NGO staff</td>
<td>2</td>
</tr>
<tr>
<td>Former plant workers</td>
<td>7</td>
</tr>
<tr>
<td>Private industry</td>
<td>1</td>
</tr>
<tr>
<td>Non-activist residents</td>
<td>4</td>
</tr>
<tr>
<td>Regional labor council leaders</td>
<td>2</td>
</tr>
<tr>
<td>Regulatory agency (MassDEP)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
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Table 1. Somerset Interviews
ideas (Strauss 1987). I also paid particular attention to the emergence of “negative” cases, or instances of divergence from expected relational patterns between concepts or contradictions to avoid potential bias.

**Limitations**

The nature of my sample and the manner in which I recruited research participants poses some limitations for my data. Given that I primarily interviewed local government officials, grassroots activists, former plant workers, and community members who were civically engaged (attending community meetings), their viewpoints concerning transition politics were particularly staunch and grounded in their occupational and ideological orientations. I did not interview many residents who shy away from being vocal about local politics, but nevertheless would have had valuable perspective to offer. Because of this, my analysis of Somerset’s civic culture may not capture the entire spectrum of community members’ responses to the plant closures, or may overrepresent the pervasiveness of particular ideological orientations. However, I tried to counter this tendency for bias as much as possible by always asking interviewees to speak about how their neighbors felt about the subject, or by asking them “Do you think most community members share your view?” to garner a broader picture.

**Results: Political-Economic Barriers to a Just Transition**

The extractive economy has created a dynamic of economic dependency and disempowerment for many communities along the fossil-fuel energy production chain—from extraction, to refinement, to transportation, and power generation and disposal (Healy, Stephens, and Malin 2019). Therefore, the just transition framework emphasizes democratic and inclusive
decision-making processes that foster community self-determination in redevelopment planning, as well as the regeneration and diversification of local economies. Community regeneration and restorative justice is also dependent upon immediate financial assistance to the community and dislocated workers. However, existing regulatory deficiencies and policy shortfalls are leaving post-coal communities to decline or stagnate. Moreover, private property regimes, along with the highly marketized nature of property transfer and renewable energy development, afford the residents of post-coal communities limited agency over who decommissioned power plants are sold to and how the land is ultimately redeveloped.

*Dislocated Workers*

A major policy failure at both the state and federal level is the lack of a sufficient funds to assist dislocated fossil fuel workers, as well as a lack of pathways toward viable reemployment options. At the time of closure, Brayton Point employed approximately 180 workers, most of whom were members of the Utility Workers Union of America (UWUA). While there are some existing federal funds to provide assistance to workers through the Assistance to Coal Communities Act, this program is grossly underfunded and unable to meet the needs of all coal communities throughout the country. To put things into perspective, in 2017, $30 million was dispersed across 35 communities—amounting to an average of just $857,142. Many of these grants were used to support infrastructure projects or fund master planning. Therefore, it is not a program that communities can realistically expect to use to meet the immediate material and professional development needs of dislocated workers. To provide assistance for its members, UWUA 464 had to get to get creative and seek funds from the most well-known assistance program—the Department of Labor’s Trade Adjustment Assistance Program (TAA).
The TAA program provides retraining, income subsidies, and job-search assistance for a specific type of worker—one that has been displaced by trade-related disruption. This is a legal determination made on a case-by-case basis that is sometimes, but not always applicable to coal communities. Citing Massachusetts’ importation of Canadian hydropower, the union was able to successfully make the case that Brayton Point’s closure was partially the result of foreign trade. Brayton Point workers were fortunate, as this claim has not been successful for most fossil-fuel plant workers around the country. In fact, in 2015, the Department of Labor rejected 70% of all TAA applications it received from the mining, quarrying, and oil and gas extraction sector on the grounds that it did not qualify as trade-related disruption (Rahim 2017a). Recipients of TAA receive extended unemployment benefits for up to 18 months, contingent upon their continuous enrollment in an approved training program. They can also receive allowances for subsidized healthcare, job search assistance, and relocation, though this is dependent upon a separate application and additional guidelines of eligibility. However, in my discussion with Brayton Point workers, many emphasized that the TAA benefits failed to meet their specific population’s needs.

Nationally, coal workers are an aging workforce (Pollin and Callaci 2016); the vast majority of Brayton Point employees were in their mid to late fifties. These workers, understandably, were reluctant to spend time and money retraining for a new career for several years, only to be in the workforce for another few before retiring. Instead of retraining, many of these workers were ready for early retirement and simply needed healthcare coverage to bridge them over until they were eligible for Medicare. Therefore, while the stipulated benefits and conditions of the TAA program provided sensible assistance for younger workers, the older workers (many of whom had serious work-related health conditions) found themselves enrolling
in the program simply to find a way to continue receiving some baseline healthcare coverage. As one dislocated worker recounted:

There were a lot of restrictions to the trade assistance. But some guys are taking advantage of it. Some guys are going to school, like trade school. Is it good? It's good for the guys that are in the middle [age-wise]. At least it gives them a chance to go to school. For myself, I wasn't going back to school at 66. Mine was like a different scenario, because I was close to retirement, which was good for me, you know, it worked out for me. Because like I said before, there are a lot of guys it didn't work out for. Unfortunately, health conditions for some of the guys, their families, you know, they needed good health insurance. One guy, his wife came down with MS. Another one, the guy's daughter is very, very sick—back and forth to Boston for operations (Interview 12, Plant worker).

The TAA program has long been criticized for its failure to adequately support dislocated workers (Pollin and Callaci 2016). One recent evaluation found the TAA’s impact on participants’ earnings and job outcomes to be nonexistent or minimal compared with workers who are ineligible for such benefits (Mathematica Policy Research 2012). Therefore, it is clear from the experience of Brayton Point workers that funneling dislocated fossil fuel workers into existing sub-par federal programs will not only fail to meet the aging workforce’s practical needs, but also be unlikely to produce results for those who are interested in retraining.

Yet another problem is the lack of a viable occupational pipeline for tradespeople (e.g. electricians) in the fossil fuel industry looking to capitalize on their transferrable skills and years of experience in the energy industry and move into the renewable sector. Indeed, “green job retraining,” the familiar rallying cry of environmentalists in the wake of plant closures, is a weak and politically tone-deaf solution to facilitating a just transition if such jobs are regionally nonexistent or do not pay comparable wages. One worker expressed his disillusionment:

You know, there is all this talk. You see this talk about dislocated utility workers getting green jobs. But we have seen none of these alleged green jobs. We've tried to say, you know, "Can't there be something where these [green energy] companies go right to these dislocated workers?" Well,
Congress can't force them to hire, you know, they're going to hire who they want. You know, we really feel that because we've been a unionized industry for so long, that that scares some of these green companies. Because they don't really want to hire a bunch of guys that might say, "Jeez, let's make this a union." You know? Of course, nobody's ever come out and said that publicly, but we feel that because there has been none. I don't know one person that's gone to one of these green jobs, constructing windmills or solar panels (Interview 9, Plant worker).

Many workers also pointed out that they would not be able to afford the pay cut they would have to take in order to enter the renewable energy sector. Indeed, the wind and solar industries have low unionization rates compared to that of the mature fossil fuel industry, and wages remain low in entry-level positions. For example, beginning rooftop solar installers may make as low as $10 an hour, with the average being somewhere between $14-17, whereas utility-scale solar construction jobs in California that employ union labor average $39 an hour (Jones and Zabin 2015). It is no wonder then that most of the workers I spoke with viewed the concept of a “just transition” from coal to renewable energy as an impossibility—a fantasy, at best.

Remediation and Redevelopment of Coal Plants

The former Brayton Point Power Station site is a 300-acre waterfront property on the edge of Mount Hope Bay, while the Montaup property is considerably smaller at 26 acres along the Taunton River. Though both of these sites have the redevelopment potential to be tremendous economic and/or recreational assets to the community due to their geographical positioning and amenities (deep water ports, waterfront access, industrial infrastructure), both parcels remain privately owned. This means their sale and reuse is primarily in the hands of the owners and at the whim of private investors. But these retired plants are no longer owned by the generating companies who once operated the coal plants. In fact, both properties have changed
ownership *multiple* times in the last decade since announcement of closure and post-closure—a real estate nightmare that has left locals feeling incredibly frustrated and anxious about the economic future of their small town. Moreover, it has also created a moving political target for activists working to pressure these private entities to engage the community in redevelopment planning.

The case of Montaup is a particularly egregious example of how private property regimes and the lack of accountability associated with the transfer and sale of old industrial properties can render post-coal communities burdened by contaminated properties and victims of exploitative real estate transactions with little recourse. Montaup ceased operation in 2010 and was sold by the generating company to Asset Recovery Group—a New Jersey firm that specialized in remediating industrial sites for redevelopment. But instead of cleaning up the property, this company salvaged the plant’s valuable parts and materials for resale and subsequently filed for bankruptcy, all without ever having made a single tax payment to the town of Somerset; they owed more than $320,000 (Holtzman 2013). When the property went up for auction in 2014, it was purchased for just $3.95 million dollars by William Thibeault—a real estate mogul known throughout the Northeast for his multiple charges of illegal dumping and
other environmental violations dating back to 1989 (Nadolny 2011). Within a year of the purchase, he then sold 11 acres to National Grid (the local electric utility) for $3.7 million. Currently, the plant still sits as an idle shell and has yet to undergo full decommissioning; the owner is staunchly uncommunicative with the public and has never indicated any plans for resale.

Unfortunately, this is not an uncommon scenario for retired coal plants in the United States. The costs of decommissioning a coal plant (including demolition and environmental remediation) are extensive, leading many plant owners to only undertake the minimal remediation tasks that are required by law (such as closing open ash impoundments), salvage the infrastructure for valuable materials, and indefinitely leave the bulk of the facility as-is in a “cold and dark” condition. According to a 2017 report by Resources for the Future, approximately 38% of 238 retired fossil fuel generating units were sitting in a cold and dark condition (Raimi 2017). Another study found that across 25 cases of retired plants, the average amount of time from closure to sale/transfer of the property was 16 years, and 22 years from closure to the start of redevelopment construction (Delta Institute 2014).

Currently, there are no federal or Massachusetts state regulations specific to coal-plant decommissioning, nor are there policies that compel comprehensive clean-up and decommissioning of fossil fuel power plants after retirement. Environmental hazards common to coal plants include PCBs, heavy-metal contaminated soil (mercury and arsenic), asbestos, and coal ash lagoons. While there are legal requirements to deal with hazardous contamination on any industrial property, including the substances mentioned above, an owner is only legally responsible to clean it up once they are aware of a problem and/or it is actively posing a public health hazard. And as one Massachusetts DEP employee told me, “As it turns out, a lot of times
people don't look for problems until they want to sell a property.” While the Massachusetts law is written to penalize acts of “willful blindness”—failure to investigate contamination in a situation where a “reasonable” person would be expected to do so—determination of willful blindness is highly subjective.

…Under our law, they must act as a reasonable person to look for contamination. But a lot of times, they may suspect there's contamination, but they do want to sit on the property. So, the question becomes is it reasonable to assume that they would go out and look for contamination or not? And maybe that would be a gray area legally (Interview 26, Mass DEP employee).

In effect, the absence of a strong regulatory framework leaves host communities of fossil fuel plants unprotected from delinquent property owners and legacy environmental contamination. And in the case of bankruptcy, the costs of remediation may be passed to taxpayers.

Organized community pressure can certainly influence remediation timelines and outcomes, or lead brownfields to be brought back into public control through acts like eminent domain. However, while there was some community pressure from Somerset residents to take the Brayton Point and Montaup sites by eminent domain, local officials of this small town felt economically and technically unable to do so. Instead of potentially increasing the town’s economic precarity, local government, understandably, felt the more responsible course of action was to “market the town” to private investors who have the technical experience and financial capital to redevelop the property:

Why would we want to take over that property? Because that's what somebody would like to do? That was something that was mentioned. Eminent domain is always there, that we could take it if it's the best use of the town. But why do we want to take that? That site is probably contaminated. We're not in the business of redeveloping property. Before we get into that and put the whole town at stake as what it would cost the town, we don't even know what the end result would be. To spend
millions...no! We don't know anything about that at all and it's just a big undertaking that we have no experience in. I have no desire to get involved in that at all (Interview 11, Local government official).

While the transfer and sale of Brayton Point has been more promising than Montaup, it has still left the residents of Somerset sidelined from decision-making and visioning for their community’s future. Shortly after Brayton Point ceased operation, the plant was sold to Commercial Development Company (CDC)—a privately-held, St. Louis-based real estate acquisition and development company. Much like the first firm that purchased Montaup, CDC’s sole business model consists of buying and remediating “underutilized, distressed, or environmentally-challenged properties” and re-selling them to industrial/commercial developers. On the one hand, this sale ensured that the property would not sit idle and blighted for decades, and indeed, was a great relief to nearby residents concerned about the health threats posed by the site’s environmental contamination. However, CDC’s actions have already left locals skeptical about their willingness to entertain community input in their sale to future developers, as well as their commitment to issues of environmental and economic justice.

In February 2018, shortly after purchasing the property, CDC convened a town hall meeting at the Somerset-Berkley Regional High School to introduce themselves and the timeline for remediation. The auditorium was packed, and the anticipation was palpable. State Representative Patricia Haddad and state Senator Michael Rodrigues greeted residents as they filed in. CDC began with a flashy presentation showcasing their recent successful remediation projects. But during public comment, tension and disappointment started to surface. Those who lived in the immediate vicinity of Brayton Point were concerned about the health effects of demolition dust after CDC’s presentation video highlighted a massive implosion of another retired coal plant they had acquired. Former workers asked about pointed questions about
specific precautions they would take regarding fly ash and underground oil pits. Other community members asked if CDC would commit to hiring local contractors and local union labor for site demolition and remediation. But the company’s response was that “there are no laws requiring us to hire local.” Other community members asked if they were willing to commit to reallocating part of the land for public access, if they would be willing to commit to environmentally sustainable uses only, and how the community could be involved in decision-making. To these questions, the CDC representative responded ambiguously while asserting that they “are not a charity organization,” and they would be launching a “global marketing campaign” to find “the highest and best use” of the property. This scene perfectly illustrates the power dynamics that exist between redevelopment companies and post-coal communities that are trying to rebuild their tax base in line with their community’s vision and values.

Economic Regeneration and Prospects for Renewable Energy Development

Despite CDC’s initial veiled communication, it turns out that New England’s largest coal plant may turn out to be a central cog in the region’s burgeoning offshore wind energy industry. In late 2018, CDC announced that they were rebranding the defunct site as Brayton Point Commerce Center—future world-class logistics port, manufacturing hub, and support center for the emerging offshore wind energy sector—in an attempt to attract potential investors. Indeed, the Massachusetts Act to Promote Energy Diversity—a 2016 law that requires the three main electrical utilities to purchase 1,600 MW of offshore wind in the next decade—has incentivized wind developers to invest in Massachusetts. Supply chains and infrastructure are poised to be developed in the South Coast region in particular, due to its strategic geographical access to the bay.
Were Brayton Point to be redeveloped to support the offshore wind industry, this would create hundreds of jobs, help restore the tax base, and support sustainable energy—an ostensible success story of a just transition. But unfortunately, the auction model of offshore wind procurements—a process by which companies competitively bid on contracts with the state—adds yet another layer of political-economic contingencies that not only leave the future use of Brayton Point up to market forces, but also keep redevelopment decision-making removed from local communities and poses threats to economic and social justice.

Managed by the Department of the Interior’s Bureau of Ocean Energy Management (BOEM), the most recent December 2018 auction of federal waters on the eastern seaboard drew in a record-shattering $405 million in winning bids. In the highly anticipated first round of wind procurements in Massachusetts, three companies were final contenders—Vineyard Wind, Bay State Wind, and Deepwater Wind. In May 2018, the selection committee surprised onlookers when instead of dividing the acres among multiple developers, they selected only one winner—Vineyard Wind. Unfortunately for Somerset, both Bay State Wind and Deepwater Wind had planned to use Brayton Point as its transmission connection to the mainland, while Vineyard wind’s substation is set to be constructed in Barnstable on Cape Cod. Moreover, while Vineyard Wind has pledged $2 million in workforce development to recruit and train Massachusetts residents for careers in wind energy, Bay State Wind was the only company to preemptively negotiate a formal project labor agreement and be officially endorsed by three local trade unions—International Brotherhood of Electrical Workers (IBEW), International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers (IABSO), and the Utility Workers Union of America (UWUA). While the selection committee cited Vineyard Wind’s commitment to community benefits, industry experts believe the decision was primarily based upon Vineyard
Wind being the lowest bidder of the three (Cronin 2018). CDC still maintains that it intends to develop the site to serve the wind industry in a manufacturing capacity, and it is still possible that in a future round of offshore bids, the winning company will use Brayton Point as an onshore substation. However, these real estate processes have many contingent moving parts. For instance, while the Massachusetts Clean Energy Center continues to send both domestic and international representatives of the wind industry to Brayton Point, their deadlines for finding usable sites must also coincide with CDC’s remediation completion schedule (Austin 2019).

In sum, even in this temporally small snapshot of the beginning phases of Massachusetts’ renewable energy transition, the political-economic barriers to a just transition for post-coal communities are already revealing themselves. Ideally, community economic revitalization of post-coal communities would be guided by transparent and intentional redevelopment processes that not only engage residents in reimagining the future of their communities, but also give consideration to the economic and social impacts of incoming industry and how the benefits and burdens will be distributed. Instead, residents and local officials are being sidelined as spectators of multiple parallel market processes that obscure decision-making and prevent democratic visioning. This is primarily the result of the community’s dependency on private capital to finance the high costs of decommissioning and redeveloping the shuttered coal plants, as well as the highly speculative and exploitative nature of real estate transactions on defunct industrial properties. Over-reliance on market competition to drive and shape the deployment of renewable energy technology also sidelines issues of social and economic justice while prioritizing cost-effectiveness.
Results: Ideological Power and Community Immobilization

While daunting, the political-economic obstacles to a just transition discussed above are rather expected, especially to anyone familiar with the inadequate state of the American environmental regulatory structure and employment assistance programs. It was early recognition of these policy deficiencies that led Tony Mazzocchi and others to first mobilize around the concept of just transition. Indeed, building grassroots political power on a national scale, as well as community mobilization at the local level, is the antidote to the political-economic barriers to a just and equitable energy transition. But while focusing on the political economy of energy transitions and identifying institutional obstacles and appropriate policy solutions, scholars and advocates alike have tended to overlook the sociocultural and ideological manifestations of power that are inhibiting the growth of strong local movements for justice in post-coal communities.

It would be misleading to give the impression that there was no organized effort to mobilize Somerset residents around just transition principles. Local grassroots groups, including the Coalition for Clean Air South Coast and the Coalition for Social Justice, in coordination with regional advocacy organizations such as Clean Water Action and Toxics Action Center in Boston, have been organizing in Somerset for nearly a decade. Leading up to and after the official announcement of the plant closures, they played a critical role in convening public meetings to discuss redevelopment/transition planning, pressured local government to create a citizen transition committee, networked with local labor unions, and led the charge on two reuse studies to explore sustainable redevelopment options. But apart from this group of environmental activists who were determined to fight for democratic involvement in transition planning, I
observed widespread resignation from locals over the possibility of having any agency over their town’s environmental and economic future.

Through the course of my interviews, I asked several questions related to the concepts of procedural and restorative justice. For example, I asked who, if anyone, should be held financially accountable for providing transition funds to dislocated workers and the broader community, and to what extent should residents be involved in redevelopment decision making. In general, there were two types of responses: 1) those who believed in community self-determination and the moral necessity of providing support to coal communities and dislocated workers, but had a profound sense of powerlessness or resignation over the situation, and 2) those who believed residents of Somerset had no legitimate grievance to mobilize around—in other words, quiescence. Shriver, Adams, and Messer (2014) define quiescence as “the absence of collective activism in the face of deprivation or injustice, especially under conditions in which one might reasonably expect protest to occur.”

While many residents were worried about the sale and future reuse of the Brayton Point and Montaup sites—whether the incoming industry would pose health hazards, provide jobs with dignified wages, and allow for public access to the waterfront—they conveyed a sense of overwhelmed resignation over the power asymmetry that existed between the private owners and the community. In the limited instances where there were opportunities for community participation, many locals viewed the engagement process to be largely symbolic, disingenuous, and ultimately a futile exercise. For example, as part of a reuse study commissioned by the Massachusetts Clean Energy Center, there were a series of three public meetings. When I asked residents about their impressions of that process and their hopes of how the report would be utilized, they were pessimistic. As one former Brayton Point employee explained:
I didn't feel like it was worthwhile [the reuse study] because ultimately the decision comes from the owner of the property, and they didn't take part in those meetings. I really went just to see; I was just curious of the people’s take on it. But as far those reuse committees and studies they did, I felt it was just throwing money out the window because the owner is going to have the ultimate decision on that (Interview 10, Plant worker).

In sum, this first group of people felt that in an ideal world, there should be democratic participation in redevelopment planning, and the exiting company and government should take joint responsibility for aiding workers and the community during this major economic disruption. However, they felt disempowered and believed the community to be incapable of mounting enough political power to negotiate with private industry.

In contrast, others I spoke with argued that it would be inappropriate for residents to advocate for their interests or attempt to influence redevelopment planning, and they balked at the idea of federal/state assistance to the community. Undergirding these sentiments was an insistence on upholding the sanctity of private property rights even at the expense of community wishes, as well as the explanation that the economic circumstances of the plant closures were a natural outcome of the free market and warranted no special “government handouts.” In instances where activists voiced concern or opposition to environmentally questionable reuse proposals (such as a biomass incinerator), they were often mocked by other residents, and even local government officials, for being unreasonable or having illegitimate grievances. According to these staunch defenders of private property rights, Somerset residents had no valid grounds to protest or question a redevelopment proposal so long as it complied with existing zoning and environmental laws. Moreover, these individuals believed the company had no obligation to contribute to transition assistance because the plant closed for economic reasons (the falling price of natural gas) as opposed to environmental reasons. Ultimately, instead of feeling exploited or
viewing Somerset as an energy sacrifice zone, they felt grateful or indebted to the economic prosperity that the coal plants had provided to the town for so long. As a result, the primary political solution that many local officials and residents supported were austerity measures—cutting public services or school sports programs.

<table>
<thead>
<tr>
<th>Defense of Private Property</th>
<th>They’re a corporation, they have a responsibility to their shareholders, and I think that as a governing body we need to recognize that (Interview 6, Local government official)</th>
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<td></td>
<td>In America you buy your property. And as long as you're consistent with the law, you can do with your property what you want...We're a nation of laws, not of many as they say...Nobody's obliged to come to me and ask me how he should spend his money on his property. As long as he's obeying local zoning laws, state laws, and federal laws, it's none of my business (Interview 8, Local government official)</td>
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<td></td>
<td>I guess the community should have a right to voice an opinion if it's going to be something really bad. But it's still private property. If you can get all the permits, then why should we have the right to tell them they can't do it? It’s free market. It’s capitalist. If I want to spend my money, and if I want to put up whatever it is I want to put up, and I'm within all the zoning and regulations of what is there, then I should be able to do that, without being worried about what somebody else has to say about (Interview 16, Somerset resident)</td>
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<td>Reluctance to Attribute Financial Accountability</td>
<td>I don’t know what could be expected of them as a company. I don’t think it’s the responsibility of the company themselves, because they’ve been paying the town all these years, and we’ve lived off of their profits with the taxes and stuff they paid. I don’t think they really owe...I don’t know if that’s what you’re asking…that they need to be responsible for [providing assistance]...like I said, if they could and it was profitable for them, they would still be there (Interview 14, Plant worker).</td>
</tr>
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<td></td>
<td>The town made their bed back in 1950 when they decided to let the power plant in, and if they didn't do enough research to find out what kind of damage it could do when they left, that's on the community. They came in and they did a business. It's no different from the corner store that sold milk and bread and goes out of business and doesn't sell milk and bread, and now I have to go two miles. That's not on them, right? (Interview 19, Somerset resident)</td>
</tr>
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<td></td>
<td>Somerset is a spoiled town. We had everything we could ever want for years due to the income of the power plants. Now that’s all gone and people are bitching about it (Interview 24, Plant worker)</td>
</tr>
<tr>
<td>Austerity Mindset</td>
<td>I take care of myself. I take care of my friends if I can. I don't wait for people to give me a handout. I mean, the plant closed down for economics. It didn't really make any sense for them to stay open, so I'm not sure why we have to be treated any special way (Interview 22, Plant worker)</td>
</tr>
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I see the two power plants as if it was like parents. All the citizens here are all the family, these are all the kids. You know what happens. You're in your family, and if your dad or mom both worked and one of them lost their job, you would have to say, whoa, so Mrs. Montaup stopped working. You may say, "We usually go on three vacations, now we only can go on two." Your kids still want to go; well I'm sorry but you're going to have to chip in to pay, because we're losing the income that Mom used to make (Interview 11, Local government official).

Table 2. Quotes illustrating quiescence

The stance of this second group of individuals is reflective of classic liberal ideology—one that emphasizes individualism, the rule of law, free-market economies, and the sanctity of private property rights. Operating through this framework, the legitimacy of just transition advocates’ grievances were judged based upon whether any existing property rights, zoning laws, or environmental regulations were being violated. This pervasive ideological orientation may partially explain why there was not more widespread indignation felt by Somerset residents, and why transgressive “injustice” discourse failed to resonate more widely with Somerset residents and fuel more mobilization for a just transition; the just transition framework was in direct conflict with dominant beliefs about the sanctity of private property rights and the will of the free market. In the conclusion that follows, I elaborate upon this observation in the context of theory on “legal consciousness” and “false consciousness.” Then I discuss the important lessons this case offers to activists—especially those who enter coal communities from the outside attempting to educate, agitate, and organize a community around plant retirement campaigns.

Discussion

The political economy of energy transitions deals with normative questions concerning who benefits and who is disproportionately burdened by decarbonization, and who has power and control over resources and decision-making. It provides a diagnostic lens through which to identify the institutional drivers of inequity and injustice. Complementing this critical diagnostic
framework, the just transition framework offers a visionary, prescriptive approach to ensuring distributive, procedural, and restorative justice for workers and communities that have been marginalized by the incumbent fossil fuel regime. But to date, there has been little empirically-grounded work interrogating the issues and tensions that exist on the ground in post-coal communities, rendering a disconnect between just transition in theory and just transition in practice. This case study of Somerset constitutes an exercise in a critical sociology of environmental reform—identifying barriers to a just transition for fossil-fuel dependent communities. While community solutions must always be context-dependent and there can be no one-size-fits-all approach to just transition, this research identifies some baseline policy deficiencies for policy practitioners to consider moving forward, as well as lessons for just transition activists.

**Policy Issue #1: Existing social supports for dislocated fossil fuel workers and host communities are inadequate and piecemeal.** The existing federal programs intended to assist transitioning coal communities and dislocated workers are underfunded, reactive instead of proactive in approach, and overly segmented across various agencies to the extent of making them confusing to identify and access, particularly for local governments with limited planning capacity. The TAA program does not adequately meet the needs of the aging fossil fuel workforce, nor are most dislocated fossil fuel workers eligible for these benefits.

We also must recognize that there may be a geographic and/or temporal mismatch between where and when fossil fuel jobs are lost and where and when renewable energy jobs are created. This means that any occupational bridge from the fossil fuel sector to green industry must afford relocation allowances and priority hiring incentives/job guarantees in addition to retraining funds. Moreover, it is simply unrealistic to expect that every coal town will be
regenerated through a one-to-one replacement with renewable energy development—nor would it be economically prudent to continue to be dependent on a single industry. Transitioning communities need economic diversification and development supports for whatever industries make the most sense geographically and culturally. Lastly, most community assistance programs provide categorical grants for specific projects; however, transitioning communities that are facing huge losses to their tax base would also benefit from temporary block grants to be used for general operating expenses.

**Policy Issue #2: Lack of compulsory remediation laws and decommissioning funds unfairly burden post-coal communities and stall potential for economic redevelopment.** The case of Montaup demonstrates how the lack of federal or state regulations specific to coal plant decommissioning allows property owners to sit idle on contaminated sites to the detriment of the larger community’s interests. As Raimi (2017) observes, the legal gay areas built into our current regulatory structure are functioning to perversely incentivize owners to avoid selling and/or redeveloping coal plants. He notes, “By leaving the plant cold and dark, owners do not uncover unanticipated environmental issues such as oil leaks, asbestos-containing materials, PCBs, and other hazards that must be remediated” (12). This is especially the case in more undesirable geographic locations where there is low potential return on investment in redeveloping the site.

The costs of decommissioning power plants are recouped differently between regulated cost-of-service regions, and deregulated, competitive energy markets like New England. While decommissioning costs are typically factored into rates in regulated regions and accrued over the lifetime of service, generators in deregulated regions are trusted to account for decommissioning in their costs of business. However, many coal mining and generating companies may be significantly underestimating their “asset retirement obligations”, or AROs, in financial reports.
to the U.S. Securities and Exchange Commission (Rainforest Action Network and Banktrack 2013; Raimi 2017). This could leave host communities unprotected from delinquent property owners and legacy contamination, and in the case of bankruptcy, the costs of remediation may ultimately be borne by the community (taxpayers).

Because there is often no economic incentive to comprehensively decommission and remediate coal plants, owners often choose to do nothing—indefinitely leaving communities with blighted and contaminated properties that could otherwise could be capitalized upon for economic redevelopment. Compulsory decommissioning upon retirement (with enforced timelines) and mandatory monetary contributions to a “polluter pays” decommissioning fund would protect communities from potentially having to incur the costs of remediation in instances of delinquency, as well as expedite redevelopment. Strict federal regulations already exist for decommissioning nuclear power plants; similar models should be adopted for coal, oil, and natural gas generating plants.

**Policy Issue #3: Leaving deployment of renewable technologies up to market forces sidelines issues of equity and justice.** How we choose to build infrastructure and implement renewable technologies—from natural resource extraction, power generation, and disposal—will shape our political-economic institutions, our labor market and working conditions, and well as health outcomes (Miller et al. 2013). Because a market-driven green economy agenda prioritizes profit margins and cost-effectiveness while overlooking issues of equity and justice, advocates of energy justice advocate not only for the dismantling of the fossil fuel regime, but also reorganizing the energy sector to shift political power to the public—workers, households, and communities (Burke and Stephens 2018).
Massachusetts’ burgeoning offshore wind sector is not being developed with the intention of fostering more public control and accountability over energy production, nor does the competitive bidding system allow much consideration of equity and justice. While obviously geography is a primary consideration in where renewable infrastructure is built (wind turbines and solar panels must be sited in a place to maximize generation capacity), when possible, communities that have been fossil-fuel energy sacrifice zones should be intentionally prioritized for economic development opportunities along the renewable energy supply chain. These communities often already have the necessary human and industrial capital (skilled workforce, power substations, logistic ports). This would require government oversight and intervention into the development of renewable energy, rather than enabling a purely market-driven approach.

*Theoretical Reflections on Quiescence and Implications for Activists*

While policy interventions would facilitate a more just and equitable transition away from fossil fuels, the fight for a just transition will be a losing battle if the sole strategy is waiting for substantive legislative action at the state and federal levels. Winning real power and agency is dependent upon organized struggle in individual communities. However, when one observes the use of the just transition framework in environmental activist and policy circles, the underlying implicit assumption is that this concept and language resonates with actual affected coal communities. But in interviewing coal workers, government officials, and residents of Somerset, I realized that most were *not* familiar with the concept of just transition, nor did they express feeling exploited by the exiting coal industry.

While a small group of grassroots activists and regional environmental NGOs may have seen their political struggle around Brayton Point and Montaup as part of a larger, national
movement for a just transition, most everyone else I spoke with did not share this narrative. This disempowered and depoliticized civic culture dominated by a deference to the sanctity of private property rights ultimately stifled the widespread adoption of “injustice” mobilizing frames and inhibited the growth of grassroots political power. It also led most local public officials to take a hands-off approach to redevelopment planning, allowing market forces to determine the future of the Brayton Point and Montaup properties; the biggest exception to this was Representative Haddad, who has been proactive in trying to make Somerset a central hub of the new offshore wind industry.

These observations of transition politics in Somerset strengthen and add nuance to existing theoretical work on quiescence and political support for just transition policies. First, my findings are consistent with Mayer’s (2018, 3) hypothesis that individuals who believe the decline of coal can be attributed to environmental regulations may support programs for workers and communities, viewing them as “unfairly victimized” by government policies, whereas “framing coal’s decline as a result of market dynamics in the form of more viable substitutes [natural gas] might reduce support for just transition policies, at least among individuals who have adopted an ideological view of the social order that idealizes free markets.” In other words, accountability frames, or “the mental models that actors use to make sense of the factors that drive socio-economic change and identify responsible parties to be held accountable” (Mayer 2018, 2), had definite implications in Somerset.

My observations of residents’ defense of private property rights as an argument against community inclusion in redevelopment planning are also consistent with Jerolmack and Walker’s (2018, 479) finding that even when rural landowners have been adversely affected by fracking (e.g. polluted water wells), they nevertheless defend other community members’
decisions to lease their land due to a “devotion to self-reliance and property rights.” The difference here is that Somerset residents were not defending the individual property rights of their neighbors, but those of a powerful corporation that had polluted their community for decades. They defended the company’s right to sell and redevelop the land in whichever way they choose, even if it was ultimately in conflict with community wishes or would bring in yet another environmentally hazardous industry. In fact, many residents criticized their neighbors who actively opposed environmentally hazardous reuse options (e.g. natural gas plant, biomass incineration), insisting that as long as the incoming company complied with existing environmental laws and regulations, the community had no legitimate grounds to protest the proposed development. Notably absent from this conversation was any consideration of whether existing environmental laws and regulations are legitimate and sufficiently adequate to protect community environmental health in the first place.

This phenomenon speaks to the body of research on “legal consciousness” and its relationship to ideology and hegemony. Legal consciousness is “a theoretical concept and topic of empirical research developed to address issues of legal hegemony, particularly how the law sustains its institutional power despite a persistent gap between the law on the books and the law in action” (Sibley 2005, 323). Sibley (2005) notes that in pluralistic democracies like the United States, legal liberalism is the most widely shared and accepted conception of justice. The values, beliefs, and rules undergirding our legal structure construct a “hegemonic legality,” where actions and events are judged in reference to the existing body of law. In effect, “…sales contracts, property, and traffic rules seem to be merely efficient, natural, and inevitable facts of life” (332). Legal authority and legality remain largely uncontested or are only challenged within institutional channels. Ultimately this cultivates a systemic power in which “transactions become
habituated as practices and transactional advantage becomes stabilized as privilege” (330). In the case of Somerset, this type of legal consciousness stifled the widespread emergence of perceived injustice among community members and government officials in relation to the coal plant closures.

While I am arguing that the prevalence of legal liberalism and the resulting depoliticized political culture in Somerset stymied the growth of a strong grassroots movement and led many public officials to refrain from advocating on behalf of community interests, I do not intend to imply that this quiescence is a manifestation of “false consciousness” in a reductionist sense. Much like Gaventa (1982) explained quiescence in coal communities in Appalachia, I view the resigned attitudes and apolitical response of Somerset residents as a product of the ideological dominance of liberalism in American political culture, and a function of the asymmetrical power dynamics cultivated between the town and the coal industry over many decades. Gaventa argued that ideological forms of power shape ordinary people’s beliefs about the dominant political-economic order’s legitimacy and immutability, preventing conflict from arising by shaping marginalized groups’ conception of grievances. This cultivates a civic culture of non-participation, fatalism, and “tolerant resignation” (231). Bell (2016, 108) also observes this pattern continuing in Appalachia decades later, writing that “Through cultural hegemony, the values of the power elite infiltrate the everyday, commonly held beliefs and practices of the entire social structure such that those who are dominated unintentionally participate in the perpetuation of their own domination.”

Similarly, Thompson (2014, 449) defends the conceptual utility of false consciousness, defining it as “a state of accepting the value patterns and cognitive styles of thinking generated by others, particularly by forms of institutional norms and cultural patterns of activity that can
deform critical-cognitive capacities.” He argues that this routinized pattern of thinking also affects critical moral-evaluative capacities that orient actions and beliefs. In the case of Somerset, adherence to hegemonic legal liberalism limited certain residents’ ability to perceive and make normative claims about the injustice and power asymmetries inherent to the politics of the coal plant closures. Therefore, false consciousness (fueled by ideological hegemony) is most accurately conceptualized as cognitive patterns shaped by socialization that limit the ability to see a situation from an alternative, critical perspective, rather than people not knowing what is in their own best interest.

Justice frames, like the just transition framework, are grounded in normative claims about the social world, and the perception of injustice is a necessary condition for the framing process and subsequent political mobilization (Fuller and McCauley 2016; Sherman 2011). Gaventa (1982) used Freire’s (1970) concept of “conscientization” to describe this process in Appalachian mining communities. Similarly, classical social movement theory conceptualizes it as “cognitive liberation”—a threefold process in which existing arrangements lose legitimacy, demands for rights and change develop, and previously fatalistic people gain a sense of possibility of altering their situation (McAdam 1982). An important element of this process is assigning blame or responsibility (Benford and Snow 2000; Mayer 2018), which determines strategy and political targets of social movement campaigns. But education and agitation in transition communities requires sensitivity to the quiescence and vulnerability cultivated through power dynamics of economic dependence, particularly on the part of advocates/activists from outside the community. Frames that unapologetically demonize or attribute blame or responsibility to the coal industry may backfire as the result of place-based emotional attachments and sacred community economic identities (Della Bosca and Gillespie 2018). Similar to what I observed in
Somerset, Cindy Winland of the Delta Institute, who has worked in dozens of post-coal communities, notes the range of possible local reactions to closures: “We hear the 'I worked really hard, and it's not fair... We've also seen communities who just literally throw up their hands and say, 'There's nothing we can do. We're just going to cut our services, and that's the way of life.' ... There's not a lot of blame. I'm surprised at that” (Rahim 2017b). Therefore, the resonance of the just transition framework cannot be taken as a given in decarbonizing communities.

The ideological work necessitated to convince marginalized fossil-fuel dependent communities that they are deserving and capable of winning social support is a discussion beyond the scope of this paper. However, this case study demonstrates that the barriers to a just transition from fossil fuels to renewable energy are not only political-economic and institutional in nature, but also ideological and cultural. Activists and advocates need to contend with both in order to be successful in local and national struggles.
References


The Local Politics of Decarbonization: A Comparative Case Study of Somerset and Holyoke, MA

Abstract: This paper explores place-based contextual factors that may influence the forms and outcomes of contentious energy transition politics through a comparative case study of two municipalities in Massachusetts that recently experienced coal plant closures—Somerset and Holyoke. In Holyoke, grassroots activists and local government officials successfully advocated for a transition to a solar farm, making it the first case of renewable energy installation on the same site as a decommissioned coal plant in the U.S. In Somerset, future reuse of their two retired plants remains uncertain and highly contested. My analysis decenters the internal dynamics of the grassroots movements in these communities and instead focuses on external forces that impacted redevelopment politics. Through an analysis of 41 in-depth interviews with public officials, environmental activists, local residents, dislocated coal workers, and industry representatives, I argue that key differences in industrial history and community economic identity, local geography, and political and industrial opportunity structures played a formative role in shaping divergent transition trajectories in these two post-coal communities. My findings add richness and depth to the study of nationwide movements for a just transition and energy justice. In concluding, I emphasize the importance of continued study of energy movements in their local context and further consideration of the role that community identity and collective imagination play as cultural/symbolic resources.

Introduction

There is growing recognition that the sustainable energy transition is just as much a political and sociocultural process as it is a technical shift from one form of energy resources to another (Jasanoff and Kim 2013; Geels 2010; Healy and Barry 2017; Sareen and Haarstad 2018; Smith and Stirling 2010). Recognition of the complex politics of decarbonization has led to a call for more social scientific approaches to studying energy systems and transitions, and more specifically, examination of the role of social movements in influencing justice-oriented outcomes (Geels 2004; Sovacool 2014a, 2014b; STRN 2017). As a result, within the last decade we have seen an expanding literature on the topics of energy justice (Baker 2016; Hernández 2015; LaBelle 2017; Sovacool et al. 2017), just transition (Abraham 2017; Heffron and McCauley 2018; Newell and Mulvaney 2013), and energy democracy (Burke and Stephens...
But more often than not, the sociopolitical dynamics of the transition away from fossil fuels to renewable energy are discussed in abstraction, removed from the local context of decarbonizing communities (LaBelle 2017; Rutherford and Coutard 2014). In effect, this constructs a uniform, grand narrative of transition processes and energy-related social movements, as opposed to a critical and nuanced understanding of the role that local culture and politics play in producing variegated decarbonization processes. Moreover, studies of environmental movements, and the field of social movements more generally, has more recently been preoccupied with studying the internal dynamics of mobilization—such as frames, tactical repertoires, and emotions—instead of analyzing the political-economic structures and sociocultural context that influence forms and outcomes of contentious politics (McAdam and Boudet 2012; Walder 2009). As Rutherford and Coutard (2014, 1368) argue in regard to the study of energy transitions, “we need to be interested in the particular histories, temporalities and rhythms of socio-technical change, or where, why and how change occurs at particular moments in particular places.”

This paper examines the mediating influence of local economic history, culture, geography, and politics upon community response to coal plant closures through a comparative case study of two municipalities in Massachusetts—Somerset and Holyoke. By exploring how individuals and communities are experiencing the energy transition in real time, I set out to answer: 1) How does community economic identity and local political culture influence community response to coal plant closures? 2) How do these factors interact with more structural dynamics, such as political opportunity structures and local spatial politics, to
produce variegated decarbonization processes? In Holyoke, grassroots activists and local government officials successfully advocated for a transition to a solar farm, making it the first case of clean energy installation on the same site as a decommissioned coal plant in the United States. While there was also grassroots community mobilization in support of a sustainable transition in Somerset, future reuse of their two retired coal plants remains uncertain and highly contested. However, my analysis decenters the internal dynamics of the movements in both of these communities, and instead focuses on contextual forces that impact the outcomes of contentious politics. Drawing on in-depth interviews, participant observation, and content analysis of relevant print sources, ultimately I argue that key differences in industrial history and community economic identity, local geography, and political and industrial opportunity structures played a formative role in shaping divergent transition dynamics in these two post-coal communities.

From an empirical standpoint, this research is significant in being one of the first comparative case studies of the local politics of coal plant closures in the U.S. context through a sociological lens. Theoretically, it informs our understanding of how both structural and symbolic factors influence the forms and outcomes of contentious decarbonization politics. Given the rapidity at which coal plant closures are occurring throughout the U.S. and the lack of social support mechanisms available for these decarbonizing communities, this research is relevant for both scholars of energy transitions as well as labor, environmental, and community activists who are organizing in post-coal communities.
Energy Transitions: Why the Local Matters

Not only has there been a lack of regional and community-level case studies of the renewable energy transition and its associated social movements (Markard, Rave, and Truffer 2012), but more generally, there is relatively little social movement research on localized episodes of environmental contention compared to the study of national mobilization (McAdam and Boudet 2012). This oversight is significant, as the small body of research that does exist suggests that sustainability transitions are mediated by local culture, politics, history, and geography (Darby 2017; Della Bosca and Gillespie 2018; Lawhon and Murphy 2012; Moss 2014; Rutherford and Coutard 2014). However, the majority of cases studies on the local politics of decarbonization are outside of the U.S. context and primarily focused on Europe (Baker, Newell, and Philips 2014; Bauwens, Gotchev, and Holstenkamp 2016; Kalkbrenner and Roosen 2016; Oteman et al. 2014).

Social scientific case studies of energy transitions and community mobilization have generally focused on two major topics: 1) how local sociopolitical dynamics influence support for community-owned energy projects (Bauwens et al. 2016; Kalkbrenner and Roosen 2016; Bomberg and McEwen 2012; Oteman et al. 2014 ), and 2) factors determining social acceptance or opposition to the siting of renewable energy technologies and the consequent implications for procedural and distributive justice (Roddis et al. 2018; Songsore and Buzzelli 2015; Brannstrom et al. 2011; Bell, Gray, and Haggett 2005). In my comparative case study, I move beyond explaining community opposition and acceptance in attitudinal terms, and instead examine how contextual factors shape the processes of decarbonization and its associated political struggles—from the closure of the coal plant, to redevelopment planning, to adoption (or non-adoption) of renewable energy technology as a replacement industry. Attention to placed-based nuances is
critical to the development of robust theories of energy movements. As McAdam and Boudet (2012, 202) note:

…Regardless of the geographic reach of the underlying issue, contention is always embedded in local context…however, attention to place is rare in contemporary movement studies. This inattention to place is yet another reflection of the increasing insularity of social movement scholarship… it persists in the face of a growing body of work by geographers that seeks to understand contention, precisely in relation to issues of space and place…It is time, however, that movement analysts, in whatever discipline, take the need to put movements in their place seriously in an effort to take account of the multiple ways in which the local context powerfully shapes the prospects for and the forms and outcomes of contention.

There was grassroots mobilization in support of the coal plant closures and a just transition in both Somerset and Holyoke. However, the politics surrounding the closure and redevelopment of the plants have looked markedly different. My analytic focus on contextual differences between these two communities is an intentional shift away from studying internal movement dynamics and decision-making. In the last few decades there has been a research preoccupation with the internal, subjective dimensions of mobilization (e.g. the frames activists choose to employ, their organizing strategy, the role of emotions) to the neglect of examining the social structure that constrains and influences the political action environment that activists are organizing within (Walder 2009). Therefore, my case study emphasizes external, place-based factors that influence the form and outcomes of contentious decarbonization politics, including cultural factors (community economic identity), physical factors (geography), and structural factors (political opportunity structures).

Community Economic Identity and Local Culture

Previous sociological/anthropological work has established that community identity can become embedded in extractive industries, making local residents and political actors resistant to decarbonization and sociotechnical change (Bell and York 2010; Della Bosca and Gillespie
However, there has been less elaboration on how a community’s economic history and identity influence redevelopment processes even after a dominant industry has exited. Both Della Bosca and Gillespie (2018) and Marshall (2016) argue that the intertwining of social, cultural, and economic bonds between a community and an industry may significantly hinder the ability for residents to imagine alternative futures in a post-extractive economy. In her ethnographic study of General Electric’s exit from Pittsfield, MA, Nash (1989, 7-8) demonstrates the effect of corporate hegemony on local culture and the politics of economic redevelopment, observing that deindustrializing communities attempt to “sell themselves” to prospective employers in service or tech industries to regenerate their tax base, “rather than adopting new ownership and control mechanisms”—a corporate mentality that “stems from the logic of intensifying salesmanship when there is a decline in prosperity.”

In addition to local sociocultural forces, dominant sociotechnical knowledge narratives can impact post-coal communities’ visioning of what alternative energy production models are possible, as “incumbent interests configure ‘scientific’ knowledges such as to condition wider social expectations over what is ‘realistic’ or ‘unrealistic’ as directions for technological change” (Stirling 2014, 86). In effect, this may preclude a community’s formation of a justice-oriented, post-extractive “sociotechnical imaginary” (Jasanoff and Kim 2009), or a collectively imagined form of social life reflected in the design and pursuit of technoscientific projects.

The emotional aspect of major economic disruptions and the impact this can have on a community must also be considered. While individuals may experience fear or frustration during deindustrialization, collectively this may produce a milieu of “community anomie” (Bluestone and Harrison 1982), lead to the breakdown of social capital (Bell 2009), and create a general sense of disillusionment and defeat that can interfere with redevelopment. In telling the story of
Holyoke and Somerset’s unique industrial histories, I foreground how residents describe the influence of community economic identity on the decarbonization experience and redevelopment process.

*Local Energy Geographies*

Insofar as decarbonization alters natural landscapes and built environments, it is a spatial/geographic process (Calvert 2016). Our existing fossil fuel energy landscape not only encompasses its material artifacts, but also the “cultural evaluations and emotional attachments that people load onto these material forms” (Bridge et al. 2013, 335). Therefore, the incumbent fossil fuel regime is spatially embedded in our society in an economic, material, and cultural sense (Bridge et al. 2013). Using this analytic lens, I consider not only the *emotional* and *cultural* associations with the coal industry in Somerset and Holyoke that stem from geographic conditions, but also the *spatial politics* of decarbonization in each community, to explain their redevelopment trajectories.

While community identities emerge through strong economic ties to an industry, place-based attachments also develop in a more physical sense through a connection to artifacts and surrounding geographic landscapes. A place can be defined as a delineated geographic space with both natural and human-built physicality that has come to be imbued with socially constructed meanings and values (Gieryn 2000; Sangaramoorthy et al. 2016). Thus, while similar to and overlapping with economic or cultural identities, place-based identities (or socio-spatial identities) are more grounded in one’s connection with the surrounding natural and/or built features. In places where the fossil fuel industry has a prominent physical presence, *energy* can become a distinguishing aspect of a community’s collective socio-spatial identity (Calvert 2016;
Bailey et al. 2010; Dorow and O’Shaughnessy 2013). Not only can place attachments and socio-spatial identities lead to place-protective political action (Devine-Wright 2009; Sangaramoorthy et al. 2016; Stedman 2002), but also shape local social contexts to be either resistant or accepting of new technologies, thereby influencing development pathways (Calvert 2016; Della Bosca and Gillespie 2018; Späth and Rohracher 2010).

In a more literal sense, local geography can facilitate or constrain possibilities for energy development. Economic geographers emphasize how factors such as physical proximity to natural resources or industrial infrastructure, as well as existing regional market niches (institutional proximity), make the trajectories of sustainability transitions contextually-dependent and geographically uneven (Calvert 2016; Coenen, Bennenworth, and Truffer 2012; Coenen and Verbong 2010). In the following comparative analysis, I consider the unique spatial contexts of Somerset and Holyoke, since “greater focus on the territorial embeddedness helps in disclosing the institutional contingencies and particularities of the various spatial contexts where transition pathways take place and, consequently, provide an important explanation of the spatial unevenness of sustainability transition pathways” (Coenen and Truffer 2012, 369).

Political and Industry Opportunity Structures

Political opportunity structures play a central role in predicting the emergence and outcomes of community mobilization. The political opportunity structure (POS) can be defined as “how open the institutionalized political system is to the claims of movement actors” (McAdam and Boudet 2012, 50). For example, the stability of elite arrangements, presence of elite allies, the relative openness of institutional structures, and the possibility of repression are all factors that can influence the emergence and success of mobilization (McAdam, McCarthy,
and Zald 1996). Others have expanded this list of institutional factors to also incorporate cultural aspects of the POS, such as values, world-views, zeitgeist, class-consciousness, and media representation (Gamson and Meyer 1996), as well as the dominant political culture, the cultural tendencies of the action environment, and influential economic actors (Wahlström and Peterson 2006).

Though the study and definition of social movements has historically been focused on mobilization directed toward state targets, there is growing recognition that movements increasingly target non-state actors such as industries, corporations, or transnational institutions (de Bakker et al. 2013; Norris 2002; Schurman 2004). Schurman (2004) argues that while state actors may remain central targets of movements, we must also consider how industry opportunity structures shape the emergence, forms, and outcomes of contentious politics. For instance, there may be strategic openings when firms are in the midst of trying to expand their market share or unseat incumbent industry leaders, and a firm’s corporate culture can influence how they perceive and respond to movement demands. Therefore, in addition to the POS of Somerset and Holyoke, I also consider differences in the generating companies that owned and operated the coal plants in the two communities, and the influence this had on redevelopment trajectories.

Research Setting and Design

The Field Sites

The following analysis is based on a comparative case study of two communities in Massachusetts that have recently experienced coal plant closures and are exploring and/or already pursuing redevelopment pathways toward renewable energy production: Somerset and Holyoke. Somerset is a small town about an hour south of Boston with a predominantly white,
middle-class population. Despite being a small community, Somerset was a powerhouse—home to two coal-fired power plants for the greater half of the past-century. At peak power production, the two power plants combined—Brayton Point Power Station (1963-2017) and Montaup Power Plant (1924-2010)—constituted approximately 40% of the town’s tax base and employed nearly 300 people. Though central to the community’s economy, there is also a history of political resistance from both grassroots community groups as well as statewide advocacy organizations pushing for the closure and redevelopment of both plants. As the largest coal-fired power plant in New England, Brayton Point was also one of the biggest polluters in the state and the target of numerous clean air and clean water-related lawsuits over the years (litigation primarily spearheaded by the Conservation Law Foundation). It was one of the primary targets of the Sierra Club’s national Beyond Coal campaign in the northeast, as well as the Coal Free Massachusetts coalition. In May 2013, Somerset made national news when two climate activists affiliated with 350.org used a retrofitted lobster boat to block a 40,000-ton shipment of coal to Brayton Point, calling for the immediate closure of the plant. Criminal charges for the action were later dropped by the local district attorney, who cited the seriousness of the climate crisis.

In addition to pressure from high-profile environmental NGOs, there was also a smaller contingent of grassroots activists who mobilized to close Montaup and Brayton Point while advocating for a “just transition” to a clean energy future for their community. This group, the Coalition for Clean Air South Coast (CCASC), formed in 2007 in response to the announcement that Montaup would be switching to coal gasification technologies in order to “clean up” their emissions. CCASC campaigned with the guidance and support of two Boston-based organizations—Toxics Action Center and Clean Water Action—along with legal counsel from the Conservation Law Foundation.
While there was a highly visible campaign to shut Brayton Point down, there was also substantial vocal opposition to keep the plant open among plant workers, residents, and local/state government officials. The union that represented Brayton Point workers— the Utility Workers Union of America local 464—challenged the grounds of its closure with the Federal Energy Regulatory Commission (FERC), claiming the owner was engaged in deliberate market manipulation to cause a spike in the forward capacity energy market pricing in order to benefit from other plants that they owned in the New England region. This FERC challenge gained a lot of local press, and fueled outrage among Somerset residents who supported the continued operation of the plant.

While both Montaup and Brayton Point are now closed, future reuse of the sites remains uncertain and highly contentious among different factions of the community. Since closure, a number of private investors have come through town with an array of redevelopment proposals for each of the parcels, including a biomass gasification plant, a liquid natural gas terminal, a logistics port, wind turbine manufacturing, and an offshore wind power substation. To date, both plants have yet to be demolished and undergo full environmental remediation. The owner of Montaup has not indicated any plans for sale or reuse. However, the owner of Brayton Point, Commercial Redevelopment (CDC), is currently branding and marketing the site to be a “future world-class logistics port, manufacturing hub, and support center for the emerging offshore wind energy sector.” Whether or not CDC is ultimately able to attract investors and firms along the wind energy supply chain to help rebuild Somerset’s economy is, of course, contingent upon real estate market dynamics.
Like Somerset, Holyoke is also a community undergoing a disruptive economic transition away from coal. Its largest industrial taxpayer, the Mount Tom Power Station, shuttered in 2014 and had been in operation since 1960. However, Mt. Tom was a significantly smaller plant than those in Somerset, with only 136 MW generating capacity compared to the 174 MW of Montaup and 1,600 MW for Brayton Point. At peak production, it employed around 60-70 workers.

Holyoke is also considerably different demographically than the town of Somerset. With more than twice the population, Holyoke is a diverse city with a primarily lower-middle class and working-poor population. Forty-eight percent of the community identifies as Hispanic/Latino, 92% of which are Puerto Rican. Socioeconomically, Holyoke is one of the poorest communities in Massachusetts, with almost 30% of residents living below the poverty line.

Like in Somerset, Mt. Tom Station was a target of the Sierra Club’s Beyond Coal campaign and had faced a series of lawsuits by the Conservation Law Foundation over the years for various emissions violations. Mobilization around the plant closure was supported by the same coalition of state-wide advocacy organizations that were active in the campaign to shut down Brayton Point in Somerset. In fact, Neighbor to Neighbor—the Holyoke-based organization who ultimately took the lead on organizing to shut down Mt. Tom—had never worked on environmental justice issues before being approached by a Sierra Club activist about the issue in late 2010. However, they quickly prioritized it as a top campaign after realizing that almost all of their members had been directly affected by asthma and other respiratory health

<table>
<thead>
<tr>
<th></th>
<th>Somerset</th>
<th>Holyoke</th>
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<tbody>
<tr>
<td>Population</td>
<td>18,257</td>
<td>39,880</td>
</tr>
<tr>
<td>% White</td>
<td>98%</td>
<td>66%</td>
</tr>
<tr>
<td>% Hispanic/Latino</td>
<td>0.6%</td>
<td>48%</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$72,920</td>
<td>$37,954</td>
</tr>
<tr>
<td>% Below Poverty Line</td>
<td>6.7%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Plant Closure Timing</td>
<td>2010 &amp; 2017</td>
<td>2014</td>
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Table 1. Somerset vs. Holyoke at a glance (All demographic statistics are 2017 ACS estimates)
issues. Other local organizations/coalitions also became involved, like Action for a Healthy Holyoke and Nuestras Raíces. Their organizing goals centered on 3 points: 1) shut the plant down, 2) bring in good jobs with dignified wages, and 3) replace the plant with renewable energy. One of the redevelopment pathways that community activists advocated for was a transition to a solar farm. It is important to note that, unlike in Somerset, there was never any coordinated, vocal opposition in Holyoke that mobilized to keep the plant open. Even the union that represented the plant’s employees—IBEW Local 455—had seen the writing on the wall and did not fight its closure. Luckily, they were able to bargain for a very generous severance package for the remaining 20 employees, and the plant retired quietly in 2014 with minimal community upheaval.

Now almost 5 years post-closure, the structure of Mt. Tom has almost been completely demolished. And while it remains unclear what will be redeveloped on the plot of land where the plant once stood, immediately adjacent to the site now stands a 5.8 MW solar farm with a 3 MW battery storage system. It is owned and operated by ENGIE (formerly GDF Suez), the same owners of Mt. Tom, and sells power to Holyoke’s municipal electric utility. It is the largest community solar project and utility-scale storage system in Massachusetts, and the first case of clean energy installation on the same site as a decommissioned coal plant in the United States.

Analytical Approach

While there are lessons to be gained in dissecting the differences in the internal dynamics of these two instances community mobilization in Somerset and Holyoke (e.g. their frames, tactics, organizational composition, etc.), the aim of this paper is to de-center the movements themselves and instead focus on contextual factors that influenced the politics of decarbonization
in these two communities. Comparative case studies are a particularly instrumental research strategy to examine contemporary phenomena in their “real-life context” and thus allow researchers to examine the influence of social dynamics on the phenomenon itself, rather than analysis through theoretical abstraction (Yin 1981). Not only do local social, cultural, and historical factors shape resident and local government response to economic disruption, but also how claims of movement groups are perceived and the political process of redevelopment planning. While economic factors are often used to reductively explain community resistance to coal plant closures, this case is not so straightforward. Indeed, the coal sector comprised a much larger proportion of Somerset’s tax base than in Holyoke; however, Holyoke is one of the poorest communities in the state of Massachusetts, and with the closure of Mt. Tom, was losing one of its biggest taxpayers.

My selection of Somerset and Holyoke as my two case studies has both strengths and limitations. Both of these cases are of historical and political significance, given that Holyoke is one of the first “success” stories of the renewable energy transition in Massachusetts, and there are lessons to be gleaned by studying the particularly contentious closure and redevelopment of New England’s largest coal plant (Brayton Point) in Somerset. The two communities also have objective differences in local history and politics, as well as differences in sociodemographic composition, enabling comparison across a number of sociopolitical factors. However, these multiple, co-occurring differences could also be viewed as an analytical complication, as it does not allow for isolation of any given social factor to explain divergent outcomes. Moreover, these two communities are on different redevelopment timelines due to the temporal variation in the plant closures; it is possible that Brayton Point could become a central cog in the offshore wind industry in the next few years, serving as another model case of renewable energy development.
on the same site as a decommissioned coal plant. However, the aim of my analysis is not to definitively explain divergences in the end redevelopment outcomes or isolate causal variables. The goal is to contextualize why the forms of contentious politics and the sociopolitical process of decarbonization have looked starkly different between Somerset and Holyoke.

**Data Collection and Analysis**

My fieldwork in these two communities took place between May 2017 and November 2018. I conducted 41 semi-structured, in-depth interviews (26 in Somerset and 15 in Holyoke) with community members (activists and non-activists), regional environmental NGOs, local and state government officials, former plant workers, and private industry representatives. In addition to these stakeholder interviews, I logged 12 hours of participant observation at public meetings concerning redevelopment planning, as well as private organizing meetings of grassroots activists in Somerset. Lastly, I did content analysis of all publicly available redevelopment planning documents (e.g. reuse studies), local and regional news articles, community reports/surveys, conversations on community social media platforms (Facebook), and other relevant print materials related to the plant closures produced within the last 5 years.

<table>
<thead>
<tr>
<th></th>
<th>Somerset</th>
<th>Holyoke</th>
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<tbody>
<tr>
<td>Environmental NGO</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grassroots Activist</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Labor (union leaders and former plant workers)</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Local Government</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Industry</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Non-activist residents</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Other*</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td><strong>26</strong></td>
<td><strong>15</strong></td>
</tr>
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* Other: Mass Department of Environmental Protection and manager of Holyoke Gas and Electric

Table 2. Summary of Interviews
All interviews were audio-recorded and transcribed with the consent of participants. Interview transcripts, fieldnotes from participant observation, social media conversations, and textual documents were coded and analyzed using the qualitative analysis software MAXQDA-10. I employed an open-coding approach, reflecting an inductive, \textit{grounded theory} methodology (Glaser and Strauss 1967). Through this process, I identified the three themes that rendered distinctive differences between the two communities: community economic identity, local geography, and political/industry opportunity structures. During the second round of coding, I developed a hierarchical structure of categorical and subcategorical codes, or an \textit{axial scheme} (Lofland et al. 2005). After coding, I composed analytic memos to elaborate upon dominant themes to dimensionalize, make comparisons, and explore relationships between concepts and ideas (Strauss 1987). I also paid particular attention to the emergence of “negative” cases, or instances of divergence from expected relational patterns between concepts or contradictions to avoid potential bias.

\textit{Limitations}

My data collection in these communities happened at two different points in their energy transition timelines. Because I entered the field three years after the closure of Mt. Tom in Holyoke, I was unable to conduct any participant observation at redevelopment planning meetings as I did in Somerset; however, I was able to learn about them secondhand through interviewees. Moreover, because the saliency of the closure had decreased in the public imagination due to the passage of time, it proved more difficult to recruit interviewees in Holyoke, especially within the labor community. Because dislocated plant workers are most directly affected and therefore more likely to have the most critical opinions of energy transition politics, I was sure to take this discrepancy into account and foreground the few Holyoke labor
voices in the following analysis. Finally, both the current and previous owners of Brayton Point declined to be interviewed; the only interview I had with industry in Somerset was a former plant manager of Montaup. Therefore, I was not able to include the first-hand perspective of CDC on their redevelopment plans for Brayton Point, nor the individual owner of Montaup’s perspective.

**Results**

In the following analysis, I begin by demonstrating how Somerset and Holyoke’s unique industrial histories have cultivated different community economic identities, which then colored the community experience of and reaction to the coal plant closures. Then I discuss how the physical and cultural impacts of local geography shaped redevelopment politics and potential reuse options. Lastly, I argue that differences in the relative openness of political and industrial opportunity structures between Somerset and Holyoke cultivated significantly different action environments for activists to navigate, thus leading to divergent decarbonization pathways.

*Community Economic Identity and Energy History*

Immediately adjacent to the once booming industrial cities of Fall River and New Bedford and only an hour south of Boston, Somerset is known as a South Coast “bedroom community”—a home to blue-collar and middle-class commuters who choose to live there for its quaint suburban feel and its comparatively low tax rate. When I asked locals to describe their community, what struck me was that most people’s initial reaction was not to describe the culture or people who lived there, but rather to emphasize the quality of their public services. Twenty-three of my 26 interviewees were residents of Somerset, and all 23 of them mentioned public services early on in our conversations. As one local government officially proudly stated:
“Were a full-service community. We have water and sewer, the host of services. A lot of communities in this area and our size in Massachusetts are not full-service. They have volunteer fire departments, they have septic, well water…we don’t have those” (Interview 6). It was universally acknowledged and understood that these services would not have been made possible without the tax support from the power plants. Moreover, the generating companies’ presence was widely felt within the civic culture of Somerset, with many locals describing them as good and generous “corporate neighbors.” As one Brayton Point worker told me, “They were really good to the community as far as helping out at the schools. Anytime the town needed anything, the power plants stepped up. From my observation anyhow. I’ve gotten grants from them for basketball leagues over the years and for the church food banks and that. They were always there” (Interview 10). Others recollected community volunteer days when plant workers could be seen cleaning up local parks, as well as the free car wash coupons that were provided to residents who lived closest to the plant (in order to clean the plant-generated coal ash off their cars.) Thus, while acknowledging the plants themselves may have been polluting, many residents expressed feeling “taken care of” by the companies. Understandably then, there was a palpable fear and uncertainty among residents about the economic future of their community. For years, it had been the presence of the power plants that kept Somerset—or “Camelot”, as locals referred to it— cushioned from the negative economic ramifications of deindustrialization in neighboring communities like Fall River and New Bedford.

Apart from acknowledging the material benefits of hosting the power plants, many residents of Somerset also expressed a sense of pride in their community’s energy history. Brayton Point was the largest fossil-fuel power plant in New England, and workers and residents were aware of their important role in “keeping the lights on” in the local energy market. As one
local politician pointed out—many of the cities in the South Coast region have a deep history of being industry leaders; while New Bedford had whaling and Fall River had textiles, Somerset always had coal. However, not all residents of Somerset felt a sense of nostalgia for the coal industry. Some were simply tolerant of its presence, while others were outright resistant. These fractures in community support for the coal industry will be further elaborated upon in the subsequent section on local political culture and opportunity structures.

In contrast to Somerset, Holyoke is not regionally recognized for its history of coal power. Nestled along the Connecticut River in the Pioneer Valley region of western Massachusetts, Holyoke had an industrial boom the mid-1800s after the construction of a large dam and canal system to feed water-powered mills. Nicknamed “The Paper City,” it was once the world’s largest center for paper production and had more millionaires per capita than any other city in America by 1900. It was the first planned industrial city in the U.S. and one of the only few in New England to be built on a gridded road system (City of Holyoke 2012). In addition to fueling industrialization, the abundance of water power also allowed Holyoke to establish and successfully run its own municipal electric utility in 1902; it remains municipally owned today. In 2001, Holyoke Gas and Electric purchased the dam and canal system from Northeast Utilities, bringing a significant amount of energy production under municipal control in addition to distribution (Holyoke Gas and Electric 2019). Because of its role in building and sustaining the paper industry as well enabling local control over energy, hydropower was, and remains, a core part of the community history and identity:

One of the things that at least is somewhat intertwined in the culture of Holyoke is the pride. People are keenly aware of the Holyoke Gas and Electric. It’s a municipal utility that has the cheapest rates in Massachusetts, and they do it with the highest of renewable energy because they own the dam on the river. So, the river is intertwined in the
identity of Holyoke, and that's also the reason why it was an industrial powerhouse (Interview 14, Holyoke local government official).

Like many of the mill towns of Massachusetts, Holyoke began to deindustrialize in the post-war period and suffer economically. While economic hardship was a common theme in my interviews with locals, when asked to describe the community, most focused on the people itself, particularly the racial/ethnic dynamics of the city between the new Latino immigrant population and the older (predominantly Irish, Polish, and French-Canadian) population. Moreover, those I spoke with expressed excitement and hopefulness over future economic revitalization. While the retirement of Mt. Tom Station was acknowledged as a large financial hit to an already depressed tax base, it was not accompanied by the same fear and uncertainty that I observed in Somerset. Hardship seemed to be normalized in Holyoke, with development obstacles taken in stride. As one local government official put it, “I would say it always has been and continues to be a city in transition” (Interview 4). Moreover, most everyone I spoke with emphasized that the coal plant was not central to the community’s identity, partially because it was not directly controlled by Holyoke’s municipal electrical utility, but also because the jobs were not accessible to a large portion of the unskilled labor force that inhabited Holyoke. It was only the few Mt. Tom workers that I spoke with, or those who knew someone who worked there, who perceived the plant to be a central part of the community and were saddened to see it retire.

Although not completely determinative, it is clear that these stark differences in economic identity and energy histories played a significant role in shaping the community experience of and reaction to the coal plant closures. These two communities have different industrial histories and are at different points on their respective de-industrialization timelines. With the closure of Montaup and Brayton Point, Somerset is only at the beginning stages of
having to come to terms with precarity and fear associated with such a great loss of community economic identity—a feeling of “community anomie” (Bluestone and Harrison 1982) that Holyoke has been grappling with since the post-war period. Indeed, one local government official characterized Somerset as undergoing an “identity crisis”:

There’s so much pride here, and that ties into the power plant. There’s so much identity, and I guess you could call it a culture…we identify, and we have identified for decades, with being a power producing leader…So now our taxes are just going back to what other communities have that didn’t have those power plants. They’re higher. And that scares people. We’re in this major transition and it hurts. It’s like your teeth are growing in. It hurts…So when the power plant was closing, I was always asked well how do you feel about it? And I said well, it’s not just a financial crisis, but Somerset now is going through an identity crisis. (Interview 5, Somerset local government official).

This identity crisis was palpable throughout the community. Many of my interviewees expressed they felt their neighbors were “in denial”—still hopeful that the coal plants would reopen and therefore unwilling to entertain the idea of renewable energy development or other industries. Indeed, a 2013 community survey indicated that ~30% of residents believed the community should fight to keep Brayton Point open/and or invest in heavy industry, while 70% supported development of green industry. But overall, residents expressed skepticism over Somerset’s economic future, with 47% believing the economy would get worse over the next few years (CCASC and TAC 2013).

By contrast, most residents of Holyoke have long since accepted deindustrialization and weathered the storm of economic decline. Community leaders and public officials have an attitude of resiliency, and the re-envisioning and revitalization process has been underway for some time now. A 2017 community survey demonstrated an overall optimistic atmosphere in the city; when asked to identify Holyoke’s positive qualities, the most frequently mentioned theme
was “rising opportunities, positive growth, and potential for improvements” (Montenegro-Menezes and Stromsten 2017). This difference in community milieu manifests in the politics of redevelopment planning, where in Somerset, the idea of “green” reuse options is often resisted and contentious. Instead, many residents, as well as local government officials, seek options that will solely maximize tax revenue on the site. As one resident who supported the closing of Brayton Point told me:

> With all the fighting and all the division, we're not coming up with a plan to move forward, and the people who are trying to make plans to move forward, like some of the selectmen, people are just tearing them down. ‘Well you wanted the power plant to close and this is what you wanted’…We can start moving ahead, but every idea that comes up, it's not as good as having the power plant here (Interview 18, Somerset resident).

In Holyoke, redevelopment planning was much less controversial, partially because there was no vocal opposition campaign to keep the plant open like in Somerset. Moreover, while pursuing clean energy redevelopment options was often dismissed as an unrealistic, uneconomical solution in Somerset, Holyoke’s long history of hydropower afforded residents a wider perspective on the economic possibilities of clean energy. Certainly the replacement solar farm may not have been embraced by the entire community, and local government officials acknowledge that its tax revenue is minimal compared to the coal plant. But there was not the same knee-jerk opposition to the idea of clean energy in Holyoke like I observed in Somerset. In sum, the unique community identities of Somerset and Holyoke set the stage for different local reactions and distinctive decarbonization politics and processes from the outset.
Local Geography

In addition to differences in the coal industry’s economic presence in these two communities, the physical presence of the industry was also distinct between Somerset and Holyoke. In Somerset, Montaup Power Plant was right in the middle of a residential neighborhood with houses just yards away from the fence line. Brayton Point, while removed from the most densely populated part of Somerset, is highly visible due to its two five-hundred-foot cooling towers. While generally loathed by locals who have to live in the shadow of these structures, these iconic towers have also simultaneously become part of Somerset’s collective socio-spatial identity. As one long-time resident and now elected official described:

It’s so interesting to me, because when I was visiting here from California I saw the towers being built. And I said Mom ‘what the heck are those things, they’re ugly.’ And just in passing, that was my first reaction, those are ugly, why are we doing that? I don’t feel that way now. Over the years, I now identify with them. It’s like that mole on your face, you know? You identify with it, it’s part of your identity. It’s like a symbol of power and presence. To me now, I feel like that’s just a symbol for Somerset. They’re symbolic, they’re important (Interview 5, Somerset local government official).

Indeed, while many residents are excited for the towers’ demolition (scheduled for spring 2019), others had hoped that they would be preserved for reuse and/or be made into a canvass for local artists.

In contrast to prominence of coal artifacts in Somerset and the resulting emotional and cultural embeddedness, Mt. Tom Station was almost completely geographically detached from the community of Holyoke. Situated on the northeastern border of the city limits and immediately adjacent to Mt. Tom State Reservation, the plant is spatially isolated, surrounded by trees and hills, and not visible from anywhere in town. In fact, multiple activists told me that during their initial door-to-door canvassing to shut the plant down, many residents’ reaction was
“There’s a coal plant in Holyoke??” Needless to say, the coal plant was not embedded in the socio-spatial identity of the community.

Apart from influencing sociocultural attachments, the topography of the retired plant sites played a large role in constraining and influencing redevelopment options. In 2015, both Somerset and Holyoke received a $100,000 grant from the state to work with the Massachusetts Clean Energy Center on a reuse study conducted with a consultant—Ninigret Partners LLC. The study assessed potential reuse options from a technical, cost, zoning, and geographical perspective. The planning process also included a series of three community meetings to allow for local input, along with a survey and mobile workshops. While the sites in Somerset and Holyoke had similar geographical constraints to work with (floodplains, conservation areas, industrial zoning, legacy environmental contamination), one notable difference was the infeasibility of laying a natural gas pipeline to connect to the Mt. Tom site; the only option would be to truck gas in. This took the option of converting to a natural gas plant off the community discussion table from the start in Holyoke. However, in Somerset, there was already a gas pipeline near the Brayton Point site, leading locals to push for incorporating a gas conversion assessment into the reuse study when it had originally been excluded by the consultant. While renewable energy options were also considered in Somerset’s reuse study, many residents and local government officials favored conversion to natural gas because of the potential tax revenue; gas conversion was also the redevelopment pathway chosen after closure of a coal plant in nearby Salem, Massachusetts.

The Mt. Tom site was also less geographically desirable from a real estate perspective than Brayton Point or Montaup. Brayton Point is one of the largest industrial waterfront properties currently available for redevelopment in the northeast, and it has valuable
characteristics such as ocean access and deep-water ports that make the potential return on investment for the site very high. While there were industrial assets at the Mt. Tom site, namely an active rail line, this actually limited many redevelopment options due to safety concerns and the need for approval from the railroad company. The amount of redevelopable area on this already small (128 acre) site was limited. A representative of ENGIE (the owners of Mt. Tom) ultimately told me that given the naturally flat topography of the land, the existing infrastructural connection to the grid, and the regulatory challenges associated with redevelopment (being within the 100-year FEMA floodplain and a rare species habitat), installing a solar farm just seemed to be the most logical option.

While it remains to be seen what will ultimately take the place of Brayton Point and Montaup Power Plant, the burgeoning offshore wind market niche will likely push redevelopment in the direction of that industry. Now that Brayton Point is being demolished, natural gas conversion seems to be officially out of the realm of consideration. In sum, these cases demonstrate that topographical constraints, existing market niches, and physical proximity to existing natural resources and industrial infrastructure make for contextually-dependent energy transition processes, and are likely to lead to spatial unevenness in sustainability transitions in decarbonizing communities across the U.S.

Local Political and Industry Opportunity Structures

The political opportunity structure (POS) of any given episode of contentious politics encompasses factors such as openness of institutional structures, presence of elite allies, class-consciousness, as well as political culture and tendencies of the action environment (McAdam, McCarthy, and Zald 1996; Gamson and Meyer 1996; Wahlström and Peterson 2006).
Intersecting with this opportunity structure, the industry opportunity structure also shapes the emergence, forms, and outcomes of mobilization. Somerset and Holyoke diverged on almost all of these factors, with Holyoke’s political and industry opportunity structures being more open; this led both elected officials and industry representatives to be more responsive to the claims of community activists.

While both in the historically progressive state of Massachusetts, the political environment of Somerset and Holyoke could not be more different. As the 2016 presidential election results demonstrate, Somerset has many more conservative voters, with the town voting 49%-46% for Clinton over Trump. By contrast, Holyoke voters overwhelmingly supported Clinton (70%-24%). Holyoke also has a stronger history of progressive community organizing within the last several decades around multiple intersecting social and economic justice issues, much of which has been spearheaded by the Puerto Rican immigrant community. For example, Neighbor to Neighbor—the local organization that eventually became the lead on mobilizing residents around a just transition away from coal—was established in 2003 and organizes around issues including criminal justice reform, housing justice, healthcare reform, and educational justice. One local activist described Holyoke’s evolution into a center of progressive politics in its post-industrial period as follows:

…housing prices were really low. So gradually Northampton folks, which is a well-off town, started moving to Holyoke and kind of gentrifying a little bit. And Northampton is really progressive politically. So Puerto Ricans started stepping into power, combined with Northampton progressive white folks, and Neighbor to Neighbor did political organizing for decades. Those three factors made it so that the city became much more progressive (Interview 12, grassroots activist).

The political action environment in Somerset is starkly different. There, Coalition for Clean Air South Coast (CCASC) is one of a few, if not the only, social movement organization.
As a result, these environmental activists were often labeled and believed to be “outsiders,” or “tree-huggers from Boston” toying with the economic future of a community they did not live in. CCASC did not have widespread respect and legitimacy among residents I interacted with, nor all local government officials I spoke with. In Holyoke, Neighbor to Neighbor’s community activism appeared to have widespread respect from residents and public officials alike, and no one I spoke with referred to environmental activists as “outsiders.” Moreover, non-activist Somerset residents who publicly admitted support of the plant closure also often faced ridicule. One mother told me she was dismissed as a “snowflake” when she spoke up about environmental health concerns to her neighbors.

Apart from differences the general political culture/action environment between Somerset and Holyoke, the institutional component of the political opportunity structure was also markedly different. Holyoke has a number of progressives (many of them former community organizers) seated on city council and serving as state representatives. It was also one of the first communities to sign onto the Massachusetts Green Communities Act—a designation Somerset has yet to pursue. In 2016, the city’s mayor, Alex Morse, received the Mayor’s Climate Protection Award from the U.S. Conference of Mayors. The city’s electricity portfolio is already close to 90% carbon-free, largely thanks to the local hydroelectric capacity. When Mt. Tom’s retirement was announced, Holyoke city council took the initiative to form a Community Advisory Board (CAB) to help plan for a just transition. As one council member describes the moment:

I felt that it [Mt. Tom’s closure] was an opportunity for two things. Number one, to have real citizen involvement and democratic participation over not only what the plan to shut down that site would look like, but also perhaps work with the property owners in terms of re-envisioning how that site could be used for the city, give them a formal or official venue to work on the city's behalf (Interview 8, Holyoke local government official).
Not only were Holyoke officials advocates for democratic planning, but they also conceptualized the Mass CEC reuse study a political tool to push redevelopment decision-making toward environmentally sustainable options that would not burden their already socially vulnerable community with additional environmental health problems.

In contrast to the pro-environmental leanings and commitment to democratic visioning on the part of Holyoke officials, the institutional openness of the political system in Somerset has been relatively closed. On the one hand, Somerset’s state representative, Patricia Haddad, serves as a significant political ally to the community. Once the self-proclaimed “Queen of Coal” and now the self-proclaimed “Witch of the Wind,” she was one of the lead crafters of the 2016 Massachusetts law that mandated the state’s electrical utilities procure 1,600 MW of offshore wind power within the next decade; she has been very proactive in bringing potential investors to Brayton Point in an effort to make Somerset the epicenter of the burgeoning industry. However, more locally, public officials in Somerset have been largely unresponsive to the claims to community activists, have been decidedly removed from reuse planning, and sometimes outright manipulative and discouraging of community participation. According to the activists I interviewed, local officials repeatedly refused to advocate to CDC for sustainable reuse options on behalf of CCASC members and other concerned citizens, citing the fact that Brayton Point is private property, and Somerset has no right to tell them what to do. Indeed, multiple officials I spoke with described the Mass CEC reuse study as “silly” or “a waste of time and money,” given that decision-making ultimately rested with the owners of the site. Some public officials, in coalition with residents who supported natural gas conversion, even actively organized to drown out support for green
reuse options at the reuse study’s community visioning sessions and instead emphasize support for natural gas. As one environmental activist recounted to me:

I found out that some tables had people that were the spokesperson for the table that were saying what they personally wanted, not what the table had decided. Which wasn’t right. I never like it when they say break down in groups. I never like those meetings. I know they can be useful, but I noticed that at that meeting some people in our group [CCASC] were at that table, and I knew how they feel, so when the guy got up to talk about what they thought it should be, none of those things that we believed in were mentioned at all (Interview 4, Somerset grassroots activist).

Unfortunately, this story was corroborated by a local government official that I interviewed.

While other Somerset officials took a more proactive stance on redevelopment planning, they were still skeptical of green reuse options out of fear of the community’s future economic vitality. While they valued clean air and water and democratic participation in an ideological sense, they believed the only way to quickly rebuild the tax-base was to “market the town” and attract large investors who would bring in high-revenue industry. For example, the prospect of marketing Somerset as a potential for Amazon HQ2 was mentioned several times in my interviews.

In sum, while community activists and pro-environmental residents in Somerset had some political allies, the majority of local public officials were dismissive of environmental concerns and unsympathetic to the idea of public engagement in redevelopment planning. Apart from Representative Haddad and a local selectman who has been particularly proactive in revisioning Somerset’s future (Holly McNamara), the overall political response was resignation. Thus, the POS was very discouraging for activists in Somerset compared to Holyoke, where Neighbor to Neighbor activists had a greater sense of ability to influence redevelopment decision-making because of the open POS. As one Holyoke organizer told me: “If you have the
political will to do something, it gets done. So it makes the organizing and activism easier because you have the politicians that are on your side and they're not gonna sit there (Interview 11, grassroots activist).

In addition to having to confront a relatively closed POS, activists in Somerset were also engaging with a company that had a drastically different corporate culture and goals for market expansion than did ENGIE in Holyoke. At the time of Brayton Point’s closure, it was owned by Dynegy Inc., recently merged with Vistra Energy Corporation. This Texas-based energy company owns about 40,000 MW in generation capacity, the overwhelming majority of which is fossil fuel or nuclear; they own only one solar plant. By contrast, ENGIE owns 115.3 GW of generating capacity, 22% of which is renewables, and is currently the largest independent electricity producer in the world. In fact, because Mt. Tom Power Station was one of the few fossil fuel plants that ENGIE owned and operated in North America, Holyoke activists strategically drew attention to it in an effort to tarnish the company’s otherwise “green” corporate image. Ultimately, this tactic was effective in pressuring ENGIE to meet with them.

Indeed, when I spoke to an ENGIE representative, she framed the decision to build the Mt. Tom solar farm as a decision that was in line with the company’s desire to be part of the worldwide renewable energy transition “in a very big way.” She also referenced local geographic factors, community support, and the local POS:

The community was looking for something different. Renewables have a flare to them, and the whole area is pretty progressive, so they welcomed the idea of a solar farm. Mayor Alex Morse has been pushing for innovation and creativity—renewable energy is showcased as one of the benefits of the city on its website. Mayor Morse had a vision for Holyoke, and he made it happen. Also Holyoke Gas and Electric has some really innovative projects, and they were a willing host. Otherwise this solar farm would have been much more difficult to implement...We owned the land and we’re an energy company, so it made sense to keep something energy-related there. Gas plant wasn’t feasible because the gas lines weren’t there...a solar farm made sense because of the flat topography of
As one can see, ENGIE’s corporate culture and market expansion goals created a favorable industry opportunity structure in Holyoke. But to give credit to local activists, ENGIE needed some pushing to commit to building a solar farm to replace the coal plant. While at first ENGIE said they would only do solar if it was “economical,” Neighbor to Neighbor activists held ENGIE’s feet to the fire at community meetings, challenging them to prioritize people over profits. Eventually, ENGIE was able to take advantage of Massachusetts’ Solar Renewable Energy Certificates (SREC) program to secure subsidies and built the solar field.

In Somerset, activists did not have the same points of leverage with Dynegy (Vistra Energy) as Holyoke activists had with ENGIE, and they were never successful in bringing the company to the table to speak with community members. While members of CCASC sent a copy of the reuse study completed with the Mass Clean Energy Center to company representatives, they did not receive a response and could not confirm whether Dynegy reviewed it. Also, Somerset’s smaller, second coal plant—Montaup—is owned by a regional real estate mogul who is staunchly uncommunicative with the public. Given these barriers, activists in Somerset have had a much more difficult time having their claims heard and, thus far, have had less success in influencing redevelopment politics.

Discussion

This sociological investigation of coal plant closures demonstrates how community economic identity and industrial history, local geography, and political and industrial opportunity structures produce variegated sociopolitical experiences and redevelopment pathways for decarbonizing communities. The movements for a just transition, energy democracy, and energy
justice are growing every day; this study, however, decenters the internal dynamics of these movements to illuminate how contextual factors shape the action environment that community organizers must navigate. This is not an analysis that definitively explains social acceptance or opposition to the renewable energy transition, but rather a story that empirically contextualizes decarbonization processes and its associated political struggles—from plant closure, to redevelopment planning, to adoption (or non-adoption) of renewables as a replacement industry.

In Holyoke, the community’s lack of economic identification with the coal industry and its pride in municipally-owned hydropower not only played a role in dampening opposition to Mt. Tom’s closure, but also conditioned community expectations of what types of redevelopment solutions were feasible. In other words, the dominant socio-technical narrative of the city allowed for creative imagining of an economic future partially supported by renewable energy production. Local geographic conditions not only prevented the plant from becoming embedded in the community’s socio-spatial identity, but also constrained what types of reuse scenarios were practical—namely precluding possibilities of a natural gas plant. With a strong contingent of young, proactive, visionary progressives in Holyoke’s government, institutional political channels were open to environmental activists who pushed for sustainable reuse options. Community organizers were also able to strategically leverage ENGIE’s international “green” image to advocate for conversion to solar. Moreover, the overall political culture of Holyoke is one grounded in organizing and engagement, and it is characterized by optimism. There is a widespread belief among community members that the city is “on the rise” (Montenegro-Menezes and Stromsten 2017).

The sociopolitical context of Somerset is drastically different from Holyoke. The town has long been economically dependent on the coal industry, and many community members feel
a sense of pride in the historical role they have played as industry leaders. The coal plants were distinctive in the community’s collective economic and socio-spatial identity. This community history and identity not only spawned an opposition campaign that environmental activists had to contend with, but also made community visioning meetings extremely contentious. The economic and social precarity precipitated by the disruptive closing of the coal plants produced a kind of community crisis mode—one that led environmental advocates to be demonized as “outsiders,” and a knee-jerk push for maintaining the fossil-fuel industry (natural gas conversion) for its associated tax benefits. This unfavorable sociopolitical milieu was compounded by a relatively closed POS, and the unresponsive owners of the two plants. While it is still possible that Somerset will join Holyoke in the ranks of being a “success” story of decarbonization if it becomes an industrial hub for the offshore wind industry, it seems likely that the sociopolitical process of getting there will be less democratically driven and more contentious.

Empirically, this comparative case study adds a richness and depth to the study of the nationwide movements for a just transition and energy justice by observing local-level instances of community mobilization. Theoretically, these case studies strengthen our understanding of a number of key social scientific concepts and their formative influence in energy transition processes, including but not limited to community economic identity (Bell and York 2010), community anomie (Bluestone and Harrison 1982), and sociotechnical imaginaries (Jasanoff and Kim 2009). Community identity can be broadly defined as a “place-based identity, emerging from a shared geographic space, history, infrastructure, and sense of belonging” (Bomberg and McEwen 2012, 441). The divergent community identities of Somerset and Holyoke, with Somerset being firmly embedded in coal-production and Holyoke embedded in hydropower, had a twofold effect on plant closure politics: differing degrees of community anomie and differing
capacities for residents and public officials to construct an alternative sociotechnical imaginary for their community. This produced different sociopolitical experiences of decarbonization for residents, different conditions for social movement organizations, and different redevelopment processes.

Blustone and Harrison (1982) characterize community anomie as a state of collective disorientation, anxiety, and isolation, and argue that it is found almost universally in cases of community plant closings. They argue that the “social psyche” of the community is damaged through deindustrialization by the sudden loss of economic security, and the resulting resignation and disillusionment among residents can inhibit the possibilities of regenerating the community. Radu (2018) similarly found that the legacy industrial culture and identity of mining communities in Romania affected the way residents viewed themselves and limited the community’s perceived possibilities for future development. Carley et al. (2018), also documents the anger and resentment that marked the beginning of the transition away from coal in mining regions of Appalachia, but notes these sentiments have slowly morphed into feelings of acceptance and excitement about future opportunities, despite challenges. Therefore, if community identity disruption manifests in a series of stages, beginning with anomie and fear and progressing towards acceptance and optimism, it seems apparent that Somerset and Holyoke are at different points on this continuum; in turn, this affected community response to the plant closures and the sociopolitical climate of redevelopment planning.

A community’s ability to reach the stage of acceptance and optimism also seems to be tied to local history and culture, and more specifically the extent to which it interferes with collective visionary planning work. Indeed, multiple scholars have argued that a post-extractive community’s capacity to be resilient is dependent upon residents’ ability to imagine and embrace
an alternative future (Della Bosca and Gillespie 2018; Marshall 2016; Carley et al. 2018). In their longitudinal study of boomtowns, Brown, Dorius, and Krannich (2005, 34) noted that adaptation response through boom and bust cycles was dependent upon “residents’ ability to make subjective adjustments to the new conditions of their community—to reconcile its new emerging story with previously established expectations and understandings.” For decarbonizing communities, this may encompass the generation of an alternative sociotechnical imaginary (Jasanoff and Kim 2009), or a collectively imagined form of social life reflected in the design and pursuit of technoscientific projects. As Jasanoff and Kim (2009, 122) contend: “the capacity to imagine futures is a crucial constitutive element in social and political life. Imagination is no longer seen as mere fantasy or illusion, but as an important cultural resource that enables new forms of life by projecting positive goals and seeking to attain them.” While grassroots community activists and public officials have been constructing a new energy/economic narrative for Holyoke for a number of years now, the beginning of that reimagining and social acceptance process is only just beginning in Somerset.

Continued study of energy-related movements in their local context is necessary to understand how external sociocultural and historical factors impact how claims of movement groups are received by the broader community and public officials. In their study of community action around energy projects, Bomberg and McEwen (2012) distinguished between two types factors that shape mobilization: 1) structural resources, or the local POS that structures and constrains opportunities, and 2) symbolic resources, or non-material resources that can be invoked to mobilize residents, including “collective identity, legitimacy, authority, or the quest for autonomy.” My data corroborates that both structural and symbolic factors shape decarbonization politics at the local level, and points to the need for further consideration of the
role that community identity/culture and collective sociotechnical imaginaries play as symbolic resources. When it comes to the study of culture and social movements, Swidler (1995) observes that most theorists take a Weberian approach, focusing on how culture shapes internal ideas, motives, and identities of activists to guide action—an “inside out” approach. But by instead viewing culture in the Durkheimian sense of “collective representations,” we can leverage greater explanatory power and come to see how culture operates in the wider action environment to influence contentious politics from “the outside in.” She further argues that “If we think of culture either in the Weberian sense, as ideas deeply internalized in individual psyches, or in the more recent semiotic sense as broad, encompassing discourses that shape all social discussion in a given historical era, we will miss the more specific ways cultural power varies by context” (35). Taking the lessons gleaned from my case study of Somerset and Holyoke, fruitful analyses will emerge if we begin to conceptualize community identity, local culture, and sociotechnical imaginaries as symbolic resources that shape energy movements from “the outside in” and consider how that may differ greatly by locality. This would also help disrupt the recent bias in social movement studies of focusing on the internal, subjective dimensions of mobilization by shifting consideration to the social structure of the action environment, which encompasses both cultural and structural (POS) elements.

I do not intend to generalize these findings to other decarbonizing communities. Additional case studies outside of Massachusetts would lead to further nuanced analysis of variation in regional culture and history, as would longer-term ethnographic case studies that observe the process of decarbonization several years preceding and post coal plant closure. This topic of research also lends itself to potential academic-community partnerships in which scholars could work with community activists to identify challenges and opportunities for
mobilization in their communities. Given the rapidity at which coal plant closures are occurring, such work is imperative for scholar-activists wishing to inform discussion and debate on how to make the energy transition socially and ecologically just for those communities most burdened.
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Abstract: This paper examines the emergent movement for a *just transition* away from a fossil fuel economy. The term *just transition* (JT) has its origins in the American labor movement and has since been adopted by the mainstream environmental movement, the environmental and climate justice movements, government institutions, and more. Drawing from 13 in-depth interviews with individuals in labor organizations, grassroots community/environmental justice organizations, environmental NGOs, and think tanks, as well as extensive content analysis of primary and secondary sources, my analysis: 1) clarifies the core claims and principles of the JT framework as articulated by activists and social movement organizations, 2) demonstrates how the framework has evolved and expanded through its adoption by multiple different social movements, 3) identifies inter-movement tensions, and 4) discusses JT organizing in relation to the existing literature on master frames, theories of justice, and social movement spillover or fusion. Ultimately, I argue that while organizational definitions of JT converge around the principles of distributive, procedural, and restorative justice, there is significant variation in how oppositional and transformative different organizations’ JT politics are. In this unique political moment of the Green New Deal resolution, a historicized and pluralistic understanding of how social movements have been using this term is not only essential for activists in developing their praxis, but also in order for policymakers to fully comprehend the meaning of just transition.

Introduction

On November 13, 2018, just after Democrats had taken back control of the House of Representatives through the midterm elections, hundreds of young environmental activists descended on Washington D.C. to stage a sit-in at Speaker Nancy Pelosi’s office to demand legislative action on the climate crisis. Organized by a new youth-led climate justice organization called the Sunrise Movement, their primary demand was for “a Green New Deal with a *just transition* to 100% renewable energy.” This action, followed by Representative Alexandria Ocasio-Cortez and Senator Edward Markey’s legislative resolution for a Green New Deal, propelled the term just transition—a concept that previously had been mostly confined to labor and environmental circles—into national media discourse. Just three years prior to the Green New Deal resolution, labor and climate justice activists celebrated a significant milestone when
they were able to successfully advocate for inclusion of just transition language into the preamble of the UNFCCC Paris Agreement. But despite only recently gaining recognition within institutions of governance and entering into popular discourse, the term just transition has a long history of use within the labor and environmental movements and is quickly becoming an umbrella mobilizing frame for progressives.

Just transition (JT) is simultaneously “a principle, a process, and a practice” (Just Transition Alliance n.d.). In its most common use, it refers to a guiding framework that emphasizes justice and equity for workers and communities who are economically and socially burdened by the transition to a low-carbon economy. However, this term’s increasingly widespread use has led its meaning to become somewhat muddled, and JT frameworks can differ significantly in their definition and scope across different social movement organizations (SMOs). Therefore, as a scholar-activist interested in exploring JT politics and providing constructive analysis for just transition activists, my guiding research question for this project was: How is the term just transition conceptualized and pursued politically across different labor, environmental, and other social movement organizations (SMOs) across the United States?

To answer this research question, my analysis and discussion aims to: 1) clarify the core claims and principles of the JT framework as presently articulated by activists and social movement organizations, 2) demonstrate how the framework has evolved and expanded through its adoption by multiple different social movements, 3) identify inter-movement tensions, and 4) discuss JT organizing in relation to the existing literature on master frames, theories of justice, and social movement spillover or fusion. I begin with a brief historical overview of the origins of the just transition framework and its diffusion across multiple social movements and institutions of civil society. My subsequent analysis demonstrates that while organizational definitions of JT
converge around the principles of distributive, procedural, and restorative justice, there is significant variation in how oppositional and transformative different organizations are in their approach to JT politics—a variation that acts as a source of tension within the movement. Using an inductive approach, I conclude by connecting my findings with the existing literature on master frames, theories of justice, and social movement spillover or fusion.

The sociopolitical dimensions of decarbonization are becoming increasingly recognized, with energy being “a new front-line in environmental justice research and activism” (Sze and London 2008). But to date, there are few academic articles exploring the JT framework and the field of social movements organizing around it, with some exceptions (Abraham 2017; Stevis 2018; Stevis and Felli 2015; Goods 2013; Evans and Phelan 2016; Heffron and McCauley 2018; McCauley and Heffron 2018; Farrell 2012; Healy and Barry 2017; Newell and Mulvaney 2013; Mayer 2018). To my knowledge, there are no articles exploring the JT framework in a comprehensive way in any flagship environmental sociology or social movements journal. Moreover, most existing theoretical frameworks of JT are largely abstractions and insufficiently grounded in systematic empirical interrogation of movement politics on the ground. This oversight is problematic, as practical definitions of JT (as adopted by social movement actors) are not universal, nor do they necessarily stem from a coherent system of ideologies; they are multiple, evolving, contested, and often embedded in the sociohistorical context of particular regions. For example, visions for a just transition in rural Appalachia may be tied to honoring and preserving mining culture and history, whereas a just transition for communities of color who have never directly benefitted from the jobs at the oil refinery in their urban neighborhood may be less intricately tied to the cultural nostalgia of extractive labor.
Inductive theorizing directly from activists’ experiences not only sharpens and expands our understanding of movement politics, but is also central to *praxis*, or the idea that theory and practice (political organizing) must mutually inform each other (Schlosberg 2013). However, in a review of the academic literature on the climate justice movement, Schlosberg and Collins (2014, 365) note that there is “an obvious disconnect between assertions of ideal theories of climate justice—or even pragmatic attempts at applied theory—and the more grassroots articulations of the environmental and climate justice movements. As much as their interests and ideas may overlap, these theorists rarely cite movements, and movements do not commonly refer to academic journal articles to clarify their positions.” More specifically, they observe that academic literature on climate justice tends to focus on normative arguments of justice theory and draw from the policy positions of mainstream environmental NGOs that emphasize a “development rights” approach and commitment to carbon markets; by contrast, articulations of climate justice by grassroots organizations emphasize the importance of local impacts and experience as well as community sovereignty and functioning.

This research intentionally seeks to break this pattern of disconnection between academics and the movements they study by developing an understanding of JT that is grounded in how it is understood and articulated through movement demands on the ground. In this unique political moment of the Green New Deal resolution, a historicized and pluralistic understanding of how social movements have been using this term is also critical in order for policymakers to fully comprehend the meaning of just transition. A parallel intention of this research is to amplify the visibility of this nascent social movement and aid activists in developing their praxis through cultivating an understanding of the history, development, and theoretical underpinnings of the JT framework. To be clear, most activists and advocates working on the issue of just transition are
already well-versed in the term’s origins and core principles; however, they may be less aware of the scope of the term’s current use across different SMOs, nor have a nuanced understand where their organization is situated politically in the broader field the movement. Employing a methodological approach called “field analysis” (Brown et al. 2010), this research provides a foundation for that self-reflexivity.

Analytic Approach and Methods

Field analysis is a qualitative approach to studying social movements that situates movements in their lineage from other movements, as well as maps the diverse set of actors, institutions, and organizations that comprise the movement (Brown et al. 2010). The approach draws on field theory, which maps relationships among networks of individuals to understand power dynamics, degrees of influence, and how individuals within the network collectively shape the “field,” or social arena. (Martin 2003). The historical examination and plotting exercise of field analysis serves as a strategy to examine a movement’s self-awareness, illuminating the complexity of different organizational relationships, perspectives, and ideologies within the broader movement field. As Brown et al. (2010) note:

Field analysis helps SMOs situate themselves within a broader SM. It is likely that any SMO has a story about the SM’s history that may not reflect the complexity of the SMO’s origins. There will always be some disconnect between these organizational-level stories and how the SMs and SMOs really emerged. One reason is that as time passes, events occur that can lead actors to reconstruct history. As well, one SMO may simply not understand the entirety of the field, and hence not understand the place of other SMOs in that movement. Also important is that SMO stories will be dependent on the place of an SMO within an SM, especially if that SMO differs from other SMOs in the same SM, based on race, class, gender, or other key factors. Another complexity that field analysis can uncover is the evolution of themes, goals, concerns, and strategies of an SMO, which emerge and change over time. This continual change is also what allows new SMs and SMOs to emerge.
The JT framework is diffuse among multiple social movements, and, as I will argue in concluding, the advocacy and organizing efforts for a just transition are beginning to constitute a distinct political movement *in itself*. Therefore, JT politics can be conceptualized as a distinct “strategic action field,” or a meso-level social order in which individuals and organizations interact with each other with a common understanding and pursue collective strategic action, while simultaneously vie for influence over the dominant logics and interests/claims-making of the field (Fligstein and McAdam 2011). Thus, field analysis is well suited for this research.

The focus of my inquiry is narrowly limited to understanding the core claims and principles of the JT framework as articulated by actors within relevant SMOs—or any organization that is involved with political advocacy, mobilization, or organizing work. I also broadly trace the origins and evolution of this framework, how the framework has been influenced and distinctly shaped by different social movements, as well as the competing perspectives and ideologies among various types of SMOs. A more comprehensive field analysis of JT politics might also consider the role of government institutions, the private sector, and philanthropic organizations, and how these competing interests vie for influence over JT politics and shape the field. However, in the interest of this paper’s core aim of generating an understanding of JT that is grounded in how it is articulated by social movement actors on-the-ground, I have excluded discussion of how other institutions are influencing JT politics in order to focus on SMOs.

*Data Collection*

I employed a mixed-methods approach to gathering data, which included both primary and secondary sources. First, I conducted 13 in-depth interviews with individuals in labor
organizations, grassroots community/environmental justice organizations, environmental NGOs (or ENGOs), and think tanks, all of whom have been active in work around the issue of just transition. I employed theoretical sampling to recruit interviewees—an approach that combines multiple sampling techniques with the purpose of generating inductive and/or grounded theory (Qureshi 2018). The first step was compiling a list of organizations active in just transition advocacy/organizing. While by no means exhaustive, the list is representative both in terms of type of organizations that constitute the JT field and geographic location. This list was generated through systematic iterative searches on Google and social media platforms. I also identified organizations from subscription to listservs of leading organizations in this field (namely Labor Network for Sustainability and Trade Unions for Energy Democracy), participation in webinars for activists, and through a review of attendees listed on programs for recent convergences on labor and climate justice. Using search terms including “just transition,” “green jobs,” “climate change,” “environmental justice,” “Green New Deal,” and “energy transition,” I systematically explored the websites of these organizations, and included any organization that had a substantial amount of web content on just transition in my sampling frame. Ultimately, 57 organizations were included (listed in the appendix). I only researched organizations in the U.S. (and one in Canada), given that the origins and current core of the JT movement is based in North America.¹ While I did not methodically keep track of the proportion of organizations in each category (e.g. labor organizations, think tanks, etc.) that had written materials referring to just transition, I did observe a general trend that grassroots organizations tended to have the most content on the

¹ This is not to say that there are not organized movements for justice and equity in decarbonization in other places around the world; however, currently the term “just transition” is mostly confined to the Global North (Just Transition Research Collaborative, 2018).
topic. By contrast, the amount of content available from unions and environmental NGOs was much more limited.

Theoretical sampling is a technique for “seeking and collecting pertinent data to elaborate and refine categories in your emerging theory” (Charmaz 2006, 192). It primarily relies on purposive-convenience sampling, or a “sampling scheme in which the purpose, target population, and setting is predefined, but has the flexibility to change depending on the accessibility, availability, and willingness of the participants to take part in the study” (Qureshi 2018). It also relies on snowball sampling—asking participants to suggest other people who could give pertinent information to the study. Most of my interviewees were recruited through my self-generated sampling frame. During my recruitment, I was intentional in cultivating a sample that included a variety of different types of organizations, organizations from different regions of the U.S., as well as organizations that were likely to have different or even conflicting perspectives—or “deviant cases.” Ultimately, I interviewed five representatives of labor organizations: International Brotherhood of Electrical Workers (IBEW) Local 103, Iron and Earth, IWW Environmental Unionism Caucus, Labor Network for Sustainability (LNS), and the Washington State Labor Council; two environmental NGOs staff members: National Resources Defense Council (NRDC) and Friends of the Earth; four staff organizers of grassroots community/environmental justice organizations: Another Gulf is Possible, Appalachian Voices, Coalition for Clean Air Western New York, and Western Colorado Alliance; and two representatives of think tank/advocacy organizations: the Institute for Policy Studies and Union of Concerned Scientists.

Interviews with key informants were supplemented with extensive content analysis of written literature from all 57 organizations in my sampling frame. Sources included blog posts,
organizational newsletters, white paper/reports, union resolutions on climate change, public statements/press releases, published interviews with movement leaders, strategic plans, zines, and toolkits. I also analyzed secondary sources such as news articles on topics like the Green New Deal or local coal plant closures that contained statements from labor leaders and other activists. The search yielded 73 independent documents with over 800 pages of content. In addition to analysis of published documents, I read through the websites of organizations and took detailed notes on any content related to just transition. Lastly, I also attended relevant webinars, watched/listened to recorded speeches from movement leaders, video conferences among activists, interviews, and speeches at public rallies, amounting to ~10 hours of audiovisual data.

The data from my in-depth interviews and the data generated through content analysis each had its own strengths. For example, while data from content analysis provided the basis for analyzing the core claims and principles of the JT framework and provided conceptual breadth, interviews with advocates and activists added additional nuance and depth to these principles. Through my interviews, I was also able to probe about inter-movement tensions (something that is less discussed in public-facing content), as well as ask activists for their first-hand perspective on the variation in JT frameworks/approaches across different types of SMOs; this served to help validate the patterns that I observed through content analysis. My interviews also shed light on a final, important point: SMOs have outward facing political agendas that are not necessarily reflective of the personal ideologies of all the individuals who work for or have membership with that organization. Therefore, throughout my analysis I make most of my generalizations about differences in ideologies and perspectives across different types of SMOs (e.g. labor

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2 A repository Google Drive folder of all the documents examined is linked here.
organizations vs. grassroots EJ groups) based upon public-facing content and official organizational stances as described by my interviewees. However, I do my best to continually acknowledge that there are, of course, always exceptions to these patterns at both the organizational and individual level.

Analysis

All interviews were audio-recorded and transcribed with the consent of participants. Interview transcripts, written material, and my notes from web content and audiovisual data were coded and analyzed using the qualitative analysis software MAXQDA-10. I began with five general coding categories: JT framework (definitions/components of just transition framework); evolution/history of JT (activist accounts of the history of the concept); organizational work approach (e.g. policy development, grassroots organizing, advocacy); policy goals; and inter-movement tensions. From there, I employed an open-coding approach to develop subcategorical codes, following an inductive methodology (Glaser and Strauss 1967). During the second round of coding, I collapsed and refined categories to develop an axial organizational scheme (Lofland et al. 2005). After coding, I composed analytic memos to elaborate upon dominant themes to dimensionalize, make comparisons, and explore relationships between concepts and ideas (Strauss 1987).

One notable limitation of my data was a lack of interviews with union leaders as opposed to other types of labor organizations, especially leaders of unions who are most affected by environmental policy (building, manufacturing, and energy trades). I believe the timing of my field work (coinciding with the announcement of the Green New Deal resolution) inhibited the time capacity and willingness of union leaders to give interviews on this topic, given their
bombardment with interview/comment requests. However, this timing simultaneously served as a strength to bolster the amount of contemporary written content available for analysis (press releases on the GND, official statements/resolutions, etc.). Moreover, my interviews with key informants who are leaders of coalition organizations and labor councils did provide valuable insight on the landscape of just transition politics within the labor movement, given their connection and interaction with multiple unions. I was also able to interview the business manager of IBEW Local 103, one of the only unions, let alone a building trades union, to publicly lend support the Green New Deal; he served as a key informant for insight from this sector of organized labor. Lastly, it is important to note that there are many other organizations doing important work on the issue of just transition who do not have the capacity to publish written content about their work on the web. Therefore, they unfortunately were not able to be included in this analysis.

The following analysis begins with an overview of the history, evolution, and diffusion of the JT framework and mapping of the multiple actors that comprise the JT field. From there, I describe and analyze the core claims of the movement, paying particular attention to the ideological and linguistic influences of the multiple social movements that have adopted the JT framework. This is followed by a section describing inter-movement tensions as identified by activists, and I conclude with a discussion of the potential theoretical implications of this research for social movement literature.

“A Superfund for Workers”: The Roots of Just Transition

The term just transition is rooted in the work of the late Anthony (Tony) Mazzocchi—long-time leader of the Oil, Chemical, and Atomic Workers Union (OCAW). Mazzocchi was a
fierce fighter for stronger health and safety protections in the workplace and was instrumental in pushing the Occupational Health and Safety Act (OHSA) through Congress in 1970. One of the first labor leaders to ally himself with environmentalists, he also organized what came to be known as the first “environmental strike”—the Shell Oil strike of 1973—enlisting support from Sierra Club activists and marking the beginning of blue-green coalition building (Gordon 1998). But ultimately, Mazzocchi knew that there was no way to truly protect workers except for banning the manufacturing of toxic substances altogether. As an anti-war advocate, he also supported denuclearization, but knew that conversion from a heavy chemical manufacturing and war-time economy would cause many workers to lose their jobs (Leopold 2007). As a solution, Mazzocchi began developing a concept he called a “Superfund for Workers”—named after the recently established Superfund program for environmental cleanup. Based off the post-war GI Bill, the Superfund for Workers proposal called for a four-year income and benefits guarantee for displaced workers, as well as full tuition for those who wanted to further their education (Mazzocchi 1993). The proposal also had support from the Sierra Club. At the 12th Constitutional Convention Proceedings of the OCAW in 1973, Sierra Club executive director Mike McCloskey called on the government to “indemnify workers who are displaced in true cases of plant closure for environmental reasons. Workers should not be made to bear the brunt of any nation’s commitment to a decent environment for all. Society should assume this burden and aid them in every way possible” (Leopold 2007, 309). But beyond simply seeing this plan as a “safety net” for dislocated workers, Mazzocchi believed in challenging corporate power and existing economic priorities, envisioning a transformation to an economy with “redefined work” and less corporate factory work and service jobs (Sweeney and Treat 2018, Leopold 2007). Quoted as saying “Work is shit. We should do as little of it as possible,” Mazzocchi believed
individuals deserved to be paid to learn, be creative, and promote social change (Leopold 2007, 414):

Paying people to make the transition from one kind of economy to another economy, another job, is not welfare. It is not a hand-out. Was the GI Bill of Rights charity? No. The members of our armed forces deserved a helping hand to make a new start in life. And so do those of us who work with toxic materials on a daily basis, who face the every present threat of death from explosions and fires, in order to provide the world with the energy and materials it needs.

–Tony Mazzocchi, 1993

As the Superfund for Workers plan gained traction into the early 90s, the name was eventually changed to “Just Transition” due to concern from environmentalists that the word superfund had negative connotations (Leopold 2007). The “coming out party” for the JT framework occurred in 1995 when labor activists Les Leopold and Brian Kohler made a presentation before the International Joint Commission on Great Lakes Water Quality about phasing out the production of organochlorines (Young 2003). Leopold explained, "The basis for Just Transition is the simple principle of equity. We ask that any worker who loses his or her job during a sunsetting transition suffer no net loss of income. No toxic-related worker should be asked to pay a disproportionate tax—in the form of losing his or her job—to achieve the goals of sunsetting. Instead these costs should be fairly distributed across society"(Young 2003).

Around this time, labor leaders also began reaching out to leaders of environmental justice (EJ) organizations in frontline communities to build a collective vision of what a just transition should look like for both workers and communities affected by the sunsetting of heavy industry (Labor Network for Sustainability 2016). In 1997, the Just Transition Alliance was founded—a coalition of environmental justice organizations and labor organizations. This marked “an important milestone towards the development of a comprehensive, holistic and multistakeholder strategy” (Just Transition Research Collaborative 2018, 7) grounded in the
recognition that economic inequality, hazardous working conditions, and environmental injustice all stemmed from the same problem—unchecked corporate power and an economic system that prioritizes profits over people.

Much of the early JT organizing was spearheaded by EJ activist José Bravo, founder and executive director of the Just Transition Alliance. The alliance identified five sites across the country with labor/environmental disputes and organized to build relationships between local labor and community leaders to collectively develop the concept of just transition (Harvey 2018). The term also began to spread within the American labor movement. In 2001, the Service Employees International Union (SEIU) issued an energy policy resolution that called for a just transition. Additional formal alliances began to form, including the Blue/Green Working group, which included United Steel Workers (USW) District 11, SEIU, and the Union of Needletrades, Industrial, and Textile Employees (UNITE!), as well as the Sierra Club and the Union of Concerned Scientists. Together they partnered to sponsor a series of workshops for union members and environmental activists on climate science, the economic impact of environmental action, and just transition policies (Young 2003).

Unfortunately, JT organizing began to wane in the mid 2000s. Fears fueled by the “jobs vs. environment” myth perpetuated by industry and a hesitancy to veer from the status quo led many labor leaders to back away from the just transition framework (Harvey 2018). Several setbacks to alliance-building occurred, most notably controversy over the Kyoto Protocol and oil drilling in the Arctic National Wildlife Refuge, which rendered many unions and environmental organizations in opposite camps (Young 2003). Nevertheless, significant organizing progress continued to be made, with the Blue/Green Working Group evolving into a formal organization, the BlueGreen Alliance, in 2006 (JTRC 2018). The BlueGreen Alliance is a coalition of eight of
the largest unions and six environmental advocacy organizations that work to advance a clean energy economy with unionized, living-wage jobs and fair trade standards.

While the JT framework began to lose some traction and become increasingly controversial within the American labor movement, the concept remained alive and continually evolving throughout the 2000s within the environmental justice and climate justice movements. It also spread into the international labor movement as well as institutional policy spaces. For example, in 1997, the International Confederation of Free Trade Unions (now the International Trade Union Confederation—ITUC) included a just transition clause in its official position statement at the Kyoto Conference (JTRC 2018). But while the term was being used at UN meetings and in official trade union policy spaces, it did not become adopted into standard lexicon of international negotiations on climate change until the late 2000s (Stevis and Felli 2015; Sweeney and Treat 2018). It was also around this time that the discourse around JT evolved beyond a simple “safety net” for dislocated workers and began to be incorporated into the “green growth”/sustainable development agenda, with an emphasis on the economic opportunity associated with green jobs (Sweeney and Treat 2018).

Now in 2019, JT language is routinely used by UN organizations, governments, NGOs, philanthropic foundations, as even businesses in the private sector; although for the time being, the term remains mostly used by actors in the global North (JTRC 2018). Expanding beyond the labor and environmental/EJ movements, the framework has now filtered into usage within the feminist, indigenous, and climate justice movements. But while the term’s widespread adoption is promising in terms of institutionalizing an equity lens within global and national environmental policy conversations, it also necessitates clarification on how its use and meaning among different actors converge and diverge. The following section is dedicated to documenting
the wide variety of interpretations of the JT framework being used on-the-ground today, and how this varies across different types of SMOs.

![Image of a diagram](Image)

**Figure 1: The Just Transition “field” with examples of types of actors**

**The Just Transition Framework Today: Core Claims and Principles**

We recognize that a lot of people have extended the idea of just transition to include an overall transition to a very different kind of economy and society, and we are happy to have them do so. We, ourselves, normally still focus on the problems of worker transition. But it doesn't bother us that other people are using it in other ways. —*Jeremy Brecher, Labor Network for Sustainability*

My analysis of on-the-ground use of the JT framework revealed an expansive set of undergirding concepts and principles, as well as variation in scope of application to socioecological and political-economic problems. In total, I generated 41 different subcategorical codes that fell under my “definitions/components of JT” coding category. From there, I collapsed
and organized the codes into refined themes. Through this process, I found that the core claims of movement actors center on three types of justice: distributive, restorative, and procedural justice. These categories mirror and corroborate previous scholars’ theoretical elaborations of the JT framework (Heffron and McCauley 2018; McCauley and Heffron 2018).

**Distributive justice.** At a baseline, JT activists hold that the socioeconomic burden of transitioning to a sustainable economy should not be disproportionately borne by workers and frontline communities, but rather fairly distributed across society. They advocate for investment in frontline and fossil-fuel dependent communities, as well as the creation of a social safety net for workers who lose their job as a result of decarbonization (e.g. bridge to retirement, job retraining, federal jobs guarantee, health benefits, etc.).

**Restorative justice.** JT activists believe that both industry (fossil fuel companies and other big greenhouse gas producers) and governments have a moral and financial obligation to rectify past harms through supporting these social provisions for dislocated workers and affected communities; they also emphasize that EJ communities should be prioritized for green infrastructure projects so as to prevent the reproduction of historical inequalities.

**Procedural justice.** Lastly, activists emphasize that there are no one-size-fits-all solutions or programs, and that workers and EJ communities must be included in decision-making processes and the crafting of JT-related legislation from the local to international levels of governance.

However despite this convergence around the core principles of JT across various SMOs, there was: 1) a variation in scope of organizational work; 2) a spectrum of how transgressive activists’ JT discourse was, particularly related to holding polluters accountable; and 3) differences in organizations’ political approach—namely whether they emphasized a reactive
and oppositional JT framework versus a visionary and reconstructive framework. The vast majority of organizations doing work on JT are concentrated almost exclusively on the energy sector, with a focus on justice and equity for coal, oil, and gas workers and communities. However, others have extended JT beyond the traditional sectors of its application and begun to focus on transition processes in sectors like food/agriculture, transportation, waste, and manufacturing. Depending on the type of organization, some solely work on grassroots organizing, while others do policy development and advocacy. As expected, unions and other labor organizations tend to be narrowly focused on worker-related policy and programs, while other types of organizations (ENGOs, community-based SMOs, think tanks) tend to be more holistic in their orientation, working for policy that helps both workers and communities.

Another key difference I observed in JT frameworks was how transgressive organizations are in their framing of issues, particularly when it comes to the principle of restorative justice and holding polluters accountable. For example, explicitly calling out the fossil fuel industry’s responsibility to help finance a just transition is front-and-center to the messaging of most environmental justice, climate justice, and indigenous organizations. By contrast, ENGOs and unions are more likely to omit a discussion of accountability from their messaging or frame the responsibility of corporations in a less transgressive way (e.g. calling on coal companies to be “good neighbors” to the communities they have profited from). As expected, unions in the building and energy trades often do not explicitly attribute blame or responsibility to the fossil fuel industry; instead, their discourse centers on eliminating tax breaks for the “ultra rich” and “1%” as a mechanism for funding a green transition, as well as government funds. Service, education, and healthcare sector unions are more likely to call out corporate responsibility. There are also substantial differences in proposed mechanisms of holding polluters financially
accountable. While most ENGOs and unions propose solutions such as a carbon tax or cap and trade as a way to generate a JT fund, EJ and climate justice activists generally oppose these free-market mechanisms. Instead, they advocate for more direct penalty levies against fossil fuel companies, or “green reparations”, for their decades of harming workers and communities and manufacturing doubt around the science of climate change. As one interviewee put it:

…They [the fossil fuel industry] have known about it [climate change] for a long time and have systematically suppressed the facts for a long time. So of course they should be held responsible. Honestly, a carbon tax or a carbon fee is about the weakest form of holding them responsible. Honestly, they owe societal reparations to humanity as a whole, but particularly to those communities who have been the most affected—frontline communities, environmental justice communities—whether in the Global South or up here in the U.S.

—Basav Sen, Institute for Policy Studies

Again, while this type of transgressive framing is more common among EJ, climate justice, and indigenous organizations, there are certainly individuals within large NGOs and labor activists who also place emphasis on holding polluters accountable. However, this language is usually less strong in the public messaging of unions and mainstream NGOs.

A final significant distinction among the field of JT actors is that some organizations’ JT frameworks are solely reactive and oppositional in nature, while others are simultaneously oppositional and visionary/reconstructive. For those focused on reacting to and opposing unjust sunsetting processes (e.g. a coal plant closure), most of their organizing and policy work is focused on building an adequate safety net for workers and communities (bridge to retirement, retraining programs, health benefits, grants for economic development, etc.). While some of this work is future-focused in the sense that it is creating pathways for economic development and employment opportunities for communities in transition, this type of JT framework/process is narrowly reactive insofar as it does not seek to address and dismantle the existing political-
economic structures that have led to income inequality and environmental degradation, nor propose alternative societal visions.

For those organizations that have a more visionary and reconstructive JT framework, the focus is on meaningful democratization of our political system as well as claiming public ownership over production processes. For example, some reconstructive concepts that came up in my interviews and in my analysis of written content included: deep democracy, energy democracy, regenerative economies, community self-determination, food/energy sovereignty, decolonization, solidarity economy, buen vivir, demilitarization, healing, and system change. For the most part, these visionary JT frameworks are anti-capitalist. The role of imagination, as well as community-level experimentation with different models of production, is not only emphasized, but framed as a necessity of JT politics. As written in Movement Generation’s recently published Just Transition zine:

If all we do is fight against what we don’t want, we learn to love the fight and have nothing left for our vision but longing. But longing isn’t good enough. We must live into the vision by creating it and defending it. We must “Build the New” as a way to “Stop the Bad” — we must be both visionary and oppositional. This doesn’t mean we don’t resist, but we have to organize ourselves into applying our labor to meet our needs rooted in our cultures and visions.

This emphasis on a visionary and reconstructive JT politics is reflective of a fourth dimension of justice that subsumes, yet goes beyond distributive, procedural, and restorative: transformative justice. For example, while “energy democracy” could be considered a component of procedural justice, energy democracy, as elaborated by activists, actually implies more profound structural changes to the ownership and control models of energy production rather than simply community consultation in decision-making. Thus, while my initial round of analysis and coding revealed three dimensions of justice in the JT framework, additional
examination of the data led me to see that transformative justice constitutes a distinct, fourth dimension.

Developed as an alternative to neoliberal conceptions of human rights norms and most frequently applied to the issues of criminal justice reform and international development relations, transformative justice “emphasizes local agency and resources, the prioritization of process rather than preconceived outcomes, and the challenging of unequal and intersecting power relationships and structures of exclusion at both the local and the global level” (Gready and Robins 2014, 340). The approach uses a systemic lens to identify and transform the root structural causes of injustice, emphasizes healing, and is reconstructive in approach. As one staff member of a grassroots EJ organization described the reconstructive potential of the JT framework to me: “I think it goes back to us not being able to dream outside of the box that corporate and colonial constructs have created. Just transition really provides opportunity to be like, ‘Actually, that box is not really working’” (Interview 8). Movement Generation: Justice and Ecology Project provides an excellent example of a transformative JT framework that is visionary, disruptive, and systemically-oriented (viewable here). Ultimately, a transformative and reconstructive approach to JT involves the reimagining of our political-economic systems, as well as rethinking how we labor in relation to the earth so as to remain in harmony with ecological systems.

**Evolution and Expansion of the JT Framework**

As one can see, the way in which activists are using the term JT on-the-ground today largely remains true to the core of Tony Mazzocchi’s original “Superfund for Workers” plan.

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3 Full link to Movement Generation’s JT framework: [https://movementgeneration.org/movement-generation-just-transition-framework-resources/](https://movementgeneration.org/movement-generation-just-transition-framework-resources/)
However, its diffusion outside the labor movement has led to an expansion of the language and ideas associated with the framework. Given the OCAW’s early organizing efforts with frontline communities (those that face higher levels of environmental exposure, risk, and harm), it is not surprising that there has especially been ideological and language fusion with the EJ/climate justice movements and JT organizing. For example, the EJ and climate justice movements have accentuated a “historical responsibility approach” in popular usage of the JT framework, or in other words, the idea that there are specific entities that are primarily responsible for the climate crisis and should now bear the costs of these past damages. Indeed, one of the 17 original principles of environmental justice as defined by delegates to the First National People of Color Environmental Leadership Summit is “full compensation and reparations for damages.” The climate justice movement has stressed the importance of restorative justice even more, generating the concept of “climate debt” or “ecological debt” (Schlosberg and Collins 2014)—both of which can be seen in activists’ current articulations of the JT framework. An emphasis on cultural recognition, place-making, and more transparent and participatory governance processes (procedural justice) is evidence of yet another influence of the EJ movement. Some activists also credit the shift from a reactive JT framework to a more reconstructive/transformative framework to the influence of the climate justice movement. As Miya Yoshitani of the Asian Pacific Environmental Network explained the evolution of JT with the rise of the climate justice movement:

So just transition became a more holistic approach encompassing both the need to end the extractive economy and a vision for healthy, thriving, and connected local economies in its place – a view that included, like the original just transition definition did, the needs of workers and impacted communities in the transition. It moved them from a reactive approach to one that’s more proactive and visionary (LNS 2016, 14).
While this transformative orientation—reimagining the nature of work and bases of our economic system—is true to Mazzocchi’s original conception of JT, this emphasis on “system change” has certainly been amplified by the JT framework’s diffusion into the EJ and climate justice movements. And while EJ, climate justice, and indigenous organizations tend to be more visionary and reconstructive in their just transition politics compared to labor organizations, it would be inaccurate to claim this as a definitive rule. There is tremendous variability in the political orientation and strategy of different unions, differences between the international union and its locals, and even further ideological differences between leaders and rank-and-file members within locals.

One can also observe the ideological and linguistic convergence between the indigenous and feminist movements and JT organizing. In particular, JT activists’ calls for transitioning to governance systems that allow for food and energy sovereignty has been heavily influenced by indigenous activists’ emphasis on community self-determination. Indigenous concepts like buen vivir (“living well”), a model of development that stresses the importance of community, ecology, culture, and spiritual connection to the land, as well as the paradigm of granting rights to nature/Mother Earth have also entered into JT frameworks. In addition, feminist SMOs have pushed for the recognition the intersectional nature of vulnerability to climate change and the consequent need for gender equity to be placed at the center of JT policy frameworks. More recently, feminists have contributed greatly to discussions on redefining work and reorganizing our economic system to be less dependent on consumption-oriented industries, noting that social reproduction, care work, and other “pink collar” jobs are inherently green jobs (Battistoni 2015). These activists advocate for the creation of more eco-system remediation jobs (e.g. the Civilian
Conservation Corps created in the original New Deal), job creation and higher compensation for professions like teaching and social work, and payment for domestic labor.

In addition to the reinterpretation and expansion of the JT framework by EJ, climate justice, indigenous, and feminist SMOs, labor organizations have also facilitated inter-movement learning, particularly in educating mainstream ENGOs on the history of the labor movement, workplace issues, and issues and economic inequality more generally. As a staff member of the National Resources Defense Council (NRDC) explained:

…more interactions with environmental justice groups and labor groups, learning more about it, sharing perspectives and stories, has been extremely beneficial. Also just seeing that in my work, [and] in a lot of people's work, the conversation is changing about equity and awareness of how this is all connected. It's health equity, community equity, financial equity, environment equity. All these components and climate justice are interwoven in a way that I don't think people truly understood. Some had taken it for granted and are just now seeing the bigger picture.
Historically, many ENGOs’ attempts to incorporate a JT lens into their campaigns have been narrowly limited to the shallow discourse of “green jobs” and advocacy for working retraining in a way that was alienating and politically tone-deaf to many activists in organized labor. Now with increased coalition-building between the labor and environmental movements around the issue of JT, some of these ENGOs have evolved to recognize the political complexity of building a just low-carbon economy—namely that green jobs are not necessarily good jobs that pay a living-wage, and that existing retraining programs have historically failed to channel dislocated union workers into employment with equivalent family-sustaining wages and benefits. This historical tension over environmentalists’ use of the term just transition will be further elaborated upon in the following section.

**Inter-movement Tensions**

*Contentious Language and Sectoral Divisions*

While the diffusion of the JT framework across multiple different social movements has ultimately widened its scope and strengthened its principles in ways that most would agree are positive, its widespread adoption by environmental organizations (and in some cases disingenuous co-optation) has led it to have inconsistent reception across the labor movement. This hesitancy and skepticism is compounded by the entrenched “job vs. environment” myth that has been perpetuated by industry executives for decades.\(^4\) However, this skepticism is also grounded in the reality that there are very few examples of just transition in action, and strong policy supports for transitioning dislocated fossil fuel workers into renewable energy jobs or other sectors with family-sustaining wages simply do not exist yet. Thus, while JT has deep roots

\(^4\) For more history on “job blackmail,” see Kazis and Grossman (1982).
in the labor movement, today this term lacks resonance with many labor leaders and rank-and-file members alike in industries that will be most affected by decarbonization.

Despite the term *just transition* being almost half a century old, many in the labor movement are only just beginning to become familiar with it, or they are not familiar with it at all. While there are many exceptions, currently JT is most fully embraced and regularly used as an organizing framework for labor activists in “unaffected” sectors (service, education, healthcare, etc.) as opposed to “affected” unions in industries like heavy manufacturing and fossil fuels. These sectoral divisions mirror labor’s involvement in climate justice organizing more generally, with unaffected unions participating in greater numbers and taking a stronger leadership role (Contorno 2018). In his recent analysis of union support for climate change policy, Stevis (2019) further corroborates these sectoral patterns, noting that unions like the Utility Workers Union of America (UWUA), the Teamsters, and the International Brotherhood of Electrical Workers (IBEW) accept the reality of climate change and the need for policy, but simultaneously support measures that work against decarbonization, like expansion of natural gas infrastructure. By contrast, unions that take the strongest climate policy stances and argue for swift mitigation of fossil fuel emissions include National Nurses United, the American Federation of Teachers, and the American Federation of County and Municipal Employees (AFSCME).

When I asked if JT is a term that is known among rank-and-file members or used regularly in organizing, Lou Antonellis of IBEW Local 103 (an affected union) emphatically shook his head no. He explained:

> That's kind of new language. We don't really know what it means. There's no definition. You can't look up 'just transition’ in the dictionary and find out if our jobs are gonna be eliminated next year, or is it gonna be a ten-year transition, twenty year? We don't know really what that means, and definitely would like a little more clarification on just transition. I think that's why there's been some
pushback from labor on the Green New Deal. What is just transition? These are our livelihoods. These are our jobs you're talking about. Tell me more about just transition before our people are on the breadlines. You know what I mean? My members are gonna ask me what that means, and I don't know what it means myself. It's kind of a political term. I think it's more of a political term than it is an actual term, because we don't know how to define it and what it means to our members and our folks that have to feed their families, and pay mortgage, and try to put kids through school, and pay car payments, and pay their bills, and buy groceries.

Indeed, in interviewing dislocated coal plant workers in Massachusetts for a related research project, none of the rank-and-file workers I spoke with were familiar with the term just transition, despite the fact that it was being trumpeted by regional environmental organizations involved in the campaign to shut the plants down (Contorno 2019). Another activist from a grassroots community organization told me that her organization actually avoids using the term just transition due to its negative connotation within organized labor:

In our experience people see that [just transition] as an outsider term imposed on them. Some of the higher ups in the union infrastructure might understand that terminology and be more open to it, but in our experience of talking to rank-and-file members on the ground, they see that as language from New York. It's because a bunch of big environmental groups, in my opinion, they've kind of co-opted the term. I see a lot of big greens starting to use that word without necessarily really working on it, or at least not working on it in communities in a grassroots fashion. They might be supporting something at a federal legislative level, but they're not on the ground trying to build common ground with workers...That word is now very much associated with outside interests who are shutting down coal plants, so we try to distance ourselves from it a little bit because it's seen as an outside thing, and it's not necessarily seen as genuine. We don't like to use that word on the ground, and as an organization as a whole we are using the word 'building homegrown prosperity.' One, because it's language that we've used for a long time as an organization, but also it's a little more broad.—Emily Hornback, Western Colorado Alliance

This quote demonstrates that in addition to sectoral tensions, there may also be tensions around the term just transition due to socio-spatial divisions (urban vs. rural) as well as class divisions (white-collar vs. blue-collar workers).

At the national level, there has been similar resistance to, and sometimes outright rejection of, the just transition terminology. Richard Trumka, President of the AFL-CIO, famously
described just transition as “an invitation to a fancy funeral” while Cecil Roberts of the United Mine Workers of America declared he has “never seen one” (McGowan 2017). Again, this controversy and skepticism is warranted, as there have been very few examples of a just transition for workers or communities thus far during the initial decline of the coal industry. Moreover, history has shown us that existing federal and state workforce retraining programs have never been sufficient for rebuilding workers lives and transitioning them into careers that maintain the same wages and benefits they were previously receiving; instead, it has all too often served as a channel into low-wage service sector jobs. Just transition skeptics within the labor community also often point to the fact that existing jobs in the renewable energy sector have relatively low union density compared to fossil fuel jobs (UWUA 2015). For example, workers could be paid as low as $10/hr for a job installing rooftop solar (Jones and Zabin 2015).

The ignorance or avoidance of grappling with these facts on the part of many ENGOs during the early stages of the renewable energy job boom has certainly played a part in giving the just transition framework a bad reputation. But despite the history of controversy, there has been some movement away from skepticism and dismissiveness towards acceptance and usage of the JT framework within major labor organizations. Most notably, the 2017 AFL-CIO resolution on climate change references the Paris Agreement’s just transition clause, and in Trumka’s recent keynote speech at the 2018 “Labor in the Climate Transition Conference” at UC-Berkeley, he drew heavily on the principles of just transition and called on organized labor to lead the way in the transition to a low-carbon economy.

Reform vs. Revolution

Apart from transcending the tension around the language of JT, there are major points of contention concerning the pathway for decarbonization from a policy and governance
perspective. While the radical flank of just transition activists (mostly EJ, climate justice, and indigenous organizations) are usually explicit about timelines (e.g. calling for 100% renewable energy by 2050) and demand a “keep it in the ground” approach that rejects certain technological solutions or “bridge fuels” (e.g. natural gas, “clean coal”, carbon capture and storage, and nuclear power), many unions remain silent on timelines and are unwilling to engage in discussions that will not consider these technologies as part of the transition. Some mainstream ENGOs also promote these technologies. As previously noted, more left-leaning activists also reject free-market mechanisms of curbing carbon emissions, such as cap-and-trade, while mainstream NGOs and some labor organizations, including the AFL-CIO, have historically supported cap-and-trade bills.

The radical flank is also very concerned with the production, distribution, and ownership models of the future energy economy, focusing on solutions that prioritize decentralization and public ownership. By contrast, mainstream environmental NGOs and unions are less likely to articulate firm stances on ownership and control. While this transformative orientation is more common among EJ, climate justice, and indigenous organizations, there are an increasing number of labor organizations that stress the importance of reclaiming energy production for public control. Trade Unions for Energy Democracy, an international alliance of 69 trade unions (including 17 in the US), is an excellent example of a labor organization fighting for a transition to a low-carbon, democratically controlled energy system that combats the climate crisis and energy poverty while strengthening workers’ rights and protections. One U.S.-based member, the United Electrical, Radio, and Machine Workers of America (UE), supports a ban on further offshore oil and gas drilling, has called for a moratorium on nuclear power, and promotes public ownership of the energy industry as a solution to the climate crisis.
In sum, these inter-movement tensions center on the classic “reform vs. revolution” debate—whether incremental approaches are politically and fiscally most prudent, or whether incremental change will ultimately preclude the transformative structural changes necessary to avoid climate catastrophe and build a more socially just society. This debate has been particularly amplified with the introduction of the Green New Deal (GND) resolution, as major unions were quick to express their skepticism. The GND calls for a federal jobs guarantee, universal healthcare, “wage and benefit parity” for workers affected by the energy transition, as well as “strengthening and protecting” the rights of workers to organize and collectively bargain—goals that any labor union would ostensibly endorse. And yet labor has been slow to support the GND, with some unions outright rejecting it. Terry O’Sullivan, President of the Laborers’ International Union of North America (LIUNA), said it was “exactly how *not* to enact a progressive agenda to address our nation’s dangerous income inequality. And exactly how not to win support for critical measures to curb climate change,” ultimately deeming it an “unrealistic manifesto” but acknowledging its laudable provisions “which LIUNA and other progressive organizations have long fought for” (LIUNA 2019). Similarly, the AFL-CIO Energy Committee wrote a formal letter criticizing the GND as “not achievable or realistic,” and stated they would not accept a proposal that “could cause immediate harm to millions of our members and their families” (Blest 2019).

Overall, the most common criticism from labor is that the resolution is too “pie in the sky” and is not specific enough about solutions for aiding dislocated workers and defining what just transition actually means. April Sims of the Washington State Labor Council had the following reflections to share from her own blue-green organizing experience, explaining why
there is so much skepticism and distrust around the GND and other similar climate jobs proposals in her own state:

I often say that in the labor movement, our memories are long. And so there are folks that still remember the timber industry's devastation behind the spotted owl [lumbering restrictions based on endangered species designation] that hit rural areas in Washington really hard...We still have a lot of trust building we need to do in Washington state, in our labor community, around how we are talking about the environment and jobs—as not two separate things, but things that are linked together. So I think some of the tension came from a lack of real trust in the process...I'm an organizer, so the organizer in me thinks that if we had brought key stakeholders to the table early on, and really engaged them in creating the policy, and got their buy in, we wouldn't see the same level of resistance that we're having now. But we live in an environment of scarcity and uncertainty—economic scarcity and economic uncertainty. And to ask folks to go out on faith on a policy that they didn't help craft is a big ask.

This statement not only alludes to the necessity of procedural justice in order to gain support from labor, but also speaks to the aforementioned tensions that exist across class and socio-spatial divisions. But apart from the skepticism that stems from the broader history of mishandled industrial transitions and the lack of inclusive policy planning processes, other activists I spoke with noted the ideological obstacles that inhibit people from embracing radically transformative legislation like the GND:

...Our neoliberal economic ideology limits people’s sense of possibility. People have been indoctrinated into thinking that public solutions are not possible. They've been indoctrinated into thinking that there's nothing you can do to take power away from corporations. And no matter how bad corporations are, government is worse. —Basav Sen, Institute for Policy Studies

While these reform versus revolution debates will not be transcended easily, activists continually emphasize the antidote as inclusive, collective visioning of alternative solutions. As Movement Generation, an umbrella organization that supports organizing projects like the Climate Justice Alliance, writes: “People will not go someplace we have not first traveled to in our minds” (Movement Generation, 2013). In the following discussion, I elaborate upon what these observations allude to in sociological terms, as well as the implications for praxis.
Discussion: Master Frames, Theories of Justice, and Social Movement Fusion

The intent of this in-depth field analysis was to generate an academic understanding of JT that is grounded in how it is conceptualized and articulated by activists on the ground, describe the framework’s evolution and expansion, and identify inter-movement tensions around the framework. A comprehensive understanding of this framework’s history, diffusion, and complex meaning is not only important for social scientists in academia, but also for activists seeking to inform their praxis. Through my analysis, I identified three main points of theoretical consideration for both scholars and activists: 1) just transition as a new “master frame,” 2) the significance of JT activists’ emphasis on transformative justice, and 3) conceptualizing JT organizing as a new, distinct social movement in itself.

Just Transition: A New Master Frame

Collective action frames are “action-oriented sets of beliefs and meanings that inspire and legitimate the activities and campaigns of a social movement organization (SMO)” (Benford and Snow 2000, 614). Activists employ frames to identify an existing social condition as unjust, elaborate on its root causes, and reason why it is deserving of corrective action. Thus, frames “function as modes of attribution by making diagnostic and prognostic attributions—assigning blame and designating solutions for the problem they are trying to ameliorate (Snow and Benford 1992, 137). “Master frames” serve the same function that collective action frames serve within a single movement, but do so across multiple different social movements and organizations by encompassing a wider, flexible collection of ideas (Snow and Benford 1992). They often arise during a heightened period of political unrest and collective action (Snow and Benford 1992), serve to connect otherwise disparate organizations and lend coherence to the politics of cross-
movement mobilization at a historical juncture (Carroll and Ratner 1996), and attain their powerfullness through their cultural resonance with the current historical milieu (Swart 1995). Only a handful of frames through history have been conceptually broad and widely adopted enough to be identified as master frames, including “environmental justice” (Benford and Snow 2000; Čapek 1993; Taylor 2000).

The just transition language embodies all of these essential qualities of a master frame, serving as flexible and easily recognized lexicon for movement organizations to utilize and apply to the multiple political struggles associated with the climate crisis and rising inequality. As Aaron Bartley of PUSH Buffalo (a housing, economic justice, and EJ-focused organization) says of JT, it is “both a bridge and an umbrella in terms of thought systems” and “helps people understand systems” and intersecting social problems (LNS, 2016, 22). Carroll and Ratner (1996) argue that the development of master frames play a powerful role in the development of counterhegemonic politics in a Gramscian sense—enabling the advancement of critiques of power and the advancement of alternative visions of society. Just transition frameworks that emphasize transformative justice especially have the potential to cultivate a particularly powerful counterhegemonic political consciousness.

Transformative Justice and Counterhegemony

Other scholars that have attempted to break down the concept of just transition in relation to existing theories of justice have focused on the dimensions of distributive, procedural, and restorative justice (Heffron and McCauley 2018; McCauley and Heffron 2018). My analysis corroborates these previously identified categories, but also clearly identifies a fourth, distinct dimension of justice undergirding JT activists’ demands: transformative justice. This is
politically significant and further demonstrates the ideological influence of the EJ and climate justice movements on JT organizing. Indeed, the EJ movement in its most recent critical form, as well as the climate justice movement, emphasize ecological democracy and the necessity of transformative (as opposed to reformist) politics that effectively challenge petro-capitalism (Pellow 2016; Faber and McCarthy 2003; Klein 2015). In this sense, the JT framework offers a powerful alternative lexicon to other widespread frameworks such as “sustainability” which—while emphasizing the three pillars of economic, environmental, and social sustainability—has failed to adequately prioritize justice and equity in political application (Agyeman, Bullard, and Evans 2003).

A transformative JT framework that emphasizes the necessity of imagination in engaging supporters, as well as the importance of pre-figurative politics—or experimental modes of organization that model and demonstrate the feasibility of the future society being sought after by the movement—is particularly essential to overcoming the ideological obstacles to a just transition that were mentioned by interviewees. Indeed, for Antonio Gramsci, a counterhegemonic project “contrasts dramatically with the status quo, constructing a new ‘historical bloc’ that prefigures a radically different order, waging a ‘war of position’ with institutionalized power, to win a new space for alternatives…” (Carroll and Ratner 1996, 602). However, at this point in time, transformative justice is accentuated unequally across different movement organizations in the broader JT field; it remains to be seen whether this counterhegemonic conception of JT continues to spread. Moving forward, just transition activists from the radical flank must work on genuinely engaging labor in their visionary work so that the Green New Deal and other JT policy solutions do not feel like empty promises. At the same time, progressive labor activists must push fellow workers to overcome the fear associated with
status-quo disrupting legislation that treats the climate crisis for what it actually is—an emergency demanding swift and transformative action.

Social Movement Fusion, Or A New “Movement of Movements”?  

The large number of different types of organizations and movements that have adopted the JT framework demonstrates how master frames have the ability to bridge multiple political struggles and facilitate the diffusion of language, ideas, and tactics. Thus, at the very least, JT organizing constitutes a case of successful cross-movement coalition building, “social movement spillover” (Meyer and Whittier 1994), “movement clustering” (Swart 1995), or “movement fusion” (Cole and Foster 2000). However, I argue that JT organizing may be beginning to constitute a distinct social movement in itself with many parallels to the global justice movement. Similar to the heterogenous composition of the JT movement, della Porta et. al (2006) describe the global justice movement as a “movement of movements” resisting neoliberal economic globalization and rising inequality between and within the global North and South. Composed of various SMOs, NGOs, trade unions, and other organizations that come from varying political ideologies/traditions, the meaning work of constructing shared frames was especially important to building this movement. Using a frame analysis, della Porta et al. (2006) ultimately concluded that the global justice movement is a distinct movement bound together by shared ideas and values as opposed to a case of collaborative movement constituents mobilizing with separate sectorial frames. They observe that, “…these ideas are plural and intertwined, diverse but not mutually exclusive. This means that participants as well as organizations maintain their own identity, but they contaminate it with other meanings, symbols, and frames” (86).
In addition to sharing the characteristic of being a “movement of movements”, JT organizing is also similar to the global justice movement in its emphasis on prefigurative politics, imagination, and counterhegemony. Indeed, the central motto of global justice movement—“Another world is possible”—demonstrates that activists were looking for radically different political-economic arrangements as opposed to business-as-usual reforms. Similar to JT activists, this movement also emphasized that there was “no single recipe” to creating an alternative society, and it could only be built through emancipatory, democratic forces and a multiplicity of actors (Vargas 2003). Mobilization for a just transition to a politically reimagined, low-carbon society may similarly constitute a unique social movement—one with demands that are related, yet larger and distinct from the core political goals of the labor, environmental, indigenous, feminist, and other movements that comprise its base. Bill McKibben recently made a similar observation and argued that a “meta-movement” that brings together the most powerful social movements may be necessary to provide the organizing power we need to address the greatest ecological crisis humankind has ever faced (McKibben 2019).

My analysis illustrates that while there are still cleavages and reservations within segments of the labor movement to adopt the JT framework, there has been a continually deepening convergence of shared language and ideas among organizations in the JT field. While interpretations of JT may vary, the guiding core principles are shared. But whether JT organizing is considered a distinct social movement or a case of successful coalition-building, the implications of this research are the same: the framework of just transition will surely play a formative role in the contentious politics surrounding the dual crises of climate change and capitalism that will define the next few decades.
Appendix

List of Interviewees

*Think Tank/Advocacy Organizations*
Institute for Policy Studies
Union of Concerned Scientists

*Grassroots Community/EJ Groups*
Western Colorado Alliance
Coalition for Clean Air Western New York
Another Gulf is Possible
Appalachian Voices

*Labor Organizations*
Iron and Earth
Washington State Labor Council
IWW Environmental Unionism Caucus
Labor Network for Sustainability
International Brotherhood of Electrical Workers (IBEW) Local 103, Boston

*Environmental NGOs*
National Resources Defense Council (NRDC)
Friends of the Earth

Organizations represented in content analysis

*Community-based/grassroots SMOs*
Another Gulf is Possible (New Orleans, LA)
Appalachian Voices (NC, KY, TN, VA, WV)
Asian Pacific Environmental Network (Oakland, CA)
Black Mesa Water Coalition (Flagstaff, AZ)
Cooperation Jackson (Jackson, MS)
East Michigan Environmental Action Council (Detroit, MI)
Eco-Justice Collaborative (Champaign, IL)
Kentuckians for the Commonwealth (KY)
Little Village Environmental Justice Organization (Chicago, IL)
Movement Generation (Oakland, CA)
Native Movement (Fairbanks, AK)
PUSH Buffalo (Buffalo, NY)
Soulardarity (Highland Park, MI)
Southwest Workers Union (San Antonia, TX)
Sunrise Movement (national)
The Center on Race, Poverty, and the Environment (Oakland, CA)
UPROSE (Brooklyn, NY)
WE ACT (Harlem, NY)
Western Colorado Alliance (Grand Junction, CO)
350.org (national)

**Alliances/Coalitions**
ALIGN: The Alliance for Greater New York
The Blue-Green Alliance
Climate Justice Alliance
Indigenous Environmental Network
Green Justice Coalition (Greater Boston Area)
Just Transition Alliance
Labor Network for Sustainability
Rising Tide North America
Trade Unions for Energy Democracy

**Environmental NGOs**
Environmental Defense Fund
Food and Water Watch
Friends of the Earth
Greenpeace
National Resources Defense Council
Sierra Club
WildEarth Guardians

**Labor Unions/Organizations**
AFL-CIO
Amalgamated Transit Union (ATU)
Climate Workers
International Brotherhood of Electrical Workers (IBEW)
Iron and Earth
IWW Environmental Unionism Caucus
Laborers’ International Union of North America (LIUNA)
National Nurses United
Oregon AFL-CIO
Railroad Workers United
Service Employees International Union (SEIU)
The American Federation of State, County and Municipal Employees (AFSCME)
United Electrical, Radio and Machine Workers of America (UE)
United Steelworkers (USW)
Utility Workers Union of American (UWUA)
Washington State Labor Council

**Think Tank/Advocacy Organizations**
The Democracy Collaborative/ The Next System Project
Institute for Policy Studies
Union of Concerned Scientists

**Other**
NAACP Environmental and Climate Justice Program
Women’s Environment & Development Organization (WEDO)
References


CONCLUSION

This dissertation begins to fill the sociological gap in the energy transitions literature by providing qualitative insight on the local politics of coal plant closures and a field analysis of the emergent movement for a just transition. In the first paper, my in-depth case study of Somerset, Massachusetts identified both material (regulatory and political-economic) and non-material (cultural and ideological) barriers to just and equitable decarbonization processes/outcomes. Through a comparative case study of Somerset and Holyoke, MA, the second paper demonstrated the effect of local context upon community response to coal plant closures and redevelopment politics. My exploration of contextual factors including community economic identity and industrial history, local geography, and local political/industry opportunity structures further elucidated potential barriers to a just transition beyond what was identified in the first paper, while conversely illuminated potential factors that facilitate just processes and outcomes. Finally, the third paper traced the origins and diffusion of the just transition framework among social movement organizations (SMOs), discussed the framework’s conceptual evolution and variation among different segments of the movement, and identified intermovement tensions.

Collectively, these articles contribute to the sociological subfields of political economy, environmental justice, culture, and social movements, and have interdisciplinary empirical and theoretical relevance for scholars of sociology, political science, critical geography, labor studies, public policy, and more. But beyond this project’s contribution to academic literature, my findings also carry important implications for policymakers and activists. In the course of conducting this research, I accumulated a wealth of data on existing policies and resources that are available to assist transitioning workers and communities in order to contextualize my findings. I also reviewed multiple proposed just transition policy tools, including Representative
Ocasio-Cortez and Senator Markey’s Green New Deal resolution. Moreover, I collected some policy-relevant data for my second and third papers through my interviews with community members in Holyoke and with just transition activists around the country; however, that data did not make it into the analysis and discussion of those papers due to space constraints. That data is incorporated into this concluding discussion.

Beginning with an overview of the existing resources/programs for transitioning communities, this concluding chapter synthesizes recurring themes and policy insights revealed in the fieldwork for all three papers. Reflecting on the policy challenges and opportunities uncovered in this research, I also discuss the strengths and limitations of the Green New Deal in relation to my findings. Finally, I end with my reflections and insights for activists and advocates who are organizing for resources, policy change, political-economic power, and cultural change in their communities and nationwide. My hope is that the lessons gleaned from my case studies of Somerset and Holyoke, as well as my interviews with activists doing just transition work all around the country, will foster critical reflection and more effective movement building.

Existing Policy Climate for Transition Assistance

Though limited and piecemeal, there are some existing programs to fund and assist communities and workers transitioning away from the extractive economy. Generally these policy supports offer assistance in the areas of: 1) environmental remediation of impacted land; 2) economic planning and development; and 3) workforce development/retraining. For example, the EPA Brownfields Program provides grant funding to local governments for assessment, technical assistance, remediation, environmental job training, establishment of a revolving loan fund, and research to help subsidize and incentivize clean up and redevelopment of contaminated
industrial properties (EPA 2018). Support for job training and placement programs are done in partnership with governmental bodies such as the Department of Labor and the National Institute of Environmental Health Sciences, as well as community-based networks like Groundwork USA. However, the award process for brownfields grants is highly competitive, and funds are limited and insufficient for the extensive remediation costs of coal plant decommissioning; the individual limit of cleanup grants is just $500,000 (EPA 2019). Moreover, the total budget for the brownfields program has been cut significantly under Trump’s administration—dropping from nearly $189 million in 2016 to $110 million in 2019; the allocation for brownfield work in tribal communities, specifically, fell from $110 million to $62 million from 2016-2019 (EPA 2016; EPA 2019b).

Specific to coal mining communities, the federal Surface Mining Control and Reclamation Act (SMCRA) of 1977 mandates that energy companies remediate the land on which mining has occurred and requires that companies post a bond sufficient to cover the costs of reclamation before a mining permit is awarded. However, in what turned out to be an egregious policy mistake, several states allowed companies to self-bond. In those states, reclamation liabilities have instead been borne by the state and its taxpayers in instances when companies have gone bankrupt (Baker 2018). As of 2016, the self-bonded reclamation liabilities across four of the biggest US coal companies was $2.8 billion (Baker 2018). Not only has this bonding deficit impacted available funds for land reclamation, but it has created an insolvency crisis for the federally guaranteed pension fund for the United Mine Workers of America (UMWA), threatening the loss of health benefits for 21,000 workers (Jagoda 2016).

President Obama’s POWER Initiative (Partnerships for Opportunity and Workforce and Economic Revitalization) has perhaps been the most targeted legislative initiative to assist coal
communities in transition. Distributing grant funds through the Appalachian Regional Commission (ARC) and the Economic Development Agency (EDA), goals of the plan include workforce development assistance, economic development planning and implementation, addressing insolvency issues with the United Mine Workers of American (UMWA) pension fund, increased availability of brownfield grants, and to capitalize on Mine Reclamation Act funds to create jobs and economic development opportunities through remediation projects (Manley and Simeone 2016). In its first year, close to $40 million was awarded across 29 community and workforce development projects (White House 2016). Approximately $45 million is expected to be awarded through the 2019 POWER granting process (ARC 2019). The Assistance to Coal Communities Act of 2017 (ACC) also provides funding to communities who have been severely impacted by the declining use of coal, and can be used to support economic diversification, job creation, capital investment, workforce development and re-employment opportunities. The budget for this program, run under the Economic Development Administration (EDA), was $30 million in both 2017 and 2018.

Additional transition assistance is available on a state-by-state basis. For example, New York recently created the Electric Generation Facility Cessation Mitigation Program to provide general operating funds to communities who lose 20% or more of their tax base due to closure of an electric generation plant; in 2017, the total budget of this fund was $30 million (New York State 2017). In Massachusetts, the Department of Energy Resources (DOER) provides grants to municipalities with active or decommissioned coal-powered generation facilities to develop and implement clean energy projects. In Illinois, the Future Energy Jobs Act of 2016 allocated $750 million toward training workers for renewable energy jobs and helping low-income customers pay their utility bills; a newly proposed bill, the Clean Energy Jobs Act, would improve upon the
2016 policy by intentionally directing more investment to environmental justice communities, and by providing transition support for coal communities through economic development and property tax replacement, tax incentives for clean energy development, job retraining, and climate change planning assistance (Citizens Utility Board n.d., Kibbey 2019). In California, a coalition of local labor and environmental organizations were able to successfully reach a historic agreement with Pacific Gas and Electric in 2018 around the closure of Diablo Canyon Nuclear Facility that guaranteed financial support for the host community to maintain essential public services; an employee retention, severance, and retraining program; and a plan to replace the output with renewable energy resources. This agreement was eventually legislated into law (SB 1090) with bipartisan support in the California State Assembly (Miller 2018).

Lastly, there are a number of private foundations that fund just transition work at the community level. For example, Bloomberg Philanthropies recently pledged $3 million to be awarded to organizations working to create new economies in post-coal communities through the Just Transition Fund (JTF); the Rockefeller Family Fund also seeded JTF’s philanthropic work with an additional $450,000 (Warren 2018).

Nevertheless, the need of coal communities still far exceeds the financial and social provisions afforded by these existing programs like the POWER initiative. More substantive policy interventions that are widely backed by grassroots community organizations, including the 2017 RECLAIM Act (H.R. 1731) and the 2015 Clean Energy Workers Just Transition Act (S. 2398) have failed to pass, largely due to the lobbying efforts of the National Mining Association and other corporate interests (Greenberg 2018). Moreover, while the Obama administration was attempting to expand the POWER program with the POWER+ Plan in FY 2017 budget, the expansion failed to be enacted once Donald Trump took office. It remains uncertain how long the
POWER grants will continue under the Trump Administration (Cha et al. 2019). Absent federal legislative initiatives, progressive policy advances around energy transitions have largely been limited to state and local governments with relatively robust economies (New York and California), leading to uneven supports for sustainable transitions across America’s energy geography and further exacerbating the inequities created by the incumbent fossil fuel regime.

**Policy Deficiencies and Opportunities**

Apart from the obvious issue of these existing programs being grossly underfunded, their piecemeal and reactive approach also prevent them from effectively cushioning workers and communities from bearing the economic brunt of shifting energy economies. By almost exclusively providing categorical grants for specific types of projects and economic development planning, they also fail to address the more immediate material needs of workers and communities facing economic hardship—material needs that are also steeped in broader structural issues of inequality and the lack of a social safety net in the U.S. In effect, there is disjointed aid being provided for fossil fuel phase-out, green energy deployment, job creation, and community economic development instead of comprehensive policy plans that foster all of these goals simultaneously and in an intentionally coordinated fashion. The following challenges and needs were emphasized in my conversations with dislocated coal workers, activists, and local government officials:

*Comprehensive Support for Impacted Communities*

While support for long-term economic development planning is needed for fossil fuel-dependent communities, dislocated workers and communities also need a social safety net and
creative solutions for job creation in the short-term. As discussed in my case study of Somerset, coal workers are an aging population. While workforce development programs and supports for economic diversification are needed to rebuild local economies for future generations, more often than not dislocated workers simply need adequate pensions and healthcare coverage to bridge them into early retirement. But absent a national single-payer health insurance system and wide variation in state-based Medicaid programs, dislocated workers and their families have not only been faced with job loss, but are also incurring medical debt for conditions often caused by years of work in harsh and toxic working conditions. For example, a 2018 National Institute for Occupational Health and Safety (NIOSH) report showed that the prevalence of black lung disease has reached a 25-year high among coal miners, with over 10 percent of miners being afflicted nationwide and rates as high as 20 percent in central Appalachia (American Industrial Hygiene Association 2018). Though the Black Lung Disability Trust Fund was established in 1978 and financed through a tax on coal sales by mining companies, this fund has faced budget cuts under Trump is in danger of being depleted by 2020 (Dodson 2019; Shoot 2019).

Another frequently mentioned challenge for post-coal communities is the lag time between the closure of a coal plant/mine and economic regeneration, even given grant support for redevelopment planning. Local economies are not reborn overnight, and many individuals I spoke with expressed the need for more immediate relief options to prevent the flight of skilled workers from the community. One potential solution that is often overlooked as a job creator is the decommissioning process itself (or land reclamation in mining communities). Coal workers not only have the transferrable skills, but also the intimate knowledge of the facilities and landscape to ensure safe and comprehensive clean up (Maize 2014; Tarence and Davis 2013). Indeed, several of the dislocated workers I spoke with in Somerset had hoped to be involved in
the decommissioning process of Brayton Point, but were not given the opportunity. Job guarantees for dislocated plant workers, as well as strong regional project labor agreements, would ensure these remediation job opportunities are accessible and prioritized for those who need them most.

Lastly, while grants earmarked for renewable energy projects or workforce development programs are helpful and necessary, transitioning communities are also in dire need of unrestricted grant funding to maintain public services or meet other basic funding needs for public housing, schools, infrastructure, and more. In my discussion with one Holyoke government official, he mentioned that while the city was thrilled to receive one of the Massachusetts DOER grants to expand their hydropower capacity, there were also more immediate funding needs for the community that may go unmet due to the lost tax revenue from Mount Tom:

…Sometimes you need unrestricted funds to do other things that are also tied to environmental progress and improving people’s environment, which is something more tied to the socioeconomic and the heartscape around them. Also, there's already subsidy streams for renewal energy projects. So, it's like, "Alright, I'm going to take two million dollars and what? Just pay cash for a solar field?" No one would do that. It's not the best use of the money.

Previous legislation for military conversion could serve as a potential model for more comprehensive approaches to meeting the immediate and long-term needs of decarbonizing communities. For example, the highly successful Base Realignment and Closure Program (BRAC) provides relief to communities disrupted by the closure of military bases through planning and economic assistance, environmental cleanup, community development grants, and funding for community services. Individual workers are provided counseling, financial incentives for early retirement, and preference in re-hiring within the Department of Defense and
other federal agencies (Brecher 2015). For example, the former army fort of Fort Chaffee, Arkansas is now a vibrant smart growth community with new restaurants, health care facilities, museums, and parks and trails; the 146 civilian jobs lost in the closure have been replaced with over 3,500 new jobs (OEA 2017). As a recent just transition report prepared for the Climate Equity Network emphasized, there must be strong governmental support and dedicated funding streams for both short-term needs (e.g. wage replacement, healthcare, replacing lost tax revenue) and long-term needs (seeding new business development and workforce retraining) in order to sufficiently support workers and communities that are most affected by decarbonization (Cha et al. 2019).

Retraining and Green Job Creation

Worker retraining programs are meaningless without intentional and consistent creation of family-sustaining jobs. While it is true that we have seen and anticipate additional employment growth in the photovoltaics, wind, environmental conservation, and remediation sectors in the next decade (Torpey 2018), thus far these green job opportunities have failed to be a viable solution for the majority of dislocated fossil fuel workers. The primary issue is that while worker retraining programs have been created through federal assistance programs like TAA, the POWER grants, and the Assistance to Coal Communities Act, the demand for work in green sectors has not necessarily temporally aligned with the supply of newly trained workers. For example, while we are currently seeing a swift phase out of coal, that power is largely being replaced by natural gas plants that employ far fewer individuals than coal plants. The deployment of renewable energy is simply not happening at the necessary pace or scale to capture the workers being displaced by the phase-out of carbon-intensive industries. Indeed,
many workers at Brayton Point were disinterested in retraining for offshore wind jobs in Massachusetts because the timeline of when those jobs would be available was ambiguous.

This issue is part of a larger political-economic problem of green job growth being dependent upon the ups and downs of private capital investments and inconsistent government supports. After the 2008 financial crisis, Obama’s stimulus package, the American Recovery and Reinvestment Act (ARRA), provided $16.8 billion to the Department of Energy’s Office of Energy Efficiency and Renewable Energy (EERE). Funds were used to support development and deployment of renewables, expansion of weatherization assistance programs, and more. The tax section of the act also created various incentives to stimulate private investment (Eber 2009). The Department of Labor spent around $500 million in stimulus funds to support over 100 green job training programs around the country (Yehle 2013). However, after the expiration of these ARRA tax credits, new investments began to wane, leaving blue-collar workers disillusioned with the prospects of a green job boom (Chen 2014). In fact, a 2013 report by the Government Accountability Office (GAO) found those training programs to have only limited success, placing about 55 percent of participants into jobs (Yehle 2013). Moreover, workforce programs that were developed specifically for environmental justice (EJ) communities to address racial disparities in employment were not to sufficient scale to have a significant impact on joblessness (Chen 2014).

Green job growth is likely to remain uncertain and inconsistent if solely dependent on investment from private capital incentivized through short-term tax breaks. Indeed, a recent report by the International Energy Agency (IEA) found that worldwide growth in renewable generation is now stagnating after two decades of growth (IEA 2019). Moreover, the quality of jobs in the renewable energy sector lags behind the economic stability and security offered by
jobs in the fossil fuel industry where union density is much higher, jobs tend to be full-time, and pay more (Chen et al. 2019). As Steve Ongerth, co-founder of the IWW Environmental Union Caucus, explained in our interview:

We have a member who is a dual card member in LIUNA [Laborers’ International Union of North America], and he was one of the big movers and shakers in Labor for Standing Rock. He’s totally on board with the idea of just transition and green unionism, and he's very radical. And he's all about pushing the envelope, and definitely very critical of the leadership of the building trades in particular. But he points out that he's done pipeline work, and he's done wind turbine work, and the pipeline work pays better and has better benefits. That is simply the reality. It doesn't have to be that way, but that is the current reality now. Because renewable energy capitalists are still capitalists. They're trying to make a buck. It's very cutthroat competition, particularly among solar installers. And the industry is not mature yet. It's still very much—what might be using an unfortunately colonialist term—the wild west.

Therefore, it is clear that any policy solutions that attempt to stimulate a just transition to a low-carbon economy must earnestly address the need for systematic creation of family-sustaining jobs, rather than relying on the market to create such opportunities.

Restorative Solutions for the Geographic and Social Unevenness of Industrial Restructuring

A just transition necessitates that the corporate entities most responsible for climate change are held financially accountable, and that those funds are intentionally invested in communities that have historically borne the greatest socioeconomic and environmental burdens of our extractive economy. This is a principle that activists refer to as restorative justice. But right now, the overly simplistic focus on the creation of green energy jobs by policymakers and environmental advocates overlooks the geographic and socially uneven nature of the industrial restructuring entailed by this transition; it further runs the risk of reproducing existing inequalities of the extractive regime. Siting of renewable energy infrastructure is highly
dependent on favorable geographic features (e.g. wind and sun intensity), and recent mapping has shown that solar jobs are not being created in the regions with the highest contraction in fossil fuel jobs (Parks and Cha 2019). While these trends could be somewhat disrupted through legislation that mandates priority investment in economically-depressed/politically marginalized communities, it is also unrealistic and imprudent to expect a one-to-one replacement of renewable energy jobs to fossil fuel jobs for these communities, or that renewable generating facilities alone are enough to revitalize local economies; overreliance on single industries leaves workers and communities vulnerable.

The importance of economic diversification and the need to go beyond simply replacing coal for renewables was made clear in my case study of Holyoke. While many locals were thrilled to see Mount Tom Station replaced by a large solar farm, they were somewhat disheartened that it only created two permanent job opportunities and did little to supplement the large hole in the tax base. As one local government official reflected:

Here we are as a state in a country pushing for green jobs to create energy, but we don't even make the stuff here. So there's a disconnect…Not one piece of the solar panel on that field is made, nevermind in Holyoke, or Massachusetts, but in the U.S! And then the reality that nobody from Holyoke got paid to put those panels up, as far as I know. Whatever company contracts with the company that owns the panels just came in and busted it out. It was done in a handful of weeks… So unless you're putting up solar fields every four weeks, we're not growing this new economy…We had a big boon on solar when we put the solar tax credits out, now that's sort of tapered and it’s not as lucrative as it was before, though they still exist.

While demonstrating the need to think beyond an economic revitalization model of replacing one energy source for another, this quote also speaks to the problem of green job growth being dependent upon short-term tax breaks, as discussed in the previous section.
In addition to grappling with potential geographic mismatches between the contracting fossil fuel sector and the deployment of renewables, just transition policies will also need to create job pipelines to employ not only dislocated fossil fuel workers, but to employ those populations that have historically been excluded from good jobs in the energy industry. As Brecher (2017, 65) notes, “Not only are jobs and employment distributed very unevenly to different groups and localities, so are job skills and experience…Recruitment [for green jobs] needs to include strong racial, gender, age, and locational affirmative action to counter our current employment inequalities.” Indeed, many fenceline communities of color around the country have not had access to the employment opportunities at the polluting facilities in their neighborhoods, yet have borne the negative environmental and social impacts (such as the Puerto Rican population in my case study of Holyoke). In sum, the restorative justice component of the just transition framework will require creative policy solutions to counteract the potential spatial and social unevenness of the expanding green economy.

Table one provides a summary of potential policy interventions for the just transition issue areas of 1) decommissioning and environmental remediation of impacted land; 2) economic planning and development; and 3) direct assistance to dislocated workers and workforce development/retraining, based upon the deficiencies identified in the preceding discussion. These solutions could be easily implemented in the short-term at the local or state level, though in the long-term, federal legislative action will also be needed to guide the U.S. energy transition.
<table>
<thead>
<tr>
<th>Decommissioning and Environmental Remediation</th>
<th>Economic Planning and Development</th>
<th>Assistance to Dislocated Workers and Workforce Development/Retraining</th>
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<tbody>
<tr>
<td>• Establish an industrial vacancy tax to penalize delinquent property owners of retired power plants</td>
<td>• Tax base replacement (general operating funds) for communities that lose a significant portion of their revenue due to closure of a mine or power plant</td>
<td>• Establish regional project labor agreements and prevailing wage laws for transitioning communities</td>
</tr>
<tr>
<td>• Establish a “polluter pays” decommissioning and remediation fund for fossil fuel power plants</td>
<td>• Establish a revolving loan fund for community-owned renewable energy projects and/or small business creation</td>
<td>• Establish a national health insurance program and bridge-to-retirement fund for dislocated fossil fuel workers</td>
</tr>
<tr>
<td>• Establish EPA decommissioning and remediation regulations specific to fossil fuel plants, including compulsory clean-up with enforced timelines</td>
<td>• Mandate priority investment zones to spur renewable energy development in EJ communities and communities impacted by plant/mine closures</td>
<td>• Job guarantees and/or priority hiring for dislocated workers in any local decommissioning/remediation project or sustainable infrastructure projects</td>
</tr>
<tr>
<td>• Institutionalize processes for authentic community engagement in remediation planning; mandate a Community Benefits Agreement for any redevelopment project on a former power plant/mining site</td>
<td></td>
<td>• Affirmative action programs to counter historical employment inequalities in the energy sector across race, gender, and socioeconomic status</td>
</tr>
</tbody>
</table>

**Model Policies:** Future Energy Jobs Act (Illinois), Clean Energy Jobs Act (proposed, Illinois), SB 1090—Diablo Canyon Nuclear Plant (California), Electric Generation Facility Cessation Mitigation Program (New York), Base Realignment and Closure Program (BRAC)

Table 1. Potential policy solutions by JT issue area

**The Promise and Limitations of the Green New Deal**

The recently proposed Green New Deal (GND) is important to consider within the context of this research. At the broadest level, the GND is an attempt to provide a comprehensive policy agenda to facilitate rapid decarbonization and rebuild our economy in response to the climate change emergency and growing inequality. Prior to the GND, other major recent
federally proposed climate change legislation included the 2003 Climate Stewardship Act (or the McCain-Liberman bill), America’s Climate Security Act of 2007 (Lieberman-Warner bill), and the American Clean Energy and Security Act of 2009 (Waxman-Markey bill). These bills set emission reduction targets supported through a nationwide cap-and-trade system, and they included allocations for worker transition programs to be funded by the revenue of auctioning emissions credits. Ultimately, all three bills failed to pass.

Sponsors promise that the GND will be much stronger than these previous proposals, not only in terms of setting more aggressive emissions targets and timelines, but also in terms of providing massive investment in infrastructure overhauls, stimulating the national and local economies, and reducing inequities. While imperfect and insufficient, the previously discussed programs aimed at justly transitioning the United States to a low-carbon economy (POWER, ACC, etc.) offer important lessons for policymakers moving forward in formulating a comprehensive climate policy agenda. Based on my review, the overarching shortcomings of previous policies can be summarized as follows:

1. The scale was not large enough in terms of funding and duration of support
2. Goals did not go beyond emissions reductions to address broader issues of structural inequality such as minimum wage laws, affordable housing, access to public transportation, and universal health care
3. Development was too reliant on “win-win” public-private partnerships as opposed to government intervention and public investment
4. Programs were not tailored to rectify historical racial, gender, and class inequalities
5. Policies took a complicated piecemeal approach, dividing funding and oversight among multiple agencies instead of centralized, coordinated planning by a specialized agency with public accountability.

In February 2019, Senator Edward Markey and Representative Alexandria Ocasio-Cortez released a fourteen-page resolution into the House and Senate calling for the federal government to create a Green New Deal. Its stated goals are to: 1) achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers, 2) create millions of good, high-wage jobs, 3) invest in U.S. industry and infrastructure, 4) secure clean air and water, climate resiliency, healthy food, access to nature, and a sustainable environment for all Americans, and 5) promote justice and equity by repairing historic and preventing future oppression against marginalized populations. Proposed projects to meet these goals include, but are not limited to, repairing and upgrading infrastructure, meeting 100 percent of power demands through clean energy, retrofitting existing buildings to achieve maximum energy efficiency, overhauling our transportation and agricultural sectors, and spurring growth in clean manufacturing.

The GND’s greatest strength is its holistic and comprehensive vision for a more ecologically sustainable and socially just society that goes beyond simply reducing emissions to avert climate catastrophe. In the resolution’s preamble, it explicitly recognizes the concomitant “systemic injustices” of egregious economic inequality, a four-decade trend of anti-labor policies and the erosion of earning and bargaining power of American workers, the large racial divide in wealth, and the gender earnings gap. It also improves upon Obama’s ARRA in the realm of green job creation by naming essential labor-oriented provisions, including a federal jobs guarantee, strengthening and protecting workers’ organizing rights, raising minimum wage, local
hiring and prevailing wage laws, and wage and benefits parity for workers affected by the
transition. The need for more affordable housing and universal health care are also mentioned.
Lastly and perhaps most importantly, the resolution recognizes the necessity of transparent and
inclusive collaboration with communities and civil society groups (procedural justice) in crafting
policy solutions.

While the specifics have yet to be worked out, the GND as written has tremendous
potential to serve as the policy solution we need to curb greenhouse gas emissions quickly while
transforming our society to be more just and equitable for all. It proposes massive public
investment and government intervention that matches the scale of the dual ecological and
economic crises we face, recognizes the need for targeted programs to rectify historical racial
and gender injustices, and aims to address broader issues of structural inequality and access to
social provisions (most notably affordable housing and universal healthcare). However, there are
a few notable potential oversights of Green New Deal—oversights that not only may jeopardize
our country’s ability to sufficiently curb carbon emissions, but also may run counter to the goal
of building a more democratic society that allows individuals and communities to thrive.

First, the Green New Deal fails to mention the issue of land reform. Land reform is not
only important for bringing privately-owned land that currently sits idle and contaminated back
into public control (a problem that was illustrated in my case study of Somerset), but also for
addressing sustainability issues like suburbanization. For example, in Appalachia many mining
companies still have large land holdings years after exiting communities, preventing community
self-determination over the future of their land and resources (Cha 2019). Others have criticized
the Green New Deal’s neglect of land reform by drawing attention to the problem of urban
sprawl and its associated racial justice and sustainability implications. As Baca (2019) argues:
The Green New Deal is ostensibly a jobs program, an environmental program, and a redistributive program. If it’s a jobs program, it must wrangle with spatial mismatch. If it’s an environmental program, it must tackle the fact that an all-electric fleet of cars is functionally, at this time, a pipe dream. And if it’s a redistributive program, it must grapple with how roads paved into suburban and exurban greenfield developments deepen, expand, and exacerbate segregation. A Green New Deal must insist on a new, and better, land use regime, countering decades of federal sprawl subsidy.

Apart from a single mention of “community ownership,” the Green New Deal resolution also fails to directly address the issue of ownership and control over renewable energy production—a key point of contention among activists pushing for energy democracy (Burke and Stephens 2017). Indeed, without more public control over the processes of resource extraction, energy production, and distribution, we run the risk of reproducing existing issues of energy inequality and insecurity. Restructuring the energy system to allow for more community and/or worker-owned cooperatives or publicly-owned utilities is essential to ensuring that energy is a resource that is no longer sold to make a profit, but rather produced to meet human needs. While the private sector will certainly have a role to play in the transformation of our energy economy, corporate power must be held in check by the government to facilitate democratization of our energy system.

Another detail omitted from the Green New Deal resolution is how this unprecedented sociotechnical endeavor will be coordinated and managed. As Jeremy Brecher of the Labor Network for Sustainability argues (2017), emergency mobilization for climate protection will require the establishment new government agencies and central government authority for effective coordination—much like mobilization for World War II. Strong executive leadership will be needed, but equally as important will be public accountability. Macroeconomic policies
and industrial planning will also be needed to guide this transition, as opposed to leaving it up to the market (Brecher 2017).

Lastly, while the Keynesian approach of the Green New Deal is a much needed political pivot from the neoliberal policies that have led us into the dual economic and environmental crises, the Green New Deal’s biggest critics argue that addressing the climate emergency necessitates an anti-capitalist economic paradigm, one that must undo many of the things FDR’s original New Deal incentivized (increased consumption, accelerated extraction, and resource-intensive manufacturing) (Cook 2019; McDonald 2019). In other words, greening our consumer goods and manufacturing processes and swapping out clean energy for fossil fuels will not be sufficient; we need to fundamentally decrease consumption and reconsider economic growth as our metric of social wellbeing. But the concept of degrowth is not just a buzzword in left-leaning circles; the idea of a shorter workweek and a more leisure-oriented economy has been gaining traction for some time, especially given the rapidity of automation. Citing the evidence of the positive relationship of greenhouse gas emissions and working hours, the UK-based think tank Autonomy recently published a report demonstrating that workers there would need to move to a nine-hour workweek in order to keep warming below 2°C (Frey 2019). Culturally speaking, some have argued that the growing interest in minimalist lifestyles, as demonstrated by the popularity of figures like Netflix star Marie Kondo, shows that the ideals of consumerism and materialism are becoming increasingly alienating to people (Love and Rao 2019). But given the fact that capitalism will not die between now and 2050, the Keynesian Green New Deal may just have to serve as an important stepping stone along the way to more revolutionary political-economic transformations.
These points address some of the primary potential oversights of the Green New Deal in this limited space. However, additional critiques outlining other potential shortfalls have been written by leading grassroots organizations around the country. For example, the Climate Justice Alliance (CJA)—a network of 68 organizations in the U.S. and Puerto Rico—released this comprehensive statement in December 2018 welcoming the GND proposal, but noted that it was introduced at a “grasstops” level without prior consultation with EJ communities (Climate Justice Alliance 2018). The CJA believes the GND should be, above all else, “a tool to build grassroots power” and “an opportunity to work creatively with many sectors and communities within CJA that have been transitioning to a regenerative economy using community-led strategies.”

Building Power Locally: Reflections for Activists

While strong federal policy interventions are necessary in order to avert climate crisis and guarantee a transition away from fossil fuels, struggling workers and communities do not have time to wait to gain security, and the fight for a just transition will be a losing battle if the sole strategy is waiting for the Green New Deal to be legislated into law. Building power today is dependent upon organized struggle at the community and state levels. This has already been demonstrated by the just transition victories we have seen around the Huntley coal plant closure in Tonawanda, New York, or the closure of Diablo Canyon nuclear facility in California. However, forming genuine alliances between labor and environmental organizations, mobilizing a strong base of community supporters, and winning support from public officials may be met by unique challenges in different communities, and activists should be sensitive to local context in strategizing just transition campaigns. As observed in my Somerset case study, as well as in my
interviews with activists from all around the country, the just transition language is not universally recognized, resonant, nor accepted. In Somerset, many individuals I spoke with were unfamiliar with the concept, and when prompted with the definition and asked what a just transition would mean in Somerset, they simply answered “reopening the coal plants.” Similarly, in my field analysis of the nationwide just transition movement, some community activists noted that they purposely avoided the language of just transition, knowing it was very contentious among the labor community.

One possible antidote to a disempowered civic culture and a way to transcend differences between labor and environmental groups is to focus on visionary work—democratically engaging residents in imagining a plan for their alternative future. Just transition organizing must also begin even before announcements of plant/mine closures to avert a reactive approach, as political mobilization and visionary work becomes difficult once a community is already in social and economic crisis mode. This requires building a local culture of activism and engagement in civic planning around more than just single-issue items such as plant/mine closures. Indeed, in my comparative case study of Somerset and Holyoke, I demonstrated how Holyoke’s civic culture and history of community organizing around myriad social justice issues led activists to have an easier time engaging the broader community in envisioning a just and vibrant future beyond coal.

The organizing strategy employed by the Coalition for Clean Air Western New York (CACWNY) surrounding the decline of Tonawanda’s Huntley coal plant offers another important lesson for coalition-building and inclusive engagement. Instead of calling for immediate closure of the plant or taking a hardline stance on repowering with natural gas, they
diverted the conversation to collective community visioning. As Rebecca Newbury of CACWNY reflected on tensions between civil society groups over redevelopment planning:

I found, strategically, when people who are used to making decisions in crisis, which is the majority of people, especially really hard decisions that impact people's lives, even if that decision isn't immediate, there is a tendency to get into either/or thinking. So you're either with us or against us. You're either for gas or against gas. You're either for re-powering or against re-powering. And we were trying to remove that. And think about the ands. So what are other opportunities here? What are other solutions? And so that was the campaign, the first year. Was structured around how to change either/or to and-thinking. And when you're able to do that, then all of a sudden there all sorts of other opportunities, because we're creative people. But when we're forced into a corner, or we perceive being forced into a corner, people are going to fight. And that's a normal and necessary. That's how we survive. Right?

This story reinforces the important role of imagination in political work—a strategic orientation that was underscored by organizations that emphasize the element of transformative justice in their JT framework. Representative Alexandria Ocasio-Cortez also recognizes the importance of having courage to imagine a bold vision for an alternative society, as demonstrated by the release of her video “A Message From the Future”—a visually appealing, illustrative story that takes viewers decades into the future after the Green New Deal has been implemented to show them what a future sustainable America could look like (Boekbinder and Batt 2019). Genuine democratic engagement through this transition is crucial for allowing workers and communities to have a sense of control over the precarity they face, but also for ensuring that solutions fulfill their needs and aspirations. In an age where it is easy to descend into apocalyptic thinking and catastrophism, collective visioning is essential to averting what David Harvey describes as the ‘double blockage’—“the lack of an alternative vision prevents the formation of an oppositional
movement, while the absence of such a movement precludes the articulation of an alternative” (2010: 227).

Relatedly, it is absolutely essential that the “big greens” of the environmental movement, who often become the face of local transition campaigns (e.g. Sierra Club, NRDC), intentionally take a step back to allow for local, organic leadership over community organizing. Organizational funding arms—such as the Sierra Club Foundation—could also increase financial support for grassroots organizations in transitioning communities. Supporting local leadership would prevent residents from feeling like the just transition framework is an imposition of “outsiders.” Moreover, moving forward, big greens must try to engage in ways that avoid the mistake of posturing default transition solutions like “green energy jobs,” when these proposals may not actually align with the wants and needs of the local workforce; economic solutions may vary greatly by region.

The United States has a track record of unjust transitions in a number of industrial sectors (Cha et al. 2019), and it is legitimate for fossil fuel workers to meet calls for a just transition to a renewable energy economy with skepticism. However, the labor movement also needs to dig deep into its militant roots and avoid the temptation to align with the interests of capital in the interest of preserving dirty jobs in the short-term. History has shown us that the dominant threats to the labor movement are capital flight, automation, and mechanization, such as in the case of the introduction of strip mining in Appalachia. Though the mainstream environmental movement needs to work on engaging with the labor movement in a more genuine way, progressive labor activists note that some of the onus must also be on labor to begin dedicating more time and resources to organizing the large swaths of unorganized workers in industries like rooftop solar.
From the perspective of Steve Ongerth (co-founder of the IWW Environmental Union Caucus), not enough of this organizing initiative is coming from current union leadership:

If I were in a building trades union, and I were a rank and file worker, I would be pushing my union, and pushing my fellows workers, to call for a massively funded organizing campaign to organize all these non-union renewable energy workers, and to try and get local agencies to form, or to pass ordinances and laws allowing for project labor agreements, which would allow home owners to group together as a project labor agreement, so that the installing of the solar on the roofs would be done under union agreement. And it’s not the leadership in the building trades that are pushing that. It’s radical climate justice people, it’s indigenous people, it’s frontline community people, and it’s radical unions, and union militants within existing mainstream unions who are really pushing that envelope.

While now heavily associated with environmental NGOs, the term *just transition* was birthed in the labor movement; it is time for labor activists to reclaim this framework and help lead the way towards a more democratic, ecologically sustainable, and equitable society.

**Concluding Remarks**

This dissertation addressed questions of power, agency, and equity in the transition away from fossil fuels to a green energy economy. While each of the three papers identified political-economic, sociocultural, and ideological obstacles to equitable transition outcomes and shed light on how just transition politics are greatly influenced by local-level contextual factors, the policy analysis above, in tandem with my reflections for activists, suggests a path forward so that the idea of a just transition can become a reality instead of an empty promise. The climate crisis is the result of multiple, intersecting systemic injustices including economic, racial, and environmental inequality. Therefore, the climate crisis also constitutes the single most important opportunity to fight for and build a more just world. The results of my fieldwork suggest that while there are policy challenges ahead and powerful private interests that are stalling
decarbonization, collective mobilization has the potential to win just and equitable outcomes for workers and communities here in the United States and around the world.
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