University of Rhode Island

DigitalCommons@URI

Open Access Dissertations

2016

In Place of Fishing: Coastal Communities in Transition

Kristen Ounanian

University of Rhode Island, k.ounanian@gmail.com

Follow this and additional works at: https://digitalcommons.uri.edu/oa_diss

Recommended Citation

Ounanian, Kristen, "In Place of Fishing: Coastal Communities in Transition" (2016). *Open Access Dissertations*. Paper 440.

https://digitalcommons.uri.edu/oa_diss/440

This Dissertation is brought to you for free and open access by DigitalCommons@URI. It has been accepted for inclusion in Open Access Dissertations by an authorized administrator of DigitalCommons@URI. For more information, please contact digitalcommons-group@uri.edu.

IN PLACE OF FISHING:
COASTAL COMMUNITIES IN TRANSITION

BY
KRISTEN OUNANIAN

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
MARINE AFFAIRS

UNIVERSITY OF RHODE ISLAND

2016

DOCTOR OF PHILOSOPHY DISSERTATION
OF
KRISTEN OUNANIAN

APPROVED:

Thesis Committee:

Major Professor Seth Macinko

David Bidwell

Jesper Raakjær

Nasser H. Zawia
DEAN OF THE GRADUATE SCHOOL

UNIVERSITY OF RHODE ISLAND
2016

ABSTRACT

Although fisheries management decisions impact people and places, multiple drivers of change are at play in coastal communities. Moreover, the interactions among those drivers, whether they build upon or offset one another, are where the action lies. While interested in the changes brought about by the imposition of transferable catch shares, this research takes a holistic approach to studying coastal communities. This study focuses on instances of transition from a greater presence of the fishing industry to new configurations of fisheries, maritime sectors, and tourism. Situated in places in the midst of such change, the work clarifies what fisheries dependence represents and its various iterations.

Through three case studies in Northern Jutland, Denmark and three analogous cases in New England, United States this research explores how various coastal communities navigate change. I detail the experiences of place-based communities in these two regions with special attention to those historically linked to fishing, but whose orientations have been changing over the past few decades. Based on 54 interviews with 63 persons and field observations while in these two regions, the research takes an inductive approach, open to the themes and discourses brought forth by research participants in relation to fisheries and change in their communities and related societies. The qualitative analysis of interview transcripts and field notes illuminated varying relationships that place-based communities have to fishing and the varied opportunities and challenges facing coastal communities.

One of the key findings of this research is the demonstration of *existential fisheries dependence*, whereby the presence of fishing sustains certain coastal communities that have few or no alternatives, keeping them on the map, so to speak. Physical geography and built infrastructure heavily influence this designation and reveal important considerations for management changes regarding fisheries access. In cases where communities and ports have diversified to other activities, often connections to fisheries remain because of the development of service ports. Moreover, the uncertainty in regard to the future level of engagement of fisheries has implications for waterfront land use planning and community identity.

Development of new industries and the process of diversification may also span longer timelines, affecting certain segments of the community more severely than others. In addition, the transition to tourism dependence holds a somewhat precarious future for coastal communities in temperate areas. In some cases, heritage and community identity remain strongly connected to the surviving fishing industry, but the diminished presence of fishing also translates to feelings of loss and can challenge communities that hope to retain a year-round population when the tourists head home. Consequently, how a society manages fisheries impacts coastal communities ranging in size and opportunities outside of fisheries. Moreover, the cultural and social importance of fisheries demonstrates a key facet of fisheries dependence.

ACKNOWLEDGMENTS

Part of the success of this work rests on making, cultivating, and maintaining connections to people. There are many persons who have contributed to this work by introducing me to community members, providing a place to stay, making both the University of Rhode Island and Aalborg University feel like my academic homes, and lending a sympathetic ear and voice of encouragement.

First, I must thank my two primary advisors on this project, Dr. Seth Macinko and Dr. Jesper Raakjær. Seth, thank you for pushing me to challenge dominant paradigms in fisheries management and for thought-provoking conversations on social science research and marine affairs. Jesper, thank you for your mentorship prior to and during my PhD, for your advocacy, and for enabling this project to go forward with your network of contacts throughout Northern Jutland. I would also like to thank members of my University of Rhode Island committee, Drs. David Bidwell, Carlos Garcia-Quijano, and Caroline Gottschalk Druschke. I have appreciated your insights and getting to know each of you through this process.

I would also like to thank Dr. Robert Thompson, Chair of the Department of Marine Affairs, for his support and assistance achieving this dual doctoral degree. In addition, I would like to thank Tom Hospod in URI's International Office for working with the graduate school to sort out this unique academic arrangement. Additionally, my research was supported by *Nordsøen Forskerpark*, *Initiativfonden for Hirtshals og Omegn*, *Det Obelske Familiefond*, and *Region Nordjylland* through AAU Matchmaking.

I benefitted from the aid of Louise Bruun Ploughmand and Marjun Eysturoy for transcriptions of the interviews in Danish. I would also like to acknowledge the mapping and design skills of Anna Antonova and Peter Stempel, who contributed to some of the visual aids in this work. I have also benefitted from the assistance and support from Lise Suhr Mogensen at Aalborg University and Judith Palmer and Denise Foley at the University of Rhode Island over my tenure as a PhD student.

Thank you to *Hirtshals Fiskeriforening*, *Hirtshals Turistforening*, *Nordsøen Forskerpark*, *Hirtshals Handelsstandsforening*, and *Hirtshals Havn* for their help organizing a community forum in Hirtshals and to various members of these organizations for contributing to this research. I thank Thomas Højrup and Kirsten (Pipsen) Monrad Hansen for their generous hospitality and introductions. On the American side, I would like to thank my family members, Dick and Sue Seed, and Marine Affairs graduate, Daniel Maggio, for introductions in Provincetown. The Cutler case study would not have been possible without the help of dear family friend, Gillyin Gatto, and the background knowledge of Natalie Springuel and Christopher Bartlett at Maine Sea Grant.

Thank you to my family for their encouragement and support during this endeavor and all others. Thank you specifically to my dad and Jane for providing a place to stay while doing my fieldwork on the Cape. Thank you to other supportive members of the Ounanian family: Allison, Onnie, Emily, and my grandparents, Harding and Marge. Additionally, my appreciation and gratitude for my mom abounds.

I have made great friends while hopping between the United States and Denmark. I would like to acknowledge my wonderful colleagues and friends at IFM past and present, some of whom I have known since my arrival in Aalborg in 2009. Thank you especially to Alyne Delaney for insights into field methodology and comments on Chapter VII. Furthermore, I appreciate the encouragement, academic sparing, translation help, and laughter from my AAU friends: Troels, Rikke, Paulina, Helen, Anna C., Kristian, Karl, Anja, Kristen, Morten, Dorte, and many others who have been part of the department. At URI, thank you to Shannon, Catie, Leigh, Nicole, and Ellen, who got me through that first year and continue to support me. Later in my tenure at URI, I greatly benefitted from the friendship and support of Anna and Alanna.

Finally, I would like to state my complete gratitude for all those who spoke with me in Hirtshals, Løkken, Thorupstrand, New Bedford, Provincetown, and Cutler as part of this research. Our conversations meant a great deal to me and they will continue to inform my work in the future.

Thank you. *Mange tak.*

TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGMENTS.....	iv
TABLE OF CONTENTS.....	vii
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
CHAPTER I.....	1
INTRODUCTION.....	1
CHAPTER II.....	12
NAKED METHODOLOGY: BARING IT ALL FOR A REALISTIC ACCOUNT OF SOCIAL SCIENCE RESEARCH.....	12
CHAPTER III.....	60
LITERATURE REVIEW.....	60
CHAPTER IV.....	95
CASE CONTEXT	95
CHAPTER V.....	143
NEW ENTRANTS: WHERE ARE THEY?.....	143
CHAPTER VI.....	225
WIDENING THE NET.....	225

CHAPTER VII	274
NOT A “MUSEUM TOWN”: TOURISM, FISHING, AND AUTHENTICITY	
.....	274
CHAPTER VIII	313
CONCLUSION	313
BIBLIOGRAPHY	332

LIST OF TABLES

TABLE	PAGE
Table 1. Population Information for Six Case Studies	19
Table 2. Interviews Conducted by Case Community	27
Table 3. Permitted vessels with Principal Port listed as New Bedford, Provincetown, or Cutler	111
Table 4. Fleet composition by vessel size: All three New England communities.....	128
Table 5. Summary of fisheries dependence, transition, and community motivations in six case communities.....	319

LIST OF FIGURES

FIGURE	PAGE
Figure 1. Constructive and destructive wave interference	5
Figure 2. Complex wave interference	6
Figure 3. Map of Northern Jutland, Denmark with case sites	21
Figure 4. Map of New England, United States with case sites.....	22
Figure 5. Summary of festivals, events, museums, and tours visited during fieldwork.	29
Figure 6. Full vignette text displaying all possible dimensions and levels	32
Figure 7. Danish ITQ evolution timeline	101
Figure 8. Commercial vessels registered in Hirtshals, Løkken, and Thorupstrand..	103
Figure 9. Governance levels relevant for the six case communities.	113
Figure 10. Map of Northern Jutland, Denmark.	115
Figure 11. Photographs of Fastelavn activities at Hirtshals harbor in 2014	118
Figure 12. Photographs from the beach in Løkken	120
Figure 13. Photographs from Thorupstrand landing place and its fish processing facility	125
Figure 14. Map of New England, United States	128
Figure 15. Photographs of New Bedford harbor	131
Figure 16. Photographs of Provincetown harbor from above and on the ground	136

Figure 17. Photographs of Cutler’s harbor, town, and wharves	140
Figure 18. Photographs of the HM800 Jammerbugt Cutter, Copenhagen.....	175
Figure 19. Photographs of oilrig repaired in Hirtshals Harbor	248
Figure 20. Photographs of the fleets landed on the beach in Løkken and Thorupstrand.....	303
Figure 21. Photographs of the net-weaving shuttle under glass and in use.	307

CHAPTER I

INTRODUCTION

“Oh, without a doubt, we’re living in a period of extreme transition,” (George, Cape Cod).

Change—the process and its outcomes—can bring out strong emotions, feelings of loss, or alternatively, expressions of optimism. Places and their connected societies undergo change driven by natural, economic, political, social, and cultural forces. Events—the abrupt collapse of a fish stock or the introduction of a new management regime—can shock a system with acute consequences. In other cases, change can creep along—the switch from industrial economy to the service economy—slowly shifting a community’s orientation with results felt at various time points and levels across society. Studying change as a set of impacts or outcomes orients research toward understanding a *state* of being. In contrast, change can also be understood as a *process* in which individuals, communities, and societies adapt or transform. This research centers on change understood as *transition*, seen as both a state and a process, perhaps best understood as the *phase* in which the processes of adaptation and transformation are revealed en route to an outcome. The result of which is either similar to the initial state, radically transformed, or somewhere in between.

A. Project Origin

This project did not emerge from a *tabula rasa*. The idea for this project began in spring of 2010, when public discourse coalesced on *udkantsdanmark*, or peripheral communities in Denmark. Looking upon the maps of the so-called “rotten banana,”¹ I was struck by the fact that many of these communities were located along the coast in what had traditionally been Danish fishing communities and landing ports. Nonetheless, seldom did commentators connect contracting opportunities in the fishery to the developmental and demographic troubles plaguing these communities. Over the past few years, the Danish discourse has advanced and augmented, with a more thorough discussion of what constitutes and characterizes “peripheral” in the Danish context (Winther and Svendsen 2012; Hendriksen 2012).² Moreover, the Danish government created a national ministry to address rural development. These rural places or “outskirts” of Denmark still face development and social sustainability challenges. As a native New Englander living in Denmark, I recognized parallels to the challenges of coastal areas in both regions. Thus, the idea to examine the experiences of New England and Northern Jutland evolved.

Communities historically reliant on fisheries have faced changing circumstances in terms of their livelihoods, identities, demographics, and viabilities (Hamilton and Otterstad 1998; Hamilton and Butler 2001; Hamilton, Colocousis, and

¹ *Den Rådne Banan* (the Rotten Banana) refers to the shape formed by municipalities in the northern tip of Jutland down its west coast to those lying in southern Denmark that suffer from out-migration. See Winther and Svendsen (2012) for a more thorough discussion.

² Denmark’s progressive newspaper *Information* has compiled numerous articles on the topic of *udkantsdanmark*. See www.information.dk.emne/udkantsdanmark.

Johansen 2004; Nadel-Klein 2000). I explore the experiences of communities in these two regions with special attention to those historically linked to fishing, but whose orientations have likely been changing over the past few decades. This research centers on transition in what were once, and may still be, fisheries dependent communities.

B. Statement of the Problem

Although fisheries management decisions impact communities, multiple drivers of change are at play in coastal communities. Moreover, the interactions among those drivers, whether they build upon or offset one another, are where the action lies. Tracing those drivers of change, estimating their magnitude, and forecasting what may happen to a community or segments of a community under a new management regime are the complicated tasks associated with social science in natural resource management. The following passage from the Social Impact Assessment (SIA) section of a Draft Environmental Impact Statement (DEIS) essentially states that the study of society is complicated:

A fundamental difficulty exists in forecasting social change relative to management alternatives, since communities or other societal groups are constantly evolving in response to external factors (e.g., market conditions, technology, alternate uses of waterfront, and tourism). Certainly, management regulations influence the direction and magnitude of economic and social change, but attribution is difficult with the tools and data available. While the focus here is on the economic and social impacts of the proposed fishing regulations, external factors may also influence change, both positive and negative, in the affected communities. External factors may also lead to unanticipated consequences of a regulation, due to cumulative impacts. These factors contribute to a community's ability to adapt to new regulations. (New England Fishery Management Council 2015, 254).

The SIA rests on a rather meager excuse that attribution, or pointing to the cause of change, cannot be isolated from the policy enacted and the external factors that inevitably exist. Frankly, this passage and the section of this DEIS falls short of the aim of social science research and its contributions to the policy process. Like Geertz (1973) warned, communities are not laboratories and the study of culture and communities is not predictive. However, Geertz (1973) goes on to say, that rather than being predictive, interpretive social science is diagnostic, drawing meaning from observations and making sense of seemingly disparate experiences into a large whole of meaning. With a diagnostic perspective, social science can determine symptoms and susceptibility to particular risks and outcomes and though not absolute in predictions social science research can provide insight on anticipated outcomes.

Furthermore, those overlapping effects and the varied influences at play in communities represent cumulative impacts, which should be the focus of research. Setting aside the issue of prediction, which has afflicted scientists for centuries, the quotation highlights the necessity of integrated assessment, a direction toward which much of natural science and management has moved. Just as ecosystem-based management (EBM) endeavors to take a holistic view of the system under proposed management, social scientists ought to think about multiple drivers of change at play in communities reliant on natural resources. The excerpt from the DEIS falls short of what one would hope to read under the SIA heading of a proposed regulatory change. It states the obvious that it is difficult to control for external variables when studying society, but rather than surrendering to the ambiguity, I advocate that

fisheries social science needs to examine myriad characteristics of coastal communities, in different contexts, and try to push in the direction of messier, but richer, integrated assessment.

Wave Interference as an Illustrative Metaphor

Looking to the physical properties of the ocean for an analogy, wave interference explains how waves converge and arrive at different outcomes based on the circumstances. When two waves meet in an instance where their crests and troughs coincide, once combined the magnitudes of the newly formed wave are amplified, known as constructive wave interference. Alternatively, in the case of destructive wave interference, the first wave's crest aligns with the other wave's trough effectively canceling each other out and dampening the magnitude.

Figure 1. Constructive and destructive wave interference³

³ Illustration designed and created by Peter Stempel; information conveyed from Pinet (2009).

We can understand this in relation to society, in the situation where the emergence of ferry routes and increased port traffic offset the employment losses and lower service demands of a contracted fishing fleet. On the other hand, circumstances can exacerbate the impacts of a new management policy. For example, the constriction of alternative employment opportunities may amplify the effects of the relative inaccessibility of a community. Of course, precise alignment of crest-to-crest or crest-to-trough is uncommon in nature; rather, constructive and destructive wave interference occurs in tandem resulting in complex and irregular or varied outcomes.

Figure 2. Complex wave interference⁴

In this regard, we can see that society and local communities likely operate under their own version of complex wave interference in that changing circumstances do not occur at the same point, with identical magnitudes, or at exact alignments. With

⁴ Illustration designed and created by Peter Stempel; information conveyed from Pinet (2009).

this illustration in mind, the task at hand is to parse through multiple drivers and diagnose how communities may adapt when opportunities in fisheries diminish in context of their wider circumstances.

Johnsen's and Vik's (2013) examination of multiple drivers in fisheries management and coastal communities identifies "push and pull" factors related to declining participation in fisheries in coastal Norway. Essentially, fishermen and their related shoreside communities face decisions based on the attraction (pull) of other opportunities and the propulsion (push) out of the fishing industry. In this project, I set out to investigate change in fishing communities with the intention to further our understanding of the dilemmas, challenges, and opportunities facing these communities in a particular period of flux or transition. Attending to the heterogeneity of fishing communities, the project looks at six communities to reveal shared and diverging experiences, which in turn deepens the understanding of transition, as well as the related iterations of fisheries dependence. In some instances, coastal communities have succeeded in transitioning to new marine sectors or balancing access to working waterfronts with increased demands for oceanfront property. On the other hand, some places where the presence of the commercial fishing industry has fallen precipitously have morphed from vibrant places to towns with aging inhabitants and little promise of a demographic shift that will help propel a revitalized local economy. Not all fishing communities or regions are built alike, but all too often research addresses these entities through a single orientation.

C. Research Questions

This dissertation uncovers why some communities resist transition from fishing and others embrace change. I examine *transition*, defined as a particular period of change when moving from one way of doing or being to another way of doing or being. Because this study focuses on instances of transition from a greater presence of the fishing industry, situated in places in the midst of such transition, the work clarifies what *fisheries dependence* represents and its various iterations. The two guiding questions of this dissertation ask:

1. *How does fisheries dependence manifest in coastal communities today?*
2. *How do different coastal communities navigate change during economic and social transitions?*

The first research question seeks to broaden the definition of fisheries dependence from classifications based on economic and demographic data alone (Jones, Caveen, and Gray 2014; Colburn and Jepson 2012; Jacob, Jepson, and Farmer 2005) to encompass questions of how fisheries connect to local community culture and viability. In order to accomplish this objective, I worked in communities distinct from each other in relation to their size, connection to larger cities, alternatives and opportunities outside of fishing, and the characteristics related to the fishing industry and the local fleet.

Based on 54 interviews with 63 persons and field observations while in these two regions, the research takes an inductive approach, open to the themes and discourses brought forth by research participants in relation to fisheries and change

in their communities and related societies. The methodology chapter (Chapter II) elaborates the case selection criteria and motivations for choosing certain communities. However, it is important to emphasize the purpose in working in two different national or regional contexts was to take parallel cases in each setting to deepen the understanding of how community characteristics and economic and social dynamics interplay, allowing for broader conclusions than a single case study. While many dissertations focus on a singular aspect or deeply examine a single case, my purpose in this research was to develop a qualitative baseline of what is happening in different coastal communities to begin to identify the drivers of change and the circumstances that shape the challenges and opportunities of local development.

Defining Key Terms: Is it a Fishing Community or a Coastal Community?

Fisheries dependent community is a loaded term, both in management and academia. Chapter III, the literature review, covers the discussion of the term and its various components, but it is important to understand the treatment of related terms in this dissertation. In the text, *coastal community* refers to place-based communities that possess a coastline, which contains the more specific terms of fishing community and fisheries dependent community. While other investigators may choose to look at communities disaggregated from place, I intended to understand the connection between place, people, and the opportunities of the marine-based economy. In addition to the engagement with the literature, the empirical work of this dissertation also contributes to the methodological and applied discussion of how to

operationalize community and develop definitions that are specific enough but do not preclude important perspectives. However, at this juncture, coastal community stands as the term of choice in order to enter the literature and field.

D. Roadmap of the Dissertation

In addition to the investigation of fisheries dependence and transition, the research project offers methodological insights and discussions of the true nature of social science inquiry and investigation. The methodology chapter follows this introduction, and includes a thorough account of how the project unfolded in addition to the standard description of the project's design and implementation. Upon the foundation of the methodology chapter, Chapter III elaborates the relevant and diverse literatures that demonstrate the changes ongoing in coastal communities over the last half of the century, the evolution of limited entry and catch share management and their implications for communities, and the scholarly discussions related to the definition of fisheries dependent community. Context and thick description are important elements in qualitative case studies. Therefore, Chapter IV acts as a gateway from the previous scholarship and preceding knowledge of the cases to the empirically based findings of the fieldwork and interviews. Chapter IV describes and contextualizes the six case communities and provides a brief, broad-brush elaboration of fisheries management in Denmark and the United States and the evolution of rationalized management in both settings. With these three chapters setting the scene, the dissertation moves into three chapters based on the empirical investigation.

Following three major themes revealed in the investigation and analysis, Chapters V, VI, and VII explore facets of fisheries dependence and transition in the six communities. Chapter V, *New Entrants: Where Are They?*, covers the experiences of tradable quotas in Northern Jutland and New England and isolates the issue of new entry as a point of concern. Chapter V uncovers the difference in experiences of coastal communities that have been able to retain young people in the fishing industry and the enabling factors. The subsequent chapter, *Widening the Net*, describes and analyzes the two cases of diversification, where communities have broadened and built upon their competencies in fishing. Lastly, Chapter VII, *Not a "Museum Town": Tourism, Fishing, and Authenticity*, concerns elements of tourism in all six cases studies and isolates the two cases dependent on tourism. The chapter reveals struggles that many coastal community members perceive in relation to remaining a viable, year-round community with activities that contribute to the local economy and identity. The dissertation concludes with Chapter VIII, an amalgamated discussion and conclusion synthesizing the themes outlined in Chapters V, VI, and VII.

CHAPTER II

NAKED METHODOLOGY:

BARING IT ALL FOR A REALISTIC ACCOUNT OF SOCIAL SCIENCE RESEARCH

The structures of the research handbooks have to be reconciled with accounts of how research is actually carried out. Lower's (1977) analysis of the accounts in Hammond demonstrate that, with one exception, the projects embarked upon by these distinguished researchers all reached a point of disruption where the original plan, the original project, the original rationale for the research suffered a breakdown, precipitating a crisis and requiring activities of what Lower calls theoretical "patchworking" or theoretical "bricolage" in order to repair the breakdown and to present an appearance of coherence in the work. Of course, if research is recognized to be a journey into the unknown rather than a task which can be fully specified and planned in advance, then such breakdowns look less surprising, and we can look (Lower suggests) at the patchworking as the injection of a creative element into the process, (Gherardi and Turner 2002, 84-85).

Methodology chapters are central in any dissertation, a tenet of science as conveyors of replicability and validity in the described work. As would be expected, this chapter aims to elucidate the methods and epistemological perspective of the dissertation. However, it also describes the evolution of the project and exposes the miscalculations and course corrections often glossed over. Like others, I could have submitted an immaculate version of the methodology, skirting the realities of revised plans and smoothing over the imperfections, but then this would perpetuate unrealistic expectations for other social scientists. Writing openly about the challenges of this project introduces a vulnerability, especially for a doctoral candidate looking for acceptance into the ranks of academia. Nevertheless, baring it

all reveals what research really looks like. This chapter covers the traditional sections of a methodology chapter and pushes the boundaries to include reflections and realizations to provide a more realistic portrayal of what happened en route to the study's conclusions. Consequently, the purpose of this chapter is two-fold. First, I outline the general structure of the project. I then explain how the project was conceived as a mixed methods approach with both qualitative and quantitative methods, including a testable hypothesis. The chapter then covers the series of realizations of why it was best to eliminate the quantitative component of the research and how the project evolved into a qualitative multi-case study.

A. Exploratory Case Study

From its conception, this research rests on the rationale of exploratory case studies, looking at coastal communities in the regions of Northern Jutland, Denmark and New England, United States. The cases are illustrative rather than representative, parsing different dynamics and iterations of fisheries dependence and situating in places in the midst of transition. Rather than occurring simultaneously, the Danish cases preceded empirical work in the United States. The interviews and subsequent analysis employ an inductive, grounded theory methodology for both sites (Glaser and Strauss 1967). The importance of the project is to understand the different types of coastal communities and manifestations of fisheries dependence. Consequently, the investigation rests on differentiating these community types rather than comparing the institutional context of Denmark and the United States. Although lessons can be learned in terms of national level fisheries management, the emphasis

in this analysis is on local characteristics and looking at parallel cases in both the United States and Denmark. While it is simple to write “American” and “Danish” cases for differentiation, these cases are more closely archetypes of the regional similarities and particularities of New England and Northern Jutland.

1. Criteria for Case Selection

Case studies are a common research design in the social science disciplines, but there is no singular protocol for selecting cases. Yin (2003) explains that case study design is especially insightful for answering questions of how or why, when the extent of control over behavior is low, and in studies of contemporary phenomena. Unlike larger-scale methods like surveys or “big data” projects that examine trends, case studies move away from statistical or random sampling and apply selection frameworks that are tied to the objective of the research. Although random sampling of case sites poses one potential strategy, unlike other methodologies, random sampling is not a prerequisite, nor is it favored (Eisenhardt 2002; Yin 2003). This project most closely follows a multiple case, holistic design where “replication logic” is in practice (Yin 2003, 47-51). Analogous to confirming results through repeated experiments either under the same conditions or even with alterations in the conditions, “replication logic” underpins the rationale for including multiple cases in a study (Yin 2003). For example, taking cases that are similar in characteristic in both Northern Jutland and New England strengthens the conclusions of the study as would be the case in multiple experiments. Although, Yin (1981; 2003) is perhaps the preeminent scholar on case study methodology, his emphasis on

validity and replication point toward a positivistic epistemology, which is not the paradigm of this research. Rather than predict and confirm findings in the initial design of the project, I sought to uncover and delineate what was happening in various communities in order to develop new frameworks and theories. Categorizing the project as “holistic” means that I viewed the communities as a whole and did not specifically delineate subunits for analysis, as would often be done in organizational studies (Yin 2003). For example, the study could have contrasted the experiences of fishing families versus non-fishing families in each community and analyzed those differences across the cases, following an embedded approach (Yin 2003).

Case study design requires deliberation on the research objectives and questions, consequently matching cases to those objectives. For example, the *critical case* offers a means of deduction to conclude that if this instance does or does not display a particular pattern or characteristic, then in turn it applies to all or no other cases (Flyvbjerg 2006). When selecting a case, or cases, a researcher needs to ask herself, what is the objective of the research? Flyvbjerg (2006) identifies a range of strategies and related motivations for certain case selections. Notable for this project, an “information-oriented selection” identifies cases in order to gain the most information from small samples, where selection criteria centers on the expected return of the information contained in the case (Flyvbjerg 2006). Moreover, the maximum variation method, a form of information-oriented selection, argues for case selection in order to better understand how different circumstances or factors related to each case influence outcomes or processes (Flyvbjerg 2006). Eisenhardt (2002)

outlines various reasons for choosing polar cases, or cases with explicit variation in particular characteristics, to extend existing theory. Taking multiple cases within a category reinforces claims of replicability in the data and conclusions (Eisenhardt 2002; Yin 2003).

The six cases in this study epitomize the maximum variation or polar cases method, at least in the initial selection. I set out to look at the issue of *transition* in coastal communities, namely those that had historically relied on fishing. While I was interested in the changes brought about by policy and management, I was interested in taking a more encompassing approach, looking at drivers of change and factors outside of fisheries, similar to Johnsen and Vik (2013). Reviewing the literature also confirmed that in order to talk about transition in these communities I needed to better understand variations of “fisheries dependent community.” As will be discussed thoroughly in Chapter III (Literature Review), this dissertation does not define fisheries dependence with economic indicators alone, but seeks to understand different manifestations of fisheries dependence through a broader perspective. Additionally, I seek to understand the connection of fisheries to tourism and maritime trades as characterized in the literature (Jones, Caveen, and Gray 2014) and to broaden from the small, remote communities, which proliferate the literature (Symes 2000). Based upon this literature, the cases included in the study exemplify three possible trajectories for fisheries transition: a movement toward other maritime sectors, cultivation of fisheries heritage for tourism, and community-based quota allocations.

In addition to seeking cases where tourism, maritime activities, and collective action were at play, the intention was to have cases that varied in characteristics, such as population size, proximity (and access) to metropolitan centers, and the potential for other economic sectors outside of fisheries. My awareness of cases where the dynamics were different encouraged me to try to connect these community attributes and experiences to their orientations toward change. I theorize that the unique features of physical and social geography in these communities influence their various transitions, as seen in the paths they have each adopted in the wake of changes in the fishery and the wider social and economic context. I now turn to the more specific criteria that motivated the case selections for this research.

As indicated, these were the intentions at the outset of the project, and as with *a priori* case selection, one can only choose cases based on superficial information and over time come to deepen the understanding of what that case—or those cases—really exemplify. The three archetypes are not exhaustive, but they represent recognizable trends at the outset of the research and provide contrast to understand shared and divergent opportunities and struggles in coastal communities. Moreover, the cases in both Northern Jutland and New England were not pure types. The reality is that all the communities have some degree of tourism, but the form of tourism and its dynamic played differently in each of these communities, in the same way that fishing does. As intended, the six cases allow greater understanding of the various dynamics at play in coastal communities in the same regions with similar

institutional contexts. Studying these coastal communities at this particular time of flux sets the scene for the overall study to explore economic and social transition.

2. Considerations for Case Selection

The cases in Denmark were chosen first and investigated prior to the selection of the New England field sites. This structure has certain implications for the study, which will be discussed later in this section. The Danish cases include Hirtshals, Løkken, and Thorupstrand, which lie within the region of Northern Jutland. The New England cases—New Bedford, Massachusetts; Provincetown, Massachusetts; and Cutler, Maine—parallel the Danish cases and were determined with an interest in intra-American divisions. Upon selection of the sites, I expected there to be differences among the communities due to their population size, proximity to larger cities, and presence of other economic sectors.

a. Northern Jutland, Denmark

While the Danish cases all lie within Northern Jutland, they vary in population (see table 1., page 19). All three communities are within driving distance of Aalborg, the largest city in the region and fourth largest city in Denmark (pop. 109,092), but public infrastructure and highway connections make it faster and easier to reach Løkken (44.9 km) and Hirtshals (67.1 km), as compared to Thorupstrand (62.7 km). Moreover, Hirtshals represents a key ferry port and land-sea transportation hub between Norway and continental Europe. Hirtshals presented the case of a more industrial port, with fishing remaining in the mix, but expanding (and building on some of the competencies of fishing sector workers) to other maritime-

related industries such as ferries and oil platform repair. Løkken does not have the industrial activities of Hirtshals, but is a well-known tourist destination domestically and among Germans, Norwegians, and Swedes. Finally, Thorupstrand contrasted deeply with Hirtshals. While Thorupstrand and Løkken share some community attributes and participate mostly in nearshore fisheries, Thorupstrand uniquely pooled their quota shares and formed a fishing collective, a self-termed “guild,” in order to retain fishing activity in the community. Thorupstrand is the smallest community and least well-connected to metropolitan centers of the cases in Northern Jutland.

Table 1. Population of six case studies

Northern Jutland*		New England†	
Hirtshals	5,879	New Bedford	95,072
Løkken	1,560	Provincetown	2,942
Vester Thorup°	252	Cutler	507

* Population data for 2015 from Statistisk Danmark

† Population data from 2010 Decennial Census, U.S. Census Bureau

° Vester Thorup includes Thorupstrand and is the smallest area with a population count, the population of Thorupstrand is thus less than 252

Variation within the cases helps answer how communities operating under the same policies and national political contexts experience differences. All these communities operate under a tradable quota system, fully implemented in 2007, and have witnessed changes within wider Danish society in terms of education, employment, free trade and labor throughout the EU, and globalization. All three communities fish off the west coast of Jutland although the gear and average length of trip differs between Thorupstrand and Løkken on one hand, and Hirtshals on the other. Additionally, Hirtshals has a stronger presence in the pelagic fishery (and

reduction, or fishmeal, fishery). However, while diverse on certain criteria, the cases all operate within a shared, wider context with direct links to fisheries and the marine-based economy. All three cases relate in multiple ways to the discussions of *udkantsdanmark* and the question of what to do about communities in Denmark's "periphery." Finally, a key, unifying theme among the communities is their historical participation and prior reliance on fishing.

b. New England, United States

The New England cases were selected as analogues to the cases of Northern Jutland. New Bedford, Massachusetts reflected similar dynamics to the case of Hirtshals. Provincetown, Massachusetts and Løkken share a strong tourism economy along with a small, but surviving fishing fleet. Lastly, Cutler, Maine and Thorupstrand both embody the small, remote fishing community where community cohesion is relatively high and relies on fishing to remain a viable place. Remaining viable and the connection to fishing come out in all the cases and will be discussed further in the empirical chapters, but Cutler and Thorupstrand strongly exemplify a situation of limited alternatives to fishing. Full descriptions of the American and Danish communities appear in Chapter IV, Case Context, as the selection criteria and the methodological implications are the primary concern in this chapter.

Admittedly, exact parallels to the Danish cases would be impossible. For instance, upon further investigation of Thorupstrand, it became apparent that various dynamics were at play, including direct marketing of fish and seafood, emerging emphasis on local food and place-based products, and central community members

driving this collective initiative. The intention of selecting a community in Downeast Maine aimed to further reveal the dynamics of remoteness, small community size, and greater dependence on fisheries because of fewer alternatives like those that arose in Thorupstrand instead of explicit attention to community quota pools and local food. Nonetheless, the size of the community and its connection to infrastructure networks became important divisions, as originally thought in the design of the project. Moreover, I had concerns about the issue of research fatigue in a few of the Maine communities I considered, which was confirmed in conversations with researchers and practitioners in Maine fisheries and coastal management. Finally, Cutler presented a case with greater isolation from summer resident influx and tourism, which was already represented in the Provincetown case.

Figure 3. Map of Northern Jutland, Denmark with case sites

Figure 4. Map of New England, United States with case sites

3. Methodological Implications of Danish Cases Preceding American Cases

Theoretical sampling is the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. This process of data collection is controlled by the emerging theory, whether substantive or formal. The initial decisions for theoretical collection of data are based only on a general sociological perspective and on a general subject or problem area...The initial decisions are not based on a preconceived theoretical framework, (Glaser and Strauss 1967, 45).

In many respects, this study followed Glaser's and Strauss' description in its staggered case selection. I chose three cases in Denmark based on general criteria, looking to see differences in communities, and upon the completion of those cases, I selected cases in New England. Notably, in the final case I sought a place to build on the findings from Thorupstrand, but recognized there were different directions to

go—pooled quotas, community supported fisheries models, places hit badly by initial quota allocations, or close-knit community ties—all were possibilities, but no single case covered the various dynamics and activities at play in Thorupstrand. However, I sought the case of Cutler, Maine to further the conclusions I could draw about remoteness, small community size, and the challenges to remain viable when truly dependent on fisheries. As previously mentioned, case selection in many respects relies on guesswork, thinking something interesting is there based on superficial, or background knowledge for a kinder term. While in some ways the project began with a framework of “coastal community archetypes” indeed the evolution of the project made it clear that rather than pure types the communities mostly had a blend or activities, a finding discussed in later chapters.

There are implications for doing the Danish and American cases in succession as opposed to concurrently. Having completed the interviews in Denmark prior to deciding on which New England communities to include, I introduced some issues of bias in that I had more information on the dynamics that were important in Northern Jutland and could seek those in the New England cases. The intention of studying cases in New England was not to directly compare the two national contexts, but to aim for transferability of the constructs examined in the study design. The argument is that if similarities within community types exist in both the Danish and American communities, the transferability and credibility of these types will be reinforced. Like Danish fishermen, New England groundfishermen operate under a catch shares system and confront changing social and economic circumstances outside of the

fishery, including globalizing markets, technological changes within the catching and processing sector, and new demands on global labor. Like Northern Jutland, New England communities have welcomed tourists and visitors to their coastal communities for decades, if not a century, and have strong links to the maritime economy in the past and at present.

B. Evolution of the Project's Methodology

Although the project included a qualitative analysis component, it was not to be the singular method. Initially conceived as part of a mixed methods approach, the interviews were intended to inform the creation of a survey and to provide context for the findings of said survey. However, I amended the broader methodological approach midstream. The following section covers the initial intentions of the project and the challenges (and opportunities) that arose to push the project in a different direction.

1. Mixed Methods and an Inductive Approach

At the start of the project I knew that coastal communities where the role or importance of fishing was under transition were what interested me, but I fought to operationalize the project and contain its scope. One of my fears was that I would go into these communities with preconceived ideas of important drivers or relevant issues to find that indeed those were not important or salient. To avoid such a top-down research agenda, an inductive approach best suited the project. Even though I could identify my alignment with inductive approaches, at that juncture I struggled to write a proposal with solely qualitative methods. I settled on a mixed methods

approach (Creswell 2014), where I would interview key informants and community residents to then build a survey instrument for wider distribution. The survey would allow me to test the outlined hypothesis that a community's mode of fisheries dependence will influence its adaptation strategies during periods of economic and social transition. I began conducting interviews in Northern Jutland, primarily in Hirtshals and Løkken in the fall of 2013.

a. Qualitative Methods

i. Interviews

The initial intention of the interviews was to vet certain themes in the literature and to build the survey's vignettes. Framed by an inductive epistemology the interviews were to percolate themes and discern which social, cultural, and economic phenomena were salient in these communities. For example, much of my initial emphasis on sense of place—place attachment, identity, and dependence—did not resonate when speaking to the key informants in the Danish communities, which helped to further refine the research questions. What did emerge was an emphasis in some communities on the connection between fishing, identity, and tourism, a theme pursued in the dissertation. Thus, while I did enter into the research with a rough theoretical framework, the interviews shaped the project around the experiences of the people living in the communities.

Primarily, I conducted semistructured interviews with key informants in each community. I followed an outlined interview protocol focused on fisheries management, local engagement with fisheries, and change within the community.

While having topics in mind, the interviews conducted fall into the categories of unstandardized and nonscheduled (Briggs 1986). In line with many semistructured interviews, I balanced the need to convey preparedness, especially when interviewing key informants with limited time, but also remained open and less obtrusive to allow themes relevant and important to the community to reveal themselves through the respondent's reflections (Bernard 2006a). Although there remained a common core of questions for each respondent, I included some questions and omitted others depending on the interviewee's position and perspective, meaning these were unstandardized interviews (Briggs 1986). The key informants in the six communities came from different backgrounds—fisherman, harbormaster, tourist office coordinator, etc.—and therefore the questions and prompts remained open to accommodate the different perspectives, but also probed specific knowledge held by the individual informant. The order of questions also changed based on how the conversation unfolded. I stuck to a similar sequence in many cases, but did not rigidly adhere to a certain order subscribed to scheduled interviews (Briggs 1986).

I mostly prearranged the interviews and made audio recordings of the interviews (see table 2.). In a few instances, I was opportunistic and conducted informal interviews while out in the field. Informal interviewing typically involves a “man on the street” approach, where audio recordings and lengthy questioning are rare (Bernard 2006a). Ten people spoke to me as informal interviews; the interviews varied in length from about five minutes to about thirty minutes in one case. One of the informal interviews included a guided walking tour of Løkken led by a retired

resident, who had summered in the community for decades and now lived year-round in the community. In most cases the pre-arranged interviews were about one hour in length, with a few cases lasting closer to one and half hours.

Table 2. Interviews conducted by case community

Associated Community	Semistructured Interviews	Informal Interviews	Persons Total
Hirtshals	8	0	9
Løkken	5	1	6
Thorupstrand	5	3	8
New Bedford	10	0	12
Provincetown	9	0	11
Cutler	8	3	14
Municipalities	2	0	3
TOTAL	47	7	63

Interview Participants

I solicited participants knowing their positions in the community, in particular organizations, or employment within the fishing or tourism sectors. In some instances, research network contacts helped identify key informants in the communities. From the initial group of names in the community, I followed a snowball sampling or chain-referral sampling method, asking interview participants to suggest other persons.

Respondent versus Informant

While it may seem like methodological minutia, there is a distinction when addressing a participant as informant as opposed to respondent. Levy and Hollan (2015) differentiate between interviewee as informant and as respondent and elucidate the objectives for the two different frames. When a researcher asks a person

to account for certain events, happenings, and traditions he is operating as an *informant*. When asked to reflect on personal experience or opinion on certain life events or traditions, then the interviewee operates as a *respondent*. While in both instances the researcher gets a single opinion or outlook, these are still two different modes of operating for the interview. Oftentimes interviewees weave to and fro between informant and respondent. This distinction in the interviews where I wanted to know both the actions and intentions of the organizations in which the interviewees worked, but I also wanted to hear about the personal experience of the interviewee. The terms respondent and informant are used deliberately in this dissertation to best reflect the role and content of the interview.

ii. Participant Observation and Additional Documents

In addition to semistructured and informal interviews, I also visited all the communities in this study on a few different occasions. Participant observation is a fixture of many ethnographic accounts, but the level of participation may range from researcher to researcher or project to project (Spradley 1980). Primarily, passive participation, characterized by lower degree of interaction with locals, where the researcher maintains an “outsider” role (Spradley 1980). Except for the Cutler case, I was able to visit all the communities in different seasons, to gauge the winter quiet and the summer hyperactivity and in some instances the shoulder seasons of fall and spring. Many of these communities hold festivals and events that relate to the fishing industry and I attended some of those occasions, writing field notes of my observations and experiences (see figure 5).

Figure 5. Summary of festivals, events, museums, and tours visited during fieldwork

Festivals and Events
Fastelavn, Hirtshals, February 2014
Pinsefest, Løkken, June 2014
Working Waterfront Festival, New Bedford, September 2014 (and 2011)
Dock-u-mentaries film night, New Bedford, April 2015
Fourth of July festivities, Cutler, July 2015
Museums and Tours
Walking tour, Løkken, November 2013
Slettestrand boat building workshop visit, Slettestrand, May 2014
HM800 Jammerbugt Cutter fishmonger, Copenhagen, May 2014
Packing House tour, Thorupstrand, May 2014 & June 2014
Coastal Fisheries Museum, Løkken, June 2014
Løkken Museum, Løkken, June 2014
Pilgrim Monument Museum, Provincetown, April 2015

In many instances, I conducted the interviews in people's places of business or their homes, and thus got a glimpse into what Goffman (1959) would call the backstage of their work and lives. These observations informed the conclusions of this research as well. Additionally, I collected documents—in print and digital format—from newspapers, self-produced materials, books, plans, tourism brochures, websites, and social media that were relevant to the research. This was especially important to track the rapid development of Thorupstrand's efforts to market their fish, sell directly to consumers, and secure a contract with a major Danish supermarket (Coop 2015). Moreover, some of the rhetoric and discourses employed in plans and materials offers another means of understanding the ongoing narratives of these communities around fishing, change, and economic development.

b. Quantitative Analysis

The second component of the initial empirical methods consisted of a survey of residents in the American and Danish communities. As with many surveys, the purpose was to broaden from the case-specific narratives and identify patterns in preferences and opinions among participants with shared characteristics. The survey would provide a means of comparing communities at the aggregate level, but also enable insight into divisions within communities or linkages of groups across communities in order to develop a typology of fisheries dependence. In addition to covering participant demographics, relationships to the fishing industry, personal values concerning openness to change and traditionalism (Schwartz et al. 2012; Stern, Dietz, and Guagnano 1998), the survey featured vignettes, or brief narratives of particular events or circumstances, to address the two central themes of fisheries dependence and transition. The survey was available in both English and Danish and totaled 78 individual questions.

Disentangling what drives people's decisions poses challenges in social science research because certain social phenomena often are correlated—for example, housing property values and the performance of its local school district—which in turn make it difficult to determine the motivations for neighborhood preference (Wallander 2009; Heise 2010). Additionally, research participants are not always conscious of the reasons behind their choices or the weight of one reason over another (Wallander 2009). The Factorial Survey Approach (FSA) allows researchers to independently vary the level of chosen dimensions to uncover the motivations

behind judgments (Rossi and Anderson 1982). FSA allows researchers to elicit positive beliefs, normative judgments, and/or intended actions by manipulating the level or magnitude of a select number of dimensions or independent variables within a set storyline or vignette (Wallander 2009). Using the interview data and literature to determine the independent variables or dimensions, I could randomly and orthogonally vary their levels to uncover relationships to dependent constructs of fisheries dependence and transition (Taylor 2006). Furthermore, the use of vignettes provided a means to gauging survey participants' judgments and avoided social desirability bias in the responses (Wallander 2009).

Consequently, FSA offered an exciting and innovative means of looking at the concept of fisheries dependence. My intention was to present survey respondents with a brief, fictional description of a coastal community in which I would independently vary certain characteristics. I based those variables on the initial findings of the interviews in Northern Jutland. Upon reading the vignette, respondents were asked to first determine whether they considered the described community to be fisheries dependent and then to prescribe the best coping strategy under the circumstances presented in the vignette. Rather than presenting complete real world examples, where geographic connections, level of fisheries engagement, and community economic health are often intertwined, FSA allowed me to vary the levels and dimensions orthogonally. Along with the qualitative material from the interviews, the objective with these two questions was to answer the two primary research questions. I could connect the dimensions in the vignettes to the

determination of dependent-or-not and then examine if there were patterns or correlations between community attributes and the suggested coping strategy. Figure 6. includes the vignette with all dimension levels in brackets.

Figure 6. Vignette text displaying all possible dimensions and levels

Quahaugansett is a community on the coast of New England with a history in fishing and maritime trades. It takes [less/more] than 45 minutes to drive from here to a major city. The community is [well/poorly] located as a land-sea transportation hub. In the past, Quahaugansett has had an active fishing fleet, but the number of boats has shrunk over the years. Residents of the community prefer that their fishing fleet be [comprised of small-scale boats for sustainability reasons/active and visible because they enjoy visiting the harbor/profitable and economically productive regardless of vessel size]. However, the fishing fleet is under pressure due to [lack of profitability/BLANK] [lack of interest from young people/BLANK] [other job opportunities outside the fishery/BLANK]. Many of the local maritime businesses [struggle to stay open/thrive] because of the level of business generated from the fishing fleet and other sectors. Apart from fishing, Quahaugansett has developed [one other industry/many other industries] with [little/large] success.

Following the vignette, the survey had two questions related to the passage. The first simply asked respondents to determine whether they felt the described community was a fisheries dependent community or not. The second question asked for the participant to prescribe what the community should do under the circumstances. The question read:

If you lived here, what do you think the community should do?

- A. Expand the fishing industry
- B. Maintain the fishing industry as it is currently
- C. Adapt by letting fishing continue on its current path, but seeking other economic opportunities as they arise
- D. Abandon fishing to pursue other industries/activities
- E. Accept that things are changing and nothing can be done other than to leave the community
- F. None of the above, please specify: _____

With this question, I used literature and information gained from the initial interviews, to draw a spectrum of responses ranging from full embrace of fishing — *“Expand the fishing industry by encouraging new recruitment of the fleet”* — to the complete retreat (and admittedly, hopelessness) embodied in the final option — *“Accept that things are changing and nothing can be done other than to leave the community.”* In between those embrace and retreat poles, three options cover strategies of maintaining, adapting, and abandoning fishing.

i. Programming and Randomization of Vignettes and their Variables

The object universe represents the full set of possible combinations of dimension levels and is calculated by multiplying the number of levels for each dimension. Thus, for eight dimensions with two levels and one dimension with three levels, the vignette universe is 768 ($2^8 \times 3^1$). Since three of the dimensions operate as dummy variables (presence of a condition or not), when these three dimensions align to be blank in all three, the vignette no longer makes logical sense. This particular null-null-null combination occurred 96 times in the set. Thus in 96 instances when these dimensions “rolled blank,” those were eliminated from the vignette pool leaving 672 possible vignettes from the original 768. With five vignettes presented in each survey I came to 135 unique surveys; the 135th survey has two unique vignettes, but is then filled with three random, but previous covered vignettes to round out the set.

Doing an FSA study requires multiple versions of questionnaires with independently generated combinations of dimensions and vignettes. Due to the older

demographic of the communities and the lower frequency of residents with jobs at a desk sitting in front of computer, paper and pen survey were more suitable for the population than a web-based design. Randomizing the dimension levels and the vignettes and keeping track of their appearance/replacement within the set of 672 possibilities was also challenging to do with a pen and paper questionnaire. I was dissatisfied with the options described in some of the literature; thus I recruited a programmer to code a program for the vignettes and distribute them throughout the 135 versions of the survey.

ii. Pilot Testing Insights

The survey was reviewed and tested by a group of persons from a coastal community in Northern Jutland, which is not one of the three cases. In addition, two colleagues with ties to the communities of Hirtshals and Thorupstrand reviewed and commented on the questionnaire. Apart from the small text edits in the vignettes, from the pilot testing it seemed that some explanation of the vignette might help respondents better handle these questions. Building upon the dissemination methodology of seeking residents in the communities through meetings and local organizations, I prepared a brief presentation to walk through an example of the vignette with the residents to better understand what they were being asked to do. In addition, some pilot testers questioned the purpose of the values questions in the survey. I decided that in the presentation of the survey at the community meetings, I would acknowledge that these questions may seem odd in a study about fisheries dependence and transition, but that the questions aim to assess the degree of

traditionalism and openness to change in the communities. Looking back and seeing now that these questions offered little insight, I wish I had chosen to eliminate them from the survey. It would have shortened the length of the survey, which was inevitably necessary. Moreover, they were not helpful for answering the primary research aim. Oftentimes, there is a fear when designing a survey that one will omit a critical question—or ten critical questions—and thus everything (and the kitchen sink) ends up in the survey. While there were other issues with the survey, I would have advised myself that less is more and to keep the survey simpler, especially when the vignettes were the most important section for the research.

2. Recognition of a Problem

At the risk of sounding like an evangelist, I am a believer in mixed methods. To begin, I found it very difficult to design a study, especially one that included a survey, without speaking with people first about the issues salient to them. In conception, I stand by my plan to include a survey to test my hypothesis connecting mode of dependence and orientation toward change. However, my faith has been tested and I have decided that my grand ideals of having a mixed methods dissertation will not come to fruition. A survey can only provide insight if people fill it out. Aside from concerns of statistical power, effect size, and response rate, without sufficient numbers of people completing the survey, analysis will provide little if any findings.

In the beginning I was not disciplined enough—or confident enough in a qualitative-only study—to recognize that the plan to interview and survey six

communities was overambitious. I am still disappointed to leave the survey as it is after developing questions, translating the text, and gathering some responses in Hirtshals and Løkken. I was excited by the prospect of applying the innovative method of FSA to this area of research, but to quote Gherardi and Turner (2002, 84), I “reached a point of disruption where the original plan, the original project, the original rationale for the research suffered a breakdown.” Keeping the survey would require adjustments to the questions. Moreover, I overestimated my ability to analyze survey data using the FSA. At the same time, I was staring at more than 20 qualitative interviews in Northern Jutland (and likely the same number in the end from New England), which had returned rich information that required serious attention and thorough analysis. In doggedly pursuing the survey I risked paying more attention to something that was not working and concurrently undermining the interviews. Thus, even though I think mixed methods strengthen many collaborative projects, it was too much for me to take on in a dissertation that was not connected to a wider project for data collection support. In the following section I delve deeper into how the methodological “breakdown” unfolded and the subsequent “patchworking” that brought this project to what it is today.

a. Realizations in the Field

i. Recruitment Difficulties

Soliciting participants to do the survey proved very difficult. Due to various constraints, the survey would be done in pen and paper, as opposed to digital version, namely because programming the randomization and distribution of the

vignettes would have required complicated coding and skip commands in an online survey. Concerned with low response rate and issues procuring addresses for people living in the community and the need for thorough directions for the vignettes, I decided that distribution at a community forum would be the best approach. In Hirtshals, we solicited participants to an open meeting advertised with the help of local contacts and organizations in the community. At the first (attempted) meeting, where we had support of local institutions such as the tourist bureau, the harbor organization, the fishermen's union, and the North Sea Research Park, only two people came (parents of a fellow PhD student in Aalborg). That was disheartening. Local Hirtshals contacts provided feedback that the flyer promoting the meeting had too much research jargon and did not provide an answer to the perennial question, "What's in it for us?" I regrouped, allowed for about one month to spread the word, hit the streets posting flyers in shop windows after the approval of the local shop owners association. I even did a radio spot with the local radio station (speaking in Danish), encouraging people to come to the meeting and the local news website *Skipperposten* ran two stories on the meeting. And when the (second) meeting came around, we had about thirty people in the audience.

At the meeting, I presented the project to those gathered, explained the survey's format walking through an example vignette, and underscoring how helpful it would be to the research but that the survey was voluntary. With surveys distributed and pens provided, people filled out the survey while seated at tables with refreshments at the ready—ideal circumstances for filling out a questionnaire.

As the researcher, I had the chance to observe the participants completing the survey. From that experience came some notable observations. First, people needed a minimum of twenty minutes to complete the survey and in some cases almost a half hour. Secondly, aware that some in the audience were fishermen, I could see those individuals struggling to read the vignette paragraphs, looking over to one another in solidarity. This was not an issue of rolling eyes or indications that the survey questions were senseless, but rather that I had vastly overestimated the population's comfort reading and responding to written questions. The room was silent. It was as though I was administering an exam. I felt guilty.

ii. Resource Intensive Surveys

In addition to witnessing the challenge some members had completing the survey, I also realized that disseminating the surveys through these town meetings was time, labor, and resource intensive. Hirtshals was the community where I was best connected to key local leaders, with the ability to rally support from local institutions. I made some initial efforts in Løkken, but it was clear that I did not have sufficient support. Furthermore, at the particular point in late spring, people in the community were preparing for the onslaught of tourists and summer activities, thus a meeting about a research project and survey was not a high priority. And so, my strategy went to working through the contacts and distributing the survey as a snowball sample. This change, of course, had methodological implications, but having weighed the options and implications, this at least allowed me to reach people to complete the survey. Nonetheless, the success was minimal and those that did fill

it out where largely over 60 years old. Lastly, my stay in Denmark was coming to an end, I decided to put the survey on hold and reevaluate. While these experiences heightened my concern about the viability of the survey, I still wanted to make it work.

b. Survey Difficulties

i. Uninformative Preliminary Results

Sometimes in research, decisions are made for you. Months passed after I had returned to Rhode Island and the survey remained at the same point of limbo. I needed to evaluate the data I had from the Danish cases, which were predominately from Hirtshals with some from Løkken and fewer from Thorupstrand. Most concerning were that answers to the question, *“If you lived here, what do you think the community should do?”* showed little variation in distribution regardless of the dimensions in the vignettes. Additionally, *“Part IV: Values”* showed little or no variation and likely would not be insightful for drawing any conclusions. I considered removing sections of the survey and reworking the response options for the vignettes, but honestly months kept passing and I had made few new discoveries as how to remedy the multiple problems—dissemination, the vignettes, and overall length—of the survey. Changing the survey from Denmark to the United States also presented methodological issues. Moreover, the complicated nature of analyzing the vignette data appeared as an even more formidable challenge.

ii. Complex Vignettes

The standstill on determining what to do about the survey also arose from the difficulty of organizing the data from the vignettes and identifying a suitable way of regressing the dimensions. Each participant answered two questions for each of the five vignettes presented in the survey, as well as other questions in the survey. Thus, organizing the dataset required a panel data approach, as essentially each vignette represented a different observation, as would be the case in a time series or longitudinal study. Based on the type of dependent variable represented in the vignette judgment, different statistical and regression techniques may be applied, including analysis of variance, multiple regression, logistic regression, and simple means comparisons of dimensions (Wallander 2009; Heise 2010). In addition to the information generated from the dimensions in the vignette and the associated dependent variables, when the survey asks for identifying information from the participant, this information too can be used to illuminate relationships. Atzmüller and Steiner (2010) highlight different analysis interests with FSA in terms of respondent-level and vignette-level effects, “A quantitative *vignette study* consists of two components: (a) a vignette experiment as the core element, and (b) a traditional survey for the parallel and supplementary measurement of additional respondent-specific analysis of vignette data,” (Atzmüller and Steiner 2010, 128). Jasso (2006) explains the three, multiple order equations that cover decisions, positive-beliefs, and normative-judgments further highlighting the onion-like layers of this method, which required further problem-solving and planning for the analysis to begin.

iii. Different Audience than Typical for FSA

There is one final point to make on FSA and vignettes. FSA questionnaires are often presented to professionals familiar with the task of making a particular decision or judgment based on differing circumstances (e.g. nurses (Taylor 2006) and social workers (Wallander and Blomqvist 2008)), or to groups of graduate students, who have the earned reputation of doing just about anything in exchange for free food. In contrast, employing this approach for a more public and heterogeneous audience presented challenges both in recruitment but also the quality of the answers provided. I tried to overcome some of those issues by walking through an example vignette with the group assembled in Hirtshals, but again with the realization that it was costly to continue with these meetings, there was a risk that the vignettes would not be understood. Additionally, as illustrated by the Hirtshals meeting, the vignettes required a comfort with reading paragraph length texts (five in succession), which could be expected of professionals, but perhaps not the general population (Sauer et al. 2011).

In summary, in addition to the mounting difficulty of getting people to fill out the survey, it became clear that once the data were procured, analysis would not be straightforward, nor would preliminary results be immediate. Furthermore, the cases covered in the literature had fewer than nine dimensions and it became more apparent that I had added difficulty and complexity on top of trying a new method for the first time. Meanwhile, a growing amount of qualitative data required coding and analysis.

3. Recognition of an Opportunity

Although the survey required attention both in terms of content and dissemination, the project was not at a standstill. Meanwhile, I finished interviewing twenty-six persons related to the three Danish communities and began interviews in New Bedford and Provincetown. Having transcribed the Danish interviews, I completed an initial coding of the data by October 2014 prior to the start of fieldwork in New England. I began interviews in New England in January 2015 and started to recognize the richness of the qualitative data and the time necessary to address the interviews in the inductive, grounded theory approach I intended (Glaser and Strauss 1967).

On the one hand, I had a survey that was not functioning as planned; I could put more effort and resources toward it but with the caveat that the results may not be compelling in the end. Moreover, with finite resources and time, attention to the survey would pull effort away from the qualitative analysis. On the other hand, the interviews were richer, but also broader in themes than anticipated, and required time to analyze the findings as a result of an open, inductive approach. I faced a methodological tradeoff. Nonetheless, the push of the survey and the pull of the interview data were in the same direction. Once it became clearer that doggedly pursuing the survey risked undermining the interviews, the project became a qualitative study, not a qualitative-quantitative mixed methods study. Ultimately, letting go of the survey and the attempt at using FSA in a novel setting was difficult,

but the recognition that the qualitative material deserved the spotlight eased the decision.

With the decision to eliminate the survey, out went the overall framework of the project, namely the hypothesis to be tested. The project became an example of inductive science, not an effort to use inductive approaches in the initial stage to inform a more deductive instrument like the survey. In order to incorporate the various themes uncovered in the interviews, the project remained focused on the manifestations of fisheries dependence and the concept of transition, but also covered emerging themes such as authenticity. Becoming an entirely qualitative project enabled me to examine the narratives and discourses at play in the communities. The challenge was to embrace the myriad directions of the interviews, but also convey a cogent and comprehensive assessment of coastal communities in transition.

C. Rather than Saw off Your Foot, Find New Shoes!

Admittedly, I felt disappointed that the work I had done on the survey—its development, its translation, the meeting in Hirtshals, etc.—would not furnish results for the dissertation. In a number of respects, I stand by the ambition to do a mixed methods project and to incorporate an innovative survey technique. Prior to this dissertation research, I had worked on a project that employed a mixed methods approach. I had failed to recognize a key difference between that project and this dissertation: the reality of working alone rather than with a team of researchers. Thus, even though I believe mixed methods strengthen many collaborative projects, it was

too much for me to take on in a dissertation unrelated to a wider project for data collection support.

A move away from “either/or” thinking toward “and/more” perspectives (Flyvbjerg 2006) will only strengthen social sciences contributions to resource policy and the study of communities undergoing change. Nonetheless, mixed methods studies require financial support and researcher capacities to develop instruments, collect data, analyze the results, and synthesize the findings that are likely greater than studies falling under a single epistemological paradigm. There is encouragement, or perhaps pressure, to become a methodologically bilingual social scientist able to employ both quantitative and qualitative methods and the dissertation represents a primary forum to demonstrate one’s abilities as a researcher. However, the expectation—self-imposed or not—to “do it all” in the dissertation also primes fledgling researchers to feel pinned in to initial thinking when confronting the inevitable methodological crisis. It can feel that changing course and deviating from the original plan is a defeat or a result of a personal deficit. Following a theme of this chapter and the quotation presented from Gherdardi and Turner (2002), this perception emerges from the propensity of social scientists to sweep these roadblocks and alterations to the plan aside and report only the successes and the final form of the research design in methodology sections. However, we can find solace in Neitschmann (1979, 1):

Field research can be a profound human experience. Yet the accounts of many studies are written as if the investigation had taken place in a vacuum—as if the researcher suddenly had been teletransported to the site and, by means of

clairvoyance or immaculate conceptual perception, had faultlessly initiated and completed the research project in one binding flash of academic ingenuity.

Let me tell you, it usually doesn't work this way, especially in foreign settings. Even though they are exorcised from articles and books, there are awkward, stumbling, agonizing, often humorous personal accounts and problems that give each research experience a special character and texture.

As the title of this section recommends, I decided that rather than saw off my foot because the methodological shoe did not fit, I would find new shoes, or a research framework, that would allow me to run to the end of the project without discomfort. To that end, this project fits into the interpretive or social constructivist paradigm of social science.

1. Adopting a Multi-case Ethnographic Approach

In its final, evolved form the project is a multiple case study exploring the topics of fisheries dependence and transition through qualitative methods. The interviews represent the principle method of data collection, but are supplemented by written materials and media produced by/for the communities or organizations in those communities related to fisheries, tourism, or other maritime sectors. In addition, field observations and notes provide material for analysis. Although ethnographic work often situates the researcher for an extended period of months, if not a year, in a single place, often a small village, I did not live in the communities I studied. I did spend one month in Machias, Maine in order to study Cutler and I spent four consecutive days in Thorupstrand. In the case of Provincetown, I stayed in Dennis, Massachusetts which is about 35 minutes drive from Provincetown.

However, for the majority of my work I lived in Aalborg, Denmark and Providence, Rhode Island making day trips to the sites. I embodied the “commuter” researcher in respect to participant observation methods (Musante 2015). Consequently, the depth of my knowledge of each case is not as great as if I had stayed for extended periods living among the people I interviewed. However, the experience traveling to those locations, walking the streets, attending festivities informs this work, just as they would for a more traditional ethnography. I did spend years living in the two regions under investigation in this study and as previously discussed the project originated from observations while living in Denmark and reflecting on my knowledge growing up in New England.

As intended at the outset of the project, the study of multiple cases has been the objective. At times, six cases have seemed daunting and ill-advised, but the connections to be made to similar cases in two different national contexts, strengthens the work and helps extend conclusions beyond what they would have been from a single case study. This work may be called a “macro-ethnography” because its extent reaches to multiple communities (Spradley 1980). Finally, because of the delineated interest in fisheries dependence and transition, the project represents a topic-oriented ethnography as opposed to accounts with a more general interest in the culture of a place and/or its people (Hymes 1978 in Spradley 1980). Therefore, to call this ethnography stretches the bounds of the method slightly, but the project still encapsulates many of the strategies and tenets of ethnographic research.

a. A Note on Language

In the chapter, Participant Observation, Bernard (2006b) devotes a section to learning the language of one's field site. He evokes Franz Boas' comments that one would assume anthropologists and social scientists collecting data through observation and interviews would know the language of the culture, people, or place that they are studying, but in the past this has not been the case (Bernard 2006b). Bernard quotes Burling (2000 [1984], v in Bernard 2006b, 360), "The best kept secret of anthropology is the linguistic incompetence of ethnological fieldworkers." I bring this up not to say that I am superior to those accounts because I learned Danish. Rather, I think in these field methods texts and in language learning generally, there exists an all-or-nothing warning to the effect of: Be fluent or don't attempt it. Alternatively, another camp advises: Bring a translator and the account will be just as good. But language acquisition in my experience is not an all-or-nothing task. When asked, "How's your Danish?" I tend to reply, "It's functional." That is genuinely how I can best describe it. I probably never realized how functional or how useful my cobbled-together Danish was until I started using it in these interviews and in this project. Nonetheless, I recognize in reading the transcripts and reflecting on these interviews versus those I did in English—with both Danes and Americans—that I missed opportunities to follow up or draw certain connections. However, when the choice is between interviewing a Dane in Danish or not at all, I think the implications of missed connections diminishes in gravity when one realizes that perspective would not have been included at all.

Of the total seventeen recorded, semistructured interviews⁵ done in Denmark, seven were done primarily in English. We spoke Danish in the remaining ten semistructured interviews and all ten of the informal interviews were in Danish. Many Danes have a marked (and impressive) command of English, especially those who work in international business and academic settings and those with higher educational attainment. I realized though that some persons whom I wanted to interview would be unable to speak in English. Furthermore, during two different interviews that I had prepared in English I noticed that the respondents were not entirely comfortable speaking in English. I encouraged them to express themselves in Danish when they could not find the words in English, which seemed to help. However, I realized that I should have prepared myself to conduct the interview in Danish. Additionally, after being back in Denmark for about one year my Danish had improved; thus I decided to conduct interviews in Danish from that point forward.

There are implications for the switch to interviewing in Danish; to begin, I was somewhat handicapped. I am not fluent in Danish, but in an interview two elements help oral communication: (1) written questions and notes from which to read and remind myself of vocabulary and (2) recording the conversation for transcription. I am conversant in Danish, but phrases and moments slip past just as they would for anyone not fully comfortable in a foreign language. For instance,

⁵ Naturally, this applies only to the interviews conducted in Northern Jutland communities; all New England interviews were conducted in English. In the case of two of these interviews, two persons were interviewed making the total number of persons interviewed nineteen.

extemporaneous follow-up questions are tougher in such situations. Sometimes slang or colloquialisms confused my grasp of the discussion in the moment. Moreover, I discovered that transcribing in Danish was actually the hardest and most arduous part of the process, but I needed that written transcript to improve my understanding and for my methods of analysis. Consequently, I chose to hire two students at Aalborg University, both fluent in Danish, to transcribe the interviews. There are a few implications to this decision, as I did not spend as much time listening to these interviews as I did with those done in English, including those done in New England, but as someone with superior reading than oral comprehension in foreign languages, this was the best way forward.

I should also mention that in Danish communities where I worked, many residents speak with a dialect or strong accent, which made certain interviews and instances of observation more challenging than others. Additionally, there were times when my American accent (or poor grammar) impeded conversation, but everyone was patient with me. Which in turn, brings me to a final point about learning the language and rapport. Speaking Danish afforded me access to fishermen, elder persons, and those who just did not often converse in English, as well as access to news articles and other accounts only written in Danish. While this access was important and improved the representativeness of the interviews, I think speaking Danish benefitted how I was perceived. In at least three instances, I remember the sense that the man I was interviewing was impressed that an American would take the time to learn Danish and would even choose to come over to live and study in

Northern Jutland. And thus, that indefinable concept of rapport benefitted from speaking Danish.

b. Data Processing

As aforementioned, two Danish undergraduate students transcribed the Danish interviews in full. I gave them examples of transcripts that I typed myself, instructed them to type what they heard as best they could but to omit “umms” and other filler words. The text remained in Danish for analysis and I translated quotations from the transcripts that would appear in the dissertation into English myself.⁶ In the case of the seven interviews in Northern Jutland conducted in English, I transcribed those in full myself. In the New England cases, once again, I did the transcriptions myself, but having completed the Danish cases and having reviewed those transcripts prior to conducting the New England interviews, I did not transcribe the full interviews verbatim, but rather summarized some portions of the interviews and then transcribed directly when the interviews focused on relevant topics and themes. NVivo software aided the analysis, especially for coding the Danish interviews.

2. Grounded Theory and Induction

At the genesis of grounded theory, Glaser and Strauss (1967) were trying to push the discipline of sociology away from verification of theory toward the generation of theory. Their emphasis lay in taking the data—interviews, observations,

⁶ Quotations in the empirical chapters that have been translated from Danish into English will be differentiated with “own translation” in the parenthetical reference.

accounts—and letting the data speak for itself in terms of themes with which researchers would build theory. This stripped down understanding of grounded theory stands in stark contrast to a deductive emphasis on hypothesis testing. In the later, theory or principle presents a standard to which to compare the collected data to either confirm or reject the null hypothesis. In contrast, Glaser and Strauss (1967) argue that theory must both “fit” and “work,” meaning that categories easily map onto the data as opposed to being squeezed into preexisting boxes and that the resulting theory has relevance and helps explain the phenomenon or behavior under investigation. Theories generated come in two forms: substantive and formal (Glaser and Strauss 1967). Substantive theory relates directly to the subject of inquiry; in this study substantive theories relate to fisheries dependence, development in coastal communities, or fisheries management. Formal theory strikes at more high-level concepts. Here the reach is to gain insight into the process of change or transition. Grounded theory guided this study in the respect of using the transcribed texts to identify themes and draw the theoretical contributions of this dissertation.

Glaser and Strauss (1967, 43) also encourage, the “joint collection, coding, and analysis of data” as they explain, “The generation of theory, coupled with the notion of theory as process, requires all three operations be done together as much as possible.” The authors even address the propensity of research projects to divide these processes into sequential stages and warn that such encapsulation does not lead to good generation of theory. As this project’s data collection, analysis, and writing bled into one another, those sentences came as a relief and bolster the methodological

choices of this study. Indeed, data collection, coding, and analysis have flowed together, especially with the structure of the study starting in Denmark and moving over to the cases in the United States.

Finally, to draw on a somewhat disparate research tradition, grounded theory's comparative method and the hermeneutic circle of interpreting text and thinking of the context come together and inform this dissertation's methodology. As grounded theory requires the researcher to return to the text after open coding in order to generate theory through successive steps of axial coding and selective coding, hermeneutics too encourages revisiting and reconnecting the text to the experiences and context of the case, or object of study. Justification and explanation from a hermeneutic perspective requires the investigator to determine whether the interpretation of the data reveals answers satisfying the central concern of inquiry (Packer and Addison 1989). In that vein, hermeneutics and its related interpretative tradition deserve further elaboration.

3. Hermeneutic Perspective

Hermeneutics has influenced the interpretation and analysis of the texts in this dissertation. To begin, as a social scientist, the approach to the study of people as different from those who study phenomena in nature resonates (Delanty and Styrdom 2003). I identify with the importance of the cultural and historical context of the text and the meaning that people subscribe to the world around them, two tenets of hermeneutics largely expressed in the work of Dilthey (Schnegg 2015). As the objective of the hermeneutic circle is to move back and forth between interpretation

of the parts and the whole of the text, the analogy can also be applied to the study of coastal communities in the formation of the parts to comprise the whole and how the whole feeds back to influence the decisions and movements of its parts. Additionally, the emphasis on human—individual, cultural, social—meaning as opposed to the existence of objects or phenomena also holds epistemological cache in this research, aligning more closely with Geertz’s interpretive anthropology (Geertz 1973; Schnegg 2015; Delanty and Strydom 2003).

When talking about change, hermeneutic thinking is helpful because of the cultural and historical context and the meaning and value prescribed to new and old ways. Similarly with fishing or fisheries dependence as object, the theoretical interest lies in the meanings prescribed to its persistence, its alteration, or its absence. Here, Heidegger’s distinction between the collection of objects that constitute the universe (*Seiendes*) and human understanding of those entities (*Sein*), opens up inquiry to the meaning behind practices and symbols of the communities (Schnegg 2015, references to Heidegger 1962). The inclusion of multiple cases and the intention to work across cases as opposed to only within cases pushes the boundaries of Geertz’s conception of field research and theory (Schnegg 2015). However, the dissertation sits within the interpretive tradition, outlining an initial point of view or “domain of inquiry,” to borrow from Glaser and Strauss (1967), and establishes context and uncovers meaning as opposed to confirming theory or articulating a central argument (Packer and Addison 1989).

D. Limitations and Delimitations

With any study—qualitative, quantitative, or mixed methods—the choices made and the constraints on the design limit the conclusions. Additionally, the study operates under certain parameters or delimitations, which are not unintended weaknesses but rather imposed boundaries that make the project manageable. This section discusses the limitations of this project and the delimitations levied on its design and scope. Foremost, this study cannot, nor was it intended to, establish causality because it was not designed as an experiment, nor were observations made at different time intervals as would be the case in a time-series or cross-lag design with isolated effects (Bullock, Harlow, and Mulaik 1994). Positivist science centers on rigor in validity and generalizability of its results, whereas interpretive epistemology aims for a trustworthy account demanding the conclusions be credible, dependable, and hopefully transferable (Lincoln and Guba 1985 in Gherardi and Turner 2002; Guba and Lincoln 1994).

1. Limitations of Participant Observation and Interviews

To establish dependability, the detail of this chapter elucidates the steps and decisions in the research process. Credible accounts require multiple sources, which are addressed through the different modes of data collection, but interpretive social science also encourages researchers to state their own biases and experiences for the reader to judge the account. This is especially important when using methods of observation as “the place from which the observer observes” influences what is seen and thus reported (Musante 2015, 272). Although discussing the limitations of

participant observation, Musante's (2015) point that fellow scholars should not ask *whether* a researcher is biased, but rather ask *how* the researcher is biased has relevance to this qualitative study. Similarly, in the hermeneutic tradition, namely according to Gadamer, prejudice, understood as one's own experiences, cannot be avoided and thus is an integral part of knowledge (Schnegg 2015). Moreover, the encouragement to be open about one's perspective, personal attributes, education, and ontological perspective are important features of accounts from the field (Musante 2015; Bernard 2006b).

To that end, I can assess the lens through which I see, even as I try to wipe the glass clean of unintended bias. I grew up in a small suburb of Boston, which makes me a New Englander but one with somewhat different experiences than those who grew up, lived in, moved to, worked in New Bedford, Provincetown, and Cutler. Being an American puts me further outside of the experience of the Danes, but having lived in the country for four years in total colors the account differently than one written by a Danish citizen or an outsider who just arrived. Issues of language have been discussed and do have some connection to the discussion here. Lastly, my experiential profile fits the footloose, educated young woman living out the "mobility-as-opportunity discourse" discussed in the literature (Norman and Power 2014). Thus, compared to the desire to remain in the same community from childhood, as voiced by some in these interviews, I represent in some ways the opposite, which requires reflexivity. Nonetheless, I would be remiss not to admit that like many researchers, I study places, societies, and cultures that I personally find

captivating. Once again reflexivity is paramount as the impartial, objective scientist of positivism gives way to the “passionate participant” of constructivism (Guba and Lincoln 1994).

Because talking with people in interviews was the primary mode of data collection, certain concerns about the perspective, or the accuracy of the accounts, has some influence on the limitations of this study. Bernard (2006a) outlines response effects, which may amount to a discrepancy between interview data and the “true” opinions of interviews participants. As these are accounts from people, first and foremost there may be issues with accuracy of memories, which is common in interviews (Bernard 2006a). The deference or acquiescence effect and the social desirability effect may also be in play in people reporting what they expect the researcher wants to hear or seek to avoid uncouth or culturally insensitive topics (Bernard 2006a). In a few instances, I could detect both an age and gender differential between me and a few of my interview respondents, but those were often moments not entire interviews and had little impact on the overall content of the interviews, especially in regard to the proposed research objectives. Most of the interviews were done one-on-one in homes or offices, but sometimes they were in public or with two or more participants. Having other people around or participating in the interview can alter the dynamics of the interview and create a third-party present effect (Bernard 2006a), but in most cases when two or more people spoke to me together—a husband and wife, a mother and son, two bank colleagues, and a group of fishermen—they spurred each other on and brought up stories or experiences, which

I as an outsider did not know to ask about. While being aware of these potential effects, the interest of the interviews lies in the perspectives and experiences, not accurate accounts of what transpired or the precise magnitude of changes and effects.

2. Delimitations

This being a multiple case study, context or setting operates as an important feature of the study, as Yin (2003, 13) advises, “You would use the case study method because you deliberately wanted to cover contextual conditions—believing that they might be highly pertinent to your phenomenon of study.” Indeed case studies have some ability to speak to universality of phenomenon, especially in the instances of the critical case (Yin 2003; Flyvbjerg 2006). However, the findings in this study—although rich in context due to regional settings, geography, and land-sea interactions—identify struggles in modern, developed societies with communities that have supported themselves on natural resources or agriculture. Nonetheless, the context of developed countries is a key delimitation to this research, as conclusions should not be drawn in terms of fisheries dependence in developing nations, as issues of poverty, food security and sovereignty, and human rights would have been the focus. Fisheries issues in places where indigenous peoples and groups seek access privileges and perhaps decision making authority are not the focus of this research, neither is there an explicit attention to ethnic dynamics within the communities and their related fisheries.

Finally, qualitative research, especially with open interview protocols, generates a great deal of data, much of which sits on a hard drive. Inevitably, not

everything finds its way into the final written piece. Knowing the contentious nature of fisheries management, the New England Fishery Management Council, fishermen, and their port communities, I did not seek to write a dissertation on decision making, fisheries science, and the state of New England's fish stocks. Nor did I probe the same issues between the EU's fisheries governance, Denmark's position, and the health of stocks in North Sea waters. Although the dissertation does not attend to science and management issue directly, it is an important part of the context of coastal communities.⁷

E. Summary of Methodology

As stated at the outset, this methodology chapter aimed to outline the progression of discoveries and pitfalls that contributed to the project's evolution. When I began the research I intended to employ mixed methods, combining initial qualitative interviewing and a closed, structured questionnaire to answer the research questions and test my hypothesis. Nonetheless, there was a point, or perhaps a period of disruption, that forced me to reevaluate the initial plan, jettison the quantitative component and the hypothesis, and embrace a fully qualitative work. The structure of a multiple case study and the data collection methods of interviews and field observations remained from the original plan. Nevertheless, the emphasis on the qualitative data also allowed a broadening of themes and an interpretive

⁷ While it is beyond the scope of this project, I would be remiss not to comment that there is serious discontent amongst many community members from New Bedford and Provincetown (and Cape Cod) on issues dating back decades. I am not about to evaluate the legitimacy of these claims, but the frustrations are indisputable, especially from people who have participated as representatives on the Council.

epistemology in the work. My hope is that those who have read this chapter come away with an understanding of what I did in the field, how I treated the data, and my epistemic orientations and limitations that result in the discussions and conclusions of the following chapters. In addition to those conventional insights of a methodology chapter, the detail outlined in this chapter also serves to portray an honest account of social science research in the field. The “disruptions” I recount are not anomalies in the pursuit of social science research. However, oftentimes such breakdowns do not receive elaboration in methods sections or chapters, making them *de facto* nonexistent. In bringing the “disruption” and “patchworking” to light, I hope that those undergoing their own moments of crisis in their research will be relieved to know such things happen and the key is to carry forward.

CHAPTER III

LITERATURE REVIEW

A. Designating a “Domain of Inquiry”

I employ the term “domain of inquiry” (Glaser and Strauss 1967) as it encompasses research questions and orients the project to an inductive approach, whereby the researcher designates themes of examination rather than stating hypotheses and limiting the investigation to predetermined dependent and independent variables. Gherardi and Turner (2002, 90) advise, “A domain of inquiry needs to be identified, and much preparation can be carried out by becoming familiar with the empirical and theoretical literature concerned with the given domain, several different literatures possibly being relevant to different facets of the research domain.” In this dissertation the domain of inquiry includes changes in coastal communities and the conceptualization and operationalization of fisheries dependent community.

To study transition, there must be a demonstration of change. Although longitudinal studies facilitate researchers to track changes witnessed by communities and in ecosystems, natural resource management has not been as successful in employing this methodology (Stidham et al. 2014). Moreover, longitudinal studies present a particular problem for dissertation research, especially in natural resource

social science, because the circumstances do not provide sufficient time to repeat measures or even to allow a significant passage of time to detect any change. The challenge then becomes how to design a project that investigates change—more specifically transition—without repeated observations at multiple (and sufficiently spaced) time points. In an attempt to rectify this insufficiency, the following section synthesizes the literature on fisheries management to contextualize the changes occurring in coastal communities in the later half of the twentieth century.

The following literature review covers various facets of fisheries management and changes within coastal communities. Changes in the fishery spurring from policy decisions, new technologies, and globalization provide context to understand what new realities people must cope with in times of flux. Moreover, change does not flow in a single direction; rather it comprises multiple vectors that compound and contend against one another at various magnitudes. This chapter traces the evolution of fisheries as open access resources to those managed through catch limits and instruments that mirror free markets. The chapter then highlights the related demographic shifts due to changes in fishing opportunities. Thereafter, I focus on Johnsen and Vik's (2013) "push and pull" thesis to broaden the discussion from fisheries to wider social and economic contemporary trends. But first, Individually Transferable Quotas (ITQs), a form of catch shares, originate from the evolving conception of limiting entrants into the fishery. Thus, changes in communities should be seen as a piece of the larger movement of enclosure in fisheries (Macinko 2014;

Murray et al. 2010) or doubly the forces of commodification (Foley, Mather, and Neis 2015).

B. Forms and Evolution of Limited Entry

Over the last half of the twentieth century the practice of commercial fishing changed in multiple ways. In turn, many of the management and technological changes in fisheries impacted the social and economic conditions on the shore. Previously, regulation of fisheries centered on temporal, spatial, and technological controls of when, where, how, and what to fish. The interest in *who* fished or *how many* persons fished, was absent until the concept of limited entry emerged. To maximize the potential economic rent of the fishery, Gordon (1954) and Schaefer (1957) proposed management at Maximum Economic Yield (MEY) and to achieve this goal encouraged limitations on the (human) effort in the fishery. On a larger scale, the ocean enclosure movement, designating sovereignty and sovereign rights and delimiting areas of the oceans, enabled nation states to determine who could fish within their EEZs (Juda 2001).

1. A Broad Understanding of Enclosure

Using the definition of enclosure as, “A means to reorder social wealth-generating opportunities,” (Foley, Mather, and Neis 2015, 395), it is clear that the creation of maritime borders has influenced the management of fisheries with an impact on ocean adjacent communities. By designating jurisdiction and sovereignty states gain the right to determine who is and is not eligible to navigate in their waters or extract marine resources. Juda (2001, 17) references Ball (1996), Alexander (1983),

and Eckert (1979) in their designation of the “ocean enclosure movement,” as part of the expansion of state territory in the oceans. It may seem odd to draw out the concept of enclosure especially in a discussion of local development and coastal communities. First, the shift from more localized management to the possession of ocean territory under state authority has been an overlooked change in terms of the different rationales for fisheries in terms of the purpose they serve and their management (Holm et al. 2015; Foley, Mather, and Neis 2015). Moreover, “the process of creeping enclosure” proves useful when looking at the evolution of fisheries management and the cumulative impacts on fishermen (Murray et al. 2010). Although this research sought to look at communities in Northern Jutland and New England in regard to parallel experiences of rationalized management, the cases in New England proved to be more varied in the types of fisheries, some of which were not managed with tradable quotas. Nonetheless, Murray et al. (2010, 385) think more broadly and conclude, “One of the major findings of this research is that the signs of enclosure are visible in fisheries that do not necessarily feature explicitly privatized rules such as individual transferable quotas or ITQs.” In the six cases studied in my dissertation, enclosure encapsulated the policies of limited entry, the use of market-based policies to manage fisheries, and the national-level disputes with impact on the access of local fishermen to particular fishing grounds.

2. Limited Entry: The Shift to Who and How Many Fish

Although enclosure, the designation of authority over ocean space and marine resources, is an important feature in the changes experienced by coastal communities

in the late twentieth century, how to govern, allocate, and distribute access and resources is what encapsulates the challenges for ocean users and states (Foley, Mather, and Neis 2015). Limited entry materialized out of interest in proscribing those without an access privilege from fishing. Systems such as license limitation, tax incentives, and quota shares opened the set of tools available to managers to limit the number of participants in the fishery (Ginter and Rettig 1978). Fees and taxation were often rejected as potential management solutions for being politically unpalatable (Crutchfield 1979; Copes 1986). In the beginning, license limitation stood as the main prescription to the “problem” of excess effort and policies began to restrict the access to fish to a select group of fishermen through fees, lotteries, and license retirement ratios. However, license limitations proved an imprecise mechanism to manage the genuine level of effort in the fishery, rather than the number of boats on the water, due to “capital stuffing” or “effort creep,” where fishermen expand effort capacity by increasing technical aspects or physical means of fishing such as vessel size, horsepower, etc. (Copes 1986). In turn, fisheries economists advocated catch share programs where segments of the fishing fleet are assigned a portion of the total allowable catch (TAC) and in most instances are allowed to trade or sell these shares (Macinko and Bromley 2002).

Under open access, a healthy fishery with demonstrated profits or rents encourages more entrants to the fishery, zeroing out the economic gains. Thus, while limited entry may be promoted under conservation concerns, largely it is a solution to, “The dilution of [fishermen’s] earnings that might be caused, by either more

fishermen or fewer fish than before, or by some combination of these two in the absence of compensating price increases,” (Ginter and Rettig 1978, 161).

Consequently, the fishery became an entity to be managed with economic, as well as conservation goals in mind. With the emergence of TACs, an output control mechanism was born, where what came *out* of the fishery was monitored and managed (Copes 1986). Nevertheless, the presence of a TAC alone without individually assigned catch shares encourages a derby or olympic fishery where fishermen compete to get the greatest amount of fish possible before the fishery closes. Safety issues and idle capital are two central concerns of such system and thus pre-assigned catch in the form of individual quotas was proposed (Copes 1986). Finally, the issue of transferability came into the discussion of catch share management, where proponents argued that without such mechanism to sell or trade fishing quota the system would not maximize economic gains (Crutchfield 1979).

Nonetheless, the “transitional gains trap” occurs when the initial allocation of transferable quota is given to a single generation or group of fishermen, the economic gains of the fishery are lost on subsequent generations as they must buy into the fishery, which was previously free to enter for previous generations, with quota holders gaining a tradable commodity (Copes 1986). Subsequent generations thus do not accumulate the same wealth as the initial group gifted the quota shares, who often take to leasing quota to as high as 80% of the catch value (Copes and Charles 2004; Olson 2011). Eythórsson (2000) makes the point that members of the community, including processing workers, crew, and others who have invested in

local infrastructure, are disposed following the introduction of an ITQ system.

Additionally, with ITQs, new fishers experience greater barriers to initial entry as now they must possess enough capital to buy into the fishery (Copes 1986). While the barrier to entry into a fishery was once dictated by the membership in specific communities, increasingly the ability to enter a fishery is based on wealth, especially those wishing to own their own vessel and quota shares (Sønvisen, Johnsen, and Vik 2011).

3. Clarification on Enclosure and Commodification

Lastly, there is a key distinction to make between the two broad themes of enclosure and commodification. Commodification encompasses the imposition of market-based management, the creation of *transferable* access privileges, and ITQs (Foley, Mather, and Neis 2015). Enclosure, rather, determines access and distribution of privileges, which *can be* achieved through the imposition of market-based solutions, but authority and ownership do not need to reach the full extent of the spectrum, privatization. As demonstrated in the following section and the experiences of the case studies in this research, “Commodification of fishing rights through the political and legal sanctioning of transferability creates conditions for severing resources from coastal livelihoods and communities,” (Foley, Mather, and Neis 2015, 397). The dominance by resource economists in fisheries has painted ITQs, market-based mechanisms, and privatization as the *only* way, but the decision of how to manage is still a question of societal values and public policy (Macinko 2014; Foley, Mather, and Neis 2015; Larkin 1977). “The discourse of rationalization is not

presented as a political restructuring but rather a natural, inevitable outcome,” which can transform policy and management decisions into a sort of imperative with disregard to the political, social, and cultural implications (Carothers 2008, 59). With this knowledge of the evolution of limited entry, the rise of transferability, the section looks at the effects on coastal communities and social aspects of fisheries.

4. Efficiency, Productivity, and Distributional Effects

Distinguishing between allocation and distribution bears importance in the discussion of local economic development. The former refers to the aggregate Gross Domestic Product (GDP) and the benefits to the society at large, whereas the latter relates to the sites of economic activity and their geographic location. In the case of oceans, the question of distribution connects to the “adjacency principle,” which nation-states and local communities invoke to substantiate claims to ocean and coastal resources (Foley, Mather, and Neis 2015). Relatedly, small peripheral communities lose their comparative advantage of geography under catch shares since boats do not need to be positioned as closely to the resource in a situation of pre-assigned catch (Eythórsson 1996; Eythórsson 2000). In Iceland the smallest communities, those under 500 residents, lost the greatest shares of their quota within ten years of the introduction of ITQs (Eythórsson 1996). Moreover, the concentration of fishing effort results in landings going to larger ports where vertically integrated fishing operations have onshore processors and distribution facilities (Copes and Charles 2004). The end of a derby fishery is an aspect of catch shares, but the

invocation of transferability often results in a drain of permits and quotas out of communities.

Many economists emphasize the efficiency gains⁸ and additional profits of limiting access and rationalizing management, recognizing gains at the national aggregate level, but diminishing the regional or local loss of employment and revenue streams. Within the discussion of the multiple facets of sustainability, a startling lack of attention is paid to what fishers will do when participation in the fishery moves from open access to a catch shares system, especially in coastal communities where there are few employment alternatives (Charles 1998).

Additionally, scale of impact is an interesting area to consider in consolidation or contraction of opportunities in the fishery. Oftentimes, advocates of rationalization are less concerned with local impact and more keenly aware of the gains to the GDP and forget about local employment alternatives (Carothers 2008; Bromley 2005; Copes 1996). Linking to the research on impacts of ITQs in terms of consolidation of the fleet and local economic opportunity, "When place matters, the problem is often not how to exit a place but rather how to remain viable *in* that place," (Macinko, 2007, 81). This sentiment pushes back on the assertions and assumptions of economists of the free mobility of labor. When it comes to mobility of labor, coastal communities and those reliant on fishing feel great impacts in what often becomes a local employment

⁸ Efficiency, as understood by Pareto is actually used inaccurately here, but much of fisheries economics literature employs 'efficiency' as opposed to the correct term, 'productivity'. See Saraydar (1989)'s "The Conflation of Productivity and Efficiency in Economics and Economic History," for a more thorough explanation.

vacuum. Some may be concerned about stranded capital when fish landings move to larger, more central ports, but labor enjoys lower mobility and is often “stranded” when rootless capital moves elsewhere (Bromley 2005). Consequently, the question of how to address the effects of freely tradable quotas requires deliberation on alternatives and how to cope during the transition period following consolidation.

Finally, the initial allocation of quota matters, confirmed in the 1996 opinion of *Alliance Against ITQs v. Brown*, especially when shares are allotted for free and in perpetuity. In addition to the allocation, who has access to capital during the first period of quotas will also win out over those with fewer opportunities to buy quota. In numerous cases, once the quota or quota owning vessels have moved out of a port or community, it is almost impossible to get the quota reinvested in the community without further regulatory intervention. The Icelandic ITQ case and its appearance before the International Human Rights Court established that these systems often have irreversible consequences once the quotas are given away and the term “property right” is (incorrectly) bandied about (Macinko and Whitmore 2009).

Over the past thirty years, fisheries management has gravitated toward catch share programs, often in the form of ITQ systems, which often drastically consolidate the fleet, diminish opportunities in the fishery, and encourage vertical integration (Pálsson and Helgason 1995; McCay 1995; Macinko 1997; Olson 2011; Macinko 2014). Iceland, arguably the ultimate example in rationalized fisheries, witnessed a decline in its small coastal communities as quota owners accumulated wealth and left their communities (Eythórsson 2000). Nonetheless, the introduction of ITQs was not the

only driver of change in Iceland in the 1990s, where processing at sea led to further contraction of landside seafood processing plants and employment (Karlsdóttir 2008; Eythórsson 2000). The globalizing market for food products, including seafood, also drives change in the way fisheries operate and the access afforded to coastal communities by a widening international market (Eythórsson 2000; Brookfield, Gray, and Hatchard 2005).

In summary, how to manage fisheries impacts communities as demonstrated throughout the literature. This dissertation operates with these concepts as a backdrop to understand this period of history when participation in fisheries consolidated. However, as this chapter details, fisheries and coastal communities have undergone change as a result of other drivers, which are detailed in the following section.

C. Demographic Change in Coastal Communities

Fish stock collapse, marine ecosystem regime shifts, and other oceanographic changes translate into demographic changes within coastal communities. Many natural resource dependent communities struggle to develop diversified economies and employment opportunities (Freudenburg and Gramling 1998). Fishing communities represent a special case of such natural resource communities as they are dispersed along the coastline, which in turn can render them socially and economically isolated (McGoodwin 1990). Outmigration, or persons leaving communities, parallel incidences of fish stock depletion and crisis, notably in the case of cod in Newfoundland (Hamilton and Butler 2001; Power, Norman, and Dupré

2014) and groundfish in the Faeroe Islands (Hamilton, Colocousis, and Johansen 2004). Rising unemployment related to the absence of livelihood alternatives in these fishing communities represent the mediating factor in ecological disaster and outmigration (Hamilton and Butler 2001; Hamilton, Colocousis, and Johansen 2004). In a more comprehensive view of northern Norway, empirical evidence shows that fisheries dependence correlates negatively with population when controlled for other variables such as unemployment, income levels, education, community size, location, and primary industry (Hamilton and Otterstad 1998).

Persons moving out of coastal communities often follow a pattern along particular age and gender divisions. Young people leave coastal communities in higher proportions than other age groups (Hamilton and Butler 2001; Hamilton, Colocousis, and Johansen 2004). Additionally, women seek opportunities outside of fishing communities in higher numbers than their male counterparts (Hamilton and Butler 2001; Hamilton, Colocousis, and Johansen 2004). Discussing the implications of outmigration, Hamilton and Butler (2001, 8) conclude, “Although adaptive for individuals and probably for their extended families, outmigration limits human resources that might support community development beyond fishing.” Consequently, these demographic changes—skewed age profiles and lopsided gender ratios—may reinforce patterns of poverty, unemployment, and limited mobility for those remaining in the community. However, some caution that the dominant mobility discourses obfuscate the complexity and tensions felt especially by young women in rural communities (Norman and Power 2015). Nevertheless, this

differentiation between the benefits to the individual versus the collective as to whether to leave or stay orients this project toward broader social implications as opposed to effects for individual fishermen and exclusively fishing families.

Local particularities—physical, economic, and cultural geography—also influence the potential development streams for a place or region (Haartsen and Venhorst 2010; Raakjær Nielsen, Vedsmand, and Friis 2000). Community members, who were left behind when the gifted class of boat owners sold their quota, retired, and moved elsewhere, face difficulty selling property and moving as the desirability of their homes and their housing values have fallen (Eythórsson 2000). Nonetheless, many of these cases of interlinked demographic and natural resource changes are situated along the north Atlantic rim, where alternatives to the natural resource economy and connections to industrial centers are limited (Symes 2000). Although this is a key facet for some coastal communities, it is not a marker for all. It is important to keep these trends and patterns in mind to uncover similarities as well as differences in the cases in New England and Northern Jutland, where communities range in their degrees of isolation.

D. “Push and Pull” Factors for Fishery Exit

Coastal community demographic change relates to changes in the fishery, but also to factors linked to wider societal change. Johnsen and Vik (2013) examine former fishermen’s reasons for leaving the industry in Norway and isolate “push” and “pull” motivations. Fisheries enclosure, regulatory limitations, and different working conditions in the fishery constitute push factors, whereas pull factors relate

to employment or higher wages in other sectors and involve “value reorientation” within the wider society (Johnsen and Vik 2013). In addition to the expanding welfare state spelling new opportunities in the public sector—an especially key change for women—the large proportion of Norwegian youth seeking higher education represents the pull of modern values away from traditional trades like fishing (Johnsen and Vik 2013; Symes 2000). The tension between fishing culture and higher education has also played out between generations and within families in the case of Hirtshals, Denmark (Hansen 2011). Others highlight the infiltration of urban as opposed to rural perceptions of what constitutes “a good job” among youth in Newfoundland’s historically significant fishing communities (Power, Norman, and Dupré 2014).

Power, Norman, and Dupré (2014) examine youth perceptions of employment opportunities in both the catching and processing sectors after the twenty-year cod moratorium in Newfoundland. Because of limited interactions with fisheries during youth, this younger generation of Newfoundlanders recognized little potential of making a living from fisheries (Power, Norman, and Dupré 2014). In a related example, the means of recruitment has changed in coastal Norway, where segments of the fleet more often seek crew outside of local communities and networks or new entrants are only recruited from fishing families or migrant workers rather than the wider community (Sønvisen, Johnsen, and Vik 2011). While this broadens the access of individuals to the fishery from the previously cloistered community network employment model, the connection between fisheries and onshore communities

wanes. One cannot help but see the connection to ITQs in this new employment and recruitment model. Sønvisen, Johnsen, and Vik (2011, 48) write, “Property rights, fishing rights and increased capital investments, have turned the fisheries sector into a specialized and professionalized sector with weaker links to the coastal community.” Expanding this idea, the commercial fishing industry will mimic any other sector without distinct occupational identities and maintain only circumstantial ties to their once embedded localities (Sønvisen, Johnsen, and Vik 2011). While the specific mechanisms of employment in the fisheries sector are not the focus of this dissertation, the findings of Sønvisen, Johnsen, and Vik (2011) substantiate the presence of transition from one way of running the fishery—and relatedly, running coastal communities—to a new, yet to be fully realized mode. This is likely a result of the introduction and evolution of ITQ systems, whose implications were discussed in the previous section, but other social phenomenon also contribute to changes in fisheries and coastal communities.

1. Competing Community Visions

Communities that subsist exclusively on fishing have become the exception rather than the rule in contemporary, developed settings, such as the United States and Denmark. While this dissertation will continue that discussion in the following chapters, the take-away is that other activities, though in varying degrees, occur along the shore and in coastal communities. Tourism and its intersection with fisheries heritage represent one point of inquiry in this dissertation. An influx of part-time summer residents and tourists can alter coastal communities. When fishing

families go from majority to minority status in coastal communities, “Others’ lives constitute the dominant organizing force even in fishing communities,” (Johnson and Vik 2013, 17). Moreover, increasing levels of tourism related activities and vacation homes may create “enclaves” within the space of the community in which outside values dictate development (Saarinen 2005; Woodard 2004). The study of gentrification has also emerged in coastal communities—both urban and rural—with different outcomes depending on the characteristics of the community (Colburn and Jepson 2012; Thompson 2012).

In their assessment of Hastings, United Kingdom Urquhart and Acott (2013, 51) find that flight of fishing families out of the central area of the town has improved the wellbeing of individuals and families, but “This movement of local people out of the Old Town and new ‘out of towners’ coming in has changed the cohesiveness of the fishing community and fishermen interviewed expressed affective attachments as a sense of loss and sadness for how the community once was.” As with the conclusions of Hamilton and Butler (2001), individual benefits and collective interests do not always align when under pressure from change. Finding the balance between old and new in terms of economic development and social cohesion seems to be the challenge for coastal communities. Johnsen and Vik (2013, 17) echo this issue and conclude, “The challenges in front of us are not sector challenges but challenges for coastal communities and the wider society, in Norway as well as other coastal regions,” situating fisheries into a broader context than a sector-driven research agenda.

2. The Attraction of Coastal Communities—It's not just the Sea!

Maritime people and their traditions add to the allure of coastal and island communities for tourists. This attraction of maritime and fishing heritage spurred tourist development of Cape Cod and the Islands in the late nineteenth and twentieth centuries with nostalgia for “old trades” (Cumbler 2011; Brown 1995). Nonetheless, weir fishermen found themselves defending their coastal access from the complaints of allied recreational anglers and hotel proprietors on 1880s-era Cape Cod (McKenzie 2010). Similarly in Denmark, the beach resorts of Løkken operated alongside the coastal fishing industry with part of the draw being the “exotic experience and culture shock of meeting the well-traveled people,” of this maritime community (Ussing Olsen 2003, 97, own translation). The presence of maritime livelihoods added to the appeal of certain coastal communities for visitors from outside, years prior to discussions of high modernity. Consequently, heritage tourism, or at least displays of local heritage, have encouraged people to vacation in coastal communities alongside the working lives of year-round residents for centuries.

Local history—past events and thematic periods experienced by people and their place—influence the present day identities and culture of local communities. Heritage binds together history and identity, engendering “the present day use of the past,” (Timothy and Boyd 2006). Specific heritage narratives cover national, regional, and local identities and often feature the distinctiveness of a culture. In its basic conception, culture is shared, often tacit knowledge among a group of people. In some scholarship, culture centers on the particularities in the local landscape and

environment that influence the shared meanings, norms, and practices of a society (George and Reid 2005). Such a definition is especially helpful for understanding some of the experiences unique to coastal communities, which are often bound to the sea and its resources.

A strong heritage narrative is not exclusive to the presence of tourism, as communities can develop strong identities through their shared history independently. Oftentimes a place does not rest on a single heritage narrative. Although one may dominate, these narratives operate in tandem with a community typification, a succinct definition of a place that encapsulates what a community stands for (Bridger 1996). Residents use community typifications to contrast themselves with other places, exalting the positive attributes of the community and emphasizing the negative elements of comparable places (Bridger 1996). Consequently, communities of distinction provide a way of attracting certain enterprises like tourism but also in cultivating place identity (Urquhart and Acott 2013). Nonetheless, the dichotomous trends in tourism toward homogenization and differentiation often occur in parallel as places endeavor to provide desired amenities but capitalize on their specific place character (Saarinen 2005; Cumbler 2011). Coastal communities employ their maritime heritage in order to make themselves distinct from other beach communities in a process of cultural commodification. Capitalizing on the “unique” and “authentic,” the hope is to capture tourists and revenues for the local community.

George and Reid (2005, 88) use a death-rebirth analogy to explain how heritage tourism changes local communities, “The traditional community culture dies away while attempting to simultaneously create a new culture based on the icons of the traditional one.” The authors explain this phenomenon further:

First, commodification of culture for tourism purposes is an attempt to summarize a long-standing culture into a series of icons and markers. It is often revisionist in order to fit into the perceptions of a romanticized version of events that find appeal among the visiting public. Second, the representation of the target culture in this instance gets frozen in time and subsequently is no longer a living, changing, and adapting culture. Essentially, it *dies* and is mummified and a new culture emerges, one based on other systems for survival but not on the structure in which the original culture was based and constructed,” (George and Reid 2005, 93).

The authors raise concern for two different elements: summarization and preservation. Briefly, summarization centers on the loss of nuance or different story lines. Here the work of Bridger (1996) helps to further understand how the push to encapsulate a culture ignores the various heritage narratives that coexist within a community and such emphasis on icons and markers reduces items of cultural importance to shorthand. This simplification of culture exists to cater to a large audience of outsiders and recognizes the often short attention spans of such tourists. Kitsch provides a nice concept for this summarization as indeed clear markers of the fishing industry—nets, buoys, and other “fishing identikit”⁹—are put on display, detached from their utility in order to convey the heritage or culture of a fishing community (Relph 1976). Words such as “frozen” and “mummified,” connote inertia

⁹ Nadel-Klein (2003) uses this term coined by Macdonald (1997, 246) meaning anything that can be captured and used for display to sell the idea of fishing villages as desirable visitor attractions.

and retention of form without a soul. In regard to preservation other scholars use similar imagery such as, “fossilizing” (Robinson and Smith 2006) and “pickling” (Stilgoe 1994), especially related to the built environment, conjuring the notion of keeping only the form or shell. But the question is whether heritage tourism will always mummify the society or whether a new community culture will emerge.

The risk for this artificiality comes when pressures on the fishing community—be it through quotas, stock health, or attraction of other industries—diminish the level of activity in the industry. Tourism offers an alternative for this void and encourages at least a presence of the fishing industry, but the tourist’s ability to discern between kitsch and “the real thing” is somewhat in doubt. Tourism as an alternative and tourism as a complement to the fishing industry connect to the discussion of manifestations of fisheries dependence and will be explored in the case studies. Little attention is paid to this problem of transition and how a community’s identity as a “fishing village” may oppose progress, diversification, or the flow of transition. While not explicitly employing the term transition, Brookfield, Gray, and Hatchard (2005) identify different types of fisheries dependence in the United Kingdom, delimiting those that steadfastly protect fishing opportunities in the community, described as “real,” versus communities that retain the place identity of a fishing community, but have sought to use fisheries dependence as a sort of brand, making these communities what the authors term “virtual”¹⁰ fishing industry. This

¹⁰ Brookfield, Gray, and Hatchard (2005) employ the term “virtual fishing industry” to mean that the community relies on the cultural heritage of fishing more so than the

distinction between “real” and “virtual” fisheries dependence and the gradations therein highlights a struggle in fisheries social science research as how to define fisheries dependent community.

E. Theories of Transition

The previous sections have reviewed the empirical studies of change in coastal communities and the impact of fisheries management. However, as outlined in the introduction, I maintain that coastal communities presently are undergoing a particular period of transition due to these various drivers of change. Some have characterized the transition in natural resource dependent communities as one of moving from Fordism to post-Fordism (Barnes, Hayter, and Hay 1999; Lyon and Parkins 2013) and others have pointed to post-productionism or neo-productionism (Salmi 2015) as the overarching transition occurring in natural resource dependent or coastal communities over the past 30 years. In addition, the previous section underscored the transformation of communities in connection to tourism. Thus, the question remains, how does scholarship address transition and do any edifying theories exist? Overall, identifying a satisfactory theory to understand economic, social, and cultural transition has proven difficult.

Resilience theory is one area to begin; the theory seeks to understand change through its conceptualization of interlinked social-ecological systems (Walker et al. 2004). A thorough history and review of resilience theory is beyond the purview of

direct economic impact of the catching and processing sectors. This is different than the American discussion of virtual communities (Macinko 2007), which understands such as networks of people with shared identity or cultural affinity.

this review, but a few facets are worthy of note. Briefly, resilience came out of the work of Hawley in systems ecology and has been employed to understand a system's capacity to withstand events and long periods of change while retaining its core function (Adger 2000; Walker et al. 2004; Hawley 1944; Folke et al. 2005). In relation to the question of change and transition, resilience theory encourages researchers to think about scale—temporal and geographical—and how systems comprise interconnected levels within a social-ecological system (Walker et al. 2004; Perry et al. 2011; Ommer and Neis 2014). A central focus in resilience theory has been on determining “the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks,” (Walker et al. 2004, 1).

Such intervals of change are where the action lies in social systems, where communities determine how to resist, cope with, or embrace change to bring about an altered or new reality. “Knowing if, when, and how to initiate transformative change, before it is too late to escape a seriously undesirable and deepening basin of attraction, is at the heart of [social-ecological system] transformability,” (Walker et al. 2004, 6 of 9), but “undesirable” denotes a normative stance. The determination of what is desired or not within society is often contested. Myriad visions for the way forward and perspectives on change emerge; it is within these struggles and tradeoffs that social science research provides insight.

Social scientists have adopted the paradigm from systems ecology to explain social phenomena, employing the vocabulary of their ecologist counterparts;

however, the full meaning and nuance of the original theory has been lost in translation. Resilience theory can be limiting, especially for those interested in society and culture (Davidson 2010; Davidson 2013; Lyon and Parkins 2013). Confused by the theory's nomenclature, three different outcomes constitute the full theory: resilience, adaptation, and transformation. While the preoccupation with resilience may appear to be only a linguistic distinction, discourse likely limits the possibilities envisioned:

Resilience itself should be understood as one of three possible responses to disturbance, with the other two being adaptation and transformation, and the researcher should not presume *ipso facto* that resilience is necessarily the preferred response. The fact that much of the literature and discussion surrounding this body of work has come to be called 'resilience theory' is, perhaps an unfortunate misnomer, (Davidson 2010, 1144-1145).

Scholars grapple with the theory's other limitations in the social realm (Davidson 2010; Davidson 2013; H. Ross and Berkes 2013; Lyon and Parkins 2013). Davidson (2010; 2013) summarizes a key distinction between the natural world and its human dimension: agency. Here, agency covers numerous aspects of human behavior to include imagination, technological innovation, collective action, and anticipation, capacities subscribed to humans but not other organisms (Davidson 2010). Furthermore, disproportionate distribution of agency within society, understood as power and privilege, may be the more interesting aspects of society's or a community's reaction to ecological disturbance (Davidson 2010; Freudenburg 2005; Ommer and Neis 2014). Social science scholars have augmented resilience theory and argued for greater development of its social theory components (Lyon and Parkins 2013).

Connected to resilience literature, studies of community adaptation provide concrete insights into the workings of communities and societies undergoing change (Broderstad and Eythórsson 2014; Bennett et al. 2014; Blythe, Murray, and Flaherty 2014). Nonetheless, with attention to adaptation, there is little agreement as how to classify or operationalize adaptation in natural resource communities (Murtinho and Hayes 2012). Perry et al. (2014) define adaptation as the long-term responses of political reform, restructuring, capacity building, and community closure and assign short-term responses of intensification, diversification, migration, and “riding out the storm” to stand for coping. Broderstad and Eythórsson (2014) acknowledge that beyond the local circumstances of the social-ecological system, the political willingness of actors at other governance levels to intervene or to manage the fishery under particular rationales. Diversification, either by necessity or by choice, forms the basis for empirical work on adaptation, but mostly at household level (Blythe et al. 2014). Altogether, adapting and transforming feel more comfortable to interpretative social science, where change is seen as inevitable, as opposed to the predilection for stasis of resilience where ecological steady states are hard to discern for people and their communities.

Within the discussion of community adaptation, *coping* emerges with varying definitions. Attending to differences in reactions, some define *adapting* as premeditated actions based on knowledge or experience, *reacting* as an unplanned response, and *coping* as passive acceptance of the consequences of an event or change (Bennett et al. 2014). Others discern coping and adapting purely on the basis of time,

where coping represents a shorter-term posture of “riding out the storm” (Broderstad and Eythórsson 2014). Outside of resilience literature, coping and coping strategies delineate various processes by which communities weather the storms or navigate periods of flux. Coming from a human geography perspective, Bærenholdt and Aarsæther (2002) delineate three dimensions of coping strategies: innovation (economic), networking (social), and formation of identity (cultural). The orientation here to societies confronting the issue of physical distance and geographic periphery breaks the shackles of the predisposition of resilience theory to focus on the interdependence of society and environment. Moreover, the authors place people at the center of their conceptual framework, noting a key distinction that localities (places) are not actors, but rather the networks of people tied these localities are of central concern (Bærenholdt and Aarsæther 2002).

With the concepts of resilience, adaptation, transformation, and coping swirling together, overlapping and at times obscuring understanding, it can be difficult to feel that these literatures offer much in terms of understanding transition. Earlier, I defined transition to mean, a particular period of change when moving from one way of doing or being to another way of doing or being. Additionally, the second research question asks, how do different coastal communities navigate change during economic and social transitions? To that end, resilience theory offers a reminder that riding out acute shocks and adapting to more sustained changes, requires researchers to think about short- and long-term strategies. Moreover, the critiques by social scientists such as Davidson (2010; 2013) and Lyon and Parkins (2013) satisfy my own

frustrations with resilience theory's view of society and communities as passive or reactive to environmental change. Coping strategies (Bærenholdt and Aarsæther 2002) moves away from the interlocking social-ecological stronghold and incorporates other factors and enable or constrain communities to transition. As this half of the review has detailed, coastal communities face various drivers of change — those connected to the marine environment and those originating from wider society and political will. This chapter now turns the focus directly on the concept of *fisheries dependent community*.

F. Challenges in Defining and Operationalizing Fisheries Dependent Community¹¹

Change and transition represent one central theme in this dissertation; dependence represents the second, complementary concept in this research. This section outlines the challenges in defining *fisheries dependent community*. As is the case with definitions, they are important, especially to clearly communicate, but also in some instances where various definitions or means of operationalizing a term exist, a choice needs to be made in order to move forward. For instance, in the United States, the Magnuson Stevens Fishery Conservation and Management Act (FCMA) defines fishing communities as being “substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs,” (P.L. 94-265 § Sec. 3. 104-297). However, there are contending interpretations of what constitutes dependence and community in relation to fishing from both the American

¹¹ Previous versions of this section appear in a report to the North Pacific Research Board (Ounanian et al. 2013).

legal perspective and from the anthropological and sociological perspective in applied research (Clay and Olson 2007; Clay and Olson 2008; Jacob et al. 2001; Macinko 2007). With this in mind, I conclude the section by detailing how this dissertation chose to address community and the implications of that decision on the research and the conclusions that can be brought to bear.

Breaking apart the three constituents of *fisheries dependent community*, there are nuances in definitions for each of the three, independent of their combined meaning. This section looks at the meanings and definition proposed for fisheries dependent community, examining the meanings of the three words individually and then the term in its entirety.

1. Fisheries and Fishing Activities

Fisheries, or fishing, seems straightforward; however, apart from the act of pulling fish out of the sea, fisheries related activities range from processing and onshore support businesses to tourism. While the inclusion of tourism may seem suspect, some fishermen, who view their community as fisheries dependent, include such businesses (Clay and Olson 2008, note 25) and furthermore, some scholarship has expanded the conception of fishing activities to include those with aesthetic and cultural connections to the industry (Brookfield, Gray, and Hatchard 2005; Urquhart and Acott 2013). Additionally, people fish for different reasons—commercial, recreational, subsistence, etc.—and creating management regimes that accommodate these different users can be challenging (Branch et al. 2002). Occupational data often comprise the indicators for participation in the fishery, but American census data can

be inconsistent as some fishermen designate as self-employed and other categorizations combine fisheries with other natural resource sectors (Sepez et al. 2006). Fish processing and those employed within that sector are often overlooked, as well as supporting maritime trades, such as diesel mechanics, ship repair, and suppliers. However, those segments are important to the local and regional economies (Georgianna et al. 2014). Consequently, what constitute fisheries activities are not limited to the actions on the water, which has implications for the definition of dependence and the nexus of community and the sea.

2. Dependence

In turn, we come to the discussion of what constitutes *dependence*. Defining a community's or region's dependence on fishing poses challenges:

At almost any scale the notion of “fisheries dependence” will seem a contradiction in terms. Attempts to measure the regional significance of fishing related activities will tend to yield low and potentially unconvincing results and such measurements are often complicated by the fact that in many areas fishing is embedded in a strongly pluriactive local economy. There are few regions in Europe—outside Iceland, the Faeroes and north Norway—where fishing activities account for a significant share of employment or Gross Regional Product (GRP), (Symes 2000, 4).

Essentially, dependence becomes a question of instrument calibration. The dilemma is to provide a definition that encompasses the important manifestations of dependence—economic, social, and cultural—and does not preclude all but the North Atlantic rim but does not overextend the scope of dependence. Phillipson (2000, 23) moves beyond the dependent-or-not dichotomy and argues for understanding the “nature or form of dependence,” to inform policy interventions. Raakjær Nielsen,

Vedsmand, and Friis (2000, 47) caution against treating coastal communities as a monolith because, “They differ in terms of the resource situation, the pattern of specialization and the industrial dynamics; each has a different development potential.”

While there is a bias in the literature toward small, remote fishing communities and their challenge to diversify, it is likely that the story of the fishing community in the modern context is more nuanced and deserves a broadening of the typology. Although Jones, Caveen, and Gray (2014) employ an economically based measure of dependence in their assessment of its connection to community wellbeing, they acknowledge the need for better incorporation of sociocultural indicators of dependence. Jacob, Jepson, and Farmer (2005) seek to keep dependence as an economic term and challenge public perceptions of dependence as examples closer aligned to aspect dominance. Fisheries dependence and local development have a paradoxical relationship with the wealth generation of fisheries sometimes overlooked (Cunningham 1994). As the absolute dependence on fisheries falls because of consolidation, there are still complicating issues for coastal communities and rural regions (Phillipson and Symes 2015).

Recognizing the differences among coastal communities in terms of both the degree of their “absolute dependency” and “relative dependency,” Phillipson and Symes (2015) push fisheries beyond a sector-based to an area-based development policy. Apart from employment numbers and other statistics, dependence also manifests in physical attributes of the community (Clay and Olson 2007).

Nonetheless, the appearance of a fishing community may generate perceptions of dependence that are not grounded in economic data. Addressing the research dilemma in the definition of fisheries dependence, Jacob, Jepson, and Farmer (2005) draw upon the concept, *aspect dominance*. A term from forest ecology, aspect dominance refers to the categorization of an area based on the highest rising plant or one spotted most readily (Jacob, Jepson, and Farmer 2005). Establishing the metaphor with fisheries dependence, Jacob, Jepson, and Farmer (2005) argue that while residents in six coastal communities thought where they lived relied economically on fishing, in actuality these places were far less reliant on the industry. The authors employ the aspect dominance metaphor to explain why people's perceptions did not align with actual economic dependence: seeing markers of the fishing industry engendered an impression of dependence.

The work by Jacob, Jepson, and Farmer (2005) stands in contrast to other discussions of dependence. The authors take a strong stance on the implications of definitions of dependence that come closer to aspect dominance:

In order to make dominance congruent with the idea of dependence, researchers have done a number of interesting contortions. Very often researchers will construct definitions to find "fishing dependence" by disaggregation to sub-community (niche environment) level to find fishing dependence, which essentially becomes a sub-sample of the community. In short, if researchers restrict "community" to an area where fishers are concentrated, they can show economic dependence. Of course this is a very curious definition of community, where fishers are gerrymandered into areas that do not meet any reasonable definition of community, such as a place where one could meet most of their daily needs. Another dubious use of community is to define the occupation of fishing as a "community" or even fishers who pursue a specific species as a "community." Obviously, these are

not acceptable social science uses of the concept of community (Jacob, Jepson, and Farmer 2005, 383).

At its crux, the passage illustrates the power of definition as a means of protection.

The authors link dependence and community and how operationalizing—or manipulating—the definition of community in one way will influence the degree of (economic) dependence. Indeed “gerrymandering” social science is cause for concern, especially as such research is intended for difficult policy decisions. Jacob, Jepson, and Farmer (2005) advocate a place-based definition of community as opposed to the occupational delineation of fishing community; they seek the economic importance of fisheries to a particular, geographic place. Nonetheless, Jacob, Jepson, and Farmer (2005) would find themselves up against many sociologists and anthropologists who recognize communities of interest as a means of detecting difference or differential impacts and systematic disadvantage. Deeming the occupational community of fishing “dubious” and “not acceptable social science” without further qualification is problematic. The concept of dependent community as a compiled group of fishers versus the physical residence of these persons within a particular postal code is a debate in fisheries social science without clear resolution (Macinko 2007; Olson 2005; St. Martin and Hall-Arber 2008). I now I will raise some further concerns about dependence as a strictly economic exercise versus social or cultural conceptions after I which turn to the scholastic divisions of what constitutes *community*.

Brookfield, Gray, and Hatchard (2005) distinguish “real” and “virtual” fisheries dependent communities, contrasting the product-based characteristics of the

former with the experience-based characteristics of the later. Based on four cases studies, two cases constituted “real” fisheries dependent communities based on their economic and geographic isolation and the intention to invest further in the catching and processing industry, whereas the two cases of “virtual” dependence diversified to other activities, namely tourism, but the community relied on fisheries as a brand or image that made the tourism activities successful (Brookfield, Gray, and Hatchard 2005). The “post-productivist” or even “neo-productivist” trend in coastal communities in developed settings parallels the discussions of fisheries dependence as production versus experience (Salmi 2015). What is interesting about the discussion of Brookfield, Gray, and Hatchard (2005) is that they do not fall into this dependent-or-diversified dichotomy, which allows the contributions of fisheries outside of fish-based products to be recognized as a form of fisheries dependence. Jones, Caveen, and Gray (2014) fail to find significant correlations between their economic dependence indicators and their community wellbeing indicators, but discuss and conclude that connections to tourism and the emerging employment connections from fisheries to other maritime work encourage them to consider the concept of “maritime dependent community.” Finally, Urquhart and Acott (2013) draw upon sense of place literature and ground their empirical work in the connections between the fishing industry and the community’s sense of self. Material and non-material demonstrations of the fishing industry are also tackled by Jacob, Jepson, and Farmer (2005) as they press the field to consider how community narratives play into perceptions of dependence.

3. Where (or What) is Community?

Often we talk about “community” as the entity of impact, but how community is defined influences the outcome of analysis. Sociology and anthropology have grappled with its definition, and perhaps the imprecision of English¹², for decades (see Redfield’s (1947) reference to Tönnies (1887); Brox (2006, 73); Jacob et al. (2001, 20) for references to Wilkinson (1991) and Bender (1978)). In the context of fisheries, community can be understood as a group of individuals who set out on boats to catch fish and its networks (St. Martin and Hall-Arber 2008; Olson 2008; N. Ross 2015) or the place-based conception of fishing community as the place from where the boats come in and go out and resultant sea-and-shore connections (Macinko 2007; Eythórsson 1996). I argue that there is not a right way or a wrong way to define community, but rather it should reflect the intention of the research.

Arensberg (1961) differentiates the study of communities as those interested in community as *object* in contrast to as *sample*. The distinction lies between studying communities as microcosms of greater social phenomena, thus as sample, in contrast to researching how particular manifestations of community developed (Arensberg 1961). Thus, thinking with Arensberg (1961), Jacob, Jepson, and Farmer (2005) likely reject the community of interest definition because they hold to the community as

¹² Community scholars highlight the German language’s words, *Gemeinschaft* and *Gesellschaft*, as better distinctions between the place-based relationships and the social networks that evolve through shared experience or identity (Redfield 1947 in reference to Tönnies 1887; Brox 2006, 73). Interestingly, community is somewhat difficult to translate to Danish. The locality has one word, *lokal samfund*, which translates directly to “local society” and *fællesskab* means community in a social solidarity and cohesion sense.

sample perspective. Community as sample requires representativeness and inclusiveness; a community of interest does not meet such criteria because there is little in way of demographic or occupational diversity in such a designation of dependent community.

Nonetheless, the two conceptions of community allow researchers to uncover different experiences and orient research questions toward either an occupational perspective as opposed to place-based development. For instance, Ross (2015) uses the Pahl's concept of "communities of the mind" to uncover identity concerns and experiences of difference for fishing people. This orientation suits the objective and uncovers occupational identities and connections (N. Ross 2015). While recognizing the purpose of studying the occupational community, oftentimes the wider place-based community is overlooked in fisheries literature. Furthermore, as I have laid out in previous sections, coastal communities are places where new activities are emerging and thus trying to understand the importance of fishing to a place and its people is of interest here. Hence, while further discussions of the definition and conception of *community* will be central to this research, I adopt a place-based perspective to uncover and clarify less tangible connections among fisheries, development, and transition.

G. Literature Review Summary

As illustrated by the comprehensiveness of this review, coastal communities and the relationship to fishing reaches beyond ex-vessel values and employment statistics. First, the determination of access and who or what has the authority to

manage marine fisheries bears implications for coastal communities. Previously with greater advantage through adjacency, enclosure and subsequent commodification of fisheries impact coastal communities (Foley, Mather, and Neis 2014). Research on marine resources and demography uncovered the changes in coastal communities, the challenge of lacking alternatives in certain remote places, but attraction or the pull out of the fishing industry and coastal communities should not be overlooked (Johnsen and Vik 2013). Diversification of local economies and tourism reshape these places, but more should be understood as to the dynamics between fishing and new activities. Finally, fisheries dependent community does not hold a singular definition; however, this research looks into the place-based communities with cultural, social, and economic connections to fisheries in order to better understand dependence and how different communities transition under the shared experience of enclosure and commodification.

CHAPTER IV

CASE CONTEXT

Case studies rely upon thick description with emphasis placed on context and narrative to understand the facets of the case and the issues involved (Geertz 1973; Yin 2003). The challenge as a writer, who has spent time in these places and conducted multiple interviews, is to separate the extraneous material from the necessary information with the reviewer's perspective in mind. I endeavor to provide sufficient background for each case, but not to overburden the reader with irrelevant minutiae. Because fisheries and their management are central to the discussions of this dissertation, this chapter will start with a timeline of key policies and management changes. Working in two national contexts also encourages general description of the governance and management of fisheries in Denmark and the United States. Since this dissertation is not devoted to differentiating governance structures in these two nations, the descriptions are appropriately broad-brush to familiarize a reader less knowledgeable of Denmark or the United States. The case descriptions include brief histories in relation to development connected to the sea and maritime trades. In addition, because connectivity and the degree of remoteness factor into the manifestations of dependence, I describe the access and mobility

associated with these communities in terms of transportation and public infrastructure. Fleet and harbor characteristics also set the scene and help contextualize the changes and dynamics ongoing in these communities. Finally, I include some of the social and cultural touchstones with attention to those connected to fishing or the fishing industry and any other pressing issues facing the community at the time of research.

A. Fisheries Management

As discussed in Chapter III how we manage fisheries and the priorities set among ecological, economic, and social factors affects people and communities. Limited entry and the allocation of tradable quotas impacts the land based communities that have relied on fishing over the past decades or centuries. Both Denmark and the United States have introduced catch share systems in the past decade relevant to the cases of Northern Jutland and New England. This section provides a general description of the decision-making, management, and implementation of regulations related to fisheries in Denmark and the United States. Two key differences concerning fisheries management in Denmark and the United States are: (1) The federal system of government in the United States as opposed to the centralized decision making in Denmark, and furthermore the special case of regionalized fisheries management in the United States, and (2) Denmark's connection to the European Union's shared fisheries as opposed to the stock-specific agreements of the United States.

1. Denmark

As a member of the European Union (EU), Denmark's fisheries regulations are subject to the Common Fisheries Policy (CFP), the primary regulation addressing fisheries in the shared European Exclusive Economic Zone (EEZ). Thus, Denmark's national fisheries regulations are framed by the EU requirements for the North Sea and the Baltic Sea and by third party agreements with Norway, the Faeroe Islands, and other non-EU countries fishing in the northwest Atlantic. Nonetheless, how Denmark determines to manage its TAC from its EU allocation is national jurisdiction. Thus, how to transpose EU regulations and meet its related obligations is a national task. The Ministry of Food, Agriculture, and Fisheries and the Danish national parliament (*Folketinget*) set fisheries policy for the Danish fleet through yearly directives. The Fisheries Law of 1999 is the national level legislation for fisheries in Denmark (Hegland and Raakjær 2008), likely the direct analogue to the Magnuson-Stevens Fishery Conservation and Management Act (FCMA) in the United States.

With Denmark's comparatively smaller land area, a regional fisheries management system within the country like that in the United States does not exist. The closest analog to the American system of Regional Fishery Management Councils sits at the European level in the form of the Advisory Councils. The Advisory Councils are weak co-management bodies (Hegland, Ounanian, and Raakjær 2012) with fisheries representatives from all member states that fish in a particular sea or International Council for the Exploration of the Sea (ICES) designed zone along with

representatives of the European Commission and other relevant marine stakeholders; however, these bodies only provide advice and have no decision making authority currently (Ounanian and Hegland 2012). Nonetheless, Denmark encourages stakeholder input in its fisheries policy through the Board of Commercial Fishing and the Board of EU-fishing, which follows the tradition of Scandinavian corporatism and negotiated economy (Christensen, Raakjær, and Olesen 2007; Hegland and Raakjær 2008). Scandinavian corporatism and its negotiated economy build upon national-level labor negotiations and encourage the participation of industry representatives in the shaping of policy. The Board of Commercial Fishing meets with ministry officials to decide on vessel quota allocations and although it has no decision making power, the ministry often follows its advice and suggestions on domestic fisheries policy (Hegland and Raakjær 2008; Christensen, Raakjær, and Olesen 2007). The board's membership includes representatives of the Danish Fishermen's Association (DFA) and producer's organizations, those from the administration, and union representatives (Raakjær Nielsen 1994).

a. Evolution of ITQs in the Danish fleet

Since 2007, Denmark has fully implemented catch shares—primarily in the form of ITQs—to manage both its pelagic and demersal stocks. However, the introduction of tradable quotas evolved over a period of five years, starting with the pelagic sector, which had advocated for the management structure (Hegland and Raakjær 2008; Christensen, Raakjær, and Olesen 2007). The Danish fleet is segmented into three different categories: (1) those pursuing pelagic species, namely herring and

mackerel for human consumption, (2) those landing pelagic species to be made into fishmeal and other products not for human consumption, referred to as “reduction” fisheries, and (3) those catching flatfish and other demersal species. Prior to the system of *tradable* quotas, Danish fisheries operated under a system of individual catch shares of the TAC, limited by time and geographic parameters ranging from a three-month period to one week, as well as specified areas of the EEZ (Hegland and Raakjær 2008). The emergence of an ITQ system in Denmark began with the passage of legislation in 2001, which initially introduced an ITQ for only the Atlantic herring fishery implemented for a trial period of five years starting in 2003 (Hegland and Raakjær 2008). In 2003, quotas were given—without auction or payment—to fishermen who qualified under the participation requirements during 2000 to 2002.

i. The Pelagic Fleet

Competition from Scottish and Norwegian pelagic vessels combined with the processing industry’s calls for greater investment, capital, and higher catches for the Danish pelagic sector to remain profitable. This combination of factors pushed the pelagic industry to advocate for rationalized fisheries management. Individual quotas had been given to 35 vessels representing 90% of the total quota in 1995, beginning the wave of rationalization in Danish fisheries (Hegland and Raakjær 2008). The main differences between the prior system and the new 2003 ITQ were that the shares could be traded and had a multiple year allocation (Christensen, Raakjær, and Olesen 2007). The remaining herring fishermen and the Pelagic Fisheries Producers Organization (PFPO) sought avenues to advocate for ITQs in the Board of

Commercial Fishing (Christensen, Raakjær, and Olesen 2007). By 2005 the ITQs were made permanent in the herring fishery with intentions to introduce ITQs in other pelagic fisheries, namely mackerel and the reduction fisheries. Within the first two years of the herring ITQ system, the number of vessels dropped by 50% (Hegland and Raakjær 2008). The motivation for introducing ITQs was to improve the economic performance of Danish fisheries and to encourage capital investment in the pelagic sector (Christensen, Raakjær, and Olesen 2007; Hegland and Raakjær 2008).

ii. Expanding Tradable Quotas to the Demersal Fleet

The experience of those who fish demersal species has similarities to the pelagic experience, but with some added particularities of that fishery. In 2005 members within the ruling majority of parliament decided to reform demersal fisheries management. Christensen, Raakjær, and Olesen (2007, 556) observe, “In 2005, the political climate in Denmark was changing from a general reluctance towards ITQs to an increasing acceptance. This shift occurred due to a combination of a liberal government in charge and a change in leadership of DFA.” New leadership within the DFA, political alignments and personal experience of key ministry posts, and the “success” of the pelagic fisheries pushed the balance toward tradable catch shares in demersal fisheries (Hegland and Raakjær 2008). In autumn of 2005, the *Folketing* decided to introduce a tradable vessel quota system, known as the “New Regulation” or the VQS-system, for the demersal fleet to begin in 2007 (Hegland and Raakjær 2008). While these were vessel quotas with some trade restrictions, the VQS-system represents a *de facto* ITQ (Høst 2012). As with the pelagic fisheries, the political

decision sought an economically viable national fleet as opposed to the open access ideal advocated by the DFA up until 2003-2004 (Hegland and Raakjær 2008, 186). Furthermore, the importance of Board of Commercial Fishing (and DFA) diminished following the VQS-system because fishing decisions were now mostly private and market-driven (Hegland and Raakjær 2008). Additionally, fishermen can trade quotas either permanently by selling quotas and exiting the fishery or temporarily by leasing quota out to more productive boats. Figure 7 (below) summarizes these milestones.

Figure 7. Danish ITQ evolution timeline

1995:	Individual quotas given to 35 vessels for 90% of the Atlantic herring TAC based on advocacy by the PFPO
May 16, 2001:	Parliament decision V117; Parliament announces introduction of ITQ for Atlantic herring fisheries to begin in 2003; five year trial period with option for three year extension
2003:	Atlantic herring ITQ system implemented
2005:	Minister appoints working group for new management of demersal, in which PFPO partakes
November 2005:	Parliament announces FKA-system for demersal species to start in 2007; ITQs made essentially permanent with 8-year escape clause included
2006:	Numerous vessels exit the demersal fleet in anticipation of VQS-system
January 1, 2007:	System extended to other pelagic species; initial quota allocation based on participation during the years 2000 to 2002; VQS, a form of ITQ based on the pelagic model implemented in for demersal fish stocks
April 2012:	New regulations on concentration limits introduced with maximum shares according to target species

iii. The Coastal Fishery and Less Active Vessels

There were some provisions for the demersal fleet seeing as there was great vessel diversity in the demersal fleet. Built into the quota regulations for the demersal

sector was an attempt to protect small-scale fisheries in Denmark, known as the “coastal fishery.” The rule allows vessels, which make 80% of their fishing trips in 24 hours and do not exceed 17 meters in length, to have an extra allocation of cod and sole. When the tradable quotas were introduced in 2007, fishermen who fished in this manner had the option of taking 20% more Atlantic cod and sole quota than they would be allotted, if they agreed to remain in the coastal fishery. Coastal fishermen are allowed to lease quota from outside the coastal fishermen’s pool, but non-coastal fishermen cannot lease the coastal fishery quota. There are also “less active vessels” (*mindre aktiv fartøjer*), which were allotted shares outside the tradable quota system. These are often single fishermen, who made less than 224,000 Danish kroner in the qualifying period and were given a “block” of quota, which can be sold or leased, but not to another fisherman with quota or even another less active vessel permit (Høst 2012). These less active fishermen are allowed to lease quota to supplement their share (Høst 2012). In addition to a four-vessel ownership cap in the demersal ITQ fleet, the Danish ministry tried to create caps on allocation (Høst 2012).

However, within the few years of the coastal fisheries operation, there are cracks in the veneer. To begin, internal disagreements in the Danish small-scale sector and its advisory body exist as to what constitutes small-scale and coastal fishery. Moreover, with the market forces of the ITQ system playing strongly outside of the coastal fishery, with quota prices becoming more and more attractive outside of the coastal fishery sector, it is a challenge to maintain the numbers in this segment. Some see that asking coastal fishermen to carry on the legacy and heritage themselves by

selling quota below the price they could get outside the coastal fishery requires these persons to act against their own individual economic interest when no one else in Danish fisheries is obliged to play by those rules. Moreover, there are still barriers to entry since young persons cannot afford to buy quota, whereas the first generation of quota recipients received theirs without cost. There is some quota set aside in the Fish Fund for young, new entrants, but many regard this as insufficient. A young person can no longer invest in a small boat and earn and save money through the small-scale fishery because cost of quota is prohibitively high and these persons cannot make enough to break even on a part-time basis.

Figure 8. Commercial vessels registered in Hirtshals, Løkken, and Thorupstrand

Information compiled from Danish Ministry of Environment and Food, AgriFish Authority
<http://naturerhverv.dk/fiskeri/fiskeristatistik/dynamiske-tabeller/>

2. United States

a. Federal Legislation and Attention to Communities

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 (FCMA) and its subsequent reauthorizations, including the Sustainable Fisheries Act

of 1996, govern fisheries within the United States' EEZ. The FCMA established a national EEZ, a system of eight regional fishery management councils, and the rules for fishing within this newly designated EEZ in 1976. Waters within three nautical miles of shore are subject to individual state jurisdiction. Guided by ten National Standards, the National Oceanic Atmospheric Administration (NOAA), its National Marine Fisheries Service (NMFS), and system of eight regional fishery management councils produce fisheries management plans (FMPs), which are mandated to incorporate social and economic considerations while managing at the level of optimum yield. Defined in the FCMA, optimum yield cannot exceed maximum sustainable yield (MSY) as such level can only be "*reduced* by any relevant economic, social, or ecological factor," (P.L. 94-265 § Sec. 301 104-297, emphasis added). While debated on differing views of sustainability, the FCMA tries to reconcile the interest to conserve marine fisheries while at the same time preserving, perhaps protecting, American commercial fisheries interests and reliant communities as reflected in the National Standards and in its objectives. While these standards are set in legislation at the national level, the regional council system represents decentralized, and in some instances devolved, decision making and operationalization of policy objectives. Each regional council comprises members appointed by each state with a coastline or fisheries interest in the region. Oftentimes Council Members come from various stakeholder groups relevant to fisheries in the region. The federal government also sits on the Council through U.S. Coast Guard and NOAA representatives.

b. Fisheries Management in New England

Of interest for these cases, the New England Fishery Management Council (NEFMC) designates FMPs and decides the measures and tools used to manage the stocks in federal waters off New England's coast from Connecticut to Maine. The NEFMC is responsible for the management of two fisheries important to the communities in this study, namely New England demersal stocks such as cod, haddock, pollock, and halibut, referred to as Northeast Multispecies or New England groundfish, and Atlantic Sea Scallops. The American lobster fishery has a slightly different governance arrangement, managed by the Atlantic States Marine Fisheries Commission (ASMFC), while NMFS enforces the regulations in federal waters. Provincetown and especially Cutler have active lobster fishermen and those dynamics will be discussed in later sections. This is not an exhaustive history of fisheries management in New England and it omits some fisheries that are important in parts of the region. However, groundfish, scallops, and lobster were the key fisheries in the communities included in this study and thus a primer on their management is due.

i. Northeast Multispecies (New England Groundfish)

In terms of limited entry and catch shares in the United States, regulations and provisions are adopted by the regional councils and specified to target fisheries and stocks. Limited Access permits apply to 11 species of New England's demersal stocks: Atlantic Cod, Haddock, Yellowtail Flounder, Pollock, Acadian Redfish, White Hake, American Plaice, Witch Flounder, Windowpane Flounder, Winter Flounder,

and Atlantic Halibut. The first FMP for these stocks was created in 1986. Limited access for these species began in 1994 with the implementation of Amendment 5 to the Northeast Multispecies FMP. In addition to limited entry, Amendment 5 also instigated the Days at Sea (DAS) management era. Speaking about the changes over the years in New England groundfish management up until 2001, Hall-Arber et al. (2001, 18) connect various management decisions and their effect on New England coastal communities:

The New England NRR [Natural Resource Region] groundfish case study illustrates how a strong market externality (low interest federal loans for purchase of fishing vessels) combined with the loss of a historically utilized and significantly important fishing area through the 1984 Hague Line decision (a governance externality) contributed to drastic declines in available biophysical capital (groundfish stocks). This destabilized the fishery-dependent NRCs [Natural Resource Communities] of New England, creating subsequent declines in total capital and disruption of capital flows in the system. These declines continue to have severe community impacts that are socially and economically devastating to fishing families and households in the region.

The situation for New England groundfish did not improve in the 1980s, 1990s, and 2000s as the management strategies had intended. Furthermore, there were two different buy-back and scrapping programs that emphasized “overcapacity” and “latent effort” and tried to address those prescribed problems (Thunberg and Correia 2015). The next significant management change came in 2010 with the elimination of DAS in the name of catch shares.

The imposition of catch shares occurred in New England in 2010 when the NEFMC voted in support of Amendment 16 to the Northeast Multispecies FMP,

which established tradable quotas within and among Sectors¹³, which are self-declared groups of three or more fishermen. The marginalia of Sector management and the slight differences between them and ITQs are out of the purview of this dissertation; reviews and descriptions can be found in Larabee 2012, Carroll 2011, Holland and Wiersma 2010, and Macinko and Whitmore 2009. Some *ex ante* publications on Sectors suggest that the management structure would operate more like fishing cooperatives (Holland and Wiersma 2010); however, evidence suggests that Sectors operate more closely to ITQs, where the Sectors assign catch quotas to individuals (Olson and Pinto da Silva 2014). Per the discussion of ITQs, catch shares, and community impacts in Chapter III, the importance of Sector management in New England is such: it introduced a catch-based management system in New England in contrast to effort regulation, it allocated percentage shares of stocks to individuals based on their fishing history in a particular window of time, the initial allocation was not auctioned nor incurred a fee but was given to a group of permit holders, and a trading and leasing system was established. At the time of writing, the NEFMC was deliberating on Amendment 18, which proposed to address the issue of fleet diversity and the imposition of allocation caps for groundfish. However, concerns over whether these caps would have any significant effect were apparent (NEFMC 2015).

¹³ The Sector program refers to the tradable catch share management program implemented in New England. Unfortunately, its name can cause some confusion when writing about maritime industries. When I write “Sector” I am referring to catch shares in Northeast Multispecies; when I write “sector” I am using the word in a general sense to mean business field.

Occurring at the same time as the implementation of Sectors, stock assessments for New England groundfish, especially Gulf of Maine cod, have been low, causing concern among managers, conservationists, and fishermen in the region. In interviews, many fishermen and people linked to the groundfish industry were critical of the assessment methods and management tactics employed by NOAA and NMFS. Additionally, fishermen informants also brought up ecosystem dynamics including water temperature and marine mammal predation in their discussion of frustrations with NOAA science and management. To be blunt, the situation of groundfish in New England at the time of investigation was bleak. Stock assessments showed serious concerns for the abundance of cod, while at the same time the industry was adjusting to various aspects of catch shares including the added administration of Sector trading, allocating necessary quota and avoiding choke species, and the impending onset of cost for monitoring. The absence of young people in groundfish was an issue of limited access and barriers to entry with the capital necessary for quota, but also linked to the present, poor economic performance of the fishery, especially in comparison to the earnings in the scallop fleet. The poor economic performance disincentivized entrance for crew.

ii. Atlantic Sea Scallops

In contrast to groundfish, the outlook for scallops in New England is much brighter. The NEFMC implemented the first FMP for Sea Scallops in 1982, in which the management strategy centered on minimum size limits, known as meat counts, because the size of the muscle in a scallop varies. In 1994, Amendment 4 to the Sea

Scallop FMP created a limited access fishery and an open access fishery with a trip landing limit of 400 pounds (Olson 2006). The trip limit and open access protocol allowed for scallop bycatch in other fisheries (Olson 2006). The limited entry system was based on fishing history for vessels between 1985 and 1990 and moved the effort management to DAS as opposed to meat weights. In addition to these provisions, Amendment 4 also limited crew size to seven people, which came up as a key point of change in one of the interviews and found in the literature (Olson 2006; Hall-Arber et al. 2001). Amendment 10 in 2003 began the closed and open area rotational system of management that continues today. The last significant change to the scallop fishery came in 2004 with Amendment 11. By eliminating the open access general category of permits that were allowed to land scallops, the amendment essentially made the fishery completely limited entry (NOAA 2004, 35194). General category permit holders qualified for the new permit if they landed at least 1,000 lb. between 2000 and 2004 (NOAA 2004, 35194). Thus, the scallop fishery continued with the rotational area management, but also included a catch share in the form of Individual Fishing Quota (IFQ), which was not tradable but could be sold and was subject to share limits.

Another piece many informants, especially those from New Bedford, noted in relation to the scallop fishery, was the innovations in assessment using submerged video cameras to count scallops, created by a team of researchers at the School of Marine Science and Technology (SMAST) at University of Massachusetts Dartmouth. In contrast to groundfish, Atlantic scallops are healthy both in terms of stock abundance and economic value. Being a crew member on a scallop vessel is highly

desired, but also somewhat challenging to find an opening because of a lucrative crew share and the seven person crew limit. New scalloper hopefuls can crew on boats in the closed areas because of weight landing limits as opposed to limits on manpower, thus allowing “shackers” or new crew members a chance to learn and develop competencies. New Bedford is America’s capital of Atlantic Sea Scallops, but Provincetown boats also target this fishery. In Cutler, one informant held a federal scallop permit and he reported that one other fisherman in the harbor possessed a federal permit, although neither actively pursued offshore scallops in recent years. Some Cutler fishermen, while active in lobster fishing from April through December, fish for scallops in Maine’s inshore waters, namely in Cobscook Bay. Maine’s Department of Marine Resources changed its inshore scallop fishery from open access to limited entry and some informants reported losing permits because of inactivity during the period of open access and being more active in scalloping prior to the lobster boom of the 2000s.

iii. American Lobster

Originally, I did not intend to cover cases where lobster fishing was the primary fishery, but as the case of Provincetown unfolded, it was clear that lobsters were an important target species and essentially filling the gap of lower groundfish activity. Similarly, Maine’s access to groundfish has both naturally diminished as cod and haddock largely migrated out of Downeast, but also with the Sector program the poor history in groundfish during the window and initial allocation make pursuing groundfish even more rare. Lobster fishing in New England is both an inshore (state)

and offshore (federal) fishery. As aforementioned, the ASMFC manages lobsters throughout their entire American range from Maine to North Carolina. In Maine, lobsters cannot be landed with trawling gear, but only traps. Massachusetts allows lobsters to be landed by trawlers. Lobster fishing on Cape Cod includes trap fishermen and divers, whereas Downeast lobster fishing is almost entirely done by trap. In contrast to Massachusetts, Maine created a co-management system to manage certain elements of the lobster fishery including trap limits and the new entrant to retired permits ratios. With these fisheries management changes, table 3 (below) traces the decline in federally permitted vessels with Principal Port in the three case communities from 1995 to 2015.

Table 3. Permitted vessels with Principal Port listed as New Bedford, Provincetown, or Cutler

Year	New Bedford	Provincetown	Cutler
1995	275	67	14
2000	224	43	17
2005	291	46	31
2010	271	28	29
2015	230	19	30

*Based on data compiled from NOAA Fisheries Greater Atlantic Region,
<http://www.greateratlantic.fisheries.noaa.gov/aps/permits/data/index.html>*

B. Case Communities

1. Working in two political systems: the United States and Denmark

From the supranational to local governance levels, the political systems of the United States and Denmark are structured differently. The United States system of a federal government with state governments plays a significant role in certain policy areas and the provision of services. The Danish central government system officially

designates regions and municipalities to administer national healthcare and local development concerns. By comparison, in the United States, regions are unofficial designations. After an administrative reform in 2007 Denmark comprises five regions, which carry out particular social services and capture regional identities.

The six New England states have counties, which consist of cities and towns, but especially in New England county government has little influence in its residents' lives other than the court system. In contrast, the Danish *kommune*, translated as municipality or county, has more influence over local development and policy (Bærenholdt and Aarsæther 2002). Denmark's municipalities are important political entities, determining much of the development strategies and public infrastructure for the towns and cities under its administrative purview; the mayor (*borgermester*) is elected by the municipality, unlike in New England where towns and cities individually elect mayors, City Council members, or Boards of Selectmen. Figure 9 outlines the governance levels for both the Danish and American cases and summarizes the related government entities. This information is summarized in figure 9 on the following page.

In addition to differences in governance, size both in terms of population and geographic area distinguish Denmark and the United States, or even Northern Jutland and New England. For major regional cities, Aalborg and Boston contrast in size and level of international recognition as centers of commerce. Boston's population (pop. 654,966) is six times that of Aalborg (pop. 109,092) (U.S. Census Bureau 2013 estimate; Statistisk Danmark 2014). In addition, Providence, Rhode

Figure 9. Governance levels relevant for the six case communities

Institutional Level	Cases: Hirtshals, Løkken, Thorupstrand	Cases: New Bedford, Provincetown, Cutler
Supranational	European Union	n/a
National	Central system: Parliament (<i>Folketing</i>) and Ministries	Federal system, 3 branches: bicameral legislature, President, Supreme Court
Regional	Region of Northern Jutland	New England *informal except for Regional Fishery Management Council
State	n/a	Commonwealth of Massachusetts (NB & P) State of Maine (C)
County	Hjørring kommune (H & L) Jammerbugt kommune (TS)	Bristol County (NB) Barnstable County (P) Washington County (C)
Local	Local voluntary institutions only	Mayor & City Council (NB) Board of Selectmen & Town Meeting (P & C)

Island (pop. 178,042) outranks Aalborg in size. However, Maine's largest city, Portland is smaller than Aalborg at 66,194 persons according to 2014 estimates. The distance separating the urban hubs of New England, as well as the geographical distance surrounding them is greater than that of Northern Jutland. However, the public transportation systems are more comprehensive and accessible in Northern Jutland. Although it may seem that there are numerous differences between these two nations and regions, the dynamics of New England and Northern Jutland demonstrate compelling parallels, which are the primary interest of this dissertation.

2. Northern Jutland

Northern Jutland lies in the northern third of Jutland, the peninsula abutting Germany and extending into the North Sea. Northern Jutland is the least populous region in Denmark with 583,471 inhabitants or approximately 74 persons per square kilometer (Statistik Danmark 2015 Q3). While Northern Jutland has the lowest population density in the country, the fishing industry is well concentrated within its borders. Thirty-five percent of the national fleet's gross tonnage is registered at ports in Northern Jutland, which is second to Mid-Jutland's share of 41% (Semrau and Ortega Gras 2013). Northern Jutland has the highest employment in fisheries compared to all other Danish regions with 3,553 persons employed out of the national total of 8,994, representing approximately 40% of the national total (Semrau and Ortega Gras 2013). Nationally, employment in fisheries has fallen by 45% from 2000 through 2009 (Semrau and Ortega Gras 2013). Tourism also represents a major piece of Northern Jutland's economy and its outside notability and the region promotes "The Top of Denmark" (*Toppen af Danmark*) promotion campaign.

Figure 10. Map of Northern Jutland, Denmark

a. Hirtshals

Hirtshals lies in Hjørring municipality, on the western edge of Northern Jutland and represents the northernmost location amongst the Danish cases (see figure 10). Hirtshals is a “new” town in the Danish context as it was established as planned harbor and community, built in 1919. The harbor and town developed through fishing, but has changed into a transportation hub. Today, Hirtshals is a harbor town with train lines connecting it to the city of Hjørring and points further along the Danish rail network. In 2015, 5,879 people lived in Hirtshals. While the local economy is relatively strong, Hirtshals has faced declining population numbers over the last decade, as corroborated by Lange et al. (2014). Hirtshals is 66.9 km (about 41.6 miles) from Aalborg on highway E39. Three ferry lines service Hirtshals with routes to various points in Norway; Tórshavn, Faeroe Islands; and Seyðisfjörður, Iceland.

The ferries sail daily, year round. Hirtshals Harbor, the port authority, refers to itself as a “unique turntable” moving goods and people from areas of Scandinavia to other parts of Europe. Its harbor represents the largest center of employment in the wider municipality. In addition to the harbor, the North Sea Research Park houses marine researchers and organizations as well as the North Sea Oceanarium, a key tourist attraction. Those living in Hirtshals largely work with their hands, many of whom are tradesmen and there is perhaps a reluctance toward intellectual pursuits, but that is not to say that Hirtshals is void of culture. Numerous respondents highlighted the strong musical traditions in the community and its renown in the wider area. In terms of the character of Hirtshals and its residents, many noted that people have a somewhat harsh or tough (*barsk*) character, speaking directly and acting without great deliberation. Hirtshals has evolved in its built environment as a *brugerby*, which roughly translates as “user friendly city,” meaning that people execute tasks and fulfill needs without extensive handwringing with concern for how it works, rather than how it looks.

i. Fisheries Dependence

Fishing has been a part of Hirtshals since its establishment and while it is one of the three primary landing ports in Denmark today, it has seen marked contraction in its fleet. The prominence of fishing has gone down over the years and is felt and understood by many of those interviewed. Unlike the other cases in Northern Jutland, Hirtshals has a deep water harbor where boats dock along quays, as opposed to landing on the beach like Thorupstrand and Løkken. Commercial fishing,

especially the landing and processing of fish, is an important piece within the port of Hirtshals. However, the dominance of fishing within the wider community has fallen over the decades. Nonetheless, the service port status of Hirtshals remains important as a means of revenue from fisheries and to help maintain the onshore support businesses. Hirtshals Fish Auction is one of the greatest draws for boats to land here. Additionally, the transportation turntable characteristic of the port encourages pelagic vessels to land herring, mackerel, and other species going directly to processors in Northern Jutland. Frozen fish from Norway and Greenland are landed in Hirtshals with ferries carrying trucks, which transport the frozen product.

Within the community, fisheries still hold some cultural significance with the two most tangible events being the *Fastelavn* celebration and the annual Hirtshals' Fish Festival. In contemporary Denmark, *Fastelavn*, the last day before the start of Lent, children celebrate by a sort of piñata suspended overhead filled with candy in a twist on the tradition of striking a wooden barrel with a black cat inside to rid evil spirits. To mark the holiday in Hirtshals, anyone interested may don a safety suit, jump into the harbor, and take turns striking the barrel suspended over the harbor, filled with single-sized bottles of alcohol (pictured in figure 11). Spectators gather along the quay to watch those bobbing in the cold water and later to enjoy fish cakes (*fiskefrikadeller*) and pastries (*Fastelavnsboller*). Lastly, the harbor represents a key fixture in the lives of local people, where many will walk down or drive by the harbor to see what is happening on weekends or in the evenings.

Figure 11. Photographs of Fastelavn activities at Hirtshals harbor in 2014

Hirtshals Participants in the water with Fastelavn barrel suspended overhead

Hirtshals Spectators lined up along quay to watch those in the water

ii. Change and Transition

Although Hirtshals in some ways has benefitted from Denmark's ITQ system, some in Hirtshals are still concerned with the effects of consolidation and concentration, namely in relation to support skills like net mending and those who worked in these sectors, have lower educational attainment, and thus face greater obstacles in finding new employment. Hirtshals transitioned from a fishing harbor to a transportation hub over the last 30 years. Fishing remains in the mix, but it is no longer the dominant activity in the port. Ferries carry both passengers and cargo throughout the year and have supplemented the gap in demand for ancillary businesses that once served the fishing fleet almost exclusively. Aquaculture is another area where Hirtshals has looked to supplement the consolidated fishing industry. Respondents also talked about the change in family life and social structure

in Hirtshals. In the past, traditional fishing family structure dominated the community, with fathers away at sea and mothers managing life ashore, but that has changed and no longer persists as strongly. Finally, there have been some concerns that the city's plan, architecture, and emphasis on mobility have been detrimental to its ability to attract and retain residents, as it's population has fallen over the past 20 years (Lange et al. 2014). Thus, the transportation hub transition may offer Hirtshals new challenges.

b. Løkken

Løkken sits on the coast, south of Hirtshals, on the western coast of Northern Jutland (see figure 10, page X) and is part of Hjørring municipality. Today, Løkken claims 1,560 year-round residents. Løkken developed through maritime trade with Norway beginning in 1678, lasting roughly 200 years. There was some active fishing during this era both for local subsistence and for trade with Copenhagen. When trade with Norway diminished, Løkken largely turned to fisheries, although maritime commerce with Norway still held a share of the local economy and its related employment. Løkken also emerged as a premier holiday destination starting in the 1860s when merchants, doctors, and lawyers from Copenhagen came to the area. Løkken no longer has rail connections, but multiple public bus lines connect Løkken with Hjørring and Aalborg. Moreover, the highway connects Løkken with points north and south. In some respects, Løkken has more elements of a bedroom community for Hjørring or even Aalborg, which are not likely trajectories for either Hirtshals or Thorupstrand. Today, Løkken's tourism benefits from the proximity

between the town and the beach, creating an “urban beach” effect as noted by one informant, which in turn distinguishes Løkken from other beach destinations in Northern Jutland. While the light sands and picturesque dunes provide natural amenities to Løkken’s stretch of coastline, the fishing industry has been a part of the attraction of Løkken since the 1880s (Using Olsen 2003). Although Løkken has become dependent on tourism, shops are encouraged to remain open throughout the year and residents moderately embrace the cyclical nature of a year in Løkken.

i. Fisheries Dependence

Figure 12. Photographs from the beach in Løkken

Løkken Traditional boat used for recreation (left) and commercial fishing vessel (right)

Løkken Winch inside the winch house

Løkken Pier, fishing vessels, and wind surfer

Løkken Tourists walking along the pier with winch cables (right)

Løkken's fleet lands its catch on the beach, with the assistance of a pier and winch system that pulls the boats in and out (see photographs in figure 12). The first pier construction began in 1917 and in 2014 Hjørring municipality began renovations and expansions of the pier with an extensive community planning process prior to the final plans. The fleet in Løkken is smallest of all the cases with five active boats, but it maintains a local fishermen's union (*fiskerforening*), which has ice facilities, a meeting room, and packing facilities in a building near the pier. Although Brookfield, Gray, and Hatchard's (2005) "virtual dependence" moniker may seem appropriate in some ways, Hjørring municipality emphasized that fisheries in Løkken should not be just for show, but rather a business entity in and of itself. Additionally, Hjørring municipality met with and sent letters in 2013 to then Minister of Food, Agriculture, and Fisheries (*Fødevareminister*), Mette Gjerskov, stipulating that Løkken was being hurt by the quota policy and the desire of its citizens to maintain its *commercial* fishing fleet. Notwithstanding, as with "virtual dependence," Løkken employs its fisheries heritage and its remaining working fleet as a means of distinction from other beach towns along Jutland's West Coast. Løkken's historical society maintains a coastal fishery museum and sites such as the old signal tower and the net tarring place that feature the fishing community's fishing culture and heritage. Lastly, since interviewing fisheries and local development informants in Løkken in late 2014, Løkken has organized the direct sale of fish from its local fishermen, using media technology (text messages, social media posts, QR codes, and a website) to alert tourists and residents of expected landing time and species caught daily by Løkken

fishermen. During interviews, there were indications that Løkken fishermen and local tourism officials wanted to adopt these direct market strategies because of requests from visitors and the frustration that locally landed fish was unavailable. Therefore, there is a product-based element to fisheries activities in Løkken, but not as thoroughly vertically integrated as the effort in Thorupstrand (Brookfield, Gray, and Hatchard 2005).

ii. Change and Transition

Although fishing and tourism have operated alongside and tourism in Løkken benefitted from the attraction of fishing culture, the balance has shifted toward dependence on tourism in the last half of the twentieth century. Summer Sundays in the 1930s marked the arrival of between 14,000 and 15,000 people (Ussing Olsen 2003), a population influx echoed today as the population of the town rises up to 50,000 in the summer months from a year-round population of about 1,600. However, this prior period of tourism represented a different form than what it became in the 1950s and 1960s and to what it is today. Town historian and author, Peter Ussing Olsen (2003, 166-169) identifies the introduction of paid vacation in Denmark, the increasing prevalence of the family automobile, the expansion of vacation housing options to camping, hostels, and summerhouses as “tourism’s democratization” a departure from the privileged class patronizing the beach resorts (*badehotel*) from 1900 through 1930. Nonetheless, there are definite preferences to maintaining Løkken as the way it was, or at least aesthetically. The pier restoration project illustrates the attention the community pays to accommodating its fishing fleet and being sure not

to jeopardize its capabilities to land on the beach while at the same time facilitating expanded recreational activities and areas for people to view the boats from the pier.

c. Thorupstrand

Unlike Hirtshals and Løkken, Thorupstrand is part of Jammerbugt municipality. Jammerbugt also refers to the adjacent bay and curve along the coast, where Thorupstrand lies on the southern reaches of this bight. Thorupstrand is the smallest community of the Danish cases; in official statistics Thorupstrand is counted in the wider Vester Thorup community, which had a population of 252 in 2015. Thorupstrand exemplifies a tight-knit community with connected ties through kin and fishing. Employment opportunities outside of fishing and in the vicinity are limited. Some of the women in the community work in public sector jobs. Within the Danish system of public transport, Thorupstrand is perhaps one of the more poorly supported communities. Interviews with residents confirm that a car is required when living in Thorupstrand. Jammerbugt municipality has tried to compensate for the lack of buses connecting Thorupstrand with the town of Fjerritslev (pop. 3353, 2015 Q3), where numerous buses run to and from Aalborg and elsewhere each day, with a form of subsidized taxi service (*Flextur*). A public bus does run from Thorupstrand on weekday mornings and afternoons so that community children can get to school. In addition to permanent residences, Thorupstrand has a number of summerhouses in the area. However, other than a few small galleries and the natural areas and the beach, tourists must find shops and restaurants outside of Thorupstrand. Now, as part of the new fish cleaning and processing facility, the

fishing cooperative and community have the facilities to serve food and sell fish to the public, which opened in the fall of 2014.

i. Fisheries Dependence

Like Løkken, the fishing boats—most of which are wooden, built in the clinker craft style, and painted the traditional blue—land on the beach with the help of winch cables and bulldozers. The Thorupstrand Winch and Fishery Association (*Thorupstrand Spil- og Fiskeriforening*) manage the operations of the fleet and its landing procedure. In reaction to the threat of quota drain from the community, the Thorupstrand Coastal Fishermen's Guild (*Thorupstrand Kystfiskerlaug*) formed as a shareholder organization (*andelsorganisation*) of fishing families who live and fish out of Thorupstrand in 2006. Thorupstrand was first challenged by the resulting conditions of VQS system and later, after the formation of the guild, the financial crisis of 2008 threatened the existence of the nascent collective. The guild had to advocate for itself amongst defunct banks and find new financial institutions for support, but at the time of research had largely cleared those hurdles. In late 2013 and spring 2014, the guild was relatively stable although in the spring was suffering somewhat with the low price of European Plaice. At the time of research twelve vessels fished out of Thorupstrand, all of which were members of the guild. Additionally, the majority of fishermen are in or below their thirties distinguishing them from the average age of Denmark's fishermen and especially from Hirtshals and Løkken. In addition to landing fish, the new packing facilities employ people to clean fish—many of whom are local young people—and there are about three other

individuals who oversee the more skilled work of cutting and prepping the fish for both direct sale and other segments of the market. Many of the fishermen—active and retired—as well as other men in the community congregate by the beach or what is referred to locally as the “landing place” or sip coffee, converse, and thumb through *Den Blå Avis*, a printed want-advertiser of cars, trucks, and trailers, in the winch room (*spilrum*). In addition to community members coming to the beach daily to see and hear what was happening, many summerhouse residents and other visitors came to see the boats and some to buy fish during the days of fieldwork in early June 2014.

Figure 13. Photographs from Thorupstrand's landing place and its fish processing facility

Thorupstrand A bulldozer pulling in a fishing boat after a day at sea

Thorupstrand Two processing workers sorting through part of the day's catch

ii. Change and Transition

The community reports that before the introduction of quotas and the onset of the financial crisis, Thorupstrand had an active fleet of 23 vessels. In recognition of this decline, the fishing families and members of the wider community have adopted a model of shared investment to combat the effects of privatization. Thorupstrand has built on its assets—namely its close-knit community, fisheries expertise, inshore

fishery, and dedicated community leaders—and developed a local brand for its fish. A constellation of organizations evolved during the community's efforts to maintain its coastal fishery, including the aforementioned Thorupstrand Coastal Fishermen's Guild, Thorupstrand Fish Company (*Thorupstrand Fiskercompagni*), and Han Herred Havbåde. Thorupstrand Fish Company is connected to the guild, but concerns the marketing and sale of the guild's catch, seeking higher value through differentiated and direct markets. The marketing efforts focus on high quality, fresh caught cod going to parts of southern Europe and "new Nordic" restaurants that will pay a premium for quality, while also employing the story of Thorupstrand and its charisma to develop domestic markets for local brands and sustainable products. Han Herred Havbåde supports a coastal fishery museum and traditional wooden boat building workshop and apprentice program in neighboring Slettestrand in fulfillment of the independent institution's mission to support the development and preservation of fishing communities in Jammerbugt municipality. The major physical manifestation of the efforts is the new processing and packing facility on Thorupstrand's beach, which opened in late 2013. The community has succeeded in attracting support from Jammerbugt municipality and Northern Jutland Region, as well as private foundations such as Realdania and the Møller Fund. Thorupstrand Fish Company sells directly to Danish consumers in Copenhagen and now locally in a shop that is part of the new processing facilities. In January 2015, the Danish supermarket chain, Coop, agreed to sell and market the fish caught by the members of Thorupstrand's cooperative. In addition to the local branding, marketing efforts

also center on environmentally sustainable aspects of their fishery, emphasizing the lower carbon emissions linked to their style of fishing and their proximity to fishing grounds. While providing modern facilities to process fish and allow for Thorupstrand to double its processing capacity the strategy for Thorupstrand lies in hopefully regaining some of the boats and fishing capacity lost since the introduction of the quotas. Thorupstrand most strongly fits the “real” dependence typology (Brookfield, Gray, and Hatchard 2005). Nonetheless, this product-oriented dependence has not been without change in how things are done and the intention to capture greater value from its geographic advantage and its cooperative model.

3. New England

Located in the northeastern corner of the United States, the New England region comprises six states—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont—five of which border the Atlantic Ocean. Coastal New England developed through connections to the sea and in small villages that still exist today. New England’s regional economy has diversified over the centuries, with the largest city of Boston representing a major hub of higher learning and medical institutions. Other parts of New England remain rural, especially in northern sections of Maine, New Hampshire, and Vermont. New England still remains active in fishing, with roughly \$1.2 billion of landed value coming into the region’s ports, the majority of which flows through Massachusetts (47.9%) and Maine (40.9%) (NOAA 2014). In addition to fisheries, coastal tourism is an important segment of the regional economy especially in the coastal regions of Rhode Island, Massachusetts, and Maine.

Table 4. Fleet composition by vessel size: All three New England communities

Vessel size	New Bedford	Provincetown	Cutler
≤ 50 feet	20%	80%	97%
50-70 feet	9%	16%	3%
≥ 70 feet	71%	4%	0%

Based on data compiled from NOAA Fisheries Greater Atlantic Region,
<http://www.greateratlantic.fisheries.noaa.gov/aps/permits/data/index.html>

Figure 14. Map of New England, United States

a. New Bedford, Massachusetts

New Bedford is on the south coast of Massachusetts in Bristol County and sits on Buzzard's Bay. With roots to the original Plymouth colony of the 1600s and gradual development through shipbuilding, whaling, and the migration of Nantucket islanders to the mainland in the area of present-day New Bedford, the city was incorporated in 1847 (New Bedford Whaling Museum n.d.). Ten years after its

incorporation, New Bedford was the top whaling port in the world in volume of catch, which supported numerous shoreside businesses connected to whaling. American whaling began to decline in the 1860s. Nonetheless, the whaling wealth is still visible in much of the grand architecture in New Bedford—its public and business institutions and private houses close to the downtown district. Textile manufacturing and industrial development succeeded whaling and in turn the fishing industry became a prominent industry in New Bedford by the mid twentieth century. The harbor divides New Bedford on the west with Fairhaven, Massachusetts on the east, making the communities somewhat intertwined, especially in regard to the port and its fishing industry. The Harbor Development Commission takes responsibility for the planning and operations of the port. With a population of 95,072 (U.S. Census Bureau, 2010 census), New Bedford has a landmass of roughly 20 square miles and is 54 miles from Boston, Massachusetts. Providence, Rhode Island is the most easily accessible major city to New Bedford via Route 195. Travel to Boston from New Bedford is more challenging without a direct route. For many years, residents of New Bedford and others towns on the south coast have hoped for a rail connection to Boston, but the plan for a connection has yet to come to fruition.

i. Fisheries Dependence

New Bedford continues to be the top fishing port in the United States on landed value, which is largely attributed to Atlantic Sea Scallops (National Ocean Economics Program 2013). By landed weight metric, New Bedford ranks the 14th in the nation and remains the top port in New England (National Ocean Economics

Program 2013). Sea scallops and groundfish have been the primary fisheries in New Bedford with some pelagic species being part of the mix during certain periods. At the time of research in 2015, New Bedford's groundfish fleet was challenged by the Sector management program and the low stock assessments and consequent TAC, which affected many fishermen and communities in New England. New Bedford is known in New England as one of the major ports and confluences of fisheries activities and represents the region's larger scale vessels and fishing operations, especially in comparison to the two other New England cases. Connected to the fishing industry, onshore business such as propeller shops, gear manufacturers, fish auctions and buyers, and seafood processors are situated in New Bedford and Fairhaven. The processing sector covers a large footprint in an area adjacent to the port. In addition to the contribution of the commercial fishing to the local economy, a few different events and initiatives work to connect the social and cultural aspects of the industry to New Bedford. A group of New Bedford and Fairhaven residents related to the fishing industry have spearheaded the Working Waterfronts Festival, which has gone on for 13 straight years as a way for the public to meet and interact with the industry. Members of the industry have also noted that the festival has replaced some of the cultural and community events that took place when fishing was more dominant. Many organizers from the festival have also been involved in planning and developing a Fisheries Heritage Center, which has yet to find a physical space, but plans continue to develop from its board and its online social media presence.

Figure 15. Photographs of New Bedford harbor

New Bedford Palmer Island (foreground) and fleet docked in Fairhaven (background)

New Bedford Boats docked on New Bedford side of harbor

ii. Change and Transition

New Bedford has a historic legacy of transition, with the evolution of whaling, textiles, and fishing. On the waterfront, the management of the fishing industry changed from the days of unionized fishing and management to the federal management system in 1976. The fishing industry has been a major piece in New Bedford's local economy for over fifty years, but other activities have been important to the waterfront including break-bulk cargo, ferry travel to the Massachusetts islands of Martha's Vineyard and Cuttyhunk, small cruise ships coming into port during the summer and early autumn, and the potential for offshore wind energy installations staged from the port's Marine Transport Terminal. In addition, marinas and recreational boats also have dockage along sections of the port of New Bedford. Therefore, the port covers a diversity of activities, but as fishing wanes the question of what new pieces will fall into place remains unanswered. Within the months of fieldwork, New Bedford faced two different setbacks for local economic development

and the port, the first being the dissolution of the long awaited and litigated Cape Wind offshore renewable energy project and the second being the dashed plan to build and open a resort casino on the waterfront. Reports also indicate that strains on the groundfish industry have also affected the shoreside, ancillary businesses in New Bedford and Fairhaven (Georgianna et al. 2014).

b. Provincetown, Massachusetts

Provincetown sits on the tip of Cape Cod, Massachusetts and became incorporated in 1727. Part of Barnstable County, Provincetown is governed by a Board of Selectmen and an annual open town meeting. Like New Bedford, Provincetown was one of the major whaling ports in the nineteenth century, as well as fishing. Fishing weirs were abundant along the shores of Provincetown, supplying the canneries along its many wharves (McKenzie 2010). Provincetown is 115 miles (185 km) from Boston; there are seasonal differences in the level of access to and from Provincetown. Between mid-May to mid-October ferries sail at multiple times a day to and from Boston, making the trip as short as one and half hours, compared to a roughly three hour drive. On weekends during the summer, the Massachusetts Bay Transportation Authority (MBTA) runs a train from Boston to Hyannis, Cape Cod, where passengers can take a bus on to Provincetown operated by the Cape Cod Regional Transit Authority. During the winter and shoulder seasons, transportation options to Boston are limited to personal vehicle, commercial airplane, or a private bus company. Thus, Provincetown somewhat overcomes its remoteness through diverse transportation options and direct connections to Boston during the summer.

However, without the ferries during the winter months, Provincetown is geographically isolated. Routes 6 and 6A make Provincetown accessible by car from other parts of the Cape and onward to Boston via Route 3 and to Providence via Route 195. Art and theater also have strong ties to this community. Provincetown is host to the United States' longest continuously existing art colony and was the birthplace of modern American theater. As many noted in interviews, its openness toward and tolerance of culturally liberal groups, such as artists, writers, and hippies of the Beat Generation in turn encouraged many from the gay and lesbian community to come to Provincetown. Unique nature and renowned beaches also define Provincetown and its surrounding area. The Cape Cod National Seashore, designated as protected federal lands under the management of the National Parks Service, includes the Provincetown beaches of Herring Cove and Race Point.

i. Fisheries Dependence

MacMillan Pier is the primary dockage facility in Provincetown, which was renovated in 2001 and whose management transferred from the Board of Selectmen to the Provincetown Public Pier Corporation (PPPC) after project completion (NMFS 2008b). Over concerns of access and cost increases, a group of Provincetown fishermen negotiated with PPPC and the Board of Selectmen for a reduced rate and 20 year lease (NMFS 2008b). Of the three New England cases, Provincetown has fallen most dramatically in the number of vessels and in the volume of fish landed in its port. Today, there are only one or two active groundfish vessels in Provincetown, which many noted as a big change from decades prior. Historically, Provincetown

had many Portuguese fishermen who targeted groundfish, which was mostly a dayboat fleet. In recent years, Provincetown fishermen have found success targeting sea scallops and lobsters. Many fishermen in Provincetown now fish out of Nova Scotia-style lobster boats, gearing over from lobster to scallops or other target species depending on the season and availability. Tuna fishing has also been part of Provincetown, but its season is limited and variable. Recreational and charter fishing have also been a part of the collection of fisheries related activities in Provincetown over the years and are still active today. Boatyards in the west end of town supported the fishing industry, but have largely moved into other segments over the years. One final note about fishing on Cape Cod, Provincetown is one of four major Cape Cod fishing ports today, Falmouth and Woods Hole between Buzzard's Bay and Nantucket Sound, Hyannis on Nantucket Sound, and Chatham situated on the southern stretch of the outer Cape with access to the open Atlantic and Nantucket Sound. Because of the arm-shaped geography of the Cape, some fishermen will go out of and land in different ports depending on where they plan to fish, driving along the Cape from their homes to the boats steaming for less time, saving fuel, and enjoying better conditions inside the heated cab of a pick-up truck.

ii. Change and Transition

While not as long a period as that of Løkken, tourism has been ongoing in Provincetown since the 1920s. The arts community, viewed as one of the key pieces of Provincetown's character, has been a part of the year-round community for most of the twentieth century to today. Nonetheless, the form of tourism has changed over in

the last two decades with the heightened “resortification” of Provincetown. Another key piece of this change has been the escalating value of real estate in Provincetown. Residents (and former residents) cite an ongoing escalation in the 1980s with a serious boom in the late 1990s and early 2000s. Over the years, Provincetown witnessed many fishing families move out of town, to other towns on the outer Cape, namely Truro, Wellfleet, Eastham, and Orleans, as people from outside bought these houses as second homes used for part of the year. Additionally, real estate developers also divvied up some single-family properties or older guesthouses and converted those into condominiums used mostly during the high season. Because of the limited land area for building (both physically and because of the National Seashore land), Provincetown has little space to build new housing. The dearth of affordable housing came out as a salient theme in many interviews connected to Provincetown. In connection with this housing crunch and the lagging local offseason economy, unemployment is high, but also many community members talked about the challenge of finding people to work in Provincetown as these individuals would likely need to live farther out and commute longer to work. With this transformation to a tourism dependent economy and without the offseason support of the fishing industry, the community has been challenged to maintain its local institutions, closing its high school in 2013. Nonetheless, some in Provincetown have also seized opportunities to develop industries that replace their lagging fishing economy. Provincetown’s proximity to Stellwagen Bank where many humpback and right whales migrate, offered some of those in Provincetown’s waning fishing industry to

begin whale watching tours in the 1970s. Provincetown has the first and longest operating whale watching operation off the east coast of the United States. Through these whale watching activities and other environmental concerns in the community in the 1970s, the Center for Coastal Studies formed as a research institution focusing on marine mammals, coastal geology, and marine science with its home in Provincetown.

Figure 16. Photographs of Provincetown harbor from above and on the ground

Provincetown View from the top of Pilgrim Monument of MacMillan Pier (left)

Provincetown Sign for Dolphin Fleet Whale Watch credited as the east coast's first commercial whale watch

c. Cutler, Maine

The town of Cutler was founded by a group of English and Welsh settlers moving up the coast from Newburyport, Massachusetts during the eighteenth century and was incorporated in 1826. Cutler is a town of 507 residents in Washington County, Maine, which is in Downeast Maine. Cutler marks one end of the Bold Coast, a section of Maine's shoreline marked with steep rock cliffs, which stretches 40 miles to West Quoddy Head in Lubec, Maine. Route 191 takes one

through all of Cutler off Route 1 in East Machias and Route 189 that runs to Lubec. Washington County is without public transportation; the drive from Cutler to Machias takes about a half hour, a little under 17 miles (27.4 km). Machias and greater Washington County have a rural character; Bangor, Maine is the closest large city, a two hour drive of about 102 miles (164 km). The University of Maine has a campus in Machias, where a number of people in Cutler have attended. Until the mid 1990s, the United States Navy actively operated a Navy base in Cutler, but the radio towers remain remotely operated. Preservation land through the Maine Coast Heritage Trust and Maine Bureau of Parks and Lands limit the development of Cutler, seen both positively and negatively by those in the community. Like Thorupstrand, the Cutler community is close-knit and well connected through families, some of whom have ancestors who were the town's original founders. Cutler children attend a local school from kindergarten through eighth grade, and then have the choice of area high schools. Many choose to attend Washington Academy, nearby in East Machias; the state pays for each student's tuition as is the practice in many rural towns that cannot support a high school. In addition to the school and a noticeable community-wide penchant for baseball, the Methodist and the Baptist churches draw congregants from the town.

i. Fisheries Dependence

Cutler has long been a fishing community, but the mix of target species has changed over the years. Presently, lobster is king with many fishermen supplementing lobster fishing with clamming and in some instances inshore

scalloping in the winters and halibut fishing in the spring. Access to the water in Cutler is unique from the cases of New Bedford and Provincetown, which both have public entities managing piers and dockage. The fishermen in Cutler moor their boats in the harbor, but to load and offload traps they must use one of the two private docks and sell to the lobster dealers who own the wharves. Three families own wharves in Cutler all of which at the time of study were operated as commercial fishing wharves serving the fishing members of the families. There is a public boat ramp in Cutler, but the logistics of lobster fishing and the gear involved essentially voids that option. Offshore, conflict over maritime boundaries disputed by Canada and the United States threaten vitality of Cutler's lobster fishing. The "grey zone" surrounding Machias Seal Island, which is about 12 nautical miles from Cutler's shore, is an area where many Cutler fishermen set their traps and find themselves increasingly in conflict with Canadian lobster fishermen, who are allowed to set traps outside of the Canadian season, which ends in June. In years past there had been a sort of detente between the Canadian and American fishermen, but in 2002 Canada appeased their nation's lobstermen designating the area around Machias Seal Island as a place they could fish in the offseason, which coincides with the Maine lobster harvest season (Cook 2005). Not only is access to this area concerning to lobstermen, but also to a nature and bird watching tour operator based in Cutler.

ii. Change and Transition

On first encounter, Cutler seems like a place that has not changed over the last fifty years. Those living in the community find that the small town feel, the self-

sufficiency of its residents, and the reliance on fishing to be persistent attributes of the community. However, Cutler has gone through a transition from the pursuit of more diverse target species and pluriactivity at both the community and household level to a greater reliance on lobster fishing. One resident also noted that the removal of buildings in the town—the Grange Hall and the Masonic Hall—and along the waterfront have contributed feelings of change in the community. Participation in these civic organizations has also fallen, as it has in many other communities, while the two churches in the community continue with services, with active participation especially at Cutler’s Baptist Church. In many core ways Cutler is the same and stands apart from the dominant suburban-urban paradigm in American living. It is rural and remote. Thus, many recognized that opportunities outside of fishing may be scarce, even though there were indications that some of the young people studying at university hoped to return to their community, either working as a nurse in the hospital in Machias or finding other work to facilitate the small town life and kinship offered by Cutler.

Many in Cutler reflected on the changes in the land-based activities. Earlier, the woodcutting industry was more dominant in Cutler and blueberry picking also provided seasonal work for young people. With greater automation of both those activities, as well as other factors, the participation is lower than in previous decades. The magnetism of lobster fishing was the primary reason Cutler respondents gave for the change in effort in lobster fishing. Because lobster has done so well over the past eight or so years, fishermen have moved in that direction. One respondent explained

how he used to fish more for offshore scallops, but then lobster offered better opportunities. Technological advancements—wire traps as opposed to wood traps, the hydraulic pot hauler, and plastic crates—have standardized and modernized the lobster fishery and enabled fishermen to set and haul more traps. Additionally, lobster dealers have been able to keep pace with the higher volume of product with digital scales and standardized plastic crates, but the glut of 2008 to 2010, connected to the Canadian processors' inability to access capital during the economic crisis, trickled down to the Maine lobstermen as prices reached low levels. However, many lobstermen emphasized how good lobster fishing had been over the past five years.

Figure 17. Photographs of Cutler's harbor, town, and wharves

Cutler Lobster boats on moorings

Cutler "Downtown" view from the water

Cutler Son assists his father loading bait onto lobster boat

Cutler Spectators at the annual 4th of July lobster boat races

C. Key Themes and Findings from the Cases

As outlined in the dissertation's methodology chapter under section II.A.1.a. and II.A.1.b., the cases were chosen based on the principle of maximum variation and to deepen understanding of different types of communities. While each of these six communities holds its own unique place characteristic, community dynamic, and degree of engagement in fishing, hopefully through these descriptions, parallels emerge between Hirtshals and New Bedford, Løkken and Provincetown, and Thorupstrand and Cutler. The three chapters that follow address the themes relevant to each set of two cases, with some examples from the other cases when relevant. And while the dynamics of how rationalization or privatization unfolded and the variations therein distinguish the two systems, communities in Northern Jutland and New England coped with the changes in different ways. First, Chapter V, *New Entrants: Where are they?*, centers on the cases of Thorupstrand and Cutler, with experiences from the other cases included to address question of how management change and community culture enable or preclude the preservation of a community's fleet. Attending to the fact that cases like Thorupstrand and Cutler had limited opportunities to diversify, Chapter VI, *Widening the Net*, examines diversification and the antithesis of this existential dependence, but uncovers pitfalls and challenges inlaid in transition from fishing as a primary activity to fishing as one of a number of activities with the overlay of uncertainty in new maritime sectors. After the discussion of diversification in relation to Hirtshals and New Bedford, I segue into the topic of tourism, arguing its distinction from diversification because the cases of

Løkken and Provincetown illustrate economic dependence on tourism as opposed to its feature as part of various activities. This chapter also addresses some of the concerns expressed by residents about remaining a year-round community and how tourism does or does not enable this.

CHAPTER V

NEW ENTRANTS: WHERE ARE THEY?

This chapter situates within the fisheries domain, looking at what I term *existential fisheries dependence* and how remoteness, rurality, local collective action combine to enable community responses to the threat of enclosure. This chapter also uncovers the challenges felt by all case communities in regard to the management of fisheries. Although this research sought to look at communities in Northern Jutland and New England in regard to parallel experiences of rationalized management, the cases in New England proved to be more varied in the types of fisheries, some of which were not managed with tradable quotas. In the six cases studied here, enclosure encapsulated the policies of limited entry, the use of market-based policies to manage fisheries, and the national-level disputes that impact access of local fishermen to particular fishing grounds.

A. Experiences of Enclosure

Following the findings on the effects of enclosure in New England and Northern Jutland, the chapter examines the experiences of the two smallest communities in this study, Thorupstrand and Cutler. Although Cutler was not concerned with the loss of quota from its community, it parallels Thorupstrand in its youth engagement in fisheries and the promotion of access for new entrants. Where

Thorupstrand and Cutler truly parallel one another is in the relative remoteness in their respective regions, limited opportunities to diversify even in terms of tourism, and what I term the existential nature of their fisheries dependence.

1. Limited Entry

Through the course of this research, it became clear that although ITQs and Sectors had affected the case communities, the research should take a broader perspective on different forms of limited entry and how those regulations and rules changed the practice of commercial fishing. In Northern Jutland, fisheries informants and resident respondents pointed largely to the effects of the Danish ITQ system and did not speak often of the issue of permits, access to particular fisheries, or take issue with the overall concept of limiting access to fish and marine resources.¹⁴ By contrast, in New England, the Sector program and the general concept of transferrable quotas were important points of discussion and had brought about recent changes—many would say hardships—to the New England commercial groundfish industry. However, fisheries informants also brought forth the introduction of permits and regulations that limited the ability of New England fishermen to move from one fishery to another as key points of change. The forthcoming sections lay out the experiences, concerns, and insights regarding these variations of limited entry and in turn look at how these management models play out for new entrants and may lock in—or better said, lock out—fishermen and their communities.

¹⁴ In 1986 Denmark introduced a licensing system for fisheries with the intention to reduce capacity. Nonetheless, the introduction of ITQs, namely their transferability, features most prominently in fisheries management discussions in Denmark.

Permits

I expected to find concerns about the state of commercial fishing in New England, especially in regard to groundfish. In addition, I anticipated hardships on both the health of stocks and the introduction of tradable quotas. While informants spoke about the difficulties of quotas and frustrations with scientific assessment, advice, and management by the NEFMC as points of concern, I also found that New Englanders thought back further to the introduction of a limited entry policy. Many referred to Amendment 5, or the year of its implementation, as to when they began to recognize significant change. Frustrated that Provincetown did not advocate for its fleet or think about the implications of a smaller fleet to the overall community, Leo, a fisheries informant and former resident remarked:

Yeah, Amendment 5, 1995. Check it out. That's when everything went to Days at Sea and now your license is worth money because it's [limited]. That's when things went from open access to limited access! ...Amendment 5 went in somewhere around then. But anyways, when all that stuff was happening, a lot of the older players were getting out and their families weren't following up. They were getting out, selling their boats, and leaving town, (Leo¹⁵, Provincetown).

Leo connected these changes in management to the change in Provincetown, namely the exit of its year round community. In addition to fishermen leaving the industry, other fisheries informants found that increasingly in New England, fishermen were boxed in. They were not allowed certain gear on their boats when pursuing one

¹⁵ All quotation attributions in this dissertation are pseudonyms to protect the confidentiality of the research participants. However, the mayors of Hjørring and Jammerbugt municipalities and the former mayor of New Bedford have agreed to attribute their names and public positions.

species versus another. Some lost permits for scallops or other species because the policy changed and based eligibility on vessel histories in years when they were not actively fishing those species.

Andrew, a Cape Cod resident with family roots in Provincetown and the fishing industry commented, “My backyard, like every fish house, [or] fish person in Provincetown had all kinds of fishing gear. Rig the boat over and do this. Well, it got to be that you’re gonna buy a license now. You’re going to go fish dragging or you’re going to go scalloping now because you can’t do both. Unless you have two boats. And that’s crazy. You’re not going to have two boats,” (Andrew). His comments highlight that rather than gearing over the boat, the cost of permits and regulations on which gear were permissible on the boat when targeting certain species precluded the practice of moving to different species. He pointed out that with the coming of further license limitation and later Sectors catch histories created further divisions of who was viable and who was not in certain fisheries:

Andrew: If you were fortunate enough to make the right decisions, your quota is very, very, very valuable...And they never told you.

KO: It was luck.

Andrew: It wasn’t luck. It was deceitful.

Although not all those interviewed worded the change in rules as strongly as Andrew, others cited losing permits or DAS because they switched to other target species in some years and then felt penalized for “fishing lean.”

Speaking in New Bedford, participants also brought forward this idea of channeling people through permits. New Bedford shoreside business owners and members of a fishing family, Ivan and Anita, explained how the DAS regulations and related permits, divided fishermen and fractured the industry with implications for its future cohesiveness:

Ivan: ...The time it really changed, and it all holds together, was when the government came in and decided to put regulation on the industry to protect it, and bring it back, and do all it wanted to do. It divided the industry inside the industry.

KO: Okay?

Anita: Mmmhmm, yep.

Ivan: Because you were no longer just a *fisherman* in a support industry. You now were a *scallop*. You were a *dragger*. You were a *lobsterman*.

Anita: Divide and conquer.

Ivan: You were divided up, so when a regulation came down, it only affected a small part of the population. And the other part of the population went, "Phew, didn't bother me. That's okay."

With examples of the scallopers, lobstermen, and groundfishermen protecting their own interest in management decisions in relation to spatial management by the NEFMC, Ivan observed, "It divided up the people, so they can never stand united." He related this back to discussions earlier about the Christmas parties and the camaraderie of the fishing industry in New Bedford in the 1980s and noted that now those events only include the individual association membership rather than the wider fishing community. Ivan reiterated the significance of Amendment 5, and how species-specific permits locked out fishermen:

That was the real point in 1994, when they came in with those first rules, and they said you were a dragger or you were a scalloper. And you had 200 days dragging or you had 200 days scalloping. And then they turned around and said, okay only 13 boats...There are only 13 boats that are able to do the combination of scalloping and dragging on that vessel. My father was one of those 13 boats at the beginning and then they took his license. That was one of the reasons that boat was gone and it left the family because they took the dragging permit away from my father on that boat because he didn't fish in the winter of 1988, (Ivan, New Bedford).

Like Andrew, Ivan pointed out that the periods where permits were based affected opportunities, "And the windows are the next thing that close things down for people." This is one of the frustrations that New England fishermen spoke about, where those who "fished lean" in years where stocks were not doing well were further limited by permits and quotas that were based on catch history with the accusation that those who "fished hard" were rewarded for what some deemed irreverence to the state of the stocks.

Notably, these were the perspectives of those with pecuniary interest in the fishery. The inclusion here does not endorse these views as 'the truth' in the complicated business of managing multispecies fisheries, especially when stock health is in question, if not in crisis. Nonetheless, the point to be made is similar to Copes (1986) that permits limit the number of people, but do not necessarily limit fish mortality. And the points raised here highlight that in New England the overall decision to limit entry through the granting and denial of permits based on a window of fishing years, rewarded those established in the system and created barriers for those to gain access or pursue alternative fisheries. Additionally, like the findings of Murray et al. (2010) in the Mid-Atlantic, New England fishermen cited being unable

to fish seasonally and/or move onto less exploited stocks, as part of the diminished flexibility brought about by enclosure.

While in Cutler, the ideas about limited entry and enclosure connected to experiences with the state of Maine's inshore scallop fishery and with the change in license limitation in the lobster fishery. Cutler fisherman, Craig lost his scallop license after a period when he was not going scalloping, finding that when he wanted to renew, it had become limited. I spoke with a sternman in Cutler, who explained that he had had a lobster license earlier in his life, but went into the northern shrimp fishery for a period. With a moratorium on northern shrimp starting in 2014, he sought out crew opportunities on mussel boats out of Lubec and found a spot on the lobster boat in Cutler. Nonetheless, his hopes for getting a lobster license off the waitlist were low. Even though license limitation may lead to individual frustration, I also heard a few points in favor or with concern that without a limit on the number of people, the ability for these fishermen and communities to live off commercial fishing would be in question. Matching the available biomass to the fleet capacity can be a precarious discussion, as once again a TAC for the fishery can be shared by 10 or 10,000 boats. Although, community members in Cutler do not want to see 10 boats in the fishery, they recognized that the question of economic viability is of concern. Some profit margin was desired especially when individuals support their families and furthermore their communities through other services and businesses by maintaining the condition of the boats and fishing operations. Thus, there is a balance

between the distribution of wealth in fisheries and questions of access. These arguments and discussions continue in relation to market-based strategies.

2. Market-based Mechanisms

In interviews in Northern Jutland, discussion of permits or the end to open access did not emerge. Nonetheless, in many instances the introduction of quotas and the new threshold of higher capital upon entry represented key changes to communities and their fleets. Likewise, the Sector management program in New England brought additional challenges to fishermen. The key implications of ITQs in Denmark have been the movement of quota from smaller vessels onto larger ones as reported by people in all three case communities. As explained in Chapter IV, the leading motivation for the introduction of ITQs in Denmark centered on arguments for better economic performance of the nation's fleet and with financial stability, the ability to improve vessels and invest in better technology, especially in the pelagic fisheries. To that end, ITQs in Denmark have been successful. The opinion of those working in banks that finance vessels and the purchase of quota see it as a positive change, where the previous system with many vessels with "bad economies" and their owners were given a financially beneficial option to exit the fishery. Speaking about older fishermen who had been struggling to pay back loans, Jacob, a banker indicated, "They had the possibility to get out of the fishery and they ran."

Informants from financial institutions advocated that the previous Danish fisheries management system had too many vessels for too few fish and thus consolidation and concentration are looked upon as positive because of economic

productivity. Furthermore, these individuals also pointed to the abilities to invest in the vessels and improve the technological edge of the Danish fleet. A key point to remember in relation to those advocating for fewer people making more money, in a welfare state like Denmark with comparatively high and graduated income tax, economic productivity and concentration are in some ways redistributed. However, there are others, even within the financial sector, who questioned the quota system and this different access mechanism:

So, there is a lot when we speak about Danish fisheries. So, there are some political positions to this. At one point, we changed the way we accessed fisheries when one distributed the quota to the respective persons. The question is actually, how beneficial is it, the way one says that now you have the right to fish? So that perspective I think is also important to challenge and say, is this the right way we allocate the resources, (Troels, Aalborg, own translation).

Moreover, the system gave these quotas to one group, or generation, of fishers without any form of payment from the quota holders. Thus, new entrants and future generations of Danish fishermen will need to buy quota in order to begin fishing, heightening the capital necessary for entry.

a. Retirement Fund Mentality

Retiring on one's quota, or at least cashing in on its value, has also created tensions between the individual financial interest of fishermen and the hope that the quotas will remain in smaller communities like Løkken and Thorupstrand. Flemming in Thorupstrand spoke of family conflicts that have arisen among siblings over what to do with a father's quota. There are greater implications on inheritance and wealth than the previous system, "Because in the past it was just the boat, and then suddenly

there is very large wealth because it is all the quota and then one shall deal with that potential conflict each time,” (Flemming, Thorupstrand, own translation). In relation to Løkken a development official in Hjørring municipality contended, “And I think that the quota system is very...if you want to have a coastal fishery in Løkken in the future, then it’s nearly impossible with the quota system you have today,” (Mette, Hjørring). Mette continued:

If you want to have this fishery in Løkken you cannot ignore the problem about the fishermen, who have the quotas now. Of course, when they are not fishing anymore if they can have three times the price for the quotas from the bigger boats...of course! It’s their private interest; they have to do it. And I think some politicians like to say that it’s the local fisherman’s *ansvar* [responsibility]; they have the responsibility to insure the fishery in the future. And it’s not! It isn’t. It cannot be, (Mette, Hjørring).

By creating a market, or market-like mechanism, the state has abdicated its role in managing access, instead allowing these trades and individual business practices to determine who fishes and who does not. And as Mette points out, some argue that preserving the coastal fishery in communities like Løkken and Thorupstrand may rely on the benevolence of quota holders in these communities and their willingness to receive less in payment for quota in the name of keeping quota locally based.

However, Mette rejects this abdication of responsibility by the state in the name of individuals. Essentially, residents and community members recognize fishing will likely continue, but the form it takes may differ from what they hope. Even medium-sized boats that were once prolific have fallen in numbers over the years in Hirtshals, Hans hoped for some of these boats to return, but recognized that this may be a bit “utopian”:

If I have to start with what we want to see, I would like to see Hirtshals as a fishing port of 10-20 years ago. ...And how should it be? I would like that there still could be some smaller boats that I said that I think fell away, but would like to be preserved, some medium-sized vessels and so still have some bigger vessels. Then there is such a good combination of vessels in Hirtshals. But it's probably a bit utopian to think so; I would like if it could be done. It can only be done if we get another form of financing or another form of quota or something else. So we get a completely different structure of the fishery, (Hans, Hirtshals, own translation).

He argued for structural changes in order to have the vessels and activity of 10 to 20 years ago and to support the medium sized trawlers. Moreover, Hans recognized the connection between smaller communities and the inshore fleet and the need for a market of their own. Consequently, the argument contends the need for system change or reform.

In late September and early October of 2015, media coverage of the VQS-system and debates of its effects on small coastal communities appeared in the political online magazine, *Altinget*. Additionally, Denmark's Radio (DR) investigated the transferable quota policy and reported its unforeseen consequences, namely the effects of concentration of quota into a few hands and out of small communities similar to Løkken and Thorupstrand (*DR Undersøger* 2015). These public media debates point to an emerging concern within Denmark on the effects of these policies on society as people begin to question the concentration of wealth and the maneuvering by some to hold the majority of the nation's fishing quotas.

b. Will Fishing Persist?

When asked what they hoped to see in their communities in the future, respondents spoke about the persistence of fishing. Another key point in the

experience of quotas in Northern Jutland centered on the difficulty for young people to come into the fishery, or build their interest in fisheries through experience. Jørgen, a fisherman, recognized that young and new entrants were important to the continuation of fishing in Løkken, but he could see there were few waiting in the wings to continue the community's fishery. Jørgen, a fisherman in Løkken contrasted how he got into fishing—starting as a hobby with a small boat and a net alongside a carpentry job, gaining interest and experience, slowly earning money to invest in a bigger boat and expand his operation—to how young people now must invest a great deal of money at the start for the quota, making the incremental approach unfavorable if not impossible. Hans also shared concern for new entrants, “Therefore it is not easy for young people to come into the industry. For me, that is a very undesirable situation that the trend shows that there are so few, and that is because there are not any young people who can invest and come into the fishery,” (Hans, Hirtshals, own translation). Commonly referred to as the ‘greying of the fleet,’ Hans made the connection to ITQs:

It is an older man's business ... [I hope] that we draw a bunch of young people into the fishery but the new arrangement that was made, the VQS regulation, the quota system that we have, that has consequently made it so that we have come to own our own fish and that is both good and bad. It is good for some that became gilded [rewarded handsomely] and have ended up now owning it. But it ties together that today it is next to impossible for young people to come into the fishery because if it were my own son who shall buy a boat, if he shall take over mine, then one would say we do a type of generation shift. But if there is another buyer next who will give 50% more, then one will think a little about what to do. So if a young man today must buy a vessel and quota and sea days, then it is no longer profitable, (Hans, Hirtshals, own translation).

Essentially, young people cannot dabble in fishing, see if they can make it work, and slowly expand if they so choose because to land anything, one must have quota. A resident of Thorupstrand also reflects on the issue of access for young people, “Well, there are many young people who would like to fish here, but it is the price of plaice and the quantity of quotas that determine it,” (Flemming, own translation).

In New England, Sectors, or the management through quotas, brought out similar and differing perspectives. Like those in Denmark, New Englanders recognized the implications of consolidation, but in more cases thought of this as a management preference as opposed to an economically rational approach. Some comments saw Sectors as just another piece along the trajectory set out by management to reduce the number of individuals fishing in New England and others saw it as an inevitable step.

Discontent with management runs deep in New England and there is some blurriness as to who stands for management and government. Those interviewed in relation to New England fisheries criticized the system of scientific advice and stock assessment, the concern that other factors like climate change, water temperatures from historically cold winters, and marine mammal predation—namely seals in the inshore areas of the outer Cape—had greater effects than the commercial fishing industry. It would seem that NEFMC introduced the Sector program, or passed Amendment 16, at a time when the stock assessment for the high value and primary target species, cod, were under serious stress. Thus, in the five years since the initial allocation and when New England fishermen and managers were learning the new

system of Sector trading and trying to determine how to make their business models cope with this system, they were strained further with particularly low allocations of cod. Thus, there is an added uncertainty for some as to whether they can work under ITQs in a situation when more fish is available overall. Nonetheless, consolidation and concentration have been felt within New England.

To begin with the most straightforward of findings, those in New England were largely dissatisfied with Sectors and the program's effects on communities, namely through the consolidation of their fleets:

We predicted that catch shares would bring about an economic disaster and it has. And a consolidation of the fleet and it has driven out the individual fishing vessel or the few vessels under control of someone and moved more towards a consolidated, corporate type of structure. I went and appeared before the Council at one point in Newport, and indicated that if they enjoyed what happened to the family farms and moving to corporate farming, you're going to enjoy what happens once you implement catch shares (Scott, New Bedford).

When asked whether the Sector program accelerated change, a Cape Cod fisherman confirmed that indeed the program sped concentration and especially impacted smaller fishing operations:

Yes, it has. It has accelerated a decline. The decline, I don't know if I would say it was going on. There was definitely a contraction of the industry, but with the implementation of the Sector program it was like you went from coasting to being driven by an enormous V8 engine. It just accelerated right through the industry. In the first couple of years, the number of vessels just were decimated, the number of boats that went out of business, the number of permits that were turned in or sold and it was a direct result of not having enough quota to keep a vessel that was a small, thin bottom-line kind of vessel active. So, they finally collapsed. It created winners and losers, that's a term that's commonly used, a bit of a platitude. The number of winners is much, much, much smaller than the number of losers, (George, Cape Cod).

Others seem to see Sectors or management through quotas more as an inevitable step.

When asked about acceleration of change, Leo responded:

I don't really have too much comment about that. Not because I am super opinionated. Because I had only participated in catching groundfish for a few years in the Sector and while I was doing it, it worked for me. But just, not for a year-round fishery. It worked for me because I made it work. Do you understand? But I think overall, I think it's decimated these small communities. It's just put the final nail in their coffin. I'd be a hypocrite if I didn't say that after what I said before about the industry failing. But I think that has accelerated the problem, only because it was the right thing to do. I think they pulled the trigger without having a good plan, but other than that, I don't go to meetings. I don't participate; I don't do that anymore. I stopped being political about 10 years ago, (Leo, Provincetown).

Speaking about the time around the introduction of Sectors, Anita whose family runs a shoreside business in New Bedford, shared feelings of grief and financial hardship when the program went into effect:

Ivan: That was an awful time because we had debt up the yin-yang because people were spending so much money on quota that they didn't have any to pay us. And we sat there with debt with boats that went out of business that we had to go fight to get our money and we couldn't get some of it.

Anita: And it was awful and it affected...I mean, I felt like I went to a funeral everyday. The guys who were sitting here [in the office] and I'd ask them how they were doing and they looked like they were gonna cry. And these big guys with their eyes filling up, I mean, they were splitting up and getting divorces. And they were going bankrupt and losing their homes. And they were having heart attacks. And all from the stress of these regulations. It's true! And I've got a list of those people...it's just. They'd leave and I'd just sit here and cry. It was an awful time. Amendment 16 was an awful time.

So there is an understanding that the consolidation of the fleet have affected big ports like New Bedford, but have had even greater effects on the smaller communities.

Nonetheless, some also brought forth the issue of capacity and see ITQs as an inevitable step in the management of New England's fisheries. "I think ITQs, if they

have to go anywhere...It has to go that way. I mean, how are you going to accommodate all these groundfishermen? I don't know. I don't know the answer..." (Leo, Provincetown). Dan, a fisherman out of New Bedford, thought ITQs were overdue in New England, but cited frustrations with how and when they were implemented. It is important to note that Leo is the same fisherman who had concerns for the longevity of Provincetown and other small communities in New England. Similarly, I met Dan at a meeting on proposed allocation caps in the New England fishery, where he spoke about concerns of a complete monopoly in fishing and that having one individual with all the quota in a port or community, could result in a complete withdrawal of fishing activity even in a large port like New Bedford. Dan argued that if we are going to have market-based fisheries, then there should be regulations and safeguards like the stock market, where anti-trust laws combat monopolies.

Nonetheless, some look on the policies put forward by NOAA and the history of contentious Council meetings as one of the motivations for the consolidation by way of Sectors. George, a fisherman, who also served on the NEFMC previously explained why managers may be enticed by fewer fishermen:

The Fisheries Service has always had a hard time dealing with a lot of people in a room, especially when they're boisterous, agitated, irritated. You know, they've suffered. This industry has suffered immensely. When I was on the Fishery Council, the guys were still coming to the meetings. And they were full of vim and vinegar and they wanted like hell to survive and keep going forward. You want to know, you go to a Council meeting today, it's pathetic. The only people that go to Council meetings today are people like you, I hate to say it. ...But no, the industry has given up. It's been defeated and it's dying. It's dying. Provincetown is only one of a number of ports by the end of this

decade. Gloucester will be a shadow of its previous self. Portland already is. Scituate is virtually gone, (George, Cape Cod).

Seeing the reality of George's statements about Council meetings, I attended a field

meeting in August 2015 on the proposed Amendment 18 to the Northeast

Multispecies FMP and found myself to be one of seven in attendance. One of the

fishermen who commented raised concerns about the continuing consolidation of

New England's fishing fleet and pointed to the situation of Scituate, whose fleet is

largely gone since 2010 and the concern that young people cannot enter the fishery

(NEFMC 2015). Furthermore, he pointed to the concern of public participation and

how disenchanted fishermen were with management and the meeting process in

New England, "When we started this, this room would be too small to have this

meeting. Now we can have this meeting in the Dunkin' Donuts parking lot." (NEFMC

2015). New England fishermen talk about years of mismanagement and actions that

did not help to restore stocks. They see the emphasis of NOAA to winnow down the

number of fishermen in New England in the name of a more manageable group.

Adding to the observations and concerns that consolidation is not an

unintended consequence of the Sector program, a public official working on

Provincetown's waterfront elucidated the contentious nature of the relationship:

It's all of these little fishing villages that have dotted the coast and it's been that way for hundreds of years. And regulators don't want to deal with all these individual little towns with all these individual little boats. They would just as soon have 12 commercial fishing boats and they can put one observer on and then that takes care of it. That would make their [the regulators'] lives so much easier. But that's not what's happened. And so, you have the regulators that want to "reduce fishing effort." Isn't that a nice word? "Reduce fishing effort" [said in a sardonic tone]. Umm, [they mean] put guys out of

business, and then you've got these guys in all these small towns up and down the coast that don't want to be put out of business. So yeah, it's been difficult; it's contentious, (Sam, Provincetown).

c. Windows and Winners

As with permits, "windows" of catch history are important for the initial allocation and thus some individuals make out better than others. That initial, free allocation advantages certain fishermen over others, especially when the TAC for the fishery is low, thus low percentage shares can be particularly difficult to operate under. Nonetheless, as George pointed out, the policy has made winners and losers and as Andrew had said, fishing histories can cut or add up depending on the period in question. Leo, who emphasized that he felt very fortunate to have gotten the quota he did, recognized that others were not as fortunate:

And we've been fortunate because we've got our own quota and we don't have to lease it. We do lease quota, but I am saying, we have enough that my brother can make a year's pay. We lease quota just to keep him busy two or three more months. But he can get six or seven months of fishing. So I consider us very, very, very fortunate. We're like the top one percent in fortunate. And a lot of it was because, we had no idea. We didn't buy our way into that; we just were working really hard in that time and we didn't know they were going to do that. And we ended up with a good base quota, a good contribution factor is what they call it, (Leo, Provincetown).

Many of my discussions about quotas and the Sector program were with those associated with New Bedford and Provincetown. In the initial allocation of quota in New England, very few communities in Maine had active groundfishermen or had not fished actively in the years on which the history was based.

When I asked about groundfish with those in Cutler, respondents talked about that being a fishery associated with a previous generation, "Yeah, that's been gone a

long time. And that's what the older timers, my father and my grandfather, they all saw zero lobsters and they saw all groundfish. It was incredible. They would tell you the stories of how they used to go up there and fill these boats. And we never see fish out here," (Erik, Cutler). As illustrated, one of the reasons Cutler fishermen do not pursue groundfish is because they are not commercially abundant in the waters off of eastern Maine, but it should be noted that if groundfish were to reappear in federal waters in the area, then Cutler fishermen would need to apply for federal groundfish permits, join a Sector, and purchase quota.

While speaking with another fisherman in Cutler, we began talking about fisheries dependence and quotas. Peter zeroed in on the main driver of change being the trade of quota or even when permits can be sold by the individual:

And that is why Maine has fought tooth and nail against quota. Any quota, especially transferable quota because the small communities suffer. And it turns into big business. And Canada doesn't do quota, but they have the sale of licenses, which we can't do and then a bunch of guys, the rules are all good when it's originated, that it has to be owner-operator, it has to be this. And then when the majority of license holders are companies that own more than one, well they've got more pull now and they just changed the rules. So now Canada, half their boats are company boats. The guy behind the wheel doesn't own the license or the boat or anything else. Then you're dealing with a whole different...there's no stewardship, (Peter, Cutler).

Interestingly, Peter draws in a variation of the ownership leads to stewardship argument that is put forth by some for the market-based solutions (Costello, Gaines, and Lynham 2008). However, Peter includes the caveat that these owners are operators, as he doubts that level of stewardship with a system of wage-earning captains and quota holders sitting onshore planning fishing activity based on the

financial bottom-line. Peter returned to tradable quotas and permits in Australia and Canada and where he sees issues in those systems:

And the only way, even in Australia, the only way that a young guy is going to get in is [through] his family. If his father is willing to hand that quota down to him because it's the money that you'd have to have upfront. And that's even in Canada now, if you're gonna get a full time license in Canada in a good zone, you're talking a million bucks just to get into the fishery, then you're a million in the hole and then you still have to have a boat and traps. And same thing, they've got very few young guys. There's young guys running corporate boats, but there's no...But it's basically, "Hey you wanna run the boat? Cool. Go make me some money; I don't care how you do it. Go make me some money. Go set on people, go haul their traps, as long as you bring me money, I don't care." You know, so that's what you're dealing with, (Peter, Cutler).

In fairness, the evidence that the Canadian system has a stewardship deficit is circumstantial, but Peter's wariness of this different rationale for the fishery speaks to the concerns about transferability and the transformation of relationships. It twists fishing from the independent, small business venture into a wage-based enterprise, with the resource disembodied from individuals and their coastal communities. Additionally, this also connects to the concern for new entrants and young fishermen under tradable quota systems. Speaking again about the Australian case, Peter observed, "And I mean, their fishery over there, it's a phenomenal fishery, big, big money, but the communities have suffered because of the consolidation of licenses and quota. It's gone from 600 to 200 in Western Australia. It's huge money," (Peter, Cutler).

Thus, the main takeaways from discussions of tradable quotas in Northern Jutland and New England center on the implications of consolidation and

concentration, which especially affect smaller communities. In Denmark, they have seen the capital concentrate on large vessels and have moved away from the small-scale, coastal fisherman model that sustained communities along the country's west coast. In New England, Sectors quickened the pace of change and the consolidation of the fleet. Additionally, New England fishermen see that this policy thus served its tacit purpose to winnow down the number of vessels and actors in New England fisheries in a hope for simplified management. In fairness to NOAA, the members of the NEFMC, and other management officials, this was not a stipulated purpose of the policy and the previous decades of DAS and other management strategies were unpopular among the region's fishermen. Nonetheless, the NEFMC continues to struggle with how to manage New England's groundfish and its reliant industry. And Denmark continues to discuss the implications of quotas for small communities, inshore fishermen, and their national conception of fairness and the accrual of personal wealth.

3. Locked In and Locked Out

Thinking about enclosure as the compounding effects of designated territory, limitations of access, and the imposition of privatization of fisheries resources, we see that these policies lock out individuals to certain opportunities, but also lock in the system. In the case of permits, individuals were excluded and their share of alternatives or their abilities to diversify shrunk. The use of catch histories during particular years or windows of time for both the determination of permit eligibility and for initial quota allocations rewards some groups and disadvantages others. On

top of the limitation of access, the creation of a transferable permit or catch share further endows some individuals with benefit over other persons. Additionally, the worth of the permit or the quota in some instances creates incentives to lease out the quota because the alternative costs to fish it are too high or do not appear as advantageous against the commoditized value. From this comes the effect of so-called slipper skippers as opposed to those “with rubber boots,” who prefer to lease than to fish their quota, which in turn diminishes activity in the local port when the lease transfers elsewhere and concentrates quotas and essentially access on fewer, larger vessels.

Additionally, conceiving these quotas as a retirement plan or investment to capitalize on threatens the continuation of smaller fishing entities with limited access to money or loans. Moreover, the system gets locked in, where those who have benefited from the policy or have made investments in quota are reluctant toward reform if they stand to suffer financial loss. The system turns to fewer, larger boats, with greater investments, concentrated in a few ports, which does not serve the development needs for coastal communities. Finally, new generations or even new entrants of the same generation face higher start-up costs and few opportunities to slowly build their businesses because of the cost of buying quota. Thus, new entrants were not in large numbers in the case communities, with the exception of Thorupstrand and Cutler. In turn, I look at those exceptions to identify the mechanisms that enabled entry.

B. Where to Find New Entrants

As outlined in the previous section, under the rationalization and commoditization of fisheries, the kinship networks and multigenerational fishing families face greater challenge as access to fishing opportunities requires greater capital and investment. Enclosure, understood more broadly than tradable quotas or catch shares, creates a barrier to access, but policies and community practices may mitigate the effects on younger generations wishing to go fishing. As future generations are a critical component of the sustainability of coastal communities and their fishing industries, this topic deserves attention. Greater understanding can be gleaned from structures and policies and practices that encourage entry. In Thorupstrand and Cutler younger generations pursued and partook in the fishing industry, not only as crew but as boat owners and captains. Their experiences illustrate different approaches to these changes in fisheries, but have commonalities that fill out the understanding of dependence and the transitions within the fisheries domain.

In the case of Thorupstrand, the community worked to create an alternative to the dominant form of capital-intensive fishing, introducing enabling policies through the Thorupstrand Coastal Fishers Guild (henceforth the guild) in combination with vertical integration to gain higher value for their fish in new markets. For Cutler, and likely many other small communities in Downeast Maine, the lobster fishery has dominated and been a boon for such places on the geographic margin of New England. Created alongside the introduction of license limitation in the lobster fishery, the student license and apprentice programs allow young people to enter the

fishery. Furthermore, the community cultures—close ties, social capital, and key individuals—also enable these communities to help their fishing fleets to remain viable while under stress from variations of enclosure. This section focuses on these two cases, but includes parallels and contrasting experiences from the other four cases to better understand the combination of factors such as constrained alternatives, community attributes, and culture in fisheries' success. In addition, the experiences of Thorupstrand and Cutler highlight situations where remaining in these communities as a professional outside the fisheries domain proves challenging. Therefore, the chapter turns to the discussion of how young people, who want to stay in coastal communities but want to work outside of fishing will be able to realize this wish.

1. Thorupstrand

In Thorupstrand, Marianne, the wife of a former fisher and member of the community, summed up what she hoped for the future: to continue living in the community, for the fishery to remain, the boats to come in and out, and a few more shops to open in the community. Thorupstrand demonstrated an explicit interest in keeping things the way they were, but recognizing that in order for them to remain, they needed to do something (as a collective) to achieve this. The fishing cooperative and its direct sale of fish to the public and its contract with Coop Danmark, show as Thorupstrand as an early adopter in that they hopped on this emerging opportunity early, if not first. The strategy for Thorupstrand is essentially all in when it comes to fisheries. The largest (and physical) manifestation of this investment sits at the entry to the beach—the new packing house. While providing modern facilities to process

fish and allow for Thourpstrand to double its processing capacity the strategy for Thourpstrand lies in at least maintaining its current fleet and hopefully regaining some of the boats and fishing capacity lost since the introduction of the quotas. Thourpstrand not only saw roughly half of its boats go up for sale in 2006, just before the VQS-system went into effect, but it also went from 23 vessels to roughly half in the wake of the financial crisis. Nonetheless, the community with help from its municipality and outside funds, has worked to overcome these challenges and not only retain an inshore, small-scale fleet, but one where many of the fishermen are in their 30s or younger.

a. The Guild

The establishment of the guild, where quotas were pooled and managed collectively amongst its members represents one of the primary means of offsetting the ill effects of fisheries privatization for Thourpstrand. First, membership is tethered to place; those that land their fish in Thourpstrand may choose to be members. A key distinction, which can be somewhat difficult to recognize with the case of Thourpstrand lies between the guild and the fishing association (*fiskeriforening*). The latter attends to matters of operations of the fleet, whereas the former enables participation or access to fishing and lowers the initial expenditure for fishing. In 2006, twenty fishing families in Thourpstrand decided to address the problem of losing vessels by invoking collective action. The “Thourpstrand model” embodies a share or lay system for boat and crew and an initial interest in reclaiming the ability to operate in such a fashion:

But it was originally this idea, which lead further to the guild. They thought to now organize a cooperative, where both those who had shares in a boat and those who fish and did not have shares in a boat, they all participate on equal terms. So it costs an amount of money to become a member, 100,000 kroner [roughly \$14,700], as then they had 2 million kroner to start with. So they had the right to fish, (Flemming, Thorupstrand, own translation).

The two key pieces in this initial step were the connection between fishing and the shoreside community and the shareholder system where the quota would be pooled to support the pursuits of its membership. Furthermore, the guild also established tenets of their organization, looking to confirm their shared values among themselves and communicate those to others. The Code for Culturally Conscious and Environmentally Friendly Fishery (*Kodeks for Kulturbevidst og Naturskånsomt Fiskeri*) stipulates six tenets of the guild:

1. Low energy consumption
2. Care for the ocean bottom, fauna, and fish in the whole, local ecosystem
3. Minimal discard of the daily landed catch
4. Find the highest value for the fish and land only fish of premium quality
5. Counteract speculation of natural resources and black market, high volume, capital-intensive fisheries
6. Preserve the local community's living coastal cultural milieu and heritage (Thorupstrand Kystfiskerlaug N.D., own translation).

With this code of conduct, the guild distinguished itself—its fishing practices and its explicit connection to the sustainability of the local community—enabling them to find support for the primary purpose, to buy quota for fishermen based in Thorupstrand to land fish and maintain the fishing culture. Troels, a banker from a cooperative savings bank that finances the guild, explained how the code and the practices of the guild were reasons this socially and environmentally conscious financial institution saw fit to invest. He emphasized the connection to the

community and its cohesion, the anti-speculation tenet, and the guild's provision of access for young people.

Points numbers 5 and 6 within the Code concern the social and cultural sustainability of Thorupstrand. The significance of the environmentally friendly practices and the promotion of daily caught, high quality fish are important in relation to the other steps taken to promote and support coastal fishing in Thorupstrand. The guild counteracts the speculation of fishing quotas by establishing an initial fee to be paid to be a member of the guild with access to the shared quota. Rather than function as an investment that accrues or loses worth based on stock trading, this fee is a deposit where the amount set aside for membership is the same as what an individual receives when he decides to leave the guild, or retire from fishing. Flemming explicated, "One could drop out again and get his 100,000 [kroner] back again, but could not take any of the quota with him, for it should remain for the next generation, who would join. That was the main idea," (Thorupstrand, own translation).

Although this reduces the financial gain of the quota system, it also reduces the risk and lowers the barrier to entry, which has been a primary concern as noted in interviews. In connection to the preservation of the community's coastal heritage, the explicit place-based nature of the collective is one part, but the guild has further supported this with the stipulation of preemptive rights (*forkøbsret*). With preemptive rights, the guild has the first chance to buy quota from those exiting the guild. The guild's chairman referenced the situation along Sweden's west coast, where big

players gobbled up quota and the sales were not publicly announced, meaning residents of the community did not know until the transaction was completed. He connected this to an incidence locally where one individual had such a guilty conscious for selling the quota out of the community, that the person informed others after the paperwork was signed. Flemming later connected this situation with the importance of the right of preemption, “It is important that if not for the right of preemption, [the quota] would have disappeared without anyone having discovered. When one has the right of preemption, then there is a lawyer who says, ‘Hey there, we have the right, we shall see the offer.’” Nonetheless, the fourteen day deadline to make the offer “is really tough,” and “So, there are [still] fewer boats and quota here.” Although a solution with some limitations, Jeppe, a young fisherman in the guild confirmed, “Yes, we have protected all the boats out here,” and been able to buy the quota when members chose to sell.

With the explicit connection to Thorupstrand in the membership, the lower risk and upfront expenditure for entry, and the preemptive rights, the guild has been one of the key pieces in the ability for Thorupstrand to remain a viable fishing community with small boats and an inshore fleet under the VQS-system. Nonetheless, the guild and its membership of twenty local fishing families have also expanded processing operations and vertically integrated their fishing operations to further bolster their livelihoods and the efforts of the guild. In turn, the efforts to build a new processing facility, to brand the fish and seafood products as local and sustainable, and develop

direct markets are another component of Thorupstrand's strategy to connect its small, coastal community culture to the fish its fishermen catch and sell.

b. Selling and Branding Thorupstrand Fish

Thorupstrand is more isolated than Løkken for tourists, but it is ideally situated for coastal fishing due to the western wind and the direction one sails to the grounds. In comparison to the average of 130-140 fishing days a year in Løkken, Thorupstrand can have over 200 days. Nonetheless, the preassigned catch of the quota system lowers this advantage of adjacency. The guild and the associated seafood sales enterprise hope to reinvigorate their geographic advantage through marketing and branding. Fishermen in Thorupstrand have built their model on seafood caught, processed, and sold the same day for best quality. The expedited chain from ocean to plate exploits a niche in the market and reclaims the advantage of the community's proximity to nearshore fishing grounds.

In addition to the pooled quotas and the establishment of the guild, Thorupstrand has offset the capital intensive, high volume fisheries encouraged by the VQS-system by vertically integrating their operations and seeking higher value for their fish by differentiating their product both with connections to environmentally friendly practices and the charisma of their story. The guild recognized a serious price differential in what it could gain at auction and what it could charge for direct sales in Copenhagen, where fish prices are high. The guild sought to gain better price for its fish and to sever its dependence on the auction in Hanstholm, as Jeppe explained, "We certainly hope that we can start to sell all the fish

outside of the auction. That would save us a large share [of the revenue]. That is the plan. So we can also buy more quota and new boats. Many of our boats are old,” (Jeppe, Thorupstrand, own translation).

The first piece in this effort was the new processing and packing facilities built in Thorupstrand and nearly completed on my first visit to Thorupstrand in late November 2013. The packing house is a part of the adaptation to the quota system:

So, they are tremendously absorbed in buying more of the quota and so [they] focus on expanding the plot a bit. I also believe the prices are really, really bad now. He can come in with 100 boxes of 50 kg and get next to nothing for it. That is hard for the people, the boats, and the equipment. Therefore, that is also why the new processing house has been built, to get a higher price and sell directly, independently here—do all sorts of new forms of marketing, (Flemming, Thourpstrand, own translation).

Both to move away from the dependence on the Hanstholm and gain an economic premium for their fish, the guild expanded its efforts and formed entities for marketing and selling its fish directly to the Danish consumer. They also pursued other channels including restaurants in Copenhagen and the Danish supermarket chain, Coop. Additionally, the fishing collective refurbished a fishing vessel, the HM800 Jammerbugt that sits in one of Copenhagen’s main canals selling Thorupstrand’s fish and select prepared seafood to patrons in the capital.

It is easy to think about branding as slick marketing campaigns and the commercialism, but branding is essentially distinguishing and formulating an identity with certain values, practices, or products. To the question regarding whether Thorupstrand has an identity, Jeppe replied:

Yes, I think so. That we have found here in time. Now we have some restaurateurs, who are in Copenhagen and they go down to buy from our boat [HM800 Jammerbugt]. And they will only have Thorupstrand fish. And in the case when we cannot deliver, we ask ourselves whether we should buy or supplement from Hanstholm, but that they don't want. Thus, they'd rather do without. So, that is what it is to be a known brand, like Coca-Cola—not so big, but it will probably be in some time. It [the brand and identity] is growing all the time, (Jeppe, Thorupstrand, own translation).

This effort is also part of a strategy for the wider area of Jammerbugt municipality, which has supported the efforts in Thorupstrand through funding and developing the packing house project. The mayor of Jammerbugt acknowledged that indeed they have followed the trend toward organic, sustainable, and locally sourced food, which is strong in Denmark. The mayor has recognized that small-scale agriculture and fisheries enterprises within the municipality invite a wider strategy:

As we find an embassy of Copenhagen with this ship here, which will stay there and will show the Copenhageners and the other good people that here you have fresh caught fish that is environmentally sound and caught in a historic [traditional] manner. And furthermore, wouldn't you think to come up and visit this place and see how we do it? Then we could get the tourism dimension. They will be welcomed and those fishermen will be gracious and say okay, here come the Copenhageners to see how we catch fish up here in Thorup and they have to purchase some to taste it, (Mogens, Jammerbugt, own translation).

The mayor also referred to other local and specialty foods and products from communities within Jammerbugt municipality and determined that the patrons will come to associate the food with the place. This connects to the development of tourism in the municipality, which is one of the strongest economic segments in the area. Local, and in some ways considered artisanal or sustainable, food products are associated and create another attraction and identity for Jammerbugt municipality:

For me, it is one way to market Jammerbugt municipality and it hangs together. It is not only Thorupstrand; [although] Thorupstrand is significant because it comes to lift the marketing of the entire Jammerbugt municipality because it stands as a beacon in our municipality. And as a beacon, it might not be as high as Fårup Summer Land, but people need a reason to go on holiday [to a particular place] and the reason may be the nature, it can be Fårup Summer Land amusement park, but it can also be food products, (Mogens, Jammerbugt, own translation).

This strategy is visible when one visits the HM800 fish cutter in Copenhagen, where there are promotional brochures of Jammerbugt municipality on the table and photographs of Thorupstrand's fleet—boats and its skippers—adorn the walls inside the boat turned floating fishmonger. Moreover, when purchasing the fish, "One can see which fishermen, which boats, where in the ocean and when the fish was caught," (Flemming, Thorupstrand, own translation).

Consequently, the brand helps to increase the profits of the guild by communicating its uniqueness and low emissions, minimal discards, small-scale operations. Moreover, the expressed connection to the place and community of Thorupstrand focus the efforts and profit-seeking to sustaining the community and creating a physical place to see and visit, which in turn creates tourist traffic in Thorupstrand and likely elsewhere in the municipality. Nonetheless, the guild and the related entities such as Thorupstrand Fish Company have not only built their reputation on place and the charismatic elements of its fleet, but also looked to

Figure 18. Photographs of the HM800 Jammerbugt cutter, Copenhagen

Copenhagen Display case of HM800 Jammerbugt floating fish monger

Copenhagen HM800 Jammerbugt in Copenhagen Canal

Copenhagen Photos of Thorupstrand fishermen on display in HM800 Jammerbugt

Copenhagen Photo of the fleet in Thorupstrand prominent in the HM800 Jammerbugt shop

differentiate itself through its practices, which it contends are environmentally

friendly and sustainable:

So it is that that they [our fishermen] have specialized in [fishing] in that way with some very light gear and then when there is a discourse in society, which is aware of the environment, so it is very natural to link the two things together. This we can do, so that we should be allowed to do so here in peace and quiet, because it is simultaneously a very good argument for doing something special and that we can do. And there we can keep a society [Thorupstrand] running. That is basically the non-idealistic version of it, I would say, (Flemming, Thorupstrand, own translation).

And thus the guild achieves its first four tenets prescribing low energy consumption and care for the ocean bottom, its flora, and wider ecosystem through the practice of Danish seining and gill netting.¹⁶ By keeping the operations small because of the work intensity of the fishermen required in Danish seining and the emphasis on landing high quality fish, the volume of catch is lower in comparison to other commercial fishermen fishing farther from shore who use more expedient gear and techniques but are less equipped to avoid undersized or low value fish.

Nonetheless, the story of Thorupstrand and its place connection may not be the overwhelming reasons Copenhageners buy its fish. In response to a question about consumer preferences and sustainability, Anja, who worked on HM800 Jammerbugt replied:

It is different. Those who do not know anything related to [Thorupstrand and fishing], I tell them a bit about it nearly every time. Therefore, if I can see that they don't know about sustainable fish and thus we work on getting more media coverage on the fact that there are few places where one can buy sustainably caught fish. But some of them are very interested in that [sustainability] and others are more concerned that it is fresh. But I believe that we can really sell on the freshness and the sustainability, (Anja, Copenhagen, own translation).

This is the argument put forth by the guild and connects to the narrative employed to designate Thorupstrand's fish as sustainable. And indeed, this is part of what the segment of consumers wants, likely even more than the local connection.

¹⁶ Danish seining does not drag trawl doors along the bottom but rather funnels the flatfish into the cod end of the net through increasingly taut rope and boasts lower fuel consumption because of the gear and the proximity to shore.

i. Consumer support

Pluto Bank, which loans the fishing collective capital to buy fishing quotas, initiated a *pengesværm*, which translates directly as a “money swarm,” to encourage people to patronize the HM 800 Jammerbugt cutter in Copenhagen on June 14, 2014. For a money swarm, Pluto Bank identifies a “sustainable business” and encourages individuals to support such enterprises by buying their products and services. This particular initiative is an interesting event for two reasons. To begin, the money swarm represents a piece within the direct marketing strategy of Thorupstrand. The money swarm is also an interesting artifact of neoliberal politics (or economics), where individuals use their discretionary income to indicate their support for certain products and their related standards, letting the market—even a small, local one—communicate preferences. Indeed the community and fishers of Thorupstrand have been frustrated by the quota system and have tried to cope within its context by forming the collective, making entry into the fishery more attainable for young people. But in this marketing and branding of Thorupstrand they are trying to retain their geographic advantage of close proximity to fishing grounds, which makes their trips shorter and fish fresher, and market that attribute to this new set of people making decisions with their *kroner*. The game changed with the quota system and while discontent can still be heard among the residents of Thorupstrand, it seems as though they have adapted or are identifying ways to cope under these new circumstances.

In January 2014, the supermarket chain Coop announced that it would begin a joint venture with Thorupstrand to sell fish in its supermarkets through Coop's with own brand of food products. The primary product sold is lumpfish (*Cyclopterus lumpus*) roe. I spoke with others about direct markets, a few of whom noted the issue of consistency in landings and supply. In order to meet demand for COOP, Thorupstrand shut down its local fish monger operation, citing the pressure to meet the demands of their larger-scale supermarket client. Nonetheless, this represents another way in which Thorupstrand is adding value to the fish it catches in hopes of further supporting its fleet. Thorupstrand has worked to differentiate its product from others in the market, emphasizing its local connection and environmentally friendly fishing practices. Getting their product into supermarkets for wider distribution is likely wise, as I heard some of the concerns in running a stand alone fish market in an era where Danes and Americans have come to shop more and more in supermarkets.

ii. Thorupstrand's Many Facets

In summary, the strategies at play in Thorupstrand center on distinction and exploiting the niche of local, sustainable, fresh caught fish. In addition, the collective action and decision to work together as fishing families helped the fleet survive the initial threat of introduction of quota and helped them fair better than individuals during the economic crisis and the threat of losing their capital to defaulting banks. The number of vessels in Thorupstrand is nearly half of the 23 vessels prior to the VQS-system and the financial crisis, but they have faired better than other small

communities with inshore fishing fleets as they are the largest coastal landing place in Denmark today. Nonetheless, the viability of the guild and their direct sales model would benefit from new entrants and more fishermen joining the guild. The code of conduct focuses their efforts and offsets the ill effects of transferable quotas, namely speculation and quota or permit drain. With support from the municipality and from private foundations, Thorupstrand has secured funding and support for major infrastructure upgrades like the new processing building, the restoration of HM 800 Jammerbugt, and the fish monger located within the new facilities that enable the direct sale of fish to Danish consumers.

2. Cutler

Now we come to Cutler, which like Thorupstrand, is a community where young men were active in the community's fishing fleet and where alternatives to fishing were considerably low. Additionally, the sanguine outlook for fishing and the stature of fishermen within the community set Cutler apart, especially from the other New England cases. Unlike Thorupstrand, Cutler does not have a fishing cooperative or other organization that officially binds the community's fishermen together, but like Thorupstrand the small-town, tight knit nature of the community reinforce the connections among fishing, multiple generations of families, and the community culture. When interviewing in Cutler, the lobster fishery was a major point of discussion as was the community's dependence on access to the water. Although the lobster fishery does not operate under any form of tradable catch share or permit, instances of enclosure and limited entry still come into play in Cutler. Most relevant

to this chapter, Maine's lobster license limitation incorporates an apprenticeship program with lower cost and benefit to full-time students.

a. Maine's Lobster Apprentice Program

Maine introduced a license limitation scheme in 1989 and later amended the policy in 1995 as part of its lobster co-management policy (MRS Title 12 §6421 1989, c. 455, §2 (RP)). Under co-management, Maine's seven State Lobster Zone Councils (henceforth, Zone Councils) manage certain aspects of the fishery, namely the determination of the trap limit and entry to exit ratio (McKay 2015). Zone A, which includes Cutler, determined that for every three licenses retired (or not renewed) within a year, one new entrant may enter from the waitlist. To be eligible for a lobster license, a person must be a resident of Maine and complete U.S. Coast Guard approved fishing vessel safety course and the apprenticeship program. Over a minimum of 24 months, the apprentice license holder must log 1,000 hours over 200 fishing days with oversight from a maximum of three different commercial lobster license holders (Maine Department of Marine Resources 2012).

Maine's Department of Marine Resources notes that, "The primary purpose of the Lobster Apprentice Program is to ensure that the people entering the fishery understand their responsibilities to the resource and to other fishermen," (Maine Department of Marine Resources 2012). In 2015, an apprentice license for those over 18 years old, who are not full-time students, cost \$132, a relatively low entry point if we consider this in comparison to buying quota. Although not the only cost, the comparatively low cost allows one an entry point to see if she would like to pursue

further. When an individual has completed the requirements, she then goes on the waitlist for the designated zone.

While on the waitlist, some choose to work as sternmen and even in the initial years of their commercial license, some fishermen continue working for others to supplement their nascent enterprises. The process of crewing and/or slowly building up a “gang” of traps:

Yeah most guys will do it for a job, for their living. And some can make good money in the months that they fish. And some that like it and not every captain...if you've got a jerk you're not going to apprentice him. And that's kind of the whole point of the apprentice program, not just anybody gets in. You have to work, you know. And if there's a good guy and he comes to the captain and says, “Can I do my apprentice?” Yeah, they'll say sure. It's not as easy to say yeah I'll do my two years apprentice then maybe in four or five I'll get my license. Well, just because you've got that piece of paper, you've got to buy traps, you've got to buy a boat and you start out with 300 traps. So, you're not going to pay for it with 300 traps. So some guys will get an outboard and they'll fish a handful and then they'll work their way up at the same time that they're fishing [as crew]. So on the day off, a guy might go haul 50 of his own on the side until he builds up enough so he can go on his own, (Peter, Cutler).

At present, the law stipulates that new commercial lobster license holders can fish a maximum of 300 traps, which Peter noted is likely insufficient to support an independent enterprise. In Zone A, a full commercial license carries a trap limit of 800. And so this initiation, slow build-up, and opportunity to learn from those active helps to carry forth the knowledge and practices of the lobster fishery. Such experience is unique compared to the present groundfish fleet and even in offshore scallops.

The Student License further draws down the access barriers. For those under 18 years old and above the age of 8, an apprentice license costs \$65. Student license

holders must fulfill the same requirements of the apprentice program, but if the individual completes the requirements before his or her 18th birthday, then he or she can purchase a full commercial license without going on the waitlist. The earliest that a student can get a full commercial license is age 17, which was changed along with the minimum age for student license. Those under 23 and full-time students may also purchase a student license, but they will remain on the wait list if the requirements are completed after age 18.

The student license program was popular in Cutler. Many children and grandchildren of fishermen are student license holders, going out with their families to log hours. In regard to the family connection and the student license, "And you knew from the start that's what they were going to do. That's where their path was and most of them, most of them, are kids of guys that fish because it's really hard if you've got to find someone that will help you and take you. I mean, it happens, but for the most part it's the kids [of fishing families]," (Peter, Cutler). Without a family connection to the lobster fishery, it can be challenging for students to complete the hours and fish their own traps with a sponsor. Nevertheless, Peter noted, "I've actually sponsored kids and they tried to do it and it didn't pan out for them. And that's fine too," with the ability for those young people to try it and decide to exit without serious financial loss. Cutler lobstermen will apprentice young people outside the community or fishing families. Chris, another Cutler lobsterman, was apprenticing a boy from Machias, whose family members were not fishermen, but who wanted the opportunity to try lobstering. The initiation element of the

apprentice program and the gatekeeper aspect that has been associated with more traditional entry tied to families and communities (Søvinsen, Johnsen, and Vik 2011).

Upon my first visit to Cutler, for the community's Fourth of July festivities, I overheard a man speaking about going out this summer with his son and hauling traps by hand so his son would get the feel for the work. Later in the weekend, while talking to Craig, a fisherman with two grown sons in the fishery, he introduced me to his 11 year old grandson who has a student license and fishes his traps with his dad. Joanna, who grew up in Cutler and is now married to a fisherman, explained how people in Cutler view access to the harbor in order for children in the community to fish their traps:

They're territorial with their kids too. They want to make sure they're preserving the industry for their kids in case their kids—everybody knows their kids may do something else, but they want to make sure it's there in case their kids want it. So, they're very good at letting somebody apprentice and do whatever; they're not as good if you just want to bring somebody in from the outside to apprentice. You know, the harbor—harbor fishing—is reserved for the fishermen's kids. They set their kids traps in there and everybody knows it. So when the shedders hit, the harbor will fill right up with all the little kiddie traps and a few other people, (Joanna, Culter).

Although the waitlist exemption for student license holders may be seen as giving preference to one group over another, few in the community saw it this way, "But I think you'll find a majority of guys on the waiting list for the zones are older, that went and did something and decided they wanted to go lobstering and now they're on the waiting list" (Peter, Cutler). Overall, many in the community were supportive of maintaining access to the lobster fishery for youth. While talking with some of the

guys in one of Cutler's lobster dealers about youth access and the student license program, one of the men remarked, that's "one thing they've done a good job of."

b. Lobster's Optimistic Outlook

The case of Cutler also revealed an instance where diversity, or at least pluriactivity, was more prevalent in previous decades and thus its transition has been one of increasing dependence on the lobster fishery. Craig also noted that many of those fishing commercially from Cutler were not from fishing families, "There are actually quite a few people in town right now that didn't really come from lobster fishing families. They changed into fishing because the opportunities have been slack in other areas and so they went into it and done good." When I asked about changes witnessed in the community, respondents coalesced on themes of the expansion and success of lobster fishing the past decade, combining with the diminishing opportunities in other fisheries in both availability and limited entry, and changes in land-based industries, namely lumber.

What was so striking about Cutler was that fishermen and fishing families were doing very well and mostly in comparison to the wider county. Fishing in Cutler held a level of optimism that was not as prevalent in other cases. However, I would be remiss to say that there was an absence of hardship, as the issue of the grey zone was omnipresent in the thoughts of the fishermen and the wider community and there were concerns about regulatory constraints specifically related to potential whale entanglements and gear. Nevertheless, fishing was not reserved for older generations, but children grew up in the fishery and in numerous instances young

men opted to go fishing. Returning to the theme of this chapter, Cutler also stands out in that it moved from a place where lobster fishermen participated in other activities and fisheries more prevalently in prior decades. This happened both because of the magnetism of lobster fishing because of both its economic and biological health and the management that specifically enables youth to participate and build up to being a full-time fisherman. I would also say that the lack of alternatives push people into lobster fishing. But also, and this is perhaps the “secret sauce” element, the attraction and desire of many people to stay in Cutler reinforces the direction of both the pull of lobstering and the push from alternatives.

Talking about the changes from when he was young man to how lobstering and Cutler are now in his middle age, Erik noted that the financial health of lobster fishing has been an attraction, pulling people away from other activities:

KO: So more affluence from fishing and more money?

Erik: Yep, yep. And everybody back then used to cut wood. There was skidders and tractors and little skipjacks in people’s yards and now you hardly ever see it.

KO: Do you think that’s because people don’t need to or do you think it’s...

Erik: They don’t need to. Nope. Because they had to; they lobster fished in the summertime and didn’t make any money. They’d all go clamming too besides lobstering. And there used to be a lot of draggers back years ago— a lot of quahoggers, scallopers—all summer long because you had to. Some guys would go quahogging all week, come home, take the drag off, and then go lobster fishing for a day, haul their traps, then go back quahogging. We don’t even, we have one boat in the harbor that quahogs and he hardly ever goes because he doesn’t have to, (Erik, Cutler).

Admittedly, Cutler lobster fishermen, are not completely without supplemental income or seasonal work in the winters. Many in the community dig for clams. In June, some Cutler fishermen pursue halibut. As mentioned, inshore scallop fishing and dredging for ocean quahogs and mahogany clams, supplement lobstermen in the winter, as some crew on these boats out of Lubec, Eastport, or Cutler and others rig over their boats. Erik himself owns and operates a boatyard, which is one of two in Cutler. Craig builds anchors as well. To say that Cutler is completely devoid of non-lobster activity would be inaccurate, but interviews coalesced on the present success of lobster fishing, the decline of land-based enterprises, and the limited opportunities in other fisheries.

c. The Threat of Enclosure, the Grey Zone, and Commodification

Unlike Thorupstrand, Cutler is not combatting the effects of ITQs, but there is an awareness of the effects of quotas on communities. Peter, a lobsterman active in organizations that support Maine's lobster fishermen believes that many in the state's lobster fishery object to the idea of a quota system:

And I think as much as the Maine lobster fishermen don't agree, which is about everything. ...But most people will agree that we don't want to see quotas. We don't want to see that system. We want to be able to keep it owner-operator, small, so that kids can get in so that we don't lose our communities because there's nothing else to do. And in fact, there is a push, there is a group that wants to open it up [to open access], but you just can't do that. And I see their point that the guys that can make it will make, but the guys that can't won't. But boy, you're putting a lot of pressure on everything else to do that. You've got to control. I'm for limited entry or controlled entry for some way to regulate that coming in. So you don't get a glut. You can only divide that pie up so many ways. I mean, this county can bring in the same amount of lobsters, but if they divide it up by a whole bunch more people, then nobody is going to make anything, (Peter, Cutler).

The emphasis is placed on the owner-operator aspect of the lobster fishery, which another policy that has shown to work against commodification (Foley, Mather, and Neis 2015). Peter also emphasizes the concern for access in coming generations, as discussed in the previous section. Nonetheless, he once again asserts that complete open access is likely untenable because of the concern for the economic viability. Here, like in Thorupstrand, the primary goal is not maximizing profit, but rather that with few alternatives the ability for communities and their residents to make a living from the fishery is the primary concern. Whether complete open access would be detrimental to the lobster fishery and communities is unclear, but this argument echoed others' thoughts about limited entry in Cutler. That indeed it may be necessary to control the effort in the fishery and that license limitation with the apprentice and student provisions may be the most palatable way to do it.

The threat of enclosure is perhaps more acutely felt by those in Cutler in relation to the disputed maritime border between the United States and Canada. Conflicting borders create a 110 square mile (259 square kilometer) area claimed by both the United States and Canada, referred to as the "grey zone," (Cook 2005). Although I was not explicitly interested in Cutler because of this disputed territory, concern among fishing families and community members revealed its salience. In the spring of 2015 disputes between Downeast and Canadian fishermen had escalated with some press coverage on the issue in regional newspapers¹⁷. Respondents

¹⁷ "US, Canadian Fishermen at War over Lobster Waters," (*The Boston Globe* 5/28/2015) and "Canadians Heat Up Lobster Fishing in the 'Gray Zone' off Cutler," (Cox

brought the issue forward and the issue was in the forefront of many minds. During fieldwork in July, Cutler fishermen were concerned that disputes between American and Canadian fishermen could escalate over that month with the end of the Canadian lobster fishing season in June. Since 2002 the Canadian government has allowed its fishermen to set their gear in the grey zone outside the regular season. Downeast lobster fishermen, especially those from Cutler due to the proximity to this swath of ocean, fish within the grey zone. Their season spans from roughly April through late December.

Although territory and gear entanglements, which are both an economic and safety concern, are part of the everyday frustration related to this border dispute, the more interesting point here lies in the potential loss of territory if the localized disputes escalate and the two nations decide to bring their claims to the International Court of Justice.¹⁸ The International Court of Justice made the 1984 Hague Line decision on part of the maritime border between the United States and Canada, where many New England fishermen, not just those who fish for lobster in Down East, feel that a significant swath of territory was lost (Hall-Arber et al. 2001). Cutler respondents talked about the potential impacts of international arbitration that went

9/6/2014) in the *Bangor Daily News* covered the grey zone and escalating tensions. Residents of Cutler were somewhat frustrated with the coverage in *The Boston Globe*.

¹⁸ When looking at enclosure and its effects on communities, the Grey Zone issue takes on the character of an international dispute with different interests pulling the issue and proposed solutions in different directions. See Allison (1969). Nonetheless, I would be remiss to not emphasize the concern Cutler fishermen, and even others from Washington County, had for the safety of the men out there. There were concerns that things could escalate to violence, which many did not want to see.

in favor of the Canadian's proposed border. At one of Cutler's lobster dealers, one of the men commented that if there were a change in the border it "could change Culter overnight." A wife of a lobsterman acknowledged that the loss of the territory would be detrimental to the community, "Personally, the only way I see it folding up, the whole town of Cutler folding up, is if the Canadians get that grey area. Or I mean, god forbid there should be an oil spill. You know what I mean, if there's something outside of the natural," (Vivian, Cutler). Thus, the agreements among nations as to who owns the sea and lays claim to its living resources plays out at the local level and impacts the viability of fishing livelihoods. Even though the grey zone and the loss of access are only hypothetical situations, the concern by those in Cutler was palpable. The grey zone issue also highlights an aspect of geopolitical stress at play in the lobster fishery, where a détente between American and Canadian lobstermen may be the best route as opposed to any state negotiations or arbitration of the border where a large swath of territory may change with detrimental effect on the community of Cutler. Moreover, the question as to whether Canada and the United States will engage on this issue, when the relationship between the two nations is mostly amicable shows how local communities fall between larger political agendas.

3. Mechanisms that Encourage New Entry

One of the clearest parallels to draw from Thorupstrand and Cutler is the engagement of young people in their fishing fleets through policies or mechanisms that lower the financial barrier to come into the fishery and reduce the all-at-once tendency in transferable quota managed fisheries. Nevertheless, this is not the only

reason that Thorupstrand and Cutler function as they do. In both scenarios, fishing pays. In essence, making one's living from fishing is, or at least appears to be, a viable option. And in some ways, fishing is one of the few options for livelihood or occupation. Consequently, this dependence motivates community members to safeguard fishing opportunities in the instance of a threat to their way of life or even community existence. The following section looks into the multiple drives that encourage new entry and the maintenance of these communities. The section covers the motivations when fishing pays, distinct community attributes that promote fishing culture, and finally the notion that key, passionate persons (*ildsjæle*) can unlock opportunities for their communities. With this success in mind, the section turns to what I term *existential dependence* and how the precariousness of singular dependence and diminished alternatives may also have motivated these communities to hold tightly to fishing in comparison to other cases.

a. Fish Pays

Cutler was the final case to be completed in this study and after time spent in New Bedford and Provincetown, the community stood in stark contrast namely in the optimism within the community and amongst its fishing families. Cutler's affluence with respect to greater Washington County is recognized:

The fishing community to some extent over the last 10 years has been thriving and Cutler gets the nickname, they're the "Little Hollywood of Washington County." They laugh. They say the women down here drive big Yukon Suburbans and have big diamond rings and have nice houses in contrast to our surrounding community where if you're just eking out a living at 16 to 25,000 that you're making a year... And fishing goes in cycles. There are boom years and there are bust years. So, but it happens to be a 7 to 10 year run of

pretty good fishing and that could all change and that would change the landscape incredibly, (Joanna, Cutler).

Many in Cutler noticed this change in wealth and relative affluence. Some commented about the higher number of families going on vacations, namely that families are flying, that people work less in other industries during the winter, and how lobster fishing is now 'big business' in terms of those employed as sternmen and baiters, as well as the quality and size of boats and gear.

Erik, a lobsterman and boat builder, talked about the change from when he grew in the community to the present day. He compared Cutler and other fishing communities with forestry communities in central Maine, which have suffered from downturns in the lumber industry, "Oh yes. Yep, people are very comfortable right now with fishing. It's been very good for a lot of communities, fishing has, these last few years. Unlike the woodcutting up north, that's been really bad for a lot of communities," (Erik, Cutler). Kyle, a young full-time commercial lobsterman talked about his decision to stop his college education in order to pursue fishing as a career:

I was going for marine biology and it interests me, but the way that the lobster industry is right now, it's worthwhile to me to go fishing instead of going to school for something I probably won't end up using, a marine bio degree because I would rather fish for a job, for a career and everything, instead of something with marine bio. So, to me I think it was pretty easy decision to go fishing instead of go back to school, (Kyle, Cutler).

In Thorupstrand, although there were concerns about the quota system, the new packing facilities and the guild offered feelings of solidarity and pride within the community and the fleet. In response to the question of why there are comparatively more young men in the fishery, Jeppe spoke plainly, "Well, that is because they were

born and raised here. Here, it is good to fish again—I think that is why. And also there is good unity and cohesion [*sammenhold*],” (Jeppe, Thorupstrand, own translation).

In both Cutler and Thorupstrand, the emphasis on friendly competition was also apparent, substantiating the feeling that these communities were doing well, as fishermen try to best one another. Talking to a retired fisherman in Thorupstrand, Egon, he remarked that he fished for 45 years “when it was fun to come to work,” part of which was the competition among one another, but he felt they became more and more controlled over the years. With the preassigned catch of the quota system, this competition is diminished, but it seems that by pooling quotas in the guild and the camaraderie through membership have reclaimed this attribute of the occupation that many enjoy. I talked with Jeppe about the hard work involved in fishing and he spoke about the demands, sailing out at midnight and back home at about seven in the evening, making for few hours to eat and sleep before going out again. When I followed up to ask why they did it, Jeppe attributed:

When one comes out on the ocean, it’s so beautiful there. There, it is so free and you are your own master. There is also a little competition involved in it. You want to be the one who catches the most fish. And we do stick together a lot, but at the same time you want to be the one who catches the most. And the more you work, the more you earn, so those things link together. However, there are as many who suffer with their back, because it is so hard. (Jeppe, Thorupstrand, own translation).

In Cutler, that friendly competition also plays out among friends, brothers, fathers and sons. Talking about when he lands his catch, Chris recounted how his brother, Tim, another lobsterman, is always the first down at the dock to find his

logbook and check who has the biggest catch. When I asked about the increasing size of the boats in the harbor, Peter jokingly noted one compelling reason, “Well, one’s got to be bigger than my buddy’s.” And like Jeppe, Kyle attributed the ability to determine one’s own earnings:

[It’s] not like your boss is saying come in and work three hours and you’re like how am I going to make my house payment for three hours a week? You can go out on a good day like today and go clamming or something like that or if it’s good, you’ll go lobster fishing. That’s kind of what I like about being self-employed, you’re your own boss and you get to go make money when you want to make money. And hopefully, you can’t predict how many lobsters are out there, but if you don’t go haul traps, then you’re not going to make money. But if you go haul them or you go clamming everyday, yeah you can make money, (Kyle, Cutler).

And while, there are opportunities in fisheries elsewhere in New England and Northern Jutland, it may indeed be this connection between small-scale or owner-operator fisheries and the small or family-owned business aspect of fishing that sets Thorupstrand and Cutler apart. Moreover, in Thorupstrand and Cutler, these young fishermen were boat owners, quota holders, and/or license holders. In New Bedford, the scallop fleet’s success has encouraged participation of young people as crew members, but the high value of permits limits opportunities in terms of ownership. Additionally, the New England groundfishery has suffered from low opportunities and low crew shares discouraging entry into the fishery by younger generations, “There’s been so little money in dragging, so they all want to go scalloping,” (Gunner, New Bedford).

Fishermen brought forth concerns about new entrants and the prohibitive cost of entry, especially in groundfish, but also in scalloping. The economic viability of

groundfish is low and thus the enticement to enter, even as crew is low. Gunnar, a New Bedford fisherman and gear designer, explained, “[The] only place that you see younger people in fishing is scalloping and lobstering. And some of them go swordfishing or something like that, but dragging, oh no no, it’s too depressed. Do you understand what I am saying? It needs to changes otherwise it’s just going to kill it,” (Gunnar, New Bedford).

In Provincetown and the outer Cape, Leo talked about groundfishing and its bleak outlook for new entrants:

It’s decimated. You don’t see the next generation getting into the business. That isn’t happening. And now you’re not seeing people buy into the business because one, it’s either too expensive or two, it’s not a good financial plan. So, what’s going to happen? You know what’s going to happen. It’s not gonna get better; it’s gonna get worse. Where is it going to bottom out, (Leo, Provincetown)?

Lobster fishing in Massachusetts, where there are different state regulations concerning entry and management than those in Maine, seemed to represent an alternative and means for sustaining participation in fishing in Provincetown. That is an important point to recognize that lobstering and regulations that facilitate entry are key when looking at transition in coastal communities. As indicated by the case of Cutler, the species composition of New England waters is also a factor influencing the movement from groundfish to lobster, but policy has also helped to make this a preferred alternative to groundfish.

In New Bedford and Provincetown, there were discussions about boats being tied up and the lagging abilities for people to maintain the boats during years of

reduced fishing activity. The lack of investment in boats, was a point of concern for the quality of fish, holding the New England groundfish fleet back. In contrast, new boats were plentiful in Cutler and boats were getting larger and larger. Erik, a lobsterman and boatbuilder compares the industry and boats of his younger days to the present:

Everybody had old wooden traps, you had to fill them full of rocks to get them to sink in the spring. And you had to work on traps for hours and hours and hours to get them. And you never caught any lobsters. You might go out all day and come back with 30, 40, 50 lb. and that was just big back then, for me. And all the boats were wooden boats, hardly ever did you see a fiberglass boat, if you did that person had big money. For that point of time, it was a lot of money in that boat and it was just like amazing that someone had a decent boat. So I've seen over the years, a lot of change. There's way more lobsters. The boats are incredible now. The traps are incredible. I mean, it's just...I don't know how the lobsters keep coming back, but they do because it's absolutely amazing compared to what it used to be. I mean, somebody new getting into it out of high school, they don't even have a clue to what it used to be, back years ago it was bad, (Erik, Cutler).

The self-determination and relatively optimistic financial outlook for those in Thorupstrand and Cutler stands in contrast to many in Løkken, Provincetown, Hirtshals, and New Bedford, especially for those running smaller boats and businesses. The attraction for young people to enter remains in Thorupstrand and Cutler. In addition, the policies of the guild and Maine's regulations respectively facilitate the entry of young people into the fishery.

b. Community Attributes

I often heard from people in Thorupstrand, *vi hænger sammen*, we stick together. Similarly, in Cutler, respondents spoke about the aspects of community that they valued and emphasized that it was tight knit, with extended families living close

to one another. Although the other four cases did have community identities and showed a level of connection among residents, giving each a sense of community not just a place where one lives, the strength of this shared identity and community cohesion was most palpable in Thorupstrand and Cutler. To begin, the collective action, coordination, and cooperation necessary to form and run the guild, indicate the presence of heightened social capital and cohesion. Flemming reflected on the importance of having devoted persons and the sense of solidarity that enable the guild and thus the community's ability to preserve its connection to fishing:

They must really work with it here and uphold the credibility. It means doing a lot, I believe, because after all, they manage themselves in the guild. There is a board of five, and so some of these five boys, who go and talk with all the others about what we are doing now. They really have the tiller in their hands and discuss things quite passionately [*helt vildt*]. They can call me in the middle of the night and say, "Well, we think so and so, I wonder if it's not something we should get into," and discuss it round and round. It goes as such that the girls are always attentive, "What do we do now and what do we do then?" and things like that. If you do not have the spirit I think that it's really difficult, (Flemming, Thorupstrand, own translation).

In much of the media coverage of the Thorupstrand fishermen over the past two years, the emphasis is often placed on the fact that these fishermen "live and breathe" fishing (Dahlgren 2014). It is clear that the beach and the winch room are fixtures in the social life of Thorupstrand, especially for the men in the community. Respondents also spoke about how the community comes together to celebrate. Marianne, married to a former fisherman who now works in the processing enterprise, described the surprise upon their return home on their 25th wedding anniversary to find 20 neighbors who had prepared a surprise dinner. Birthdays,

anniversaries, and other special occasions are celebrated community-wide, “One becomes happy to live down here. But at the very least, one can always count on the neighbors. And ask whether one cannot find some help and then everybody comes [to your aid],” (Marianne, Thorupstrand, own translation).

Almost everyone in Cutler, emphasized the close-knit community, similar to Joanna’s assessment:

It’s funny when people live here and grow up here it’s such a different culture and an isolated culture that their attachment to that runs really deep. So they could be in other places for 20 or 30 years, but it’s not going to have this same type of hometown community feel and they can’t replicate it. And I see it at Washington Academy all the time at alumni reunions. People come back and say they just can’t replicate what they found here, which is a tight knit community, very, very close. And that aspect has been good. That’s been really good, (Joanna, Cutler).

Nonetheless, community spirit and support manifested differently in Cutler than in Thorupstrand. I asked in Cutler why there was not a lobster cooperative. Cutler’s limitation of public dock space was one reason offered. In Cutler, the individualist spirit was present especially in relation to one’s own earnings and personal economy. The fishermen I spoke with who fished from family wharves, had done so in an effort to eliminate one middle-man in the lobster business and one family considered expanding their operations to build a tank for holding lobsters to gain better prices on the market. But this plan relied on the family connection, not a Cutler-wide effort. I asked those that fished from one of the dealer’s wharves and relations between dealer and lobstermen seemed rather genial. However, I am not prepared to say whether

this holds for all twenty or so lobstermen that fish from there or for the other dealer wharf in town.

Nevertheless, respondents spoke about the connection among families and neighbors and instances where Cutler residents came to the aid of others. People rally around those who are down and out, “We’ve had people in past tell us how unique the town is because of the community. In the past there have been people who have been hurt, injured like on the boat or something like that. And the men are there to cut the firewood for them, and it’s just in droves,” (Vivian, Cutler). One particularly emblematic story concerned a lobsterman, who had been paralyzed in a hunting accident. Fishermen in Cutler came to his assistance, rigging over his boat so that he could operate it with the assistance of sternmen and creating a chairlift apparatus with the hoister to lift him onto the boat in the morning. Although there was not the community-based fishing efforts as seen in Thorupstrand, the deep connections within the community Cutler fishermen and community members take care of their own. There were numerous stories about lobstermen coming to the assistance of those in the fleet, regardless of personal connections or friendships:

So I don’t really know what makes it that unique really other than just maybe the type of work and maybe sometimes you need help and people are there to help each other. I mean, if somebody breaks down out in the boat, you know there is someone right there to tow you in, even though it means they might lose out that day on their fishing, (Vivian, Cutler).

There are, I don’t want to say cliques, but groups of people in town. But like on events like the other day [the Fourth of July celebrations], everyone is on the same ball team, and especially if something happens to someone, if someone’s down or somebody gets hurt, everybody’s [behind him], (Peter, Cutler).

Collective action in connection to fishing is not apparent in Cutler. However, the community-wide events and volunteerism are strong in Cutler. There is some of the independence and Yankee ingenuity stereotypical of the region. Satisfaction with how the fishery was going and the accessibility to organizations that support Maine fishermen such as the Maine Lobstermen's Association, the Downeast Lobstermen's Association, the zone councils, and other industry-specific advocacy and organizing groups, may also offset the need for community-wide coordination in lobster affairs. Whereas, the local institutions and community connections support families in times of need and celebration, cultivating the small-town feel.

i. Growing Up in the Culture

Kin and community-based networks facilitate entry into the fishing industry. Thorupstrand and Cutler reveal community and family connections, but also two distinct means and mechanisms for encouraging future generation's participation in the fleet. Thorupstrand, probably more than any of the other cases, epitomized the traditional fishing community with much of the fleet connected through kinship and family ties. Jeppe named his brother, four cousins, his uncle, and his late father who had fished. The youngest one in the Thorupstrand fleet, Oskar, fished from his own boat and his father also had a boat. Oskar's little brother, Palle and girlfriend were sitting on the beach one late afternoon waiting for Oskar to come in. Palle, who was nine, proclaimed that he too would become a fishermen when he was older.

An interesting marker of Thorupstrand is that people think in terms of fish. For instance, the young people “think in boxes of fish” when considering prices and saving up for things they wish to buy, be it a car, boat, or clothes. Talking to a 15 year-old fish-cleaner, he emphasized that they are paid 90 kroner for each box of fish and that he came from his nearby community because the wage was good. Additionally, the price of fish—namely, the low price for European plaice (*Pleuronectes platessa*) at the time of my visit in June 2014—was a well-discussed topic among the young and old men sitting in the winch room. The low price of plaice posed challenges for the fishing collective to make payments on the interest accrued from their bank loans for the quota.

Talking about their sons who are both lobstermen in Cutler, Vivian and Craig noted that Chris went out with Craig when he was three, and Tim followed suit:

Because even with our own boys, they started going out with their father, Chris went out when I had Tim, I mean he was 3 years and 10 months old when he went out with Craig for the first time. So it was never work for them, they just saw it as fun. Chris had his first boat when he was 13 in the harbor and Tim bought that from his brother when he was 11. You know, they’ve always had money and banked and that work ethic. And having the clamming, you know, and young kids are going now and clamming, which I think is awesome. I mean, Chris apprentices a boy right now from Machias, who is lobster fishing. His parents wanted an opportunity for it. So that’s one of the biggest things that I personally like about this community is that it’s handed down generation upon generation, but only if children want to do it. Nobody is forcing them to do it, (Vivian, Cutler).

I asked Kyle, a young fisherman when he started and how old he was:

I don’t know. I can’t remember when I really started, I think it was just when I could walk really. I’d always remember waking up and when Dad, the first time he went to go haul for the season, I was 4 or 5 years old and wanted to go with him. I wanted to go with him that first time and I just liked being with

him. And he definitely had longer days than my grandfather, so I didn't go with him [dad] as much when I was younger, but going with my grandfather, he'd go a little bit later in the morning and he would come back earlier and stuff like that. Plus, he was just inside, in the bay right here. So both of them I was real young anyway, (Kyle, Cutler).

The opportunity to spend time with one's family seems to promote lobster fishing in Cutler. Talking about lobster fishing from its policies to the way of life it affords, Chris said it was "an amazing opportunity for families to work together," citing how he, his brother, and dad work together, but also the time on the boat he has with his daughter and son during the summers. He noted that while on the water for many hours, the conversations that the boat affords concern more than just fishing and get into larger life questions.

The cultural dominance of fishing is felt in the community. One mother noted how she could see the difference in her children upon attending Cutler's local elementary, Bay Ridge, instead of a school in Machias:

But it was a big cultural shift for my kids. I could see all their interests shifting and Bay Ridge itself is a fishing school. We went to the Christmas Program and they re-did the the 12 Days of Christmas, but it was all about lobster boats and lobster traps. And you know if you go and just look at the artwork that's on the walls the kids are making Lego models of their boats and drawing their boats and their aspiring to own boats and own trucks. I think that's part of the shift in [our kids] this year: they're immersed in a fishing culture whereas before they weren't. I don't want to say it's programming, but it's getting into their mind: this is part of who I am and this is part of what I do. So yeah, that's definitely been different this year, (Joanna, Cutler).

Clearly, like Oskar and Palle in Thorupstrand and Kyle and Joanna's children in Cutler, children in these communities are embedded in the practices of fishing. These parallels highlight how tacit knowledge and the embedded nature of fishing in

families and community practice distinguish these cases from the other four.

Nonetheless, fishing families and community connection to fishing survive in New Bedford, Hirtshals, Provincetown, and Løkken, but the cultural dominance of fishing has changed and seems to be part of the transition and transformation in these communities. However, it is not the case that all the children of Thorupstrand and Cutler join the fishing industry. One of Peter's daughters, who I met on a day she had returned from hauling traps with her dad, when I asked if she would consider being a lobster fisherman herself, she said no. Joanna and Chris talked about the concern and mixed feelings they have as to whether they hope to see their children go fishing or not.

To say that every young person, or even young man, in Thorupstrand aspires to be a fisherman would overextend the empirical evidence. In certain ways, Thorupstrand faces some of the same cyclical issues of many rural, Danish communities in that young people leave the community for larger cities, Aalborg, Aarhus, or Copenhagen. In addition, these rural areas lack jobs for young people, a discussion that will follow. Two of the people I interviewed had daughters studying anthropology to which they made a joke that the community raised fishermen and anthropologists. Additionally, all three of the children of Marianne worked outside of the fishery.

In all six case communities fishing was once dominant, and while all six still have connections to the fishing industry, the strength of those ties have lessened. In

New Bedford, Anita talked about the differences in how the fishing community was more pronounced when her kids were younger, in the decades prior to the mid-1990s:

You know, it used to be very different. Years ago, when Gunnar was fishing, our local radio station used to have the fish news every morning. And we had a fella, Bill Brennan, that would come on for five minutes—maybe it was closer to ten minutes—and he would name every boat that came in, how much they brought in of each species, and what the price was. And when he was done he would give the weather report. And it came to the point where he was giving birthdays and wishing happy anniversary to anybody out to sea. And I think there was more community then and people felt more attached to the industry. Because I'd meet people in the market, and they'd say, "Oh I heard on the radio that Gunnar is home." Because they heard the name of the boat. Or, "I heard it was Gunnar's birthday." Or your anniversary or something, to those guys out to sea. And I think that made more of a community, (Anita, New Bedford).

With the ubiquity of fishing in Thorupstrand and Cutler read against the sentiment from Anita, there is a connection between the dominance of the industry and the youth participation in the fishing industry. Those in New Bedford talked about parents encouraging their children to get out of the industry. And while those in Cutler emphasized that the decision to go fishing or not was the decision of the individual child or teenager, the intertwining connections between the fleet and the community spirit in places like Thorupstrand and Cutler cannot be ignored.

ii. The *Ildsjael* Effect: Key Persons and Connections

While the guild runs by consensus and twenty families agree to the decisions which govern the shares and the collective's rules, the community of Thorupstrand benefits from two active, politically savvy individuals who have helped develop Thorupstrand and the network which supports the efforts of the collective. Flemming and his wife, Susanne have lived and raised children in the community and have

been active in the developments related to the organization of the fishery and the creation of the boatbuilding workshop and apprentice program, Han Herred Havbåd in neighboring Slettestrand. The pair are known and respected by the municipality government, including its mayor. The mayor regarded them as “*ildsjæle*.” Oftentimes translations refer to this concept as a “fireball,” but in Danish the term has a more positive connotation. An *ildsjæl* is a passionate person, who does not tire when fighting for the cause. Jammerbugt’s mayor highlighted the abilities of these two persons to initiate projects in Thorupstrand, “Because Flemming and Susanne have been relatively crucial here because they are *ildsjæle*, but they also manage to get the major foundations to contribute money. There is some state money in the here and a little regional money, some municipal money, but it is primarily private foundations that have come with money and have believed that this was unique,” (Mogens, Jammerbugt, own translation). Flemming—and his wife Susanne—have been instrumental in encouraging investments from A.P. Møller and RealDania, both private foundations investing in the packing house project.

Not only did Jammerbugt’s mayor speak of Flemming this way, but the Hirtshals fisheries union foreman admired the success of Thorupstrand retaining smaller coastal fishing boats and credited the initiative of Flemming as a key to the success, once again invoking the concept of *ildsjæl*:

When you come up to Thorupstrand, they have taken many steps to preserve what they have up there and luckily they have an *ildsjæl* [fireball], who slogs away for it because he sees many other places that have died out. If there are some like Flemming, fireballs around, it can be a positive thing to retain

something of the community. So I always think that there will be a fishing but not in the form we see today, (Hans, Hirtshals, own translation).

Flemming is a slight anomaly in this community as he is a professor at the University of Copenhagen and indeed Flemming demonstrates dual competencies in both the world of fisheries and rural life and the more dominant metropolitan sensibility centered in Copenhagen. While many factors influence why these entities chose to invest in Thorupstrand and its fisheries, Flemming's dual competencies and abilities to communicate in both arenas has been a major boon to Thorupstrand

Coastal Fishermen's Guild:

And if Flemming had been there, if Flemming had not had that huge knowledge of ethnology and fisheries and the problems faced, they could have been eaten up by a major company in no time. For there were no banks, as such, that were ready to say, "We'll just keep them alive here." The [savings bank] and [our bank], we have done it precisely because our perspective in relation to this is different. It is a local community, and so on. So Flemming has had a crucial role in this. For one can also say, you have some skilled fishermen, that we need; that is the core of it. Thomas just has something else. I do not believe that if you sent a fisherman out—it could be a 24 year old, it could be Jannick, who is an accomplished fisherman and a really nice guy, but if he had to sit down and negotiate with RealDania..., then it would not have the same effect. So then Flemming, can be one or the other. Flemming is absolutely authentic, and thus he is planted in Jutland's soil, which we really like, (Troels, Aalborg, own translation).

Troels emphasized that Flemming does not think only in economic terms and has a capacity to telling the story of Thorupstrand and its guild. Flemming's authenticity is emphasized and his ability to communicate with those outside of Thorupstrand and in positions to support the effort through funding.

In addition to numerous interview informants regarding Flemming highly, I too observed the respect he has within the community, the connections and

knowledge he has of his neighbors and those in the fleet. Admittedly, Flemming was a key person both for me to interview and point of introduction to those in the community and to the financial institutions related to the project. When Flemming and I walked from his house to a meeting at the packing house, numerous people checked in with him regarding the meeting with the banks to ask what had been decided. At my November visit, young people hanging out on the beach also stopped Flemming and asked about the status of the Copenhagen storefront.

While Flemming and Susanne are clearly key individuals in this community, Thorupstrand and its fleet have benefited from others demonstrating a significant level of initiative and vision. To begin, an individual from neighboring Lild Strand has been instrumental in getting the marketing and direct sale of fish and finding higher value for Thorupstrand's catch. Relatedly, when speaking with Anja during my visit to Copenhagen to visit the Jammerbugt floating fishmonger, she invoked the *ildsjæl* designation for a colleague, Asgar, noting his investment and wish to see their initiatives at the HM 800 "blossom." Of course, the attention to these individuals overlooks one of the key points of success in Thorupstrand: its fishing fleet, especially the young men in the community who wanted to be part of the fishery and remain in their community. As mentioned earlier in this chapter, Flemming pointed to the passion of these fishermen and their constant discussions of how to improve and new strategies to try. The idea to sell fish in Copenhagen from a boat, evolved from two young fishermen buying a boat that was in poor condition, but they did not want to scrap. These "rough ideas" came into being through the dedication of the fishing

families, but also through the passion and complementary know-how of Flemming. And so we can ask, why in Thorupstrand and not in Løkken or in Provincetown or even in Cutler?

Take the case of Hirtshals, while certainly the community pursued opportunities, its trajectory does not mirror the building blocks method of Thorupstrand nor does it currently have a clear *ildsjæl* character propelling development, fisheries or otherwise. Hirtshals has more of a wildflower or wild mushroom model, where opportunities have cropped up with some growing stronger and others falling fallow. Indeed in earlier periods, Hirtshals had stronger local leadership at the harbor and its government when it was its own municipality. Løkken, while more singularly focused than Hirtshals, does not have a local key individual setting change in motion or trying to preserve its fishing industry. Hjørring municipality has advocated on behalf of the small-scale fishers in Løkken and worked with its fishing association, but a local person spearheading the charge seems absent.

In addition to the individuals living in Thorupstrand itself and those working in its organizations, the financial institutions that see their mission not only as financial institution, but also as institution investing in the social and environmental concerns that help sustain society and local communities. As seen with the money swarm initiative and other ways Pluto Bank supports Thorupstrand by taking the savings its members put into the bank and invest in projects like that of Thorupstrand. The bank operates with the motto, "My money goes good," as

opposed to a singular growth perspective. Explaining the interest of the bank investing in the community of Thorupstrand as opposed to the industrial players of Hirtshals and Skagen, Troels stated, “So what is it for a society’s development? What is in it for the society we live in? How can we influence that,” (Troels, Aalborg, own translation)?

c. Dependence: What’s the Alternative?

As introduced in the opening of this chapter, Thorupstrand and Cutler exemplify what I term, *existential dependence*. What I have come to understand from these two cases is that they would largely not be on the map if it were not for fishing. Paradoxically, this dependence in part translates into the sense that because of their isolation and lack of alternatives, the importance of fishing is high. In Cutler, many pointed out that even those not directly participating in the fishing industry rely on its success. Recognizing that there can be some tensions between those inside and outside the fishing industry, Joanna observed:

Absolutely, yeah and you do if you’re not in. I know there’s an envy or a jealousy. And you’ll see people come and park and count crates. [It] comes up, see it at town meetings, there is a little bit of an animosity if you’re outside that fishing community and you feel like somebody has inherited a right to fish that you have not received. I think there is a little bit of that, but it’s not that deep because you do understand that the services around here are ancillary to that. The bank wouldn’t be doing that well if we didn’t have a fishing community. And we wouldn’t have a need for a hospital... (Joanna, Cutler)

In Thorupstrand, there are few in the community who are not in some way linked to the fishing industry. So then, the question arises, what alternatives are there for Thorupstrand and Cutler if fishing were to cease? When I asked Jeppe what

Thorupstrand would be without the fishery, “Well, I believe that it would become a ghost town. Thus, there are not very many people. We should go find another job,” (Thorupstrand, own translation). When asked about alternatives to fishing in Thorupstrand, Flemming was even more succinct, “Nothing.” Nonetheless he elaborated further:

Well, there is nothing down here, so it would become a summerhouse town. Well, there would certainly be some who would go to work in Aalborg, but they will commute a long way and the school would close and... No, there is nothing here if the fishery were not here. As you said, a good example, there live twenty families in Lild Strand, but then it became a ghost town, (Flemming, Thorupstrand, own translation).

Continuing to talk about the example of Lild Strand, Flemming talked about the issue of outsiders coming around at night to these deserted or sparsely inhabited places and robbing the houses. Referring to the experience of Lild Strand, which lost its fleet and then its community and its sense of security:

That is “outskirts” in a whole other sense than it is here. Here, we don’t lock out cars because there isn’t anyone who dares take them. That is the way it was before in Lild Strand, but now the area is a place where one is simply afraid of what happens at night. ...So we have a lot [of connection with] Lild Strand, but there are very few people that are left. So it is a contrast; it is warning if you do not do something, then it goes just like it did in Lild Strand or Slettestrand, where there are only hotels, (Flemming, Thorupstrand, own translation).

In Cutler, Kyle understood the paradox of the dependence on the water and the limited opportunities outside:

Challenges, like I mentioned before, would probably be, just the opportunities for work. There is always work around here and everything. In Cutler itself it’s basically lobster fishing, logging, and clamming. I mean, we have the gas station that’s up there. We don’t have shops or anything and I mean obviously you can travel to Machias and whatnot, you can get a job there. But Cutler

itself, there's not a whole lot of opportunity, for employment anyway. That's why the majority of people that do work in Cutler are self-employed, you know either working on a boat or clamming or stuff like that. I also think it's a double-edged sword. I think Cutler is also so successful because of the jobs we have on the water. Without the water, I don't think Cutler would be all that much, (Kyle, Cutler).

In Cutler as well, there is a sense that if the lobster fishery, or even more generally fishing, were to bottom out, many people would be in debt and face the tough reality of bailing out:

Peter: Nobody had, or up until 10 years ago, nobody had big money boats. If you look at the graphs of Zone A, what they were and what they've been in the last 10 years, it's been a big boom for this community and this whole area, Washington County, which was one of the poorest counties in the nation. And I just worry, myself included, that we've overcapitalized ourselves that this isn't going to last forever and all of a sudden, things go back to crap. What are we going to do with all these payments and boats? So. ... Yeah, when this slows and I've still got 15 years to pay for all this stuff. And so when I got in, there were some good years scalloping and all that, and I got in on the end of that. So when I started fishing, it was kind of the lull, and so I knew what it was like to struggle, struggle just to make a living. And then this lobster thing came along, but a lot of these guys came in like on the up, so they've never seen that struggle, struggle, struggle to get through the winter. So it's going to be interesting—I hope it doesn't happen, but it could be a big change. I don't know if you're familiar with Bob Steneck's work from University of Maine. His latest thing is the "gilded trap." So that we've put a lot of eggs in that one basket, so if that goes... A majority of all licenses in Maine are lobster licenses."

KO: And then in general do you think about the alternatives in Maine to fishing?

Peter: Right, yeah. There ain't a heck of a lot—especially in eastern Maine. You know, in the Portland area, what guys fish in southern Maine could be absorbed into the economy, but down here, there isn't anything. And what it would do, it would put a ton of pressure on what other fisheries were available, whether it be soft shell clams or the people that did have scallop licenses, or did have whatever licenses it would be. They'd have to try that and do that and it would just put added pressure on those ones. So it would be, I don't even want to contemplate what it could be.

KO: Yeah, does anybody talk about other plans or any sort of diversification?

Peter: I mean, the problem is that everything else is closed. So you either have an avenue to go to or you don't. And that's why I hold on to all those other permits and I have my other boat and do those things with just to maintain. Because there's always these, "and now I don't have it," (Peter, Cutler).

In the final part of that conversation, Peter referred to being closed out of other fisheries, namely scallops (state and federal) and other fisheries that have become limited entry over the years. Paralleling the recognition in Thorupstrand of what would happen without fisheries, Peter joked, "Or just hopefully summer people or tourist just take over all the stuff we can't afford anymore. [Laughs]." So this withdrawal, or succession by people 'from away' as they would say in Downeast, buying the property and dispersing the year-round residents is indeed a potential trajectory for coastal communities. Nonetheless, Thorupstrand and Cutler are somewhat different from Løkken and Provincetown, where tourism is a more viable alternative, but carries its own opportunities and pressures. With the isolation of Cutler, "on the way to nowhere," and Thorupstrand's limited connections to urban centers, these two communities cannot replace the loss of fishing income even with tourism. Thus, it is likely that the perceived threat of enclosure, or the end of fishing, creates a different reaction in Cutler and Thorupstrand than in Løkken, Provincetown, Hirtshals, and New Bedford, where alternatives exist. This is the question of orientations toward change and transition that I will continue to explore in the coming chapters.

i. Staying to Fish or Fishing to Stay?

With the emphasis on the tight knit community and the connection among families in both Thorupstrand and Cutler, one can ask whether the motivation is related to the pursuit of fishing and its identity or whether fishing provides the means of living in a rural, coastal community. I asked Kyle about his motivation for staying in Cutler:

Kyle: Yeah, I definitely want to stay in Cutler. I like the area and I like fishing in Cutler. It's a great spot to fish. It's a great spot to live and everything. If I fished and lived here in Cutler all my life, I think I'd be perfectly fine with that. And I think fishing, it's...Cutler, I would say, is based off of fishing. We're a fishing community. So, lobster fishing is definitely a good career to have to be able to stay in the area. There's not a lot of other jobs around here. There's logging and stuff like that, and clamming like I went this morning. But yeah, I think fishing is a fairly good path so that I can achieve that goal anyway.

KO: So that the goal is to stay in the area and this is a means to do that?

Kyle: Yep. That's right. Yep.

In Thorupstrand, there is also a recognition that the community and place holds an attraction for the people who live there. I asked Flemming whether the guild and its membership were oriented toward the sustainable practices of its fleet or by the place-based orientation, essentially is it a gear-based link or is it a geographic link? He responded, "If you asked people in Thorupstrand, they would have said that it is the ability to couple the two things." And he went on to note:

When one after all lives here, it is a choice. It would have been much easier to move to a port like so many others have done. So it is a choice that has something to do with this locale and one thinks that one leads a better life here. It seems at least if you ask those who live here also, because they use the forest and they go hunting and stuff like that. The girls have horses. There are all kinds of things here that go together. They have shared and open hunting

areas. You should see how they are provided with venison, birds, and geese. They could not [live this way] if they lived in a city, not in the same way, (Flemming, Thorupstrand, own translation).

Consequently, the lifestyles that these places afford are also key motivations for individuals to remain in the community and community members recognize that these amenities do not exist in more urban or suburban communities.

I had a few conversations in Cutler regarding opportunities for women, or just non-fishers, if one wanted to live in the community. Some respondents talked about women seeking boyfriends and husbands who were fishermen as a means of staying in the community. Vivian, Craig, and Joanna all mentioned a young man from Cutler who had finished his nursing education and took an internship outside of the state, but who intended to come back and live in Cutler. Vivian and Kyle also talked about another young man from Cutler who was starting university, but who had expressed his hopes of finding his way back to Cutler after university. Joanna herself joked about telling her now husband that he better not fall in love with her because she had no intentions of moving back and living in Cutler. She talked about the different preferences she had in her twenties versus now and how she appreciated having her kids grow up in a place like Cutler. Nonetheless, opportunities to find work in professional environments was somewhat challenging, and because of the continuing tendency for many women not to seek opportunities in the fishery, for reasons that are complex and beyond the full grasp of this study. Kyle explained it more eloquently than I can:

KO: Do you think a lot of the people your age from Cutler feel that way?

Kyle: No, from what I say there's a lot of people that say there's nothing around here. So they want to get to somewhere to get something to do, something to do on the weekends and stuff like that. I think the ones, who like to fish, like Cutler and they'd like to stay, but other people who aren't really in the fishing business, even as far as work goes, they say I can't really work here. Especially women have a little bit more of challenge around here, not that they can't work on boats. There is a woman that works as a sternwoman in Cutler. So, there are opportunities, but as far as that goes there isn't a lot of job opportunities for women in the community or whatnot. So I see a lot of people that would rather move elsewhere where there's more stuff to do and more job opportunities. There are a few that want to stay. They do like the area and everything. I've also seen a lot leave and then they do come back because they do miss home, (Kyle, Cutler).

The question of education is one the coastal communities in this study grappled with, tying into the problems relegated to "*udkantsdanmark*."

ii. Fishing in the Knowledge Society

Much of the debate over *udkantsdanmark* has coalesced on the issue of education and the pattern of young people leaving their hometowns for the university cities, namely Copenhagen, Aalborg, Aarhus, Odense.¹⁹ The question of what the young

¹⁹ Prior to further discussion, there are distinctions to make between the American and Danish higher education and I will describe this with broad strokes. Tuition at Danish universities, which are all public, is free to Danes for undergraduate and graduate studies. Additionally, most Danish students are entitled to a stipend to cover their living costs and there are other social policies that help students pay rent. Some Danish students live at home during their studies, others live in *kollegium* (dormitory-like, subsidized student housing), and others live in market-rent apartments. In contrast, American universities, both public and private, charge tuition and financial aid comes in the form of need-based grants and loans or in some cases merit-based scholarships. American students do not receive government stipends to cover their living expenses and often work jobs on and off campus, receive help from family if available, and/or borrow through loans. The implication here is that in economic terms the stakes for young Danes to seek higher education are lower than their American counterparts. Thus, the opportunity to go onto to university is less financially encumbered in Denmark than in the United States.

people from more remote coastal communities or in coastal communities where higher degrees are (presently) less applicable for the jobs offered were salient in both Northern Jutland and in New England. Discussions of education, local economies, and coastal societies centered on (a) the lack of opportunities for educated persons to live in these communities and (b) a concern that the dominant college-for-all paradigm could preclude some individuals from meaningful work and contributions to society and further that vocational education deserved higher standing. This section explores these two themes further and presents evidence from interviews and observations while visiting these communities.

iii. Young People in Coastal Communities

The mayor of Hjørring municipality, who has advocated for greater national attention to communities outside the Copenhagen area²⁰ pointed out that people think the problem lies with everyone else's children. The mayor of Hjørring municipality and I discussed the challenges for communities like Løkken and Hirtshals. He brought up the migration of young people and noted that everyone perceives the problem as someone else's making. The mayor explained how he presses citizens who complain about young people leaving:

When we look at it, that our young people move away, when I ask those, who are the same age as I am [in late 40s/early 50s], there is opposition when I ask them, 'Where do your children live?' Then they say, 'Well yes, but that is, after all, a whole other matter. They live well over there, but it is certainly because

²⁰ I would be remiss not to point out that in some parts of Hjørring municipality, especially in places like Hirtshals, the mayor has been criticized because of school closings and sense that the municipality's investments have centered in the city of Hjørring.

they have the abilities for that.' Those are all of our children. And they move. But we will probably land on our feet, (Arne, Hjørring, own translation).

While he spoke about the whole municipality, in which Hirtshals and Løkken are part, the movement of young people out of smaller communities into the larger cities is widespread. At the end the mayor shows some optimism, but notes that indeed opportunities for these young people exist outside of rural communities. The issue of young people and moving for educational opportunities came out in all three Danish communities and there was uncertainty as to whether young people would return to their home communities and what opportunities they could find if they did. One resident of Løkken (and a father of two twenty-somethings) explained:

It would of course happen because the whole country is kind of developing towards higher and higher education. And the education is Aarhus, Aalborg, Copenhagen. So people have to leave, young people have to leave Løkken to get this education. These people who get a higher degree will probably not return to Løkken because there is no use for it—not even in Hjørring. I think we don't have that much industry in Hjørring, actually which means the closest developing industry area is Aalborg. It's quite hard to get people to live in Løkken and work in Aalborg because that's too much commuting. So, I think it is a problem, but still the fact that we have a lot of stores and the tourist industry is resource demanding. There are jobs for young people in the stores and of course there will be some of the local youngsters who will start working in the local stores, but it is a problem that we don't have any use for high educated people. It is kind of hard to say. We have a few places for...we have architects... Also in the tourist area we are in the need of more and more educated people. But a clothing store, it's a clothing store. That would not be high educated people, but still they need workers. And as people grow older, they need young people to take over, so there is some young people, (Kim, Løkken).

Kim highlights that indeed people seek education outside of these communities, but then are challenged even if they want to come back to work because there are few appropriate jobs. Kim believes people leave Løkken not because they do not like the

place, but because of trend across Denmark, “The whole country is developing towards this *videnssamfund* [knowledge society]. Which means that educated people will kind of center in a few places in Denmark: Copenhagen, Aalborg, or Aarhus. That can’t be avoided; I cannot see how because of course all industry would be around the bigger cities.”

Hirtshals, although larger and with more employment opportunities in the community, also sees the similar trend:

Lars: Younger people are moving away. So, in two or three generations you will see the number of people in Hirtshals decrease unless we have more industry. So, people want to enjoy themselves; they want education, culture, possibilities. So, they will move to Hjørring or Aalborg and live there and then go to Hirtshals to work, and then home again. And then when they get older, “Oh it’s quiet; it’s nice. We have the nature,” so then they will move to Hirtshals. But when you are younger you won’t live in Hirtshals and drive to Aalborg or Hjørring to drive to the cinema and then drive back. No, you will live there and go to work. So the number of people in Hirtshals will decrease in the years to come, I believe. That’s what we see already today.

KO: Is there concern for that?

Lars: Yes, of course.

KO: Are there people who want to push back against that and develop the town? Is that realistic?

Lars: No, I believe that the development will come and you can’t go against it. I saw something from Detroit yesterday. You can’t go...it’s just the nature. We are changing; times are changing. So, you cannot go against it. It will come on its own.

Lars sees this trend as a “natural,” meaning that it cannot be helped or that push back against nature would be futile. However, the mayor of Hjørring municipality contested the notion that this situation cannot be avoided. I asked

whether there was a difference between Zealand and Copenhagen on one side and Northern Jutland in the parliament and government on what should be done in “the whole Denmark” to which the mayor openly cited his irritation with the dominant thinking, where development focused on the Copenhagen and Aarhus metropolitan areas, where congestion is already high, with little regard to the whole of Denmark.

He contested:

I could imagine that those inside parliament would say that when they look at the whole of Denmark, I could imagine that they would say the same. That it is important for them to maintain Denmark as a whole country with real businesses [throughout], where one is proud of it and you can see the possibilities and the ideas in it. ...I agree that everything cannot be as it was, that said, ...I think one is making a big mistake when one just jumps in and then says, “Well, it cannot be helped. Indeed it all must be over in Copenhagen. And it all has to be in and around Aarhus. For this you can see, that is what people want,” (Uffe, Hjørring, own translation).

Similarly, Janne, who works in Hirtshals and grew up in the community, recognized the education bind, but saw present political interventions as insufficient:

Janne: More youngsters—and that’s very good—get an education. And also from the university, that’s very, very good. ...We have an obligation to have something to offer them, when they have done their education.

KO: And you don’t think there is much now?

Janne: Uh, not enough. I think we need some—we have some—but we need more specialized companies and industries. Yes. But that is something the politicians, they have a responsibility to do that—not to gather all the industries around the larger cities abroad or around the country.

Uneven development came out during discussions in Cutler as well. Craig talked about southern Maine versus the “other” Maine highlighting the discrepancy of investment, opportunities, and distribution of state funding. Joanna agreed:

No. No, the rural places have to fight tooth and nail. That's why Craig was saying, "the other Maine." They call this the other Maine because really southern Maine because they have such a large constituent base and they have all the wealth, they drive the policy. So you'll have the Rural Maine School Coalition and the Rural Maine this and the Rural Maine that, but really even when they re-did the funding formulas, they really value and place more money into the densely populated areas. I don't if you'll ever have the constituent base to outweigh that, (Joanna, Cutler).

iv. The Education Bind and Lifestyle Choice

A theme coming out of the interviews, especially with those that work in the fishing industry or support it, was that wider American or Danish society increasingly values higher education and scholastic learning. As discussed, one aspect concerns the question of whether jobs for these more educated people exist or will develop in coastal communities. Thus the question of the persistence of these places rests on new opportunities or the spread of the "knowledge society" to the coasts, namely their rural sections. The second element of this discussion is a question as to whether the universality of university disregards alternatives. In a few instances, respondents openly questioned the college for all philosophy and tied in their observations about the opportunities for fulfilling careers outside of higher educational attainment. In New Bedford, Ivan observed:

It's definitely a challenge to get good employees and to sustain good employees because society today puts so much emphasis on the college education. I understand that education is important. I have children myself that I want to go to school and want to go to college, but also with my children, I want them to be happy with what they are *doing*. Because society pushes you to go to college and you get to college and they stand there like sheep that don't know where they need to go, what they need to do at college, (Ivan, New Bedford).

In Cutler, Kyle shared why he decided to stop university after one year of attending and fishing full time:

The whole reason why I was going to college was something to have in my back pocket, where if the lobster industry does drop out I'll have something to fall back on. To spend three years, or another three years, in college when I could be out making money. It just, I don't know, to me I'd rather fish and make money than go spend money at [on] school that I'm not going to use hopefully, (Kyle, Cutler).

Nevertheless, others in Cutler's lobster fleet have chosen differently. Chris talked about going to University of Maine, Machias while lobster fishing. Chris felt his choice paid off with good contacts from the university, a gained self-assurance speaking to various groups including lawmakers and scientists, and new interest in management and participatory governance aspects of fisheries.

There were also stories of people feeling that the dominant paradigm of education attainment can disregard the knowledge and skills in the fishing industry. Ivan spoke about the advice of his guidance counselor to go into the science side of fisheries, "In high school, I was told that I should go join those people because I wasn't going to make anything out of my life doing the other side of it. They told me that I would never make anything out of my life on the path I was going. That's what the guidance counselor told me," (Ivan, New Bedford). Ivan was adamant that he was very satisfied with his work in gear manufacturing. In Provincetown, Joseph spoke openly about his frustrations with the trend in education and the sidelining of vocational education:

You know, every child that goes to school should have a well-rounded education. Every child is not cut out to go to college. This pressure on kids to

go to college when they graduate is the most ridiculous thing in the world. And if they...and I think that eighth grade, they should be given a good dose of different kinds of trades, or be able to go to a trade school. Not have an industrial arts class for 45 minutes a week, but take a day a month where they could actually do industrial arts at a shop, where they could walk out of it with something in their hands, with something they've accomplished. Not sweep the floor for 20 minutes, put tools away, (Joseph, Provincetown).

In Cutler, a teacher spoke about an interim superintendent for their district, who maligned fishing as inferior to the pursuit of higher education, which did not sit well with many in the community:

He was just going on about how...Oh, how did he word that? Education, how important education is, which I didn't disagree with, but then he started in on the lobster fishermen, the clam diggers, and da da da. So, I really had to go up to him afterwards. So I just said, "Excuse me, you just are really barking up the wrong tree in the wrong community. You know, because there are people that make a choice, like my son that went to college [and is a lobster fisherman] and made a choice because this is what he prefers to do. And he's very successful and in all honesty has probably made more this year than you'll make in 4 or 5 years." I was so mad. I kept my temper. You know as far as choice, I'm all for promoting certainly education, but I think it's important to show them a lot of choices, (Vivian, Cutler).

All together, these discussions point to an important and overlooked piece connected to fisheries dependence and transition. The discussion of individual education choices and the emphasis placed on educational attainment may feel like a sidetrack from the chapter's main emphasis, but it is an important point in the discussion of new entrants, options for young people, and coastal communities. As Johnsen and Vik (2013) describe there are push and pull factors, where educational opportunities seem to be pulling kids out of these communities (and the fishing industry). Some see the exhalation of the knowledge society and the transformation of coastal communities into "normal societies" as positive. Others perspectives are more

ambivalent seeing it as “natural,” but also recognizing the implications for their communities. Finally, some see the need to push back against the dominance of this thinking or to consider the possibility of policy intervention. Relatedly, residents in coastal communities also question the dominance of education as further preclusion of young people out of the industry and a closing of opportunities for people who are not interested or who struggle with classroom learning. Admittedly, it is difficult to untangle the twines of education, fishing, cultural preferences, and economic opportunities, but this one area where research can probe further.

C. Summary

Thorupstrand and Cutler hold tightly to fishing. Residents recognize the absence of alternatives and sense the threat of enclosure—ITQs in Thorupstrand and limited entry and international maritime borders in Cutler. Because of the absence of alternatives in part due to the geographic and infrastructural isolation of these communities, these cases exemplify *existential fisheries dependence*. I use the term *existential fisheries dependence* to indicate that these communities would not be on the map, so to speak, without fishing to sustain them. Respondents in Thorupstrand and Cutler believed that without their commercial fishing activities, the communities would simply become ghost towns or places with only second homes. And thus this precariousness likely compelled many in the community to act and preserve the fishing industry and culture.

Thorupstrand and Cutler diverge in their approaches to the maintenance of community access to fishing. Thorupstrand took a collective approach to maintaining

access to fisheries for its local fishermen and have pooled their resources to accommodate their model. In Cutler, explicit cooperation within the fishery does not exist, but residents and fishing families emphasized the connections and support they gained from fellow community members. Notably Thorupstrand and Cutler stood apart from the other coastal communities in the participation of young people in the fishing industry. Thorupstrand's fisheries guild employed mechanisms that allowed entry into the fishery with lower cost and risk as compared to the market-based system of Danish fisheries. Cutler supported the youth access to the lobster fishery through the apprenticeship program and the intergenerational ties of fishing families. Thus, the two cases reveal how mechanisms can be developed to allow young people to enter the fishery. Thorupstrand's anti-speculation principle and its deposit system for membership in the guild point to one way fisheries policy can be altered to facilitate participation of young people. Maine's student and apprentice lobster license program also addresses the issue of building up experience without serious investment and provides a mechanism for young people to get into the industry.

On the surface, Thorupstrand and Cutler appear to be unchanged. In certain respects, these communities exemplify greater traditionalism in some aspects of gender roles, labor divisions, and connections among family and kin. Nonetheless, these communities have adapted and changed due to the circumstances of the fishery—species abundance and regulation—and because of changes in other industries. Thorupstrand adapted to the ITQ system by pooling quota through a place-based cooperative and further adapted by building on opportunities in

consumer preferences and direct marketing. Cutler moved from greater levels of pluriactivity and pursuit of diverse fisheries and largely based its present efforts in the lobster fishery. Nonetheless, if the current system of ITQs continues, it is unlikely that places like Thorupstrand and Cutler will persist. Some will survive, as seen with Thorupstrand, where the community banded together, built on existing ties and bonds, and felt a true threat, which was in part the difference between the experience of Thorupstrand and Løkken. However, small, remote coastal communities will be seriously challenged in similar situations without those community assets or a wider structural reform.

CHAPTER VI

WIDENING THE NET

When it comes to new opportunities in coastal communities, there are not always clear directions, timelines, or agreement on how to proceed. As a guiding assumption of this project, Hirtshals and New Bedford would likely feature more economic activity outside of fisheries and have more opportunities to diversify than the other four cases. The confirmation of that claim may seem obvious; however, in this chapter Hirtshals and New Bedford illustrate how opportunities emerge but challenges persist, which contributes to the discussion of transition and dependence. The previous chapter focused on the fisheries domain, looking at the cases of Thorupstrand and Cutler, which held fast to fishing, employing social mechanisms to either offset the impacts of enclosure or embrace systems that enabled young persons to enter the fishery. Hirtshals and New Bedford stand apart from the other four cases largely because of the industrial character of their ports and their diversification into other marine sectors. On paper they represent relative winners in terms of the concentration of fishing activity in their ports, but nonetheless have felt the effects of concentration and consolidation.

Although Hirtshals and New Bedford still have relatively higher levels of commercial fishing activity, the practice of commercial fishing has changed and the

lower or uncertain levels of its activities have implications for the ports and communities. Diversification has also occurred at the firm level. Small businesses reliant on the fishing industry either changed their business models entirely or supplemented the industry's sagging demand with other applications. The stories of these small businesses directs the discussion to the concept of scale, the extent that diversification can be part of a strategy at a wider level, such as a municipality, but include instances where smaller localities are singularly dependent or specialized. The chapter ends with considerations of the merits of tourism as means of diversification, which provides a bridge to the subsequent chapter.

A. Relative Winners: Hirtshals and New Bedford

Compared to the existential dependence of Thorupstrand or Cutler, industrial ports like New Bedford and Hirtshals appear insulated from changes in the operation of the fishing industry because of their greater alternatives. Nevertheless, Hirtshals and New Bedford also struggled and adapted in the wake of consolidation and concentration. Hirtshals and New Bedford represent places where fishing is still an economic engine in the port, but the degree of activity and how the industry operates has brought changes to the port and the wider community. With the level of fishing clearly diminished although with an uncertain future, Hirtshals and New Bedford have looked to new marine-based industries and have diversified. Therefore, to begin the discussion of diversification in Hirtshals and New Bedford, the insights from informants on fishing and its connections to other aspects of local development are important.

New Bedford's distinction as the top port in the nation in landed value can hide the reality on the ground, or better said, on the water. The scallop industry is high earning, whereas the groundfish fleet has been hurting from low catch allocations, the Sector program, and high fuel costs until the later part of 2014. Nevertheless, many recognized that fishing remains a large share of New Bedford's economic activity, "New Bedford is still the number one port in the country and as such it's probably still the number one industry here in New Bedford. Even though it's only half of the industry that's really contributing, the other half is still there and we're hoping for a resurgence. So, it's still a key piece of this community," (Gary, New Bedford). The distinction between the scallop and groundfish fleet is important in New Bedford, with the relative success of the former over the later. To some it seemed that groundfishermen were in a holding pattern, waiting to see if the circumstances changed, "I think, some of them are just waiting on what's going to happen, like, is there going to be more fish? Is there going to be a change in the regulations, so that they don't have to fish in this new way—avoiding all choke species at all cost? And it seems pretty clear that they're not going to go back to the old way, the Days at Sea stuff," (Mitch, New Bedford).

And while larger ports like New Bedford and Hirtshals have fared better than small communities under transferable quotas, the outcomes still have not been entirely desired. Hans, a leader in one of Hirtshals' fishing associations, spoke of his hopes for the future:

I would like to see Hirtshals as a fishing port of 10-20 years ago. That I would really like. And how should it be? I would like that there still could be some smaller vessels as I said, I believe they fell away but we would like to preserve them, and some medium-sized vessels and thus still have some bigger vessels. Then there is such a good combination of vessels in Hirtshals. But it's probably a bit utopian to think so; I would like if it could be done. It can only be done if we get another form of financing or another form of quota or something else. So we get a completely different structure of the fishery, (Hans, Hirtshals, own translation).

Like those in Thorupstrand, Hans recognized that the management system had locked Denmark's fishing industry into a particular pattern and that the concentration of quota on fewer, larger vessels was not his desired state of affairs.

Both Gary and Hans conceded that the fishing fleets in their communities had changed and there were varying degrees of optimism. Although some in the fishing industry wished to see a reemergence of fisheries, others recognized opportunities to build on advantages, infrastructure, and competencies as a means to diversify the ports of Hirtshals and New Bedford.

1. Ports as Parking Lots

Fishing and the dynamic between the fleet and the port have changed in both Hirtshals and New Bedford. The transformation of the harbor and the consolidation of its fleet are indeed something that Hirtshals grapples with in the present. The mayor of Hjørring municipality noted that the greatest challenge facing the municipality is determining this converted role of the fishing industry, "Fisheries keeps on going. It is in another role, a completely different one. So, that is the transition we are in. That is the biggest of all the challenges for Hjørring municipality, this transition or readjustment [*omstillingen*]. The transition from what it was to what

it will be,” (Arne, Hjørring, own translation). When talking about change and the harbor in Hirtshals, many referred to the days when one could walk across the harbor and still “have dry shoes on,” as an indication of the greater extent of fishing activity. Boats can be seen as indicators of fisheries dependence and the level of engagement of a community (Clay and Olson 2007). However, multiple New Bedford respondents noted that the appearance of the boats docked in the harbor gave the impression of an active port, but the reality was that the boats had been tied up and had not gone out for years. For New Bedford, the concentration of fishing quotas on one active vessel altered the dynamic of the fleet. Informants referenced “parking lots” and “parking spaces” in relation to the port and fishing vessels. Essentially the fleet’s character has altered from one with vessels going in and out almost daily, with many boats out at sea and less visible in port, to most boats staying in the harbor, remaining on view, but deceiving the reality of a less active industry.

New Bedford parallels Hirtshals in its diversification strategy and fishing remains a keystone in the port’s portfolio. Like Hirtshals, New Bedford has advantages facilitated by its proximity to the open ocean waters, its size, its infrastructure, and the competencies developed through fishing. However, compared to Hirtshals, New Bedford is in the midst of transition, whereas Hirtshals has largely settled into its new role as transportation hub with fishing as supplement. New Bedford’s prowess as *the* regional fisheries hub will likely remain even under the consolidation and concentration associated with the Sector program. A port official speculated:

And the commercial fishing fleet in New Bedford isn't going away. So, what might end up happening, because of the regulations and because of the way things are shaking out, is that we'll be the only one left, which creates huge opportunities, but also there are huge challenges. Because you see all the boats here, and they're stacked four deep. And we get more and more every year because Gloucester is dying on the vine. Portland has four vessels left, (Mitch, New Bedford).

New Bedford remains the top earning landing place in the United States largely due to Atlantic Sea Scallops. However, landings of groundfish are down and active groundfish vessels number under 20 out of a total of 130. "Basically, they [NEFMC] created this monopoly. Which has hurt. Like this Sarina S. [referring to a boat in harbor visible from window] right there hasn't moved in four years. We have all these vessels. We did a study last year, I think we have 130 draggers and 17 of them are fishing. So, we're a parking lot." An informant who works in an ancillary business to the fishing industry confirmed this contraction, especially in the groundfish fleet. When I asked, "With the quotas, what have you seen," he responded, "Yeah, you saw a rapid consolidation of the vessels. Yeah, I mean, now you've got in each sector there are two or three boats that are fishing in the dragging industry," (Ivan, New Bedford) pointing out that there are forty or fifty permits (those with access to the fishery) in each sector. He elucidated the implications of permits, vessels, and the level of activity in the groundfish industry, "But still you think about it, those permits that were all actual vessels fishing years ago. I described it at one of the things recently, an article I was quoted in. I said, I think 90% of the groundfish industry is probably gone. And it [the NEFMC] is still kicking that last 10%," (Ivan, New Bedford).

2. Service Port

Hirtshals and New Bedford developed into major fishing ports because of the advantages of their geography, and the locations of these two communities have also predisposed them to new opportunities, marine transportation and offshore wind. However, geographic advantage has been reinforced by the competencies and infrastructure built around these ports. One of the means of retaining fishing activity in their ports was largely due to the cluster of support services that developed alongside the fishing industry. In terms of fisheries dependence, Hirtshals and New Bedford both exemplify the service port, essentially the “one stop shop” concept for fishing vessels. Dan, a fisherman, described the advantage of offloading the catch in New Bedford:

And everything you need is right there. If you need whatever, it's geared to that. ...We would come in from the sea to New Bedford, offload. While we were offloading, the fuel guys would come along and fuel us. When we got done offloading, we went over to the ice company, we put ice on. ...And while we were getting ice, I'd take the check from the fish buyer up to the settlement office right up the street and they would whack it all up and come back with the crew's checks and hand them out, (Dan, New Bedford).

Under the changing circumstances of groundfishing in New England, port informant Mitch recognized that New Bedford may become the only port left, citing the advantage of its ancillary business:

We're the only port where it's a full service port; you have competition amongst fuel suppliers, amongst icehouses, amongst all the services. So they can get a good price and they land it [fish] here because they can get the best price at the auction. So we think we are in the best position for the commercial fishing industry, but we need to continually revamp that infrastructure and keep an eye on the policy changes that happen, (Mitch, New Bedford).

As in New Bedford, Hirtshals has an auction, which is one of the major assets to the fishing industry and port. There are advantages in having boats dock or make these communities their home ports, but in Hirtshals there was a general recognition that the landing of fish in the port, even from outside vessels, was a boon to the community. When I asked about competition from other countries in the regions, Hans highlighted that landings from about 10 or 12 Swedish vessels supplemented the decline in the smaller, local fleet. He tied in their support for support industries in Hirtshals harbor:

They need to buy diesel. They must have their boat repaired. They must have sold their fish. These things they should have done during the time they are in Hirtshals. That can maintain that we have some service companies, which can [fix] my boat when I must use it. So it must be thought of as a whole. This here helps to preserve the community, so [the international competition] can be both positive and negative, (Hans, Hirtshals, own translation).

Hans indicated a change in perspective on the fishermen coming in from other countries. With fewer local boats, the vessels from outside are seen as a helpful boost to the local economy and maintenance of the harbor's businesses.

However, the future level of fishing was still a concern. In Hirtshals and in New Bedford, fisheries dependence can be understood as a means of maintaining the ancillary businesses and one of the port's primary advantages. Hans described the precariousness of the symbiosis between fish landings and ancillary services:

The challenge from where I am sitting, or for Hirtshals, is that we must ensure that that there are some fisheries, that there are some fishing vessels, and that some fish lands in Hirtshals. Those are some of the big challenges for the fishery and Hirtshals harbor and that influences the whole town. If now it provides that there are more fisheries than there are today or that more fish are landed in Hirtshals, so you can retain what we had back then, that is a

challenge. Because if you cannot do that, then it goes the wrong way, not only for fisheries, it goes the wrong way for the whole, (Hans, Hirtshals, own translation).

In New Bedford boats sit idle waiting to see if there will be new opportunities. Mitch explained that there is some economic advantage from the port's perspective, but that an active vessel propels the local economy more:

I wouldn't say they have zero economic benefit because they still have to maintain it. They still have to do all these things and it employs a considerable amount of people. But obviously if a boat is fishing, there is way more maintenance costs. There's fuel costs. They're all other ancillary stuff and they're actually landing product that gets processed. I don't know the difference between a boat that's fishing and one that's not and I'd assume that it's stark, (Mitch, New Bedford).

In one regard, the service port highlights a feedback loop, where fish are landed in these ports and vessels make these places their home ports because of the advantage of the service port. However, at the same time, as fishing activity reduces—the fleet consolidates and effort concentrates on a few vessels—there is a risk that these services do not have as much demand, making it harder for them to sustain themselves:

As soon as the fishery is gone, then the carpenters fall away and thus the ones that can service [our boats]. As soon as we do not have a tradesman, or an electrician for the ship's electronics, or if you do not have a net mender, then one goes over to another harbor to find that trade. So the next time you land and you have a trawler that is broken, you won't sail to Hirtshals. [Instead] you will sail to where you can find someone to repair it. So, that is a big challenge to retain the service industries and that one can only be done by maintaining some fisheries; there must be something for them, [the service industries,] to do. (Hans, Hirtshals, own translation).

Thus, this symbiosis reveals the pattern of dependence in these communities and their general direction toward diversification, which in most instances (and discussed later) supplements these service industries.

B. Working Waterfronts, Fishing, and Other Users

Fishing holds an uncertain future, in both New England and Northern Jutland, not necessarily as to whether it will continue to exist at all, but to what degree and in which places. This uncertainty challenges communities to determine the current and projected uses of their valuable waterfronts. With the new level of fishing, planning the land use and strategies of the port required attention to the regulation and performance of the fishing industry. A port official in New Bedford stated, “So for fishing, just ensuring that the land use plan takes into account whatever might happen, but recognizing that we are probably going to be, if not the last one standing...the only one standing,” (Mitch, New Bedford). Here, Mitch connected the service port advantage and the critical mass argument for retaining fisheries related activities in the port. The New England cases grappled with this issue of waterfront land use more openly than the Northern Jutland cases.

Nonetheless, Løkken had undergone an extensive public engagement process for the renovation of its fishing pier. The purpose of this section is to highlight how the uncertain future of fishing and potential of new users combine and illustrate how transition unfolds in coastal communities. Gentrification pressure in the wider community, not just waterfront property was a leading issue in Provincetown and

discussion of those drivers and implications appear in Chapter VII. Here, the concern is for the port area and the land use planning for the land adjacent to the water.

1. New Bedford

With few local boats out on the water in pursuit of groundfish species, few boats come in and land these species. In addition to the catching sector, New Bedford has a large fish buying and processing sector, which has operated as a regional hub. With fewer landings in both New Bedford and Provincetown, processors in the region have shifted their supply. As the landings of groundfish have gone down in New Bedford, and across the region, the shipment of fish from the west coast and abroad, specifically Iceland and Norway, have supplemented and nearly replaced local groundfish within the seafood supply chain and for the consumer. Additionally, the market for scallops is changing, where some large-scale scallop firms sell their fresh, local caught scallops at the New Bedford auction and process frozen scallops shipped in from abroad for sale at big-box retailers.

By consequence of the changes in fisheries and in seafood supply chains, there have been efforts to determine the land use of the port. A comprehensive assessment of the current and projected land users of the port was ongoing at the time of fieldwork. This land use assessment aimed to provide an update on the space needed and used by the fishing industry, and namely the processing sector, and identify possibilities for new uses and expansions. Combined with the lower local catches and the technology that enables the shipment of frozen seafood, processors in New Bedford have become less reliant on water and more reliant on air and rail:

Rail is key because you can put 286,000 lb. [on a train]. You can only put 40,000 lb. on a truck. So the frozen stuff needs rail. But they don't necessarily need to be on the water's edge. So, what do we do from a ports perspective? How do we stay the number one port and the fish processing center of really the eastern United States? And then, but you could put it in an industrial park and they could probably do better. Not have to turn around and they'll keep a footprint for their fresh caught stuff. So those are the big land use questions that we're going to be trying to answer in this study for the next 20 years, (Mitch, New Bedford).

This shift from fish coming on boat to fish coming in by plane or rail has affected the way New Bedford operates and its ability to hold onto the processing facilities. At one point, the proximate city of Fall River, Massachusetts had tried to entice New Bedford seafood processors to move their operations. The plan was for the processors to go to an industrial park without water access. Scott, a former mayor explained:

When I first started in New Bedford, you swung the basket from the hold of a boat up to the end of a dock on a winch and then it was dumped into a conveyor belt and back into the boat. So you unloaded your fish directly from the boat. When I became mayor, someone came to me and said Fall River is making an attempt to bring our processing plants over to their industrial park. And I said, ...explain to me how the hell, I mean are they going to put wheels on boats? I mean, how are they going to do this? And the guy said to me basically, "What are you stupid? They're going to unload at one central location and distribute the fish from there. And truck to wherever they need to be." So it's a fifteen-minute ride from New Bedford over to Fall River and it's a lot cheaper—cheaper taxes and cheaper infrastructure—and that's why they're doing it. And then they're going to distribute it up to Boston anyway. So it's a triangle, (Scott, New Bedford).

The question then became what should New Bedford do with its waterfront if these processors could relocate away from the water, freeing up water adjacent land.

Presently, the processors and fish houses still occupy a large segment of water adjacent land near the port of New Bedford due to some particularities with land leases. But the situation illustrated the potential value of vacancies, especially under

the heightened demand that a casino could deliver. As it stands, the processors remain and New Bedford's hopes for a waterfront casino development project extinguished swiftly. But the idea of large areas of waterfront opening exposed different opinions on the mixed use, working waterfronts, and protections for marine industrial use.

When talking about the port and waterfront space, informants referenced the state-level statute, Massachusetts Public Waterfront Act or Chapter 91 and New Bedford's status as a Dedicated Port Area (301 CMR 25.00). There were a few different lines of thinking in New Bedford in relation to protecting the port area under Designated Port Area provision. Briefly, under the Designated Port Area provision and the Massachusetts coastal zone management plan, there are protections in place to maintain waterfront areas for industrial use and for water dependent users. As Gary indicated, he appreciated the provisions that protect the port areas from development and even went as far to be concerned with other water-based users, which *are* allowed under Chapter 91. Mitch, a port informant comments on the Designated Port Area status and its benefits:

Designated Port Areas and the regulations that make sure there is no condos and stuff, that provides us with a huge advantage for all the maritime industries that want to come down here. I mean, you look at Providence, they're always trying to get rid of their marine industrial waterfront. And we're of a mind that we are never going to be Newport and we can do Newport-like things in a unique way with the fishing industry. So, and frankly I think our marine industrial is more productive economically, than having yachts pull up. Not that there is not a huge benefit to that, but I think we can do both... All of that is part and parcel as New Bedford's identity as a fishing port and its ties to the ocean for centuries, (Mitch, New Bedford).

From Mitch's perspective, residential development within the port area is viewed negatively and the comparison to Providence, Rhode Island illustrates an instance where industrial waterfront uses have been encroached by non-water dependent uses. Moreover, New Bedford can discern itself from a place like Newport, Rhode Island where recreational activities dominate, not only from the economic standpoint of higher revenues but because those industrial activities, including commercial fishing, distinguish New Bedford.

Over the years, New Bedford and other New England ports have dealt with the contraction and expansion of the fishing fleet. One New Bedford fisheries informant linked the size of the fleet and concerns for waterfront area:

The thing about the fishing industry that made it kinda unique, was it was like a balloon. It could expand and deflate. As long as you didn't bust it, you were good to go. Again, you could always blow back into it; it would slowly go back. One of the key issues to that is Chapter 91 that designates us as a Designated Port. That's key because that means while we're asleep no one can slip in and take over the waterfront. Because the only thing that's saving us, on the ability to expand back up and down, because we are a Designated Port Area. In saying so, then we've got things, like the new terminal down at the south end that could be possibly worrisome, (Gary, New Bedford).

Here, there is an indication of the concern of losing access to the water in lull periods in fishing and a recognition that participation in commercial fishing rises and falls.

First, the "worrisome" South Terminal is reference to the Marine Commerce Terminal, where the turbines, blades, and other components for the Cape Wind project were to be staged. However, this is not an issue of area being taken away from the fishing industry, "Let me take a step back. Offshore wind is not seen in New Bedford as a replacement to fishing by any means. We have studied very closely the

amount of current, underutilized waterfront; it's not being used for fishing. It's not being used for anything maritime related. It's just dormant." As indicated here, a major concern especially for those in the fishing industry lies in the uncertain future and what New Bedford fishing will look like at the end of this transition.

Under the changing level of fishing, there may come pushback to zoning areas along the harbor as unsuitable for water enhanced users like hotels and restaurants and non-water dependent, residential buildings. Scott, a former mayor, argued, "Chapter 91 needs to be amended very, very profoundly to allow for mixed use," (New Bedford). I returned to this topic once he introduced it in the interview and asked Scott to expand:

What it does is completely thwart the gateway cities on the water. If you say that your cities have to be dedicated to industrial use, when there is no industrial use to be found. So, you need enough industrial use to maintain your ability to function, in essence as an industrial, water-based power. But at a certain point if you don't have some mixed use, you're gonna have just acres and acres or hundreds of feet, thousands of feet in some cases, of fallow bulkhead, which doesn't produce jobs, doesn't produce anything. So you've got to have a balance. So as things change, you have to be able to react. So, the bulkhead itself needs to be reserved for industrial use, or some water-borne uses. There may be a certain percent that you set aside for recreation or whatever. The landmasses in some cases, you may absolutely need a water-based industry on that landmass. You may need something that takes advantage of the water, like the hotel. But you have to have a balance in the twenty-first century, (Scott, New Bedford).

The argument flows from a concern that the level of industrial use or demand for land area is not what it once was, and that waterfront land holds cultural and economic value. In turn, preventing development of the waterfront when demand by some industries has sagged hurts communities that could build on this attribute.

Furthermore, “mixed use” and the quest for “balance” connect to the diversification strategy and leading discourse around New Bedford’s waterfront:

But you can’t sit and say that’s a non-permitted use when you have the ability to create different pockets of economic growth. For instance, if you said to me, “Do you think you can put condos up along the waterfront and still have a fishing industry?” My answer is, yeah. You put your emphasis on the fishing industry so that when some condo person calls up says they load at 4:30 in the morning and they’re keeping me up, you say, move. That’s the way it is. But there is no reason whatsoever not to have a restaurant, or hotel, or clam shack, or a residence, whatever if you can run your waterfront businesses. There is no reason in the world that you shouldn’t be able to do that, (Scott, New Bedford).

The argument that residential property and the fishing industry can peacefully coexist has been a point of debate in some coastal communities (Woodard 2004). In some places in Maine, second-home buyers are explicitly warned about the working hours and realities of the fishing industry when shown waterfront property. Still, one could imagine conflicts could arise because of differences in expectations and preferences, pitting those who invest in a piece of property (and expect to live there or for a return on the investment) against a contracting industry. The former mayor acknowledged, “Now, you don’t want to box your industries off the waterfront,” (Scott, New Bedford). His main point was that forcing coastal communities to keep waterfront property vacant or underutilized when the demand by water dependent users had fallen limited their development options. The conversation with Scott turned toward Portland, Maine. Although Scott conceded that Portland had lost its way and once again emphasized balance in mixed use, he observed:

Portland just swung too far in one direction. But also, if you’ve got no boats, if you have no exchange or nothing going on up there, what do you expect that

people are going to sit there and say we'll wait the next 15 or 20 years and have a dilapidated, collapsing waterfront? We won't use it. Because waterfront is a major, major attraction and major attribute and major resource. And we're not gonna use it for anything other than fishing or shipping or shipyards. If they're not around, it's not happening, then you better start using it otherwise your city is going to want to use it, (Scott, New Bedford).

Thus, there is a tension, or a precarious nature, in the planning of waterfronts and a recognition that their adjacency to the sea makes them special, as certain users cannot exist without access to bulkheads (Smythe 2010). New Bedford has added a hotel to its waterfront in the past few years, which many cited as a boon while cautioning that one is good, ten perhaps not so much. And while Route 18 divides New Bedford's downtown from the waterfront, which some saw as an insulating factor and protection of gentrification in years past, perhaps the city would benefit from deeper connections between downtown and the port.

In addition to the processors and how the market and transportation have changed the way of doing business and diminished the importance of waterfront access, the dynamics of the fleet now and the contraction of shoreside businesses also depress the demand for waterfront acreage. A shoreside business owner explained the decision to locate in a larger facility in New Bedford in an industrial park away from the old facilities on the waterfront. Ivan conceded that customers must drive from the boat to the new facility farther inland, but did not see being on the water as a necessity any longer. I asked why:

Ivan: Because there is a little bit more planning in what goes into what they are doing now — when they go fishing — than it was before. Before, when my father was fishing 25 years ago, they would have one day off between trips or two days off. So they'd land. The boat would go against the dock and they'd

immediately go to get ready to go out for the next trip. And those last minute things that they think about, “Oh, I need this; I need that.”

KO: Yes, proximity is important.

Ivan: Proximity is important. They just ran over and they grabbed it. Now, the way they go out on fishing trips. They have more time in between and they plan a little better in that when they get home, they call me up and they just got in. “All right, I’m gonna go back out on Monday or Tuesday.” Which is in five days. And they say, “Can you be down at my boat with these products for Monday?” No problem, we plan that in our schedule to be down there for Monday and drop off the product (Ivan, New Bedford).

This new planning horizon and time in dock connects changes the execution of fisheries and implications for communities. The necessity of being on the water—in the action—is not as great because the pace has changed, allowing for planning and more time. Price of land was indeed a contributing factor in Ivan’s decision, as lower rent translates to lower overhead and less operating costs in businesses with small profit margins. Additionally, the waterfront acreage and dockage has changed hands over the decades and Ivan reported that there is less public dock space and thus the cluster of shoreside businesses have begun to shrink. He listed a number of businesses that left the area of the waterfront where they once were—icehouses, diesel companies, and the Steamship Authority—and thus the reduction in foot traffic made it easier to move to a larger facility inshore. Therefore, as the waterfront represents perhaps the clearest manifestation of the interface between the fishing industry and the community, its flux and uncertain users add to the decisions and implications for coastal communities undergoing transition.

2. Examples from Northern Jutland

In Hirtshals, there was little concern for protecting its working waterfront as many felt secure that Hirtshals' industrial character would remain. Gitte, who works in Hirtshals but lives in Skagen, contrasted the experience of the two places:

Gitte: Because they expect that the building will be torn down and they will build big houses there [in Skagen], big houses with sea views and everything. So, it is a little bit difficult to both have the workshops at the harbor and also having living houses there. You see that some places, and then you have the houses and they complain about the activities of for example, a [ship] yard or whatever.

KO: You don't see it so much in Hirtshals...

Gitte: Yeah, exactly, you don't see it so much in Hirtshals. They are more aware and accept that this is part of Hirtshals; this is the harbor, (Gitte, Hirtshals).

Gitte confirmed the impression that many in Hirtshals do not question the persistence of its working waterfront, but that other coastal communities in Northern Jutland are not immune to tensions between industrial spaces and residential encroachment. Løkken, even though it does not have a deep-water harbor let alone an industrial character, has addressed the balance between water dependent users (its fishing fleet) and tourism. Presently, Løkken with the support of Hjørring municipality, is renovating its pier:

The pier is there today because of the fishery for the boats to go in and... It has to be rebuilt. But we are trying to make the pier both for the fishery and for the tourism. And then we will build it for the fishery and that will have first priority, but in the south side of the pier we'll make some spaces for tourism. You know to go to the water, or something. And that's all right; it's very good for the fishermen and the tourist industry, they are working very good together. So it's no problem, (Mette, Hjørring).

The pier holds the cables that pull the fishing boats in and out to sea. The emphasis on the balance, even in a community where the economic contribution of tourism is greater than commercial fishing, was apparent:

The firm, the consultants who make this [pier renovation plan], they wanted very much to do something here [Mette points to the side of the pier with fishing]. And we said, “No, that’s not possible. You have to listen now. It’s not a possibility; stop it.” And they nearly said that, “Yeah, but we can change it later,” but we said no. Because then the *samarbejde, så går samarbejde i stykker* [cooperation falls to pieces]. Then you are making up a conflict that is not necessary. It is very, very important that both interests are balanced everyday, every minute when you are working with this project. You want to make it, and to have happy people all over. And that’s important, (Mette, Hjørring).

This component of the Løkken case illustrates the intention of balance and that compromise is part of cooperation, which requires a certain level of vigilance or safeguarding. It also demonstrates that cultural importance of the fishing industry can motivate waterfront planning even when relative economic dependence is low. Nonetheless, land use planning requires an understanding and agreement on priorities both for present and future scenarios.

C. Diversified Portfolios

With the concentration of services in these ports, their size, their infrastructure and workforce competencies, Hirtshals and New Bedford have found opportunities outside of the fisheries domain. Both cities grapple with the new mode of fishing as discussed in the previous section, addressing the uncertainty of the future landings and fisheries activities. Diversification, the pursuit of other opportunities related to the harbor, represents the primary adaptation strategy for Hirtshals and New Bedford. In Hirtshals, ferries and transportation has been the primary avenue with

other maritime industrial uses and this new mode is largely established. Offshore wind energy and breakbulk cargo represent the two potential avenues for New Bedford, where potential is the key word. In contrast to Hirtshals where the transition is further underway, New Bedford deals with greater uncertainty in its pursuit of new activities. The following section details the transitions and diversification experiences in these two communities.

1. Geographic Proximity

Geography represents a central enabling factor for many of Hirtshals' maritime activities, including fishing and the ferries. Geography and proximity to fishing grounds led to the development of Hirtshals and the investment in its port infrastructure. With fishing came the town and in turn when the role of fishing began to change, the port turned toward transportation, which developed because of geographic advantage enabled by the technology and logistic trends. Mette, a public official at Hjørring municipality underlined the industrial nature of Hirtshals, "Because in Hirtshals it is the harbor. It's the easy way to Norway and the ferries in the harbor. You know, 'the blue and the black' industry is important in Hirtshals and it has the community's priority." Two local bankers, who have spent their lives in Hirtshals and financed many vessels and fishing operations observed that Hirtshals has changed a great deal over their lifetimes, namely in the contraction of the fleet, multiple small or mid-sized vessels replaced by a few, big (in size and capital investment) boats. They confirmed what many in the community have said of Hirtshals' transition. As Jacob said, "And now Hirtshals is mostly transport," Martin

expanded, “Yes, transport and ferries to transport people to Norway. The harbor is getting bigger, but it’s other activities than fishery. It’s transport, ferries, other vessels than fishing vessels for repair.”

The ferries have been a success for Hirtshals, as agreed and perceived by all those interviewed. The ferries supplement a great deal of the loss the service sector suffered from the consolidated fleet:

The greatest opportunity we have now, that is the large ferry traffic and then, the fishing we have left. ...The monetary value, put into the port today by the ferry companies, they help to maintain the good harbor we have today. Because if fishing were to pay for the maintenance of the port, it cannot be based on what is landed today. There is far too little fish and too little revenue for it to maintain the port in the state it should be in. So therefore, it is positive and the future will be that we will always have some ferries that will be there to maintain the port (Hans, Hirtshals, own translation).

Although the ferries have replaced commercial fishing as the number one industry in the port, they enable the continuation of a fleet in Hirtshals because they have supplemented the service industries that once relied exclusively on the fishing fleet, but now maintain other vessels as well as the fishing vessels that come into port. Ferries from Norway also carry fish for the processors in Northern Jutland. Moreover, further expansion of ferry routes with an emphasis on cargo as opposed to passengers, feature as an opportunity to further develop Hirtshals as a gateway:

So what we have done, what we are looking for, is say why have a driver driving all the way from Denmark through Germany and going to France. Why not put the semi-trailer on a ferry in Norway and sail it away to Hirtshals? We have five destinations in Norway. So in Hirtshals, put it on another ferry going to the UK or Benelux. You don’t have a driver for more than a few hundred kilometers. So we are trying to convince the shipping companies that that is the way to do it. So, shipping all the way. Just using us [Hirtshals] as a turntable, (Lars, Hirtshals).

In addition to transportation and logistics, the port of Hirtshals and others supporting it, such as Hjørring municipality, have sought out opportunities where Hirtshals has a comparative advantage because of its northern geography but also with its competencies in these “blue and black” industries. In 2011 and 2012, Hirtshals also won competitive bids to service offshore oil rigs from Norway’s North Sea energy installations, which are aging and in need of repair after about 40 years in use. Once again, proximity helped Hirtshals outcompete Esbjerg, which is farther south on Jutland’s west coast, but had been the only Danish port previously doing such work. Maersk sent its oil rig, Maersk Guardian for life extension and renovation project in Hirtshals harbor for 94 days in 2011 and in the following year sent Maersk Giant to the port for a similar project in 2012 (Port of Hirtshals 2016). When asked whether there had been community resistance toward the oil platforms coming to the harbor, two informants noted the excitement and interest that both local people and visitors had for the oil platforms. Even though the rig could be seen from various points around town there were no reports of a “not in my backyard” reaction or discourses indicating opposition. The oilrigs further exemplify the diversification of Hirtshals and its transition. Nonetheless, to point to Hirtshals’ successes only would mischaracterize the situation, as Hirtshals had had some false starts. One resident noted the investment in a boat painting facility made in alignment with new EU environmental regulations. Hirtshals would have been the first one of such a facility, but the rules were changed just as the project was complete, undercutting the demand for the facility’s services.

Figure 19. Photographs of oilrig repaired in Hirtshals Harbor

Hirtshals Oilrig in port for service. Photo credit: Alyne Delaney

Hirtshals Close-up of oilrig in port for service. Photo credit: Alyne Delaney

a. “Do Not Cry Over a Few Fish”

Although geographic advantage predominates, the qualities and characteristics of the people of Hirtshals also came into play. Residents in Hirtshals are doers; they determine what is needed and act. After numerous interviews with people from Hirtshals, I began to sense a lack of sentimentality from residents. While there were concerns about fishing going down or diminishing, concerns were mostly couched in economic terms or related to maintaining support businesses. And indeed the ferries and the transport represented what Hirtshals had become, what it was now and likely in the coming years. I asked one respondent to comment on my sense that people in Hirtshals were not very sentimental, “No, I think Hirtshals as a town—because we have all the ferries and we have the harbor—it gives us a lot of possibilities. And it’s our job in Hirtshals to develop the jobs that the harbor gives us. Absolutely. So do not cry over a few fish,” (Jacob, Hirtshals). I asked another respondent whether people in Hirtshals were particularly adaptive and

unsentimental, as I had perceived. He confirmed, yes that was the sense of people in Hirtshals and that people were not afraid of big changes. This is not to say that people in Hirtshals were not concerned for the viability of their community, something to which we will return in Chapter VII, but *which* activities were not as important as there *being* activity. Along a similar line, the feeling of loss or the difficulty experienced at earlier points in the transition should not be lost in the present calm that I encountered while doing fieldwork. While lengthy, this dialogue with Janne captures a number of key points:

KO: How do people in Hirtshals feel about change?

Janne: Often changes come over time. But of course when we see that the fishing industries are closing down a lot of working places are lost, it's of course very negative. It has a negative influence on many people. And maybe also in connection with some general negative thoughts. Yes. Many years ago in the '60s and '70s, there was a very, very large fishing industry. And also the women—the wives of the fishermen—they worked in these industries. I have also myself worked in one of those. And a lot of them are closed down now.

KO: So maybe it's been that the changes have been not so pleasant or the after effects have been not so nice...?

Janne: Today, we have another kind of industry also in the harbor. It's not so directly in connection to the fishing. But it's a lot of supplying industries. For example, in connection to the ferries and also transportation and things like that. It's another kind of industry. Of course, we still have the fishing, but not at all in the same scale as earlier. But the new industries have made some new working places and that's good. That's good.

KO: So, do you think people in Hirtshals, to have opportunities and jobs and not a high unemployment rate, is that what shifts from negative to positive?

Janne: I think, I think, we have seen a lot of willingness...you know what is *omstillingsparat*? What's it called? You are willing to be a part of the changes, also in your education. So you take a new education, or you join some courses

so you can work in another industry. There has been a great willingness to do that.

KO: [Translating *omstillingsparat*] Willingness to adapt?

Janne: Yes. Yes, willingness to adapt. That's it. Exactly. And of course, it has also been necessary. If you want a job, you have to have the skills needed.

First, there are some interesting parallels in Janne's point about needing to develop new skills oneself and Jacob's remark, "And it's our job in Hirtshals to develop the jobs that the harbor gives us." Willingness to adapt and a less entrenched sentimentality combine to facilitate Hirtshals' transition from fishing harbor to transport hub. Nonetheless, Janne points to a period in time, likely the 1990s, when fishing was going down and there were negativity and uncertainty of the future. Moreover, some recognized instances where older age and lower educational attainment make individual adaptation more difficult:

I think a lot of them is trying to survive this change that is happening. I think the worst part is this undereducated people, which have their golden period when the fisheries were there. They could stand at the transport hub and do things. They could filet a fish and [were] very good at it, but now they don't use that. They use machines because it's much cheaper. And [those people] got a lot of money for that job because the industry earned a lot of money then, (Karl, Hirtshals).

In this case, there is recognition that for a segment of those in Hirtshals, the height of fishing offered a better livelihood. Finally, at the end of my conversation with a Hirtshals port official, I asked if there was anything I failed to ask that was important to mention:

I would say that the [changes] are forced by the development because this old fishing society. It's struggling ports; it's getting smaller and smaller. The number of fishing boats is decreasing. The number employed in the fishing

industry is decreasing because of development and technology. It's not because people want to change; it's because it is necessary, (Lars, Hirtshals).

Here is a recognition that circumstances changed, which Lars continued and noted are related to the introduction of quotas and the related consolidation and concentration onto larger vessels and noted, "So it's development forced by the environment—the political environment," (Lars, Hirtshals). These changing circumstances in the local economy, which were largely a result of how the government decided to manage fisheries, propelled adaptation with varying degrees of success at the individual level, but with the ferries supplementing and supporting some of the ancillary industries. Hirtshals and its harbor reformulated and found new ways of operating that maintained the activity on the waterfront.

b. Community Characteristics

Over the years, Hirtshals tended to jump at opportunities without serious hand wringing, some of which were successes and others of which fell short of initial expectations. A number of informants in the Hirtshals case talked about the city being a place of action without a great deal of premeditation and discussion. One resident told me that Hirtshals was sometimes referred to as a "*brugerby*," which best translates as "user [friendly] city," and the informant explained how this moniker meant that city opted for function over aesthetics, which connected to its tendency to prefer action over deliberative planning. Contrasting Hirtshals' chamber of commerce to that in Hjørring, as the mayor noted, "In Hirtshals' Chamber of Commerce, if they

have discussed something on Friday, then they are carrying it out on Thursday the following week,” (Arne, Hjørring, own translation).

Hirtshals was a harbor first and a community second as, “The harbor built the city.” A key informant overseeing management of the harbor explained the organic nature of Hirtshals’ development:

I believe that all have thought we should try something new. There were never any other harbors with Hirtshals’ geography; that is so unique. So [one could think], it happened automatically in another fashion, they built a fishing harbor and it started its use in December 1929. Already in [1937] there came the first ferry route. That was prior to any thinking about strategy or planning to have ferries come. And we have the ferries ever since. And today, the ferries are around 60% of our revenue. So there follows many ideas today...So there was not anyone saying, “We should have ferries.” They just came, (Lars, Hirtshals).

Therefore, physical geography and infrastructure enabled Hirtshals to transition to the land-sea transportation hub that it is today. Moreover, the community’s penchant for quick decisions and action has also influenced its development. The lower degree of sentimentality is certainly palpable as one Hirtshals’ residents confirmed that people there are less intimidated by change, especially if there is new work to be found.

2. “No more One Trick Ponies”: The Argument that a Diverse Port is a Healthy Port

New Bedford has seen industries come and go. In some ways, that consciousness remains and emerges in discussions of the fishing industry and the activities in its port. A port official elaborated on the strategy, “And we’re always looking for ways... You know, I think it comes from the decline of whaling, the decline of textiles, and now the decline of fish that’s landed, we try to diversify so that it

doesn't hurt so much when one thing goes. From an academic standpoint, you look at ports, if you're a one trick pony, you're kind of screwed," (Mitch, New Bedford). First, the quotation highlights a collective memory of declines and rebirths in relation to the industries that have supported the community of New Bedford. The rhetoric of "one trick pony" reveals a negative perception of community dependence on a singular industry. He expanded:

Yes. I think the risk of putting all your eggs in one basket whether it's offshore wind or fishing is that, I think that you have to have an economic development strategy that includes multiple, different things. And it is hard to be that distracted sort of. I think our goal, the port's goal, is to do everything. It sounds unattainable, but all of the above. When you look at cargo, we have new facilities. When you look at offshore wind and really preparing so that the supply chain stuff can happen here. So, we're working hard at that, (Mitch, New Bedford).

Like "one trick pony," the reference to "putting all your eggs in one basket" rejects singular dependence and favors diversity. However, this is not a rejection of the fishing industry, or a replacement of the fishing industry for new maritime sectors like offshore wind, but encouraging a mix of activities. The informant made it clear in the first quotation that the motivation for this comes from balanced ledger thinking, when one area slacks, the hope is that another industry will prosper, offset the loss, and keep the port afloat on aggregate. Nonetheless, diversification is not simple and easy, as we see the concern for being "distracted" and the greater demands of having multiple competencies rather than one and its related offshoots.

From the perspective of the port, predicting the future needs and space constraints in a multifaceted working waterfront required attention to various

policies and trends. Mitch confirmed New Bedford's geographic advantage, but in the same instance recognized the changes taking place and the likely different way of operating in the future, "We're blessed geographically, the same benefit we have to offshore wind, to the fishing grounds, and it might be different. I mean, we have to be nimble, but we're in a period of transition, but I don't necessarily think that New Bedford will be worse off. It will be different," (Mitch, New Bedford). The notion of "not being worse off," but rather "different" is important when thinking about the transition from greater reliance on fishing to more diverse activities. The realization that things will be different is part of the movement toward other activities, where judging the future level of fishing activity can be a challenge and has implications for the land use, the dynamics with onshore businesses, and employment.

a. Changing Winds: Uncertain Future for New Bedford

A few key questions frame the issue of New Bedford's transition. First, will commercial fishing, especially groundfish, continue to experience decline and fleet consolidation? As noted, a key to predicting the future level of fishing centers on the management decisions of NEFMC. The second question is, under the present circumstances of consolidation, will the vessels remain as people wait to see if the allocation of quota increases or will those boat owners fold and scrap their boats? Finally, how will New Bedford diversify its port activities? Already, New Bedford is a diverse port with ferries travelling to islands off the coast of Massachusetts, the cargo offloading in the port, tourists visiting, and the potential offshore wind farm staging. In addition to the freight and cargo handling, New Bedford and its port have also

emphasized tourism, with the Ernestina, the National Parks outpost, and the fishing fleet and the annual Working Waterfronts Festival. The following sections explore the maritime activities outside of fishing as New Bedford offers a case where different actors are trying to reconcile uncertainty and potential new activities to sustain the port and segments of the wider community.

b. Potential New Directions

Since the whaling days, the port of New Bedford has been involved in shipping and the offloading of cargo. Today, break-bulk cargo, namely the shipment of clementines from Morocco through New Bedford and onto North American markets, is one of the successes of the port. The port built on its competencies in terms of refrigeration and space, as well as the number of stevedores that allow New Bedford to compete in break bulk cargo. There is room to expand as well, but is prohibited by a few factors. At the moment, the clementine import does not have a paired export; thus, this is a one-way route where the ships offload the citrus cargo in New Bedford and sail back empty. The potential for exports rests of the availability of a liner service with short route domestic shipping, but the requirement for American built ships limits the potential.

Furthermore, not all new directions seem clear in New Bedford, largely because of setbacks related to offshore wind projects and the abrupt reversal to build a resort casino on the waterfront (Rios 2015; Norton 2015; Lawrence 2015; Murphy and O'Sullivan 2015). New Bedford and its port hope to be the offshore staging area for offshore wind farms near Massachusetts. The outlook for offshore wind

development and commerce diminished over the period of New Bedford fieldwork²¹ with the perhaps final blow to the long-litigated Cape Wind project in late February 2015, which planned to construct wind turbines in the federal waters of Nantucket Sound. In January, Mitch summarized the status of the project and while acknowledging the set back, recognized the opportunities that remained:

They're litigating it. That's what Cape Wind is good at. It is sad. It's been a 15-year thing. Two months ago we were obviously a lot more hopeful that it would be going. But one of the things from a ports perspective, we've always said is that you shouldn't just give it to Cape Wind for whatever period of time because they're not focused on anything else. So they would keep it and we wouldn't be able to do any other cargo development there. So, the silver lining is that we'll have a private terminal operator down there, that if and when Cape Wind happens, they can handle it, but also they will be focused on other cargos coming in in between, in the meantime. So really, we have the opportunity to get double the benefit. So it's not all bad, (Mitch, New Bedford).

Later in January 2015, the two utilities that had agreed to buy energy generated by Cape Wind terminated their power purchase agreements, setting into motion what became the termination of the Cape Wind project. By mid-February, Cape Wind's developers ended their lease agreement on New Bedford's Marine Transport Terminal, which amounted to the loss of a \$4.5 million contract for the port (Norton 2015).

In 2010 Massachusetts designated New Bedford as one of the sites for offshore wind shore support and invested in New Bedford's Marine Commerce Terminal, making the port a site of specialized infrastructure that can withstand the weight of turbines, blades, and other components required for the offshore wind industry (Rios

²¹ Intermittent visits and interviews from September 2014 through August 2015.

2015). Through entities like the New Bedford Economic Development Council and the New Bedford Wind Energy Center, marketing New Bedford as a hub for offshore wind development commenced in 2012. Stepping back and away from the specifics of the Cape Wind project, offshore renewable development still offers New Bedford development potential and connects to the attributes of New Bedford's workforce and addresses some of its economic and social needs. Identifying parallels with Denmark, Germany, and the United Kingdom, where coastal communities were in a similar stage of transition, Blake noted:

There were the kinds of populations there, the kinds of educational attainment, the kind of small-p political challenge in the reduction in traditional industries, that were perhaps fishing, perhaps shipbuilding, other maritime dependent industries were on the decline. And offshore wind through national-level policies was assisting, not replacing, but coming alongside and moving people that had been previously in those maritime economies into this new industry. So that obviously was of interest, (Blake, New Bedford).

Here, there was recognition and a strategic decision to fill the void that New Bedford faced from changing circumstances in fisheries and related maritime sectors. In addition to attention to job creation and training, Blake affirmed an explicit attention paid engaging individuals often underserved and in poor economic standing.

Confirming that these new job opportunities were however not yet present in New Bedford, Blake conceded:

No, they indeed are not here. A real frustration exists in the market where Cape Wind didn't happen and there were going to be opportunities for existing businesses to participate in the project, as well as new local hires to be brought on and be able to participate in the first offshore wind project in America. So, that will not happen now for several more years, (Blake, New Bedford).

Cape Wind may be a setback and its approach has soured some—especially fishermen—but offshore wind industry offers a supplement similar to the ferries in Hirtshals. Nonetheless, offshore wind energy is developing in New Bedford as compared to being the established route in Hirtshals. Furthermore, offshore wind is not the only answer as expressed by public officials, who are concerned with the diversity of activities and the risk of setting all the effort into one big project, as these can strike a serious blow to local economies.

i. Skepticism Onshore

Although I seldom asked directly about offshore wind development and Cape Wind explicitly with fishermen, two individuals brought it up as a concern and voiced discontent over the lack of consultation for the siting of Cape Wind. A resident of New Bedford and someone who works on many projects with the fishing industry explained:

I think there is a lot of opposition in the fishing community to Cape Wind. And some of it has to do with concerns about spawning areas and also just navigational areas. Are we not going to be permitted to go in these places that we need to go? And there's also just a real rift or whatever between the fishing industry and anything environmental. ...First of all, I think fishermen are naturalists and they care about the environment. So I don't like when people mischaracterize them, but I also think that there are true environmentalists and corporate environmentalists, (Jillian, New Bedford).

This differentiation of “true environmentalist” and “corporate environmentalist” was echoed by a retired fisherman who participated in a consultation on the siting of Cape Wind and the discontent that people, speaking on behalf of the environment or the concerned public, are not doing so out of passion or belief, but rather for a

paycheck. But there may be something deeper than the tensions between fishing and offshore wind as Jillian also indicated that those in New Bedford tend to doubt the materialization of plans, “There is sort of a sense among people, ‘oh that will never happen,’ or ‘we can never.’” In relation to offshore wind, I also heard skepticism from a former city official saying that he thought a bond should be required for the removal of the turbines as well and was critical of the Marine Commerce Terminal being used by wind energy developers. A fisherman explained his disapproval of the project in relation to the fishing industry and space on the waterfront:

So every time we lose a little bit of area or infrastructure, we don’t ever get it back. Well, that’s fill-in, but that still took an area that possibly could have been for maritime trade, and wind tower assemblies and stuff, which is something I’m not very pleased with or happy with. I don’t think first of all, it’s gonna work the way a lot of people think or hope that it might. It’s more or less a money pit. It’s a pretty big money pit when you look at it. Without billions of dollars of tax write-off or tax credits, it’s not going to get built, (Gary, New Bedford).

Some of the skepticism arises from experience on the water. Referring to the open ocean, Gary asserted, “Nothing out there is permanent,” and questioned the durability of the wind farm and price seen by the rate payer. Including Gary’s perspective and claims is not an endorsement of those views, but appears here to identify possible origins of the skepticism toward offshore wind development. There is a recognition that perceptions of offshore wind development have been sullied by Cape Wind and that there is a gap between perception and reality in the public and the Massachusetts legislature in terms of price increases, non-competes, other aspects of renewable energy markets. Seeing as offshore wind is a nascent industry in the

United States, there is also a degree of uncertainty and institutional ambiguity that make offshore wind seem like less of a sure bet.

Although Cape Wind has soured many in Massachusetts, it is not the only opportunity for offshore wind development in the area. The Bureau of Ocean Energy and Management, a federal entity under the Department of the Interior, in February 2015 auctioned off two areas off the coast of Martha's Vineyard, a 1200 square mile section of ocean, which could replace the void of Cape Wind in the coming years. However, it is likely that these plans will take years to come to fruition if they do because of the planning necessary and the challenge that these lease areas are in deeper waters (LeBlanc 2015). While these are projections and based on the events reported in local news, the new industry timeline versus the lifespan of people is apparent. Thus, timescale is another key feature that can be overlooked when thinking about change and emerging industries:

When we tracked back and looked at you know, how long did the whaling industry take to emerge from inception to a point of real maturity? How long did the textile industry take? How long did the fishing industry take to emerge? And the numbers are staggering really, because politically we'd like to see things occur tomorrow. In reality, I mean, if we were able to see this industry emerge even in 10 years that would be remarkably fast compared to 70 years in the whaling industry, or 55 years in the fishing industry. So, it's a very interesting dynamic. We were talking about industry building and to an extent, it's not as organic as industry building would occur, (Blake, New Bedford).

Clarifying "not as organic," the key informant indicated that the role of government and its importance in enabling emerging industries had changed drastically since the era of whaling. Thus, Blake reasoned that offshore renewable energy depends more

heavily on government intervention and enabling legislation than in previous decades. Nonetheless, the point here is that wind energy development in the United States, and in New England, will build over decades, not within a decade. But when local communities like New Bedford look to fill gaps at the present, expectations may be too high. This is an interesting point and reorients one's view on the fits and starts suffered by the Cape Wind project and offshore wind in general. Offshore wind offers an opportunity for New Bedford, but perhaps not within the lifetimes, or the working years, of those displaced by the constriction of the fishing industry. Karl raised similar points in Hirtshals regarding those left behind in the transition away from the fishing industry.

ii. Wind Energy as a new Community Identity

In addition to the role of job creation and economic development, building on competencies of those in the community, its proximity to the offshore areas where wind development can occur, Blake, the renewable energy informant (and multigenerational New Bedford resident) argued that offshore wind can offer New Bedford a new spirit. He connected offshore wind development to the majesty of New Bedford's whaling days:

Offshore wind has that same romantic largess, you know. It's a huge undertaking to build an offshore wind farm. It has those elements of shipbuilding tied to it, the great shipbuilding, you know, periods of American history. So we could see that occurring in New Bedford and I think that for our young people, as much as anything that fires me up, is that our young people, to have them able to come back to an area of the waterfront, to come to the area of the waterfront. To relate to, really the issue of our age, climate change, with the city of New Bedford. And in their science curriculum have them relate to what's happening in their home city, right off our shore. The

largest reserve of offshore wind is right off our shore. To have children understand offshore wind from the vantage point that a father or mother or cousin somehow play a role in the industry, as was the case certainly in the days of whaling. And really not so much the case today, as it relates to fishing, only because fishing is more insular, one. And two, the economy of New Bedford has become much more diverse in the intervening 150 years. So, it's really a diverse economy today, so it's not that common that you run into people that are connected to the fishing industry, (Blake, New Bedford).

Somewhat reticent, Blake did not suggest that fishing would be gone or replaced.

Nonetheless, this new identity formation was interesting in conversation with the efforts by those related to the fishing industry to connect working waterfronts and the fishing industry to school curriculums and develop locality specific education to fit the required state and national standards.

Additionally, once again the recognition of greater diversity in New Bedford's economy and the penchant to build on the strengths of the waterfront come together. In turn, like the trend in Hirtshals, connections to fishing have decreased and activities outside have emerged making the share smaller than it once was. As Blake identifies, and as was echoed in interviews with those tied to the fishing industry, the cohesion of the fishing industry and thus its cultural prominence in the city have diminished, which for some interviewed equated to feelings of loss. Thus, the future for New Bedford lies in reconciling this new level of activity and finding ways to supplement as opposed to replace. Nonetheless, the supplement and connected diversification are seen as necessities, not necessarily a preference. Blake spoke about the opportunity of wind energy forming a new community identity, "Well, I think there is an opportunity that will be realized, which will bring New Bedford again to

be known as a center of excellence outside of the fishing industry.” Blake also leant an interesting perspective as one outside New Bedford’s fishing community:

So, it’s a fascinating dynamic where fishing is, we are still the number one port by the value of our catch. And if you’re in the fishing universe, you certainly know New Bedford, but if you’re outside the fishing universe, very, very few people understand that New Bedford is a center of excellence in fishing. They just don’t. If they know New Bedford, it’s for whaling and that’s really not so cool any longer, as you may know. So I see the opportunities for offshore wind to really tie back the story of New Bedford and the kind of entrepreneurial vision and the enormous business savvy and risk of the whaling titans of that era, that founded New Bedford really, that they brought to the scene, (Blake, New Bedford).

Although this research cannot determine how widespread this sentiment is among various segments of the New Bedford community, it speaks to the identity issues, which were important in other cases, where distinction remained important to residents.

D. Scope and Economic Diversity

Local, regional, and national levels have different perspectives and options when it comes to the balance sheet approach. A former mayor of New Bedford conferred the situation the city faced in filling the employment gaps and economic development gaps of a smaller fishing industry:

You end up in the situation, where the city has to fill a gaping hole from the standpoint of its economic quilt, its mix, as far as its day-to-day commerce. And we’ve done that. When I was mayor, I spent a great deal of time indicating that we’re not gonna—go for the next great thing. And certainly go for the major plants and the job creators that create hundreds of jobs or thousands of jobs—but we need to grow jobs one by one, day in and day out, to fill in this economic quilt that we have. So, the fishing industry, each boat represents a small factory. Each boat represents a driver of anywhere from 750 to half a million dollars, whatever it might be, depending on the vessel. As you lose them, you have to fill them in with other type of jobs. And I think

New Bedford is in the process of attempting to do that in many different ways, (Scott, New Bedford).

Indicated by Scott, generally speaking there are two development options. The first being the splashy, ribbon-cutting type of economic growth, where big projects and new industries come into a city or a town, or even a county, and generate many jobs at once and stimulate an area. Although Scott does not favor such an approach, proponents of offshore wind development in southeastern Massachusetts likely see that industry in this light:

The local GDP of the city [of New Bedford] is about \$7 billion annually. And there is this reality, that offshore wind, these projects are about \$3 billion per, and while a good percentage of those in the early stages would be in the European countries where the components are being manufactured, if we get the scale of the opportunity right—and there are five projects that are procured in Massachusetts. Then we'll see a level of investment from European supply chain companies in and around New Bedford, first and foremost, and you'll see that [capital expenditure] of a project over time, over a decade, come more and more to New Bedford and to this region. And I really should stress the point that it's clearly a regional opportunity. You know, Cuxhaven and Bremerhaven are about the same distance apart [as] New Bedford and Fall River and there is plenty of work to go around, (Blake, New Bedford).

Here, the offshore wind energy sector represents a large cluster of employment opportunities, and as Blake indicated with development up the supply chain as the United States develops its competencies. Furthermore, Blake noted the wider geographic area—the south coast region of Massachusetts—as the possible beneficiaries of such projects.

The second development option outlined by Scott echoed an approach of the mayor of Jammerbugt municipality, where Thorupstrand is. Like the quilt alluded to,

the approach in Jammerbugt encourages a mix of activities with the recognition that jobs may need to be replaced, or patches sewn, but that the integrity of the municipality's economy or quilt remains because of its diverse composition. However, there is a difference in scale here related to dependence. In Jammerbugt, there was resistance to singular dependence at the municipal level as the mayor advocated for numerous small industries in the municipality so they do not all drown if one goes under. But this same thinking does not apply to the local community level, where Thorupstrand is closer to the singularly dependent side, likely because it is just not feasible to develop many small, diversified economies. Rather if supported in a network or cluster like approach, diversity is achieved on the aggregate.

The mayor of Jammerbugt underscored the importance of retaining (perhaps protecting) the current employment opportunities and industries while seeking new opportunities and supporting new initiatives. In Jammerbugt the emphasis was to not be a "banana republic," dependent on a single crop—or industry, company, etc.—but rather to have numerous small to medium employers in the municipality. Granted, Jammerbugt kommune may have some institutional memory of having been burned by one large employer in the town of Pandrup, where 1400 jobs essentially vanished with one company. Indeed the strategy in Jammerbugt is one which appreciates diversity and seeks local initiatives. Moreover the mayor was open about the challenges of his municipality having one of the highest unemployment rates in the country and moving to the average national unemployment, crediting its "*flittig mennesker*," or industrious people. The mayor joked that while one could wait for a

man on a white horse to come with 200 jobs in his back pocket, they might as well support what was going on in the communities rather than just waiting around.

Additionally, the municipality also seems to adopt the motto of “don’t put all your eggs in one basket,” preferring these smaller companies rather than relying on one big industry. Interestingly, Thorupstrand has gone all in on fisheries, betting on the guild’s ability to catch fish in the proximate waters, process that fish in its own facilities, and market that fish directly to consumers, and high-end markets. The municipal government has indeed been very supportive of Thorupstrand’s initiative (or more precisely, the initiative of its residents, some of whom are key to its success) and views Thorupstrand as one of the beacons in the municipality, which attracts people to come visit. While at the local level, Thorupstrand depends largely on a single industry—the fishery—the wider municipality uses this piece in a patchwork of related, and less related, economic engines.

Hjørring municipality, which oversees Hirtshals and Løkken, adopts a similar strategy of specialization at the local level but with an aim for diversity at the municipal level. When we met, the mayor discussed a trip he had taken to Boston in the spring in which mayors were invited to hear about the successes and trends in small American cities. He emphasized that those cities that were successful built upon their strengths and competencies, stayed positive, and did not dwell on disappointments from less successful initiatives. Indeed, specialization is central to Hjørring kommune, which recognizes the differences in a place like Hirtshals and a place like Løkken. Tourism represents a key competency in Løkken, where natural

amenities such as the white sand of the beaches and the quaint, picturesque houses of the community lend itself to tourism. Hirtshals, while having access to beaches and nature and a major tourist attraction in the North Sea Oceanarium, centers on its industrial harbor. Nonetheless, of the communities researched, Hirtshals has a far less deliberate path; its development and the emergence of certain industries have almost been serendipitous. For instance, the ferries that now dominate the harbor were not exactly a planned development, but rather as the opportunities arose, they were pursued. Additionally, the emergence of the ferries encouraged other industries and investments that grew out of this activity. Ferry traffic has expanded over the decades as Hirtshals outcompeted Hanstholm. Similarly, it is trying to outcompete Esbjerg for the niche industry of repairing oilrigs. Ferry traffic also encouraged the creation of the transport center and direct highway connections from the port to reduce congestion on the waterfront and streamline the land-sea connections for the movement of goods. Thus rather than deliberate development, Hirtshals has dealt with change in an opportunistic way.

In summary, New Bedford and Hirtshals have the ability to be more diverse compared to Thorupstrand and Cutler on the other end of the spectrum. However, when thinking about Thorupstrand and Hirtshals in their positions in the larger Danish municipality, where planning occurs, these places become pieces, or a small collection of pieces, in a wider economic portfolio. New Bedford and Jammerbugt display similar thinking in the reluctance to rely on one single firm, or the savior on his white, economic horse. Diversification can in some instances build upon the

dependence and the scope will determine what one sees. In places like New Bedford and Hirtshals, diversification can happen in their relatively larger ports and in the wider community. Small, isolated communities like Thorupstrand and Cutler have a lower magnetism to attract and support the big projects and industries, which in turn perhaps encourage them to more strongly defend their stake in fishing, a point to which I will return. But there is also an important point to draw in that New Bedford and Hirtshals were challenged by the decline in fisheries, even as they were places that could be considered “winners” under the introduction of tradable quotas. Now I will look a little deeper into the idea that there has not been, nor do people hope there will be a complete replacement of the fishing industry, but rather that these new activities supplement.

Supplementing Sagging Demand

Communities are aggregations of individuals, families, businesses, and political and social institutions. While Hirtshals and New Bedford exemplify diversification at this wider community level, there are also businesses that have looked to supplement the sagging demands of the fishing industry with related or complementary buyers and products. In reference to the support industries in Hirtshals, “Fortunately, there are some of them that can see a little longer out of the corner of his eye and find some other work and have their business function. Those that can do that, I believe can service the fishing industry and at the same time do something other,” (Hans, Hirtshals, own translation).

In Hirtshals, the success of SeaStraight stands out in an era of global economic downturn, as the company grew to 90 employees within six years of business and expanded to four different subsidiaries. The genesis of the propeller shaft straightening technique began in the 1960s with a father-son team in Hirtshals working primarily on fishing vessels:

At that time it was mostly done to the local fishing vessels when they had a bent shaft, the technique was developed and it got more and more interesting also for the insurance companies outside Hirtshals. So, it expanded in the beginning to the rest of Denmark, and then to the Scandinavian countries, and now worldwide," (Gitte, Hirtshals).

From 1990 to 2004, the pair operated under a large, Finnish engine firm before starting a business centered on the propeller shaft repairs in 2004. SeaStraight also recognized the potential and its competencies in repairing other vessel components, expanding its operations with a new subsidiary. SeaStraight was dependent on the local fishing fleet, but then widened its market, building upon its localized and specialized workforce, but also recognizing the newly emerging potential of markets in Nordic countries and then global markets. SeaStraight pulled much of its specialized workforce over from its previous firm when it started operation in 2004, but has also recognized the specialization of many of its older workers and it has tried to retain that knowledge. The company also played a major role in the repair of the two oilrigs that came into Hirtshals in 2011 and 2012.

In New Bedford, I interviewed one business that had looked to find new applications for their fishing gear manufacturing skills "to subsidize the loss that the fishing industry is continuing to give us every year," (Ivan). To begin, they have seen

some success in applications far outside of fishing, such as selling wire for use on tow trucks and nets used for crowd control by police and military. The business has also focused on gear for fisheries with better outlooks including sea scallops, but also new potentials with squid and oysters and there may be new applications for aquaculture pens. Another New Bedford respondent named additional instances where firms or small businesses had started serving customers outside of the fishing industry, “People are very resourceful and resilient. Rebecca, does settlement and she settles up boats, but they do bookkeeping for non-profits and and they do bookkeeping for small businesses. So they’re diversifying. Frosty Ice does stuff for the construction industry,” (Jillian, New Bedford). However, Jillian pointed out, “But then you wonder about people who can’t really diversify, like the auction. How are you going to diversify?”

Although there are 148 shoreside businesses in New Bedford and Fairhaven that primarily service the fishing industry, there have been significant declines from 2004 to 2014, namely in processing, wholesaling, and retailing (Georgiana et al. 2014). Fifty businesses have closed during that 10 year period (Georgiana et al. 2014).

Another shoreside business owner confirmed:

But we’re losing the processors also. You know they’re not really, if it wasn’t for frozen Alaskan, H&G [headed and gutted] at sea. They head and gut the fish at sea. And they send it over through rail. And they’re, a lot of the processors, are selling...They refresh it, meaning they thaw it out and they filet it. If it wasn’t for that, these processors wouldn’t be here because there is not enough consistency of product that’s being landed to sustain the industry. We get a lot of fish that’s flown in out of Iceland. A lot of H&G that comes out of Norway. That’s the haddock. Canada, there’s a lot of fish that’s being shipped down from, to the States, from Canada (Terry, New Bedford).

Although the decline in processing, wholesaling, and retailing is profound, the decline in local groundfish and the rise of substitute products from Alaska, Iceland, and Norway have worked into some New England seafood distributors as part of the business model. A seafood market proprietor on the Cape talked about the same change in his business model:

Before we used to be able to get cod and haddock and sole, flounder, right in Provincetown off of our own boat—my boat and several others because we used to unload them all. But you know, not having access to that product anymore. That whole part of the business has disappeared. Unfortunately, I tell a lot of my customers, they don't wait for the boats to come in a lot of times, you wait for the planes to come in, because that's where your cod comes from. Sometimes your flounder comes from, and your haddock comes from, it's from Iceland now, you know what I mean. Or sometimes your swordfish might be coming from Miami by plane or by truck, instead of Georges Bank. That's just the way it is. It's the way the business has evolved, (Leo, Provincetown).

He emphasized that in order to make his vertically integrated fishing and retail business viable, he ensures that in either direction from the Cape to Boston that his trucks carry seafood in both directions in order to defray the travel costs.

All together, firms and small businesses have looked to fill the gap in demand from the fishing industry. SeaStraight probably represents one of the few cases where there was a full transformation and expansion in the type of customers. Once again, that evolution has been over time and its genesis came from the fishing industry. With port service industries in New Bedford, they remain strongly attached to the fishing industry and have only found supplements or customers that cover some of the gaps. Processing and the handling of local seafood have constricted opportunities

to branch out, but still some have found ways of making an increasingly globalized seafood market work for them.

E. Summary

Even at the different points in development, Hirtshals and New Bedford both employ diversification as a strategy and means to connect their fishing legacy to new opportunities. Moreover, Hirtshals has largely settled into its new position as transportation hub, whereas New Bedford is likely at point in its transition when the future is ambiguous. Although there are differences in opinion in regard to offshore wind energy development, the time horizon is likely longer than some residents' lifetimes. But New Bedford remains open to those opportunities and other directions that center on its waterfront's offerings.

In Hirtshals and New Bedford the fishing industry and the infrastructure, knowledge, and skills built upon the industry represent key assets. The loss of fishing activity has affected the dynamics in these ports and the wider communities; some individuals remain concerned about the future of fishing, but the port informants in Hirtshals and New Bedford were more assured that these communities have found ways to supplement the lower level of activity. Nonetheless, few in Hirtshals and New Bedford disregarded changes in fisheries. Those more closely connected to the industry desired changes in management to bring back the fishing industry or combat the concentration witnessed under transferable quotas. These two cases also exemplify the service port as a form of fisheries dependence and the cyclical nature of fishing activity and landings with the shoreside businesses that have designated

these port communities as one-stop shops. In turn, if commercial fishing were to sink to lower levels or there were further consolidation of the regional fleets, Hirtshals and New Bedford risk losing their service port advantage.

Diversification occurs at smaller and larger scales as well. The strategies from Jammerbugt municipality highlighted that the singular dependence of one community can fit into a wider strategy of a higher political level. Furthermore, the insights from local political leaders in Jammerbugt, Hjørring, and New Bedford confirmed two forms of development, one where development comes piece by piece—to steal the metaphor from Scott—the patches of an economic quilt as opposed to the larger scale contracts, which can create a new form of dependence. At the firm level, fisheries dependent enterprises have supplemented the lagging demand from fishing with other applications. SeaStraight, the firm in Hirtshals, has almost undergone a complete transition or replacement of the original customers of its business and the transportation infrastructure enabled a global business model. With Ivan's family business in New Bedford, they have found secondary applications, but there are limitations to their abilities to move in new directions, which holds for other fisheries ancillary businesses.

The final question remains as to the connection to tourism and how it fits into the diversification of communities. Hirtshals and New Bedford included numerous tourist attractions, especially in the appeal of their industrial and fishing heritage. The next chapter looks into the opportunities of tourism and examines the precarious nature of tourism and coastal communities.

CHAPTER VII

NOT A “MUSEUM TOWN”: TOURISM, FISHING, AND AUTHENTICITY

Initially, I intended to investigate two instances where communities moved from fishing into tourism and expected Løkken and Provincetown to exemplify such a transition. Løkken and Provincetown remain the primary cases for this discussion, but all of the six cases included tourism activities. The diverse connections to tourism in the six communities solidifies tourism as an element of change in communities, but the degree of engagement in each place also creates a critical distinction for the discussion of its implications. The experiences of Løkken and Provincetown illustrate opportunities and challenges and illuminate how fisheries and the fishing industry complement and complicate the relationship to tourist activities in these places. In Løkken and Provincetown respondents recognized their communities depend on tourism. This chapter looks at the parallels in these two cases, but also key points where their experiences diverge. The chapter concludes with the emerging theme of authenticity, which many Northern Jutland respondents cited as a key piece in the relationship between tourism and the fishing industry.

A. Tourism Dependence in Løkken and Provincetown

Although tourism was part of all of the communities in this study, Løkken and Provincetown have transitioned almost fully from fishing into tourism. There are

a few key points to raise in connection to tourism, fishing, and the regions of Northern Jutland and New England. To begin, much of the literature on fishing communities and their transition to tourism treat tourism as though it were entirely new. Although, the style of tourism or the greater emphasis on leisure and paid vacation have made tourism a more widespread social and economic driver (Urry 1990), tourism rose in the nineteenth century in Løkken and in the early twentieth century in Provincetown. In both Løkken and Provincetown, the presence of the fishing industry was part of the attraction for people to come and in some instances, to stay. In Denmark, the beach resorts of Løkken operated alongside the coastal fishing industry with part of the draw being the “exotic experience and culture shock of meeting the well-traveled people,” of this maritime community (Ussing Olsen 2003, 97, own translation). Provincetown’s arts community largely relied on the hospitality of the fishing industry, the inspiration of the waterfront, and the availability of an inexpensive meal.

Respondents in these two communities spoke clearly about the dependence on tourism and the changes felt in the community attributed to the greater reliance on tourism. To distinguish the experiences of New Bedford and Hirtshals, which have gone through a process of diversification, Løkken and Provincetown have not developed economic engines outside of tourism or fishing. In Løkken, where this section begins, informants underlined the link between the community’s fishing fleet and its attractiveness as a place to visit and spend one’s holiday. In Provincetown, respondents perceived the dwindling fleet as a problem and linked its existence to

maintaining a year-round community. The section first covers conversations on tourism in Løkken and Provincetown and then uncovers the effects of tourism dependence.

1. Løkken

In Løkken, respondents did not believe that their town depended economically on fishing. From Jørgen, one of the community's fishermen, to Kim, who volunteers in Løkken's tourism association, respondents recognized that tourism is the primary economic activity in the Løkken. Svend, a longtime resident and local historian, noted this transition from fishing into tourism, "Another big change that happened is in the economic activity, which is that the fishery has almost disappeared. This means that the income, which meant much to the city through the trade of fish, also disappeared. Thus, tourism became more and more necessary for the city to survive," (Svend, Løkken, own translation). From the perspective of the wider municipality, Løkken represents the largest tourist attraction in Hjørring municipality and likely the second in the entirety of Vendsyssel²².

Løkken depends on fishing through the connection to its dominant tourism trade and its sense of self. Many in Løkken emphasized that fishing attracted people to visit Løkken, "[Tourists] don't come here just because of the beach. We believe they come here because of the life. It's important that there is some kind of heartbeat in a city. And I think fishing is our main heartbeat," (Kim, Løkken). Notably, Kim was speaking about fishing in the present day, not just Løkken's history and heritage.

²² Vendsyssel is the landmass lying north of the Limfjord in Northern Jutland. The largest tourist attraction in Vendsyssel is Skagen in Frederikshavn municipality.

Jørgen, a commercial fisherman, underscored the economic dependence on tourism and the attraction of commercial fishing:

All the shops and such, we live off of that. Fisheries is more something that attracts the tourists, something they come down to look at, because it is so rare that they can see that today. And the tourists come and they have their kids with them, none of whom are acquainted with [fisheries], and they see the Plaice wriggling down in the boxes and that they cannot see in any other place today," (Jørgen, Løkken, own translation).

As Jørgen pointed out, visitors from cities or inland areas, detached from production and even their food, see Løkken and the fishing fleet as a means of connecting to its materiality and experiencing more than the sand dunes and the sea alone.

Identity and Intervention

Mette, a development officer working in Hjørring municipality distinguished the economic interest in fisheries and tourism, contrasting Hirtshals and Løkken:

And we say that when we go and talk about helping the fishery in Løkken, it is not about fisheries politically. Politically, Hjørring municipality's interest in fisheries lies in Hirtshals. That is where the economic interest in fisheries for the municipality is. There is no economic interest in fisheries in Løkken. So, it is all about cultural heritage, Løkken's sense of self, the life on the beach, and tourism. There, we, [Hjørring municipality], have an interest in fisheries in Løkken, (Mette, Hjørring, own translation).

Those in Løkken emphasized the local identity aspect of fishing for residents as well as visitors:

I think the fishing is crucial for the city. I think that it's a part of the identity. ...It's part of the identity and I think it's necessary that we make sure that we still get the fishing in the city. Not only as a tourist attraction, but also as an industry. Of course, it will always be a small industry compared to Hirtshals because it's complicated to get the boat in and out of the water and time-consuming. It would have to be small boats. We can't compete with Hirtshals in the fishing, but still we need to keep the fishing alive, (Kim, Løkken).

Commercial fishermen work out of Løkken, but the economic share is not significant overall, especially in comparison to tourism. The perception in Løkken is that tourists come to Løkken because of the activity on the beach, largely the fishing boats coming in after a day of fishing to sell the fish to locals and tourists. The concern for the fishing fleet in Løkken to remain “an actual industry” [*en rigtig erhverv*] will be taken up again in the discussions of authenticity later in this chapter.

2. Provincetown

In contrast to Løkken, the fishing fleet in Provincetown is larger, though it is undergoing a transition in target species compared to prior decades where the fleet pursued groundfish. Provincetown boats now largely pursue lobster and scallops, with few pursuing groundfish. Respondents were uneasy about the diminishing fishing opportunities and changes that have been brought about from the smaller fleet in Provincetown. Asked whether he considered Provincetown to be a fisheries dependent community now, Joseph contemplated, “Well, I don’t know how I would answer that. Most of the lobster boats here, I think there might be three [boats] that people actually live in Provincetown that own them. Most of them are from Truro, Wellfleet, Eastham, Orleans and they fish out of here.” Joseph highlighted the dispersal of fishing families out of the town, brought about by the real estate market. But his comment also captured the uncertainty of where Provincetown now falls in relation to fishing.

Like Løkken, Provincetown residents and community members understand that tourism has become its primary economic activity, which has implications for the community:

It's actually change. And you know, people say, 'oh this is terrible that this is happening,' but it's change. And what can you do about it? You can't bring back the fishing industry. And so then tourism, everyone's so dependent on tourism. If the least little thing happens to hurt that market, it's devastating. Businesses go out of business; they go somewhere else. Then when things get better, they come back here. ...It's like the tide going in and out in the business community, (Cheryl, Provincetown).

The interdependence between Provincetown's fleet and its tourism activities was less pronounced than in Løkken. Fishing is viewed as separate from tourism in Provincetown, but does contribute to a sense of identity and as revealed later in this chapter, the maintenance of a year-round community. Few respondents and informants felt that the town's fishing fleet served as a major attraction for tourists:

There have been many things that brought people to Provincetown for years. So, fishing wasn't necessarily an attraction; it was the industry here. So, there's a difference. But the thing that's interesting is that the fishermen, and the artists, and the playwrights, and the people of the town all worked so beautifully together. It's always been a town where everyone's melded together nicely (Dominic, Provincetown).

Fishing more closely represents a third order connection to tourism in Provincetown. The fishing families welcomed and enabled artists and writers to prosper in the community, making it a place where artists chose to stay and form connections, embracing the fishermen, boats, and wharf life as a motif in their work. Through the evolution of the community Provincetown became a place where tourists came, drawn in by the arts community. Additionally, other Provincetown respondents

viewed the area beaches, which are now part of the Cape Cod National Seashore, as the primary motivation for people to visit Provincetown. Rather than an explicit connection between fishing and tourism, these two business sectors operated in parallel. The fishing industry and tourism coexisted, "So, it was an industry, a way of life. It was a fishing community. It's always had tourism. It's always been eclectic. Going back...forever...it's always been that way. The fishing was it. Tourism...it was always a fun place to come. It was always a fun place to come," (Andrew, Provincetown).

However, Provincetown's dependence on fishing diminished and its dependence on tourism rose. Similar to Løkken, fishing has contributed to community identity apart from the focus on tourism. Nevertheless, the comfort with tourism dependence is not as settled in Provincetown:

James: I'll tell you this, my father, to his dying day, in his own warm way, refused to hear from me that Provincetown was a tourist mecca. He said, "It's a fishing village." He hated to concede that we actually no longer were a fishing village, that we were art and he didn't even want to concede that. We're art and we're tourists. And basically we're tourist. And he should have conceded it because that's the way he made his living. But that's...

KO: Yeah, that identity...

James: Yeah, that identity... frivolous identity. He always believed we should never have a highway leading out here. He said, just leave it a two-lane road that winds back and forth and 90% of the tourists won't come here. And my comment to him was, if they don't come here, we're dead. And he didn't want to believe that.

In Provincetown presently a number of residents are like James; they understand the town needs tourism to continue to exist. Recognizing the importance of tourism to

the community, Dominic affirmed, “In fact, without the tourism, this town would become a ghost town. There’d be no industry here.” But the precariousness of dependence on tourism is not underestimated and a great deal of the frustration and the sadness associated with the loss of fishing and the dominance of tourism surrounds the change in the community and the ability of Provincetown to remain a viable—and affordable—year-round community, a discussion that continues in the following section.

B. Pitfalls of Tourism Dependence

The dependence on tourism has generated particular situations and effects in Løkken and Provincetown. In many ways Provincetown represents a further extent of dependence on tourism and the downside of reduced fishing activity. In Løkken, there was perhaps more optimism than in Provincetown in terms of the ability of the town to remain a viable, year-round community than in Provincetown, where many were concerned with the closure of the high school, the lack of affordable housing, and the transformation of the community to a place dominated by the second home market and the fading connection to the fishing community. Largely, the effects of tourism dependence related to the seasonality, or drastic fluctuations in population and activity between summer and winter, the housing market, and the persistence of a living community. This section outlines the concerns of residents in Løkken and Provincetown in regard to (1) dramatic seasonal population fluctuations, (2) effects on the residential housing market, and (3) change in local culture.

1. Seasonality

Over the years, namely the second quarter of the twentieth century, the tourist season has expanded in Løkken and Provincetown with Christmas and New Year's celebrations. In Provincetown whale watching attracts a number of visitors in the shoulder seasons of fall and spring. Nevertheless, in January it is cold, windy, and gray in Northern Jutland and New England. And, it stays that way until April, if not May. Thus, the beach—the primary attraction of these two communities—is best enjoyed in June, July, and August, creating a seasonal cycle felt by many in these communities. While this may seem like an obvious point, it is an important primer for the coming implications of being a tourism dependent community in a temperate climate. These were not communities with great tensions between tourists and townspeople or fishermen, but rather places where the community recognized the benefits of tourism, yet also identified issues brought forth for their development and futures.

Spring preparations and the influx of tourists in the summer months marked Løkken's seasonal progression. Kim described it as such:

But it has a very special heartbeat. Some tourists show up in February because of the vacation, but then we have slow periods until Easter. The spring is also the maintenance period where everyone wants to make their summerhouses look the best. So, we got quite a lot of activities in the spring. And then in the summer everything is hectic. And here in the fall, we are just slowing down, but trying to squeeze out the last money from the tourists. And then we get a little up period during Christmas because it's also an attractive period for some tourists. But January is totally dead, (Kim, Løkken).

Kim spoke of this positively, emphasizing the preparation season of the spring as a time the community came together and how these preparations embody the pride

residents have in Løkken. Acknowledging that summer can be an intense period, those in Løkken welcome this influx of people as a form of excitement. Jørgen reacted to the perception that Løkken could be a dull place in the offseason, "I do not think that it's boring, it's lovely in the spring, at Easter, when tourists come again. There will be more life in the city, so I do not think that's boring." Like the fishermen and the boats, of whom, Jørgen is a part, the tourists as well bring a sense of excitement with their anticipated arrival.

In Provincetown, there is some of that anticipation and excitement in the spring when the town comes out of its hibernation, "And a lot of people, we all get excited in the spring to see the tourists coming back. One, it's money; it's cash-flow. You bust your ass all summer long," (Sam, Provincetown). The anticipation centered largely on the commerce aspect of the summer season. Moreover, Provincetown respondents spoke more openly about the schizophrenic division in the seasons, "It's mental in the summertime; you have no privacy and you can't get anywhere. And it's desolate in the wintertime. There's nothing here," (Leo, Provincetown). That boom and bust nature of the Cape was felt more profoundly than in Løkken.

In Løkken, residents emphasized that certain amenities, for instance, a large supermarket, would not be present without the large number of tourists and summerhouse residents. Løkken sees the benefit of tourism for its residents and likely recognizes that without tourism the community's shops would not exist at all. Kim stressed that the shopkeepers and chamber of commerce keep the shops and boutiques open throughout the year, some reducing opening hours in the offseason,

but remaining open nonetheless. Mette affirmed, “The owners of the shops in Løkken know that they have to handle the different seasons. And of course they’re open, but it’s not open everyday in the winter. They handle it and they know that their business is in summer. And they know it and they handle it because all shops want to have more of an all-year business,” (Mette, Hjørring).

By contrast, those in Provincetown cited the gradual reduction in the number of stores and especially restaurants that remain open throughout the winter:

And businesses because of the season, a lot of them shut down more than ever before in the winter. So, it’s more and more quiet in the wintertime. So, it’s really changed a lot. Over a 10-year period I think we’re going to be able to really see what’s next for Provincetown. What’s the tapestry going to be like? And will there be any industry moving here? But it will remain a tourism attraction as a resort town. That part won’t go away, but it’s going to change just like it does everywhere. But there is a concern. We do need to have year-round people here. The town needs to operate, (Dominic, Provincetown).

An informant from the Chamber of Commerce estimated that 85% of the businesses in Provincetown are closed during the winter and confirmed the observation from Dominic that over the years fewer and fewer business are staying open. When asked about the situation, Eli also emphasized the connection between a smaller population outside of the summer months, fewer businesses open in winter because of lagging customer base, and the lacking employment opportunities, “Yeah, it’s true and that’s why a lot of these businesses are seasonal. You know, it’s part of it, I guess. It’s kind of a vicious cycle as far as the seasonality of the place. No people here to support a year-round economy, commerce-wise and buying power or whatever, and thus there are no jobs for them,” (Eli, Provincetown). Businesses shutter in winter in Provincetown

because they lack patrons and furthermore, if these businesses were to open, they would lack a sufficient labor pool. That labor pool is lacking in large part because of the absence of affordable housing in Provincetown and the geography of the outer Cape limits the potential for travel from adjoining towns:

Because the location of where we are, there is nothing around us. At least some of the other towns on the Cape have some surrounding towns and they have more opportunity for jobs and there are more businesses that are open year-round, though not that many. Here, we have the highest unemployment in the state of Massachusetts, (Cheryl, Provincetown).

In a conversation with Dominic and Adrian, who work in connection with tourism, they isolated the absence of a sufficient workforce:

Adrian: There's several challenges. I mean again, it's a Catch-22. There's not enough people in the winter because there's not a lot to do. And there's not a lot to do because places aren't open because people aren't coming to town in the shoulder season.

Dominic: Also in the offseason, we have a chronic problem with the work force. There is no workforce. There is no workforce in the offseason as well. A lot of the restaurants and shops in town and guesthouses and everyone really is heavily dependent on seasonal employees.

Like 'Catch-22,' the issue can be seen as a chicken and egg situation, where it is unclear where the cycle begins in terms of having a sufficient year-round population and employment for those people. Additionally, the constricted housing market propels this cycle.

To summarize, the fluctuation of population from winter to summer, is not necessarily problematic if people remain in the community in those offseason months. Although year-round residents, connected to tourism and in part the fishing industry tend to take time off and vacation in the offseason, having a sufficient

population that remains in the community and supports the local services is the key. This difference in seasonality as perceived by those in Løkken and Provincetown encourages further insight into other dynamics differentiating these communities, namely the housing market and the communities' degrees of isolation.

2. Housing Market Pressures

Affordable housing was on the mind of nearly every person I spoke with in Provincetown. I had expected to hear concerns about gentrification in Løkken as well. Although few in Løkken cited concerns for the housing stock in the community, I had two conversations concerning the pressure on real estate values and the transformation of full year residences to summer homes. The mayor of Hjørring recognized that if Løkken were to be completely populated by summer houses, it would lose local institutions:

The biggest challenge for Løkken is that Løkken has also begun to seriously experience [the difference in] summer and winter. Well, Skagen experiences it to the total extreme. That is a big challenge when many have summerhouses up there and are only there when it suits them. Easter, Pentecost, and five weeks in the summer holiday, there are very many weeks [of the year] left. If one does not find a reasonable rent in relation to that, then it begins to become difficult to sustain schools and daycares. And thus, there are more that move away. That is well the biggest challenge for Løkken through and through. It is that the houses are attractive and nonetheless down in price, where a Norwegian can buy them if he has a slight affiliation to Denmark. I believe that we shall be very careful with that. Because then one finds a town where it is very hard to keep alive. It will be nice for those who buy, with those rich people, but who wants to go to a town where there isn't any life? (Arne, Hjørring, own translation).

Town historian, octogenarian, and long-time resident, Svend, described the rise of tourism and its pressure on housing in the community during the post-war period.

Svend noted that after WWII, summerhouses began to populate the coast. In the

following years Løkken's downtown houses converted from year-round residences to second homes. Svend described the transformation of the community:

But the business life fades and dwindles and at the same time we find that stores die. Before the war we had about 70 small and large shops, but now there's almost none left. We have seen some supermarkets...and revenue is of course much greater today than it was then. But it is another shopping model. This means that [Løkken] comes closer to being a tourist destination instead of being a city. It weakens the real or proper city life, (Svend, Løkken, own translation).

He continued detailing the movement of year-round residents out of the center of Løkken and into housing developments built outside the center. Those living in Løkken year-round largely commute for work in other cities and towns. Svend reflected on these changes:

But that said, it changes the character of the city. The fishing industry, of course, does not play a significant role anymore. We have a few boats fishing here. There has been fish auctions, etc., but it closed approximately 40 years ago. That is really to say that the local identity changes and maybe even the mentality is changing, (Svend, Løkken, own translation).

The significance of this push of year-round residents outside of the town center contributed partially to the diminishing life and activity in the city center apart from the high tourist season. Svend acknowledged that indeed the community retained permanent residents, who either commuted or worked in the town, but he pointed to the change in the character of the town. Nonetheless, Svend's perspective and notion of change in the community was not shared by many of the other respondents. It is likely that the changes of the decades following WWII may have resonated more with Svend because of his age. In speaking with people in Løkken, I was surprised that I did not hear more concern about affordability of housing or that

the town was dead in the winter, but then I learned of the various zoning regulations Denmark put in place in the 1970s. Even with the indications of full-time residences turning into vacation homes, Denmark has zoning regulations that make the situation in Løkken far less pronounced than the large share of vacation homes found in Provincetown.

a. Zoning Regulations

In the 1970s—after the postwar years to which Svend referred—Denmark introduced planning and zoning legislation that has insulated some coastal communities' housing markets from pressures we see in the New England, specifically Provincetown. To begin, some city zones fall under a residency requirement (*bopælspligt*) in which homeowners must reside in that property full time, or as their primary residence. Additionally, Denmark requires Danish citizenship or full time residency for foreign homeowners, hoping to offset wider real estate speculation. The mayor's reference to Norwegians' ability to buy property with a connection to Denmark indicates some of the fear that wealthy Norwegians and Germans could put pressure on the housing prices in coastal Denmark without such residency requirements.

As part of its planning laws Denmark designated a special summerhouse zone, where second homes for holidays can be built and are restricted to part-time use. Furthermore, these properties are taxed differently and thus somewhat insulate the housing market for full time residences. However, Skagen, another coastal community in Northern Jutland and mentioned by the mayor, has witnessed wider

transition of its central housing stock because outsiders have purchased properties for use as second homes, with similar effect to that seen in New England. As with any housing market and its regulation, there are greater nuances to the intended and unintended effects. However, these Danish planning laws partially explain the reduced pressure on the housing market in coastal communities that are viewed as highly desirable for second homes. Moreover, Løkken's proximity to Aalborg and Hjørring, its natural setting, and the town's shops make it a desirable place for some to live and commute. Those same attributes were not subscribed to Provincetown.

b. Housing Prices Pulling Fishing Families out of Provincetown

Many in Provincetown pointed to the value of real estate as a major change and effect on the community in the past decades. In Provincetown there has been a dramatic change in the community composition as related to the value of real estate and the decline of the community's fishing industry, about which many respondents spoke. As with many aspects of this project, it is not a single event in Provincetown that propelled its change, but the convergence of the decline in fisheries, the scarcity of land for building new housing, and the "resortification" of the community. Cheryl, who moved to Provincetown in the 1970s and currently lives outside of town, traced the evolution of the community and the rising real estate values, as the "condominium craze came into town":

What it did was it made homes, it made the Portuguese people, fishermen, family homes that were kind of falling apart, because the [fishing] industry was starting to go down in the '80s and there was no money to put into the property. And then someone would come along that wanted to build condominiums and they would offer to buy the property for much more than it was worth. And so they would move to Truro and then the property would

be converted into condos, so it was no more a family home, usually a couple of one-bedroom condos. And those would be sold and people would use those seasonally; they usually weren't here year round. So the family unit was moved out of town and then the school population started to dwindle, (Cheryl, Provincetown).

Provincetown fishing families largely dispersed and left the community with the enticement of selling property that was in disrepair and held greater value to someone from outside as a second home by the beach as opposed to a family home close to the harbor. Many in Provincetown echoed this narrative of real estate sales and community transformation. Additionally, the availability and lower price of land in towns such as Truro, Wellfleet, Eastham, and Orleans also pulled fishing families out of Provincetown as it afforded more space for gear. Dominic estimated the pace of change escalated in the late 1990s and early 2000s with a serious boom in Provincetown's housing market. Once again, the key piece was a conversion of housing from year-round to part-time residences, mostly of older, affluent persons, many of whom were without children. And this is where many Provincetown respondents lay their emphasis. With the increasing value of property, the incentive to sell, have someone renovate, and divide larger houses into smaller sub-units, Provincetown transformed from a community of families, who lived there because of fishing, to mostly individuals seeking second homes, not primary residences.

Beyond the rise in real estate values, those in Provincetown cited concern for a subsequent lack of affordable housing for those looking to live and work in Provincetown year-round and the decline of families in the community. In response

to the question of how the land-side community has changed since he was a kid, Eli, elaborated on this phenomenon:

Oh yeah, they closed the high school that I graduated from. You know with the gentrification and the sort of resortification of town, which was always emerging, but it sort of seems to have finally arrived. You know at this point, that system and that evolution has finally kind of calcified. It's there; forget it. You know the median home value in Provincetown is like \$850,000 or something like that? And only 30% of properties, of residential properties, are actually lived in year-round. No affordable housing. There are affordable housing projects, but you know, generally the market features no affordable availability or year-round availability even at the high market rates because it's too lucrative to rent seasonally, like condos, (Eli, Provincetown).

As a consequence of the high valuation of real estate in Provincetown and the lack of area to build a lot more housing stock, Provincetown has become a place where people cannot afford to live. Eli points out that this trend has been building, but that the community now has reached a crisis point. It is important to say that these respondents attached to Provincetown were not maligning the new inhabitants. Respondents did not blame second homeowners as the problem, but were frustrated that the local government had been complacent to see this change take place and ignore the impact on the community. The effects of gentrification or "resortification" were seen as negative and in some residents' eyes resulted in an erosion of community cohesion. Eli talked about the difference in preferences, but also the potential further evolution and loss of local character associated with a place that transforms into a community of entirely second homes:

But you know, a lot of people who come here for what they want, wouldn't perceive it as such. They're like "Oh this is great," come in May and leave in September or October, who gives a shit? And it will just become more expensive for them in the end. They'll have to subsidize or pay a premium for

services, whether it's municipal services or basics, because they've got to pay some sort of living wage to attract people to live here. The living wage in Provincetown for a year-rounder is quite high as reflected in the real estate. So, if you want your bagels, it's going to be like any of these seasonal communities that brings in a generic set of services. That's kind of lame, but if you don't care about that. The beach is always going to be the same hopefully. So, there it is, it's a beach with the sand, (Eli, Provincetown).

Eli's point about services (public and commercial) becoming more expensive echoes the points raised by Hjørring's mayor in connection to schools for Løkken and the absence of life in a town where people live only part of the year. Some in Provincetown were more optimistic than Eli, thinking that perhaps some of the second home residents, who will soon reach retirement, would perhaps elect to live in the community year-round. However, the question of whether there will be any places or activity in the offseason when they arrive to encourage them to stay remains the question.

3. People, Local Culture, and Loss

Without affordable places to live, jobs to keep people in the area in the winter months, places to meet a friend for dinner, and children to attend local schools, Provincetown has witnessed a drastic transformation. Although the increase in housing values occurred, the decline of the fishing industry and subsequent dispersal of persons out of the community—and in part, out of the industry—propelled its transition from a fishing community with a nice beach into a seasonal beach community with a lingering fishing fleet. For Provincetown, fishing represented an industry that rooted people in the community and sustained the community in tourism's offseason. Unlike Løkken, Provincetown's distance from large cities or

industrial hubs increases its dependence on local jobs. Moreover, regulations concerning summerhouses lessened the effect of Løkken's transition to tourism. As highlighted in the section on Løkken's tourism dependence, fishing still holds importance to those living in Løkken and there are further points of connection between Løkken's experience and the other cases. However, the findings from Provincetown highlight the connection between fishing, understood as a year-round industry and the development of the community.

As seen in the earlier quotations, respondents in Provincetown pointed to the high school's closing as an indicator of the erosion of their community. Even though second home owners contribute to the town and its tax base, the diminishing number of people living in the community was a recognized problem, "So you know, there's not a lot of upside for that as far as community goes. It just becomes a different kind of community that's seasonal and more fractured and just not as integrated by living here year-round, knowing one another, depending on one another, family ties, school ties. All that stuff is not the case," (Eli, Provincetown). Leo made the connection between fishing and community explicit:

I think the whole fishing industry aspect, by taking that whole industry out of a community I think it had a gigantic effect. I mean, Provincetown is a tourism community, not because it's so much promoted. It's always been tourism; it sticks out in the middle of the ocean. It's the beach. People come here for that. But people are going to come here for that no matter what. Okay, but to maintain a community, you have to have an industry. You know, we're a microcosm of, like a coal mining community or a community that has a factory that produced cars, the whole community works around that little industry. And that was here. And once you pull that industry out of there, after that you pull the high school out of there, and after that you just

hemorrhage. There is no reason to be there anymore, you know. So, that's my perception of it, (Leo, Provincetown).

In some ways, what we see again is the challenge of remaining in a place that has lost its geographic advantage or reason for people to remain in a place on the margin.

And in that way, Provincetown parallels Thorupstrand and Cutler in the existential nature of fisheries dependence, even with the greater opportunity and economic engine of tourism.

Leo talked about the lack of local intervention in connection to the fishing industry, drawing the link between the decline of the fishing industry, loss of employment within the community, and the decline of local institutions:

But what I'm saying is, being a Monday morning quarterback,²³ that has a lot to do with the demise of the industry. Because they never had any help from the town government to foresee what was going on and try to act on that. And say, we could lose 100 workers and if we lose 100 workers, we're gonna lose so many kids in the high school. Now it's gonna cost more per student. They never had any foresight. Everybody was too focused on what was going on at the time [referring to the real estate market]. So unfortunately, in small towns leadership is like that sometimes. They get swayed by whatever they're doing and don't give it any thought and the next you know it's... When you start considering closing the high school, I think that is a really good sign that the community is failing, (Leo, Provincetown).

In both instances Leo used the closing of the high school to indicate the health of the local community, imbuing it with importance, and linking the loss of workers from the fishing industry with the decline of families and school age children in the communities. Moreover, Leo argued that the town government should have been more proactive in addressing the decline and recognizing the importance of the fleet.

²³ The term *Monday morning quarterback* refers to the tendency to recognize and analyze one's or other's mistakes after they have been committed.

In Northern Jutland, the concern for keeping schools open is also a point of concern.

Janne in Hirtshals observed:

When I grew up—and I think this is the common picture—there was kids all over. And unfortunately, today we do not have as many kids as previously. We also see that in regard to our schools. We have closed a very big school in the city and have fewer pupils in the other schools. And I think that's the fundament of, or essential for a small community, that we have a future generation. So, that is kind of sad, (Janne, Hirtshals).

Thus, the decline in fishing and fewer fishing families onshore affects the community.

Residents reflected on these changes in fishing and recognized that the local institutions disappeared, or were at least threatened, in connection to the loss of the fishing industry.

There were two lines of argument when those in Provincetown talked about the importance of fishing to the community. The first is essentially the question of a year-round or offseason industry and the void left in its absence. Tourism does not operate as a replacement because of its seasonal dynamic and pressure on housing affordability. In Løkken as well, Svend worried that the town needed an industry or economic sector to operate throughout the year, "We miss having some year-round [activities] as an alternative to tourism. After all, we have no industry and are in a poor position to market ourselves for industrial production," (own translation).

Notably, Svend viewed this challenge specifically for the local area of Løkken as there are year-round opportunities in Hjørring and Aalborg. In comparison, Provincetown's isolation and the lagging economic sectors in most other parts of Cape Cod increase the need for a year-round industry that fishing once provided.

In addition to the conceptualization of fishing as a year-round industry and the recognition that coastal communities are limited in alternatives, there is the cultural importance of fishing. When I asked George whether having a fishing fleet was still important to Provincetown, his first response was, "Of course, even though there is virtually no fleet." He expanded underscoring the less tangible aspects of the industry's significance:

Well, I think that historically speaking, Provincetown, the heart and the soul of Provincetown, is/was fishing. And the community, even though it's changed a great deal in the last decades, and prior to that, it's always been a place a bit beyond, you might say, the shores of the mainland in a lot of ways. It's always been an artistic community, it's always attracted people who are a little bit off of center and it continues to be that way. But as far as the community of fishermen, which is virtually no longer even a part of the community. Most of them moved away or simply don't exist anymore. I think it stands to lose a lot because the quality of the kind of people that fishermen represent to a community [is] important to have, (George, Cape Cod).

George spoke to the dispersal of fishing families out of the community and even out of the industry. He elaborated on the attributes of fishermen that go beyond the platitudes about hard work and sense that people from outside identify something "old fashioned" in the industry:

We brought a great deal of cultural variety to the community and that cultural variety is simply no longer there or is down to such a low level that it hardly makes an impact on the overall quality of the community or the quality of life there. So, I think for any community that has a historical community of fishermen and is now losing it, it's a sad turn of events for the community as well as the individual fishermen, (George, Cape Cod).

The loss is not only for the individual fishermen, but for the wider community, and not through purchasing power or multiplier effects, but because of the cultural

distinction. Leo also shared feelings of loss around the kind of community that

Provincetown once was:

There is no community anymore. That's gone. I mean, until just recently the few people that are left, that live in Provincetown, that are from Provincetown, and remember Provincetown, which is a very small percentage of the population now. It's decimated. There's nothing left. The community and heart and soul of Provincetown, that I knew it, and...from probably 100 years before, it's all gone. There's little pieces of it that will smolder, like the arts community. And there'll be little pieces of the fishing community that will remain there and a few people, but the fire that was there, the way that community was, was huge. And tight-knit, families, and all that stuff. Like "Anywhere, USA" in the 1950s, you know. Provincetown was like that too. You had a couple hundred families with kids there and industry and tourism. That whole thing's gone. It's unfortunate, (Leo, Provincetown).

It is a difficult task to follow the words of George and Leo. Their opinions on the loss of the fishing industry in the community's fabric embodies one of the aspects of fisheries dependence that is difficult if not impossible to quantify and incorporate in valuation-based assessments. This loss of cultural variety and sense of community is a critical component of the transition from fishing.

For one outside of the fishing industry, but whose family traces back generations in Provincetown, the changes observed and the decline of the fishing industry are felt strongly:

Yes, oh yes, a huge sense of loss. There is, you can hear it in me. You know, we all look back and feel sad about losing what the past was. It's nostalgia, but for this community the change has been so dramatic that I think the sense of loss for those who have seen it has been greater. It's one thing if it's a slow change from [small] farms to [big] farms in the Midwest. You know, you wish it weren't big agribusiness and that stuff and that you always wish it were different. And life was much smaller and was more comforting. But, here the collapse has been a thrust right to the heart of what the town was. Luckily,...we have a mechanical heart that is pumping, so we didn't die completely. Some places in the Midwest do, or the West or whatever. It's

probably like the collapse of the gold veins in some places. You either find another reason to keep the hardware store on the corner, or you don't. Here, it's a little bit like that. We still have a little bit of a vein of gold, but it's... (James, Provincetown).

James acknowledged nostalgia's presence in the feelings of loss among him and others in Provincetown, but he also pointed to the pace of change. Full of allusions, James speaks of Provincetown's "mechanical heart," a metaphor for the tourism industry. Providing the most interesting insight into how tourism can be viewed as something artificial that maintains some of the function of the community, but lacks a desired naturalness. The artificiality imbued in the image of a mechanical heart, parallels many of the discussions I had throughout Northern Jutland when talking about the fishing industry, the share of tourism in the local economy, and the importance of *authenticity*.

C. Authenticity and Staying Alive

The chapter now follows the connected theme of authenticity in relation to both tourism and community identity. Here, all three cases in Northern Jutland were very important because numerous respondents invoked the image of museum and authenticity. In interviews in all three communities, even in Løkken, where tourism is the main economic sector, the residents did not want the community to morph into a place without a fishing fleet or as one respondent put it, into a "museum town." Resident-driven desires and future visions for their communities reveal the motivations of those living in these places year-round. Artificiality and inactivity operate as threats and encourage concern for maintaining working waterfront industries and the trepidations of a fishing industry for exhibition only. Heritage

tourism and being an attractive destination hinges on the fact that maritime sectors other than tourism operate in the community. In all three cases, residents resisted becoming a museum town, or having a fishing fleet that operated for display purpose alone. Moreover, a museum town epitomized a place absent of life, everyday bustle, and frequent and sustained interactions that coastal residents were accustomed to at the height of fishing. In this manner being authentic required a *working* fleet, which carries deeper implications for transformation and the complementarity of tourism as opposed to its suitability as a substitute for the fishing industry.

1. Workplaces on Display: Communication of Place through Industry

Tracing the discussion of authenticity and tourism in the cases, one of the primary connections was through the working life or industries in the harbor. Tourism informants indicated a tendency toward experiencing a place and wanting to visit aspects of the community that displayed its industrial and commercial activities. Mette explained:

I think, in tourism development, it's always very, very interesting if you can show some, your industry, work as *arbejdspladser* [workplaces], to see what is happening in this community. Which people are here? What's happening? It's interesting. You know, if you are a tourist, you want to see the real life where you are staying and I think it is possible to find the good way to do it in an industrial harbor too, (Mette, Hjørring).

She connected the everyday life of the community and its residents to tourism.

Playing to its industrial nature, Hirtshals created a map of the harbor indicating points of interest for tourists. In addition, Mette emphasized the centrality of work—places and activities—as defining what a community is about. “The real life,” evokes

discussions about authenticity and the idea that visitors want to see and interact with those who are not only visiting.

Another Northern Jutland tourism informant spoke directly to authenticity and the harbor, “And I am convinced that it is because of the...authenticity. It is the real thing that they see—the working life of a lot of people and there’s always a lot of things happening on the harbor,” (Janne, Hirtshals). Once again, the idea of the “real thing” and the industrial harbor ties to the attraction of Hirtshals. Janne’s sentiment contributes the notion of work and activity as being points of interest and promoting the feelings of authenticity. In both instances the informants talked about the present day life of the communities as opposed to a remembered past. Therefore, being an attractive destination to tourists hinges on the fact that sectors other than tourism operate (and are visible) in the community. In an interview, Hirtshals resident, Carsten, lamented the fact that the auction was no longer open for public viewing and that a fabricated auction for tourists was insufficient as it did not provide the same experience as the actual fish auction. In New Bedford, two informants spoke about tourists’ interest in visiting the display auction and trying to move the auction to a more central location in downtown New Bedford. In Jammerbugt municipality, Thorupstrand’s packing house and Slettestrand’s boat building workshop won exemptions to be situated on the beach partly because because the structures operated as visual representations and communicators of unique coastal heritage. These instances connect two themes: first, the industrial activities of the harbor and fish auction provide attractions to those visiting and second, the fabricated alternative

is unsuitable. Consequently, the presence of an actual fishing industry and working harbor are critical assets to coastal communities and their tourism opportunities.

a. Boats Are Not Enough

Oftentimes attempts at preservation focus on the built environment. The physicality of boats and their visual impression can be important markers of a fishing community, but in interviews with people in Løkken the boats alone did not facilitate the sense of authenticity. Speaking about two vessels in Løkken, Kim distinguished the attributes of restored vessels for recreational use from a *working* fleet:

As I said on the private initiative, I don't think it would work. Then it becomes more like a museum. And that's not fishing; that's a museum. We've already got two ships that are maintained by organizations, voluntary organizations, but then they are not allowed to fish. So, they are actually starting up the museum, kind of keeping boats alive. And that's of course nice that we have some of the really old ships being restored and that it looks good, but it's actually the fishermen that keep the beach alive, (Kim, Løkken).

The emphasis on being alive and the difference between something that is for display versus for work is important to the identity. Kim continued this discussion, "It creates life on the beach, towing ships up and down from the water," and concluded, "They sell fish on the beach, which gives a routine on the beach, which makes the beach much more alive. And I think that's important for a tourism perspective. I cannot see Løkken without the fishing actually because then it would just be a beach." Here, the connection between an active fishing industry and tourism is clear, as these activities bring distinction and dynamism to the place.

At its core, the concern about becoming a museum town centers on the level of activity, losing the dynamism that residents associate with having a working harbor. When asked what he meant by “museum town,” Hans expounded:

But when I say why not a museum town, I do not have anything against tourists, but I believe that it is not long before that museum town is no longer because it too dies, because tourists do not want to come to a city that is not alive. You have to have something that is active. You need something that functions before someone would bother to look at it, I think. Therefore, I believe that it [the museum town] would be something that lasted for a short time and then there would be nothing left. I never think that Hirtshals dies completely—it would not do that—but it can be much reduced if we are not careful. So, I believe and trust that those who have something to do with this, shall find out how to retain the last fishing in Hirtshals. That I have to believe, (Hans, Hirtshals, own translation).

Once again, the activity and presence of the fishing industry represents an important piece maintaining both Hirtshals and its tourism trade. Hans contrasted being “alive” and “active” to death. Activity represents a key indicator for communities as, “museum town” is shorthand for a community only for display. Heritage tourism’s sustainability also comes into question if the fishing industry ceases to exist. Moreover, the key assets to preserve in these communities may not necessarily be the physical structures but the knowledge and networks in the fishing industry and wider community.

While boats are a visible reminder of the level of engagement in the fishery, acting as barometers of fisheries engagement, less visible is the knowledge among fishermen and on-shore support. Hans also explained his worry that as the demand for repairs from the fleet go down, so will the supply of the skilled labor of boat mechanics, electricians, and carpenters, as discussed more extensively in Chapter VI.

His trepidation was that Hirtshals' working harbor could unravel in just a few years with nothing left and "This is terrible to contemplate," (Hans, Hirtshals, own translation). Heritage tourism cannot easily maintain such a critical mass of knowledge and expertise, as there is little value to the tourist. Nevertheless, having this active onshore support represents a critical piece in developing a sense of authenticity, especially among community residents. Furthermore, the examples of the desire for authenticity, still center on the tourist's perspective.

b. Boats as Charismatic Megafauna

Løkken and Thorupstrand have a special distinction as being the only two places in Denmark, where fishing boats do not sit in a harbor, but rather haul up on the beach. Landing the boat is a sight to witness, watching the captain maneuvering over the ridges close to shore. Moreover, having the boats sitting on the beach, looking stranded on the shore, creates an attraction for visitors to witness this unique method, which was once ubiquitous along Denmark's west coast.

Figure 14. Photographs of the fleets landed on the beach in Løkken and Thorupstrand

Løkken Commercial (left) and recreational (right) vessels with pier in background

Thorupstrand Commercial, clinker craft vessels with tourists and winch cables

In Løkken, there are three wooden boats and the rest are made of fiberglass. There are no fiberglass boats in Thorupstrand because they cannot withstand the hard landing onshore. While the wooden boats have a certain aesthetic appeal, they are functionally designed to withstand the hard landing. Their flatter bottoms handle the waves of the west coast well and more easily take the hits on the shoals when coming into land. After those on Jutland's west coast started building this type of fishing vessels in the 1930s, the number of shipwrecks dropped to almost none. Nonetheless, the process of coming into port is much more involved in Thorupstrand and Løkken as compared to deeper ports like Hirtshals.

While Thorupstrand could dredge its harbor, the idea is either dismissed or met with concern for a loss of a tradition. Anja, who works in the Thorupstrand's floating fishmonger in Copenhagen, summarized:

They talked at one point in Thorupstrand whether they should build a harbor or whether they should preserve the old way of pulling the boats onto land, even though it is more difficult. So, I feel totally clear that one shall preserve the old because I just think that. I do not know whether that is a romantic dream or what. So I think that is something very valuable in maintaining some of the old that have been there for so many years. There is development and progress and change everywhere else, so I think it is important to hold onto some of the old in some places. Another reason that is important to not build a port is that the old clinker craft boats, they are made to be pulled up on the beach so it works together. So there's a reason for the boat workshop to continue. It is important [that the boats] are built into something that can be used, so that it does not end up as a museum. That's what I think is the most important, (Anja, Copenhagen, own translation).

I will return to Anja's specific points later in this section. First, it is interesting to compare her perspective, as someone outside the community living in Copenhagen, to the perspective of Jeppe, a fisherman in Thorupstrand. In response to the question

“Have you discussed building a harbor,” Jeppe replied, “That we have talked about. It costs far too much money, and one cannot find a grant [subsidy] for the harbor. It is easier to find grants for such things like Thorupstrand because it is so special,” (own translation). He continued along with the others in the room talking about the price of repairs or for a new winch house and they discussed how to incorporate those additions with some other developments on the beach or an overall conversion to bulldozers. Nonetheless, the quotations from Anja and Jeppe reveal two different understandings of the practice. Jeppe takes a pragmatic approach without much romanticism as to how things have been done in the past or preserving tradition. For Anja, an outsider or visitor, keeping the wooden boats preserves something unique in a time and wider context where methods and tools are replaced. While Anja admits to a tendency toward romanticism, she also identifies the symbiosis between the fleet and the boat builders in neighboring Slettestrand. Finally, Anja employs a familiar rhetorical device to many interviewed in Northern Jutland, that industries should not operate for display or “as a museum,” but rather should be sustained themselves. This is an especially interesting thought when read alongside Jeppe’s comments, which recognize the grants or subsidies available to Thorupstrand because of its character and distinction.

c. Remaining a Dynamic Place

While fishing cultivates a unique community identity in Thorupstrand, Løkken, and Hirtshals, it seems that the real concern of these coastal communities is to transform into places where there is no activity at all. In George and Reid’s (2005)

Lunenburg work the authors uncover a fear that with increasing tourism activities the town will morph into a place where people only visit, where no one resides. In a discussions with residents of Hirtshals, the projected, falling population was a point of concern for some. In addition, the mayor of Hjørring municipality, where Hirtshals and Løkken are situated, voiced concern for communities losing population numbers as it puts pressure on community life. Moreover, when asked about whether a place like Løkken could morph into a bedroom community of Hjørring or Aalborg, he agreed that this could be a reality, whereas Hirtshals could suffer the fate of being a community where people worked, but did not live. When asked if fishing went away in Thorupstrand, many residents were blunt in their prognoses: there would be nothing there except summerhouses. Thus, the sentiment from the Lunenburg case can be taken a step farther, where the real fear is having places where no one *lives*, where activity ceases and these communities become only places where people come and go for a single purpose.

2. Out of the Tourist's Shadow

Løkken, the case with the most precarious hold on an active fishing fleet, provided a bit of a lightning rod for residents living in the smaller, more remote community of Thorupstrand. While sitting with a group of fishermen in Thorupstrand, Løkken came up in conversation and the reaction of one fisherman was that Løkken had nothing in terms of a fishing fleet. It may seem easy to dismiss Løkken as a fishing village or to challenge the authenticity of its fishing fleet, especially in relation to Thorupstrand and even Cutler. In Thorupstrand and Cutler,

one sees physical evidence of an active fishing industry, with gear in front yards, nets hanging out to dry, and women cleaning and mending nets for their husbands and sons. Whereas in Løkken, the tools of the trade are under glass in the museum as opposed to in use in Thorupstrand

Figure 15. Photographs of the net-weaving shuttle under glass and in use

Løkken Net-weaving shuttle in display case in coastal fishing museum

Thorupstrand A local fisherman affixes new net with aid of net-weaving shuttle

However, there is more nuance here than the simple dismissal of Løkken's dependence on fisheries. As Mette pointed out, the importance of fishing in Løkken is not one of great economic gain, but rather in the identity of its people and as a means of strengthening its tourism. Hjørring municipality has fought for the preservation of a working fleet and pleaded for a revision of the current management system because of the ill effects on coastal fishermen:

I hope that you and the working group on coastal fisheries will accept my input and be certainly aware that it is not commercial fisheries political effort that is my task, nor safeguarding a single fisher's interests. On the contrary, it is safeguarding the community's [shared] interest in a small coastal community and maintaining the opportunity for the tourism development in

Hjørring municipality and other rural areas, which is my focus, (Mayor of Hjørring municipality to Environment, Food, and Fisheries Minister Mette Gjerskov, 4 March 2013, 3, own translation).

Still, one could think of Løkken's interest in fisheries is for it to be put on display.

However, when I asked the mayor about this relationship, he emphasized that fishing needs to stand on its own, for the purpose of catching and selling fish, not to be an act to serve the tourists:

And it is important that this continues to be authentic. So, it continues to be an industry and not a museum. So it's really, really important that the boats will be there as well, as it is in Thorupstrand. The moment that it could be something done in the tourist's shadow, then it becomes something else entirely because it becomes a museum. No, this here is part of an authentic tourist industry, I agree. But the fishermen who go down there, they don't regard it as such. They have a job; they go out fishing. ...They, [the fishermen,] take pride in what they do and they can also earn money by what they do, on equal conditions as anyone else, (Arne, Hjørring, own translation).

Later in the conversation, the mayor clarified that while a tourist attraction, for the fishermen, namely any new fishermen, "It ought to feel like an occupation. And the ship they take out, a sufficient small ship, but it is modern with technology. Well, that part is in order. That they feel that they are on anything other than a museum. That they go out to sea to catch fish and they take back like any others," (Arne, Hjørring, own translation). He underscored the productive nature of the occupation and pointed out that advanced technology should be in use, which at times can be thought to be antithetical to heritage tourism where older vessels are preferred to the modern technology.

Like Kim, who dismissed the idea of the museum boats as insufficient, the mayor further emphasized that fishing should stand on its own, even if it is an attraction. He considered the perspective of the fishermen:

“Those silly tourists who are standing there, what are they staring at?” Because it is a profession for them, [the fishermen]. From the day that it becomes something else, something that is staged for you to see how it was once done, then it is finished. So, I think ... you can always hire some people who get paid to go fishing in this way. You can get some recreational anglers to do it, but it is not a profession. It is really important that it continues to be a profession, and therefore quotas shall be secured, (Arne, Hjørring, own translation).

The emphasis on fishing functioning as a true occupation and industry independent of the tourist's desire to look upon the activity, the skills, and the materiality of production does not mean that the presence of tourists dilutes or tarnishes fishing's independence as a stand-alone industry. Rather, the concern comes when fishing is orchestrated or staged to look as it did for the sole purpose of entertaining the tourist, where the production is secondary to the service, so to speak. Moreover, it is interesting to note that in the letter to the Minister, Hjørring municipality sets its policy emphasis on reform of management as opposed to subsidies to keep the coastal fishermen profitable. While there is recognition that a special, set aside system should be in place to preserve coastal fishermen and places like Løkken and Thorupstrand in the structure or policies and management of Danish fisheries, there is not a deliberate request for money to make coastal fishermen competitive with the offshore fleet.

D. Summary

The experiences of Løkken and Provincetown converge and diverge with respect to fisheries dependence and tourism. In both communities, commercial fishing represents part of the local identity, as it did in Cutler, Hirtshals, New Bedford, and Thorupstrand. Informants in Løkken felt more certain that their local fishing fleet and the experience of seeing fishermen land their catch on the beach contributed to the attraction of Løkken as a place to visit and spend the summer holiday. In that respect, Løkken more closely aligns with the heritage tourism model and community leaders struggle with the means of maintaining the fishing industry as an authentic, self-sustained industry as opposed to something on display for tourists only. In this way, those in Løkken and its municipal leaders, advocate for changes in management to better accommodate and protect the abilities of Danish inshore fishermen to maintain their access and presence in their communities. Echoing the concerns of those in Thorupstrand, Løkken worries about the quota drain and the heightened barriers for new entrants. However, Løkken's greater legacy as a tourist attraction, with its wide, white sand beach, picturesque dunes and cliffs, and its proximate and developed town have enabled it to transition to tourism as a primary means of economic development, which likely reduced the urgency for some in the community and allowed Løkken to lose its critical mass of fisherman.

Residents in Provincetown, like those in Løkken, understand their dependence on tourism, but see the fishing industry as a separate industry as opposed to an attraction. Moreover, situated at the very end of Cape Cod,

Provincetown's alternatives and absence of commuter potential set it apart from the experience of Løkken and closer in line to Thorupstrand and Cutler at least during the winter months. Therefore, Provincetown's fisheries dependence is partially in line with the existential dependence of those two communities. Løkken's fisheries dependence ties to its tourism, heritage, and identity but is less essential for its existence. This is because Løkken is seen as a desirable place to live during the year, enabled by the possibility for its residents to commute and work outside the community. Nonetheless, Løkken has indeed changed in character over the twentieth century from this rise in tourism as has Provincetown.

The transition for Provincetown has been one of nearly full transformation. Løkken falls somewhere less drastic, but nonetheless the concern for the future of its fishing fleet highlights the concern heard in other communities for the persistence of authenticity. As discussed, in many facets this authenticity spoke to a concern for the continuation of a living community and one that does not entirely shutter during the winter months. Provincetown is perhaps the feared epitome of the ills of a community transformed. Residents in Provincetown connected the falling fishing activity, the dispersal of people out of the community, and the community's real estate transforming from year-round family homes into second homes for singles or couples and a squeeze on the affordability of the community.

The emphasis on displays of the working life in the communities also reinforce MacCannell's (1973) ideas about the pursuit of the authentic in primary production as more people live in communities where industrial heritage or primary

production no longer exists. This emphasis on activity, namely along the shore or on the water, generates the feelings of authenticity among residents in these communities. In all three settings, residents resisted becoming a “museum town” or having a fishing fleet that operated like a museum. In this manner being authentic required a *working* fleet.

CHAPTER VIII

CONCLUSION

This work proposed to draw connections among the six cases, using parallel experiences in Northern Jutland and New England to develop a typology of fisheries dependent communities. As laid out in the introduction, this research sought to fill gaps in knowledge of how to address social and cultural aspects of fisheries dependence in a move toward more holistic assessments of communities undergoing transition. En route to writing the dissertation, the initial mixed qualitative and quantitative methods of the research design altered, as detailed in Chapter II. In addition to the empirical content and conclusions to be made on matters of fisheries management and local development, this dissertation also contributes a reflexive approach to social science. Although data collection and analysis methods altered in this project, the central framework of an illustrative, multiple case study remained.

The three preceding, empirical chapters described and analyzed the experiences of the six cases. Three major themes emerged including: (1) the future for new entrants in fishing, (2) diversification as transition, and (3) the complicated relationship between tourism and fishing. Now the task lies in synthesizing the themes to distill answers to the two research questions. At the outset, I posed the following questions:

1. *How does fisheries dependence manifest in coastal communities today*
2. *How do different coastal communities navigate change during economic and social transitions?*

As a point of departure I began with the following definition of *transition*: a particular period of change when moving from one way of doing or being to another way of doing or being. As stated in Chapter I, this research understands transition as a particular *phase* in which communities grapple with change through the processes of coping, adaptation, and/or transformation. Driven by natural, economic, political, social, and cultural forces, change initiates transition; navigating these altering circumstances is what occurs during this phase. From the literature and now from the interviews, it is clear that members of coastal communities are living in a time of transition and determining the new role fisheries plays in their communities.

A. Answering the Research Questions

1. Manifestations of Fisheries Dependence

Documenting and analyzing residents' and community members' perceptions of the importance of fishing in Thorupstrand, Cutler, Hirtshals, New Bedford, Løkken, and Provincetown uncovered the diverse connections these communities have to fisheries. Community characteristics reinforced certain relationships to fishing, in some cases where alternatives were present and cases where they were not. Rejecting a definition of dependence based exclusively on economic parameters, the case studies highlight three different manifestations of fisheries dependence: (a) existential fisheries dependence, (b) service port cycles, and (c) heritage and identity.

a. Existential Fisheries Dependence

Thorupstrand and Cutler represent cases most in line with much of the body of literature on fisheries dependent communities. Isolated within their regions, let alone within their respective nations, these towns embodied markers of rural self-sufficiency and displayed the tight-knit communities many fisheries social scientists have come to appreciate and thus study in greater numbers. Alternatives to the fishing industry are scarce in Thorupstrand and Cutler and participation in the fishing industry is in higher proportion in these communities. Perhaps the most interesting feature of these two places is that their residents underscored the importance of fishing as the sole means of sustaining their community. Consequently, these communities typify existential fisheries dependence. Fisheries keep people in coastal communities like Thorupstrand and Cutler while the major economic and social trends pull people out of rural areas.

Complementing the experiences of Cutler and Thorupstrand, Provincetown presents a case where fishing has largely left the community and there has been a migration of people out of that community because of the compounding drivers of fishing and real estate speculation. In the wake of these changes, longtime residents wonder about Provincetown's viability as a year-round community. Tourism does contribute strongly to Provincetown's local economy and keeps some people in the community all year, whereas Cutler and Thorupstrand face fewer options for tourism, short of their housing stock converting to vacation rentals and summer homes. However, Provincetown reveals that seasonal tourism alone cannot sustain a

place at the end of the world—or at least, the end of Massachusetts. In addition to the cultural variety and local identity that fishing brought to Provincetown, it also provided a critical year-round, or at least offseason, industry that kept people and families there. It has been difficult for Provincetown to find a replacement for the fishing industry, which would likely be the reality for Thorupstrand and Cutler as well if fishing activities ceased in these communities.

Although the monetary value or employment in the fisheries sector may not be as strong as industrial ports like Hirtshals and New Bedford, existential dependence reaches beyond economic indicators and identifies the influences of physical geography and constricted alternatives. Taking the cases and developing a set of characteristics that define existential fisheries dependence, such places are often remote and have few alternatives to the extent that closing the fishery would result in the disbanding of the people and their shoreside community. Nonetheless, such a characterization does not presume that the underlying factors influencing these communities or their wider societies will never change. Thus, the designation of existential dependence could fade when alternatives arise or infrastructure upgrades create new opportunities to commute—physically or virtually—to workplaces outside the community.

b. Service Port Cycle

On the other end of the spectrum, Hirtshals and New Bedford have alternatives. Their form of fisheries dependence more closely aligns with the concept of clusters, a concentration of businesses and suppliers supporting an industry in a

geographic area, and the interconnectivity of land and sea. Although Hirtshals and New Bedford exemplify relative winners under rationalized fisheries management schemes, the level of fishing activity has diminished in these two communities and has been felt by the catching, processing, and service sectors within the fishing industry. Landings and active vessels remain important to these two communities. Hirtshals and New Bedford exemplify the service port, where fish landings have driven development of key competencies onshore and built up support industries and a relative concentration of such businesses around these ports. In turn, these communities are dependent on fisheries through the generation and maintenance of service industries. As described in Chapter VI, there is a cyclical pattern in landings and availability of support services that gives places like Hirtshals and New Bedford an advantage. If landings slowed and demand for services contracted, this would challenge these ports' abilities to hold on to this advantage. Analogous to the relationship between ocean circulation and climate, just as the flow of warm waters to the north moderate climate in higher latitudes, the flow of fish sustains the presence of key industries and thus the health of the port. Unlike existential fisheries dependence, service ports possess other opportunities that buoy the port and keep individuals in the community. Remaining connections to fisheries buffer businesses as they diversify and adjust their business plans. With successful diversification, these communities may morph into "maritime dependent communities," (Jones, Caveen, and Gray 2013) if the connection to the sea, not just fish, sustains these places. However, at present their dependence on fisheries remains.

c. Heritage and Community Identity

The relationship between tourism and the commercial fishing industry also reveals an aspect of fisheries dependence. Løkken demonstrates that the presence of the fishing industry can boost tourism, but as seen in Provincetown, such a connection should not be presumed. However, the case of Løkken substantiates how fishing heritage and an active fishing fleet contribute to the community's primary industry: tourism. Although it may be easy to dismiss Løkken as no longer dependent on commercial fishing, which cannot be denied in economic terms, when identity and heritage fold into the definition of dependence, greater connections come to light. In addition to Løkken, the attraction of the fishing industry and the working life of coastal communities were important to tourism activities in Hirtshals, Thorupstrand, and New Bedford.

The discussions of authenticity in Northern Jutland underpin the discussion of dependence as well. The emphasis by community members and public officials on Løkken's fishing fleet remaining commercial, as opposed to recreational or "for display only," was an especially illuminating discussion. Finally, the life and death rhetoric surrounding tourism and fishing in many of the cases underscores the interconnectivity of working harbors and fishing fleets for community identity, not only as an attraction for tourists. The rhetoric used by those in Northern Jutland related to authenticity, museum town, and vitality through fishing, show that the heritage elements of fisheries dependence are not frozen in the past, but depend on the present-day activities of genuine commercial fishing enterprises.

Table 5. Summary of fisheries dependence, transition, and community motivations in six case communities

Case Community	Form of Dependence	Type of Transition	Community Motivations
Hirtshals	Service Port	Diversification	Maintain harbor & port advantage
Løkken	Heritage & Identity	Tourism dependence	Retain identity Maintain aesthetics
Thorupstrand	Existential	Collective action & Innovation (vertical integration)	Safeguard fishing fleet Maintain local culture
New Bedford	Service Port	Diversification	Maintain harbor & port advantage Develop new marine sectors
Provincetown	Existential	Tourism dependence & Switch fisheries	Remain viable year-round community Maintain aesthetics
Cutler	Existential	Switch fisheries & Less pluriactivity	Maintain close-knit, small town feel Safeguard fisheries access

2. Navigating Change during Transition

Having established the various manifestations of fisheries dependence, community attributes influence their means of navigating change during transition. Table 5 delineates the cases in terms of form of dependence, type of transition, and the community's motivations. Together the type of transition and community motivations reveal how communities navigate change. For example, the service port cycle in Hirtshals and New Bedford and the combined advantages of geography and infrastructure aided the strategy of diversification and largely motivates those in the

communities to maintain the harbor and port for sustained maritime activity. This research demonstrated contrasting experiences in coastal communities, but underscored that enclosure and commodification of fisheries affects communities regardless of size. Some communities transformed more radically, while other communities adapted their practices to accommodate the effects of enclosure. In addition to the effects of enclosure and commodification of fisheries, wider social and economic phenomena bring change to coastal communities.

Enclosure and commodification of fisheries represents the significant change initiating transition in the six cases. Enabling and constraining characteristics of communities offset or amplify the negative effects of enclosure. First, physical geography and proximity to metropolitan centers converge with these drivers as demonstrated in Provincetown, Cutler, and Thorupstrand. Rationalized fisheries management creates special challenges for places where fewer economic and employment opportunities exist. In some instances, however, the greater severity of this threat, or the perception of its severity, promotes action. In contrast, Hirtshals and New Bedford experience greater opportunities because of their placement at key land-sea connection points and the legacy of infrastructure support in these places. Secondly, community cohesion and the presence of well-networked residents also shape the trajectories of communities as seen in Thorupstrand versus the experience of Løkken. The task remains to distill universal messages and theoretical insights from the empirical material of this study.

a. Adapting in order to Maintain

A recurring element in nearly all of the cases was the interest in *maintaining* the community's culture or particular attributes, but it became necessary to adapt in order to maintain or retain local characteristics. Hirtshals and New Bedford in their diversification efforts, are essentially transforming but with the motivation to maintain the port and thus the community's coastal advantage. Thorupstrand has innovated its fisheries model, encouraging its fishermen to work together in order to avoid the demise witnessed in neighboring communities or other small, remote coastal towns in Denmark, or even wider Scandinavia. Cutler, the community recognized as the case under the least stress within the fisheries domain—because of both stock health and management configurations—has also adapted by pursuing the opportunities presented in the lobster fishery, but has seen technological innovation transform that industry. Provincetown as well looks to the lobster fishery as means of retaining fishing activity and maintaining year-round residents on the outer Cape. Moreover, people in Provincetown are not satisfied to see their community transform completely into a resort town and thus there is interest in the persistence of its fishing community identity and culture as opposed to evolution.

b. Transition: Is the “New” Way Better?

One of the tensions brought forth in the literature review and under the surface throughout this project, has been a normative question as to whether the transition from fishing to new sectors is “desirable” (Walker et al. 2004). Provincetown represents the case most exemplary of transformation. Interview

participants associated with Provincetown were clear in their assessment that the community had undergone significant changes and had largely lost its hold on fishing and then as it transitioned to tourism. Expressions of loss connected to the activities of fishing, but also to the growing absence of a year-round community. Provincetown residents discussed affordable housing and the diverse nature of the community beyond the singular designation of fishing community. Many in Provincetown recognized that changes in the fishing community and then the wider community indicated a serious transformation. They felt uncertain about the community's future, but could see that transition was underway. Thus, that *new* way of doing or being is still pending.

Feelings of uncertainty came through in the case of New Bedford, Hirtshals, and Løkken. The cases of diversification brought up the issue of time scale, generational shift, and the potential mismatch between the human lifespan and the time necessary for the emergence of new industries. It is unlikely that we can—or want to—extend the lifespan of humans and it is difficult to significantly quicken the pace of development and innovation. Nonetheless, the creation of policies and programs centering on retraining and targeting groups most affected or vulnerable to changes in economic sectors remains in our control. Thus, the central struggle when undergoing transition centers on the unknown new reality. Compounding the anxiety of the unknown may also be the inevitable period of downturn that some of these communities experienced.

Death and Decay

Resilience theory uses the discourse of adaptation and transformation and seldom acknowledges the presence of death or decay. In contrast, there are some conceptualizations of transition that invoke the passage of life stages, death, and mourning (Gallaher and Padfield 1980; George and Reid 2005). I am not ready to say that transition requires death or inevitably amounts to a process of collective mourning, but I cannot ignore the feelings of loss and the language used in Hirtshals, New Bedford, Løkken, Provincetown, Thorupstrand, or Cutler about the vitality that fishing brings or brought to these places. Emphasized in Chapter VII, the presence and continuation of activity and a sense of vitality represented key preferences for residents. Although the research here has uncovered a complex web of ties between fishing, community identity, and authenticity, work remains, “Embedded in this question of future focus are fundamental considerations concerning why we want to sustain fishing communities (rather than simply ‘coastal communities’) in the first place,” (Phillipson and Symes 2015, 357). This research has revealed that the magnetism of fisheries remains for those in such communities undergoing transition. Motivations from respondents reveal a preference for sustained activity and community life throughout the year.

B. Policy Matters

This research is applied in nature with intended relevance to policy and management debates in fisheries, natural resources, and local development. Justice implications prevail in this work, as how society allocates access to natural resources

affects the lives of not only individual extractors, but also their wider communities.

The purpose of my work is to illuminate the results, effects, alterations, and continuations within coastal communities and their interconnected cultures and resources. In addition to the explicit answers to the research questions, I also provide reflection on policy and implications for communities.

1. Push Back on the Rational Economic Paradigm

I would be remiss not to highlight the concerning direction of fisheries management where the state has largely abdicated its role in policymaking in the name of allowing markets, or market-like mechanisms, to determine access in fisheries. Policy is about values and trade-offs, but it seems we have allowed a particular paradigm to dominate the conversation both in Denmark and the United States. The experiences with rationalized management in this study probe, “Is this what society wants?” If the answer were yes, then we would carry on. However, from interviewing a diverse set of persons from various communities, I am not convinced that the response is emphatic support. Evidence of the pushback on the rational economic paradigm comes through in the discussion of the cultural variety of fishermen within the community, local identity, year-round viability, and authenticity in community life and in food systems. The empirical evidence in Denmark combines with rising media attention questioning the equity, distribution of wealth, and the sustainability of small coastal communities under the Danish ITQ system. Within Hirtshals, Løkken, and Thorupstrand there was an explicit connection

to the diminishing opportunities in fisheries, the concentration on larger vessels, and the implications for communities and future generation's participation in fisheries.

In New England, fishermen and connected stakeholders question the evolution of management, namely the increasing imposition of limited entry policies and particularly the struggles with transferable catch shares through Sectors. Concern for communities carried through in the large port of New Bedford as well as the winnowing port of Provincetown. Additionally, respondents named Scituate and Gloucester as additional bellwethers of communities losing their fleets and connections to the fishing industry. Moreover, those in New Bedford and Provincetown noted concern about new entrants, especially in the groundfish fleet, and recognized that although crew positions on scallop boats were enticing, the ability for these young people to procure a license has become increasingly challenging due to their high value. As demonstrated in Cutler, and also in Provincetown, the lobster fishery is where young people especially in Maine and also in Massachusetts can find entry. In some respects the lobster fishery may prove to be a means for New England to retain fishing fleets dispersed along its coast while concentration and consolidation take hold of quota-managed fisheries.

a. Political Will

Another aspect of policy is the ability for reform, the recognition of such ability, and the necessity of political will. Perceptions of the inevitability of transferable catch shares—ITQs or other market-mimicking policies—in both Denmark and New England can limit the suite of options and permutations in the

design of these systems. Prevalent among supporters of transferable catch shares is the flawed assumption that ownership promotes stewardship (Macinko 2014). At the time of design and implementation, political decisions must be made concerning: who receives the allocation, at what cost, for how long, and the degree that these shares are transferrable. As seen in New England, in the initial design ownership caps were overlooked. It has been difficult to curtail consolidation after implementation and revising the policies post hoc have been difficult. Further crystallizing the situation, tepid and tacit support pervades as some have come to declare transferable catch shares as the “best of all evils.” Scholarship must critically question such an ethos and policies that lock-in the system and promote inequality.

b. Risk of Exalting Local Innovation

The research has attended to coping, adapting, transforming, and other means of navigating change. The case of Thorupstrand holds a magnetism; it somewhat offsets the more disheartening and precarious positions of Provincetown and Løkken. Thorupstrand illustrates a case of local intervention in the name of retaining fishing access, carving out a niche and building on a burgeoning demand for locally sourced and environmentally friendly food products. It represents a confluence of strategies including collective action, identity formation and market differentiation, vertical integration, and networking for support of these new initiatives. Nonetheless, the question of how many “Thorupstrands” can live off that potentially limited segment or market share remains. Some communities may follow Thorupstrand; for instance, there is a wider trend of local fishermen seeking higher dockside value for their catch

(Campbell et al. 2014; Tolley and Hall-Arber 2015). Thorupstrand has found a way to operate in the present system, but is there room for and capacity within other small communities to follow suit?

Although Thorupstrand is an exciting and interesting case of entrepreneurialism under a set of challenging circumstances, my trepidation is that such cases will be exalted and overshadow calls for overall reform. The danger is to promote the local ingenuity and overlook the ways that wider policy changes would benefit greater numbers of communities and small-scale fishing operations. Relying exclusively on local action will result in the persistence of only such communities with the specific amalgamation of local capacity, social capital, and networks. Upper-level political change or management reform is likely necessary, as highlighted by the advocacy of Hjørring municipality, the comments from Hirtshals regarding the disappearance of medium-sized vessels, and even the frustrations with the lack of local intervention in Provincetown.

The discussions with public officials in Hjørring municipality and in Hirtshals recognize that reform may enable small coastal communities and medium-sized vessels to return, but without reform the system will perpetuate the trend of concentration and consolidation. As raised in various sections of this dissertation, creating a parallel system²⁴, where small-scale, inshore or dayboat fishermen operate separately from the industrial fleet offers one avenue that may help sustain

²⁴ Or in Denmark, reforming the regulations and provisions for coastal fishermen as well as the wider ITQ system.

communities. Nevertheless, such policies require political decisions regarding size cut-offs and other measures that will inevitably advantage certain groups or places over others. Such decisions comprise the basis for public debate, deliberation, and political decision; unfortunately Denmark and the United States have ceded control over such outcomes to markets.

Upon reflection, I recognize wider tendencies toward “innovation” as a solution without recognition of its limitations to provide for a wider band of society. Education policy grapples with this tension with the preoccupation of “grit” over structural reform and poverty alleviation (Cohen 2015). Current debates in Massachusetts on late night public transportation access in Boston are overlaid with private ride-sharing solutions (Vaccaro 2015). This wider trend reflects a tendency to promote individual survival rather than aggregate benefits, which sits at the core of neoliberalism. Alternatively, we can think about these cases of local initiative as starting points and policies to scale-up for wider benefit. Maine’s management of the lobster fishery and Thorupstrand’s anti-speculation policy lower the barriers to entry, which has shown to be effective. The principles from these programs offer successful strategies in mitigating the need for significant capital to enter the fishery.

2. Fisheries and Rural Policy

Moving away from debates specific to questions of allocation and access, fisheries social science and policy studies need to get out of the sea and onto land. Carrying a point raised in the literature, the development challenges facing coastal communities are not isolated to the realm of fisheries (Phillipson and Symes 2015;

Johnsen and Vik 2013). Although fisheries remain important to coastal communities in different ways, this research has shown that proximity, infrastructure, and mobility expand and compress the effects of fisheries management decisions. In both the United States and Denmark, fisheries management is not well incorporated into rural development, or from the other direction, rural development often overlooks marine fisheries. In the American context, there is agrarian bias in our rural policy, which partially explains why coastal communities are underrepresented in these programs. Thinking about fisheries as an emplaced industry and the loss of adjacency and geographic advantage due to transferable catch shares make these questions of change and transition especially relevant to peripheral communities. As highlighted by the cases of existential fisheries dependence, commercial fishing provides a means of remaining in communities with fewer employment opportunities but with a lifestyle many rural dwellers seek and hope to maintain.

C. Future Directions

The inductive and hermeneutic approach of this research leads to new points of inquiry. The discussion of authenticity and tourism is a compelling place to start, which would benefit fisheries debates and look further into the overarching question of why retain fishing? Discourse analysis examining the rhetorical devices in play as these communities advocate for their fleets and the persistence of their way of life offers one methodological avenue. Because this research studied change, returning to these sites after an interval of time could build a longitudinal study of transition. NOAA's community profiles and Voices of the Fisheries oral histories also provide

data sources further back in time on which to develop longitudinal studies. Fisheries social science research may also seek parallels in other natural resource communities such as forestry, mining, or even agriculture. Such cases would broaden the understanding of transition from natural resource communities to the variety of new modes of service or neo-productivist economies (Salmi 2015). Lastly, adopting Phillipson's and Symes' (2015) call for a greater connection between sectoral and territorial research domains, assessment of wider connections between fisheries and local development, and synergies with other sectors or place identities provides a path forward.

Integrated Assessment

Chapter I quoted a DEIS on the imposition of caps for quota shares within New England's groundfish fleet. I criticized the sentiment in its SIA, which asserted an overwhelming difficulty in determining the impact of management change because of other social and economic phenomena and mechanisms affecting communities. Certainty in prediction is a losing battle in the study of people and society, but to leap to the opposite end of the spectrum, arguing that we cannot possibly know anything because it is all too complicated is unambitious. Furthermore, such arguments populate the arsenal of the status quo.

The findings of the cases demonstrate that indeed other social and economic phenomena meld with management changes. Returning to the wave interference analogy from the introduction, Provincetown demonstrates a case of constructive wave interference, where the crests of multiple waves aligned. In Provincetown

regulatory change and declining stock health coincided with increasing demand for real estate and the challenges of living on the terrestrial margin. Employing the analogy in Hirtshals, the wave of ferry transport nullified or diminished the amplitude of the fisheries wave in destructive interference. However, those examples are oversimplifications. I cannot give precise amplitudes for each wave, as one would do in physics, nor is it likely that these waves are in sync. That being said, the metaphor builds a frame and provides a means of conceptualizing the interactions of these multiple drivers.

Complex wave interaction, characterized by offset alignments, presents the most fitting parallel to the study of people and society. New Bedford illustrates such scenario, where the fisheries domain is not a single wave, but a building and diminishing mix of groundfish, scallops, benefits and drawbacks of Sectors, and stock health. The myriad fisheries waves meet the alternative sectors waves, comprised of offshore renewables, tourism, and seafood processing, and make for choppy seas. The overriding message here is that integrated and holistic assessments are possible. Assessments may not come in the neat and tidy quantified form—at least not prior to fieldwork and better understanding of what is happening in these places—but there is space to draw connections found in this work and to think about how to operationalize such variables in future assessments. As confirmed in this dissertation, coastal communities are indeed complex, but they are rich and deserve examination.

BIBLIOGRAPHY

- Adger, W. Neil. 2000. "Social and Ecological Resilience: Are They Related?" *Progress in Human Geography* 24 (3): 347–364.
- Allison, Graham T. 1969. "Conceptual Models and the Cuban Missile Crisis." *The American Political Science Review* 63 (3): 689–718.
- Andersen, Svend-Erik. 2015. "Fiskeriforening: Bevar Kvotesystemet I Dansk Fiskeri." *Altinget*.
- Arensberg, Conrad M. 1961. "The Community as Object and as Sample." *American Anthropologist* 63 (2): 241–264.
- Atzmüller, Christiane, and Peter M. Steiner. 2010. "Experimental Vignette Studies in Survey Research." *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences* 6 (3) (January 1): 128–138. doi:10.1027/1614-2241/a000014.
- Bærenholdt, J. O., and N. Aarsæther. 2002. "Coping Strategies, Social Capital and Space." *European Urban and Regional Studies* 9 (2) (April 1): 151–165. doi:10.1177/096977640200900204.
- Barnes, Trevor J., Roger Hayter, and Elizabeth Hay. 1999. "'Too Young to Retire, Too Bloody Old to Work': Forest Industry Restructuring and Community Response in Port Alberni, British Columbia." *Forestry Chronicle* 75: 781–787.
- Bennett, Nathan J., Philip Dearden, Grant Murray, and Alin Kadfak. 2014. "The Capacity to Adapt?: Communities in a Changing Climate, Environment, and Economy on the Northern Andaman Coast of Thailand." *Ecology and Society* 19 (2). doi:10.5751/ES-06315-190205.

- Bernard, H. Russell. 2006a. "Interviewing: Unstructured and Structured." In *Research Methods in Anthropology*, 4th ed., 210–250. Oxford: AltaMira Press.
- . 2006b. "Participant Observation." In *Research Methods in Anthropology*, 4th ed., 342–286. Oxford: AltaMira Press.
- Blythe, Jessica L., Grant Murray, and Mark Flaherty. 2014. "Strengthening Threatened Communities through Adaptation: Insights from Coastal Mozambique." *Ecology and Society* 19 (2). doi:10.5751/ES-06408-190206.
- Branch, G. M., M. Hauck, N. Siqwana-Ndulo, and A. H. Dye. 2002. "Defining Fishers in the South African Context: Subsistence, Artisanal and Small-Scale Commercial Sectors." *South African Journal of Marine Science* 24 (1): 475–487.
- Bridger, Jeffrey C. 1996. "Community Imagery and the Built Environment." *The Sociological Quarterly* 37 (3): 353–374.
- Briggs, Charles L. 1986. *Learning How to Ask: A Sociolinguistic Appraisal of the Role of the Interview in Social Science Research*. Cambridge, UK: Cambridge University Press.
- Broderstad, Else Grete, and Einar Eythórsson. 2014. "Resilient Communities? Collapse and Recovery of a Social-Ecological System in Arctic Norway." *Ecology And Society* 19 (3): 1. doi:10.5751/ES-06533-190301.
- Bromley, Daniel W. 2005. "Purging the Frontier from Our Mind: Crafting a New Fisheries Policy." *Reviews in Fish Biology and Fisheries* 15 (3) (April 24): 217–229. doi:10.1007/s11160-005-4866-z.
- Brookfield, Katherine, Tim Gray, and Jenny Hatchard. 2005. "The Concept of Fisheries-Dependent Communities." *Fisheries Research* 72 (1) (April): 55–69. doi:10.1016/j.fishres.2004.10.010.

- Brown, Dona. 1995. "'Manufactured for the Trade': Nostalgia in Nantucket 1870-1890." In *Inventing New England: Regional Tourism in the Nineteenth Century*, 105-134. Washington, DC: Smithsonian Institution.
- Bullock, Heather E., Lisa L. Harlow, and Stanley A. Mulaik. 1994. "Causation Issues in Structural Equation Modeling Research." *Structural Equation Modeling* 1 (3): 253-267. <http://www.lisa.stat.vt.edu/sites/default/files/Bullock, Harlow & Mulaik, 1994.pdf>.
- Campbell, Lisa M., Noëlle Boucquey, Joshua Stoll, Henry Coppola, and Martin D. Smith. 2014. "From Vegetable Box to Seafood Cooler: Applying the Community-Supported Agriculture Model to Fisheries." *Society & Natural Resources* 27 (1) (January): 88-106. doi:10.1080/08941920.2013.842276.
- Carothers, Courtney. 2008. "'Rationalized Out': Discourses and Realities of Fisheries Privatization in Kodiak, Alaska." In *Enclosing the Fisheries: People, Places, and Power*, edited by Marie Lowe and Courtney Carothers, 55-74. American Fisheries Society.
- Carroll, Shannon. 2011. "Sector Allocation: A Misguided Solution." *Ocean and Coastal Law Journal* 17 (1): 163-194.
- Charles, Anthony. 1998. "Fisheries in Transition." *Ocean Yearbook* 13: 15-37.
- Christensen, Anne Sofie, Jesper Raakjær, and Thomas Olesen. 2007. "The Voices of Danish Fishermen in Resource Management - An Examination of the System of Negotiated Economy." *Ocean and Coastal Management* 50: 551-563. doi:10.1016/j.ocecoaman.2007.01.001.
- Clay, Patricia M, and Julia Olson. 2007. "Defining Fishing Communities: Issues in Theory and Practice." *NAPA Bulletin* 28: 27-42. doi:10.1525/napa.2007.28.1.27.napa.

- . 2008. "Defining 'Fishing Communities': Vulnerability and the Magnuson-Stevens Fishery Conservation and Management Act." *Human Ecology Review* 15 (2): 143–160.
- Cohen, Rachel M. 2015. "Teaching Character: Grit, Privilege, and American Education's Obsession with Novelty." *The American Prospect*, April. <http://prospect.org/article/can-grit-save-american-education> (Accessed February 12, 2016).
- Colburn, Lisa L., and Michael Jepson. 2012. "Social Indicators of Gentrification Pressure in Fishing Communities: A Context for Social Impact Assessment." *Coastal Management* 40 (3) (May): 289–300. doi:10.1080/08920753.2012.677635.
- Cook, Beverly. 2005. "Lobster Boat Diplomacy: The Canada-US Grey Zone." *Marine Policy* 29 (5): 385–390. doi:10.1016/j.marpol.2004.05.010.
- Copes, Parzival. 1986. "A Critical Review of the Individual Quota as a Device in Fisheries Management." *Land Economics* 62 (3): 278–291.
- Copes, Parzival, and Anthony T. Charles. 2004. "Socioeconomics of Individual Transferable Quotas and Community-Based Fishery Management." *Agricultural and Resource Economics Review* 33 (2): 171–181.
- Costello, Christopher, Steven D Gaines, and John Lynham. 2008. "Can Catch Shares Prevent Fisheries Collapse?" *Science (New York, N.Y.)* 321 (5896) (September 19): 1678–81. doi:10.1126/science.1159478.
- Creswell, John W. 2014. *Research Design: Qualitative, Quantative, and Mixed Methods Approaches*. 4th ed. Thousand Oaks, CA: SAGE Publications.
- Crutchfield, J.A. 1979. "Economic and Social Implication of the Main Policy Alternatives for Controlling Fishing Effort." *Journal of Fisheries Research Board of Canada* 36: 742–752.

- Cumbler, J.T. 2011. "Building a Tourist Landscape in a Fragile Ecosystem: Cape Cod in the 19th and 20th Centuries." In *A Landscape History of New England*, edited by B. Harrison and R.W. Judd, 213–229. Cambridge, MA: MIT Press.
- Cunningham, Stephen. 1994. "Fishermen's Incomes and Fisheries Management." *Marine Resource Economics* 9: 241–252.
- Dahlager, Lars. 2014. "Her Overlever de Blå Kuttere." *Politiken*, July 27.
- Davidson, Debra J. 2010. "The Applicability of the Concept of Resilience to Social Systems: Some Sources of Optimism and Nagging Doubts." *Society & Natural Resources* 23 (12) (November 2): 1135–1149. doi:10.1080/08941921003652940.
- . 2013. "We Still Have a Long Way to Go, and a Short Time to Get There: A Response to Fikret Berkes and Helen Ross." *Society & Natural Resources* 26 (1) (January): 21–24. doi:10.1080/08941920.2012.749758.
- Delanty, Gerard, and Piet Strydom. 2003. "The Interpretive Tradition." In *Philosophies of Social Science: The Classic and Contemporary Readings*, edited by Gerard Delanty and Piet Strydom, 85–207. Maidenhead: Open University Press.
- Dyer, Christopher L, and John J Poggie. 2000. "The Natural Resource Region and Marine Policy: A Case Study from the New England Groundfish Fishery." *Marine Policy* 24: 245–255.
- Eisenhardt, Kathleen M. 2002. "Building Theories from Case Study Research." In *The Qualitative Researcher's Companion*, edited by A. Michael Huberman and Matthew B. Miles, 5–36. Thousand Oaks: Sage Publications.
- Eythórsson, Einar. 1996. "Coastal Communities and ITQ Management. The Case of Icelandic Fisheries." *Sociologia Ruralis* 36 (2): 212–223.
- . 2000. "A Decade of ITQ-Management in Icelandic Fisheries: Consolidation without Consensus." *Marine Policy* 24: 483–492.

- Flyvbjerg, B. 2006. "Five Misunderstandings About Case-Study Research." *Qualitative Inquiry* 12 (2) (April 1): 219–245. doi:10.1177/1077800405284363.
- Foley, Paul, Charles Mather, and Barbara Neis. 2015. "Governing Enclosure for Coastal Communities: Social Embeddedness in a Canadian Shrimp Fishery." *Marine Policy* 61 (January): 390–400. doi:10.1016/j.marpol.2014.11.009.
- Folke, Carl, Thomas Hahn, Per Olsson, and Jon Norberg. 2005. "Adaptive Governance of Social-Ecological Systems." *Annual Review of Environment and Resources* 30 (1) (November 21): 441–473. doi:10.1146/annurev.energy.30.050504.144511.
- Freudenburg, William R. 2005. "Privileged Access, Privileged Accounts: Toward a Socially Structured Theory of Resources and Discourses." *Social Forces* 84 (1): 89–114.
- Freudenburg, William R, and Robert Gramling. 1998. "Linked to What? Economic Linkages in an Extractive Economy." *Society & Natural Resources* 11: 569–586.
- Gallaher, Art, and Harland Padfield, eds. 1980. *The Dying Community*. Albuquerque: University of New Mexico Press.
- Geertz, Clifford. 1973. *Interpretation of Cultures*. New York: Basic Books, Inc.
- George, E. Wanda, and Donald G. Reid. 2005. "The Power of Tourism: A Metamorphosis of Community Culture." *Journal of Tourism and Cultural Change* 3 (2) (October): 88–107. doi:10.1080/09669580508668489.
- Georgianna, Daniel, Rodney Avila, David Bethoney, Alan Cass, Sharon Challingsworth, and William Hogan. "Groundfish Port Recovery and Revitalization Plan for the Port of New Bedford/Fairhaven." Dartmouth, MA: University of Massachusetts, Dartmouth, 2014.

- Gherardi, Silvia, and Barry Turner. 2002. "Real Men Don't Collect Soft Data." In *The Qualitative Researcher's Companion*, edited by A. Michael Huberman and Matthew B. Miles, 81–100. Thousand Oaks: Sage Publications.
- Ginter, Jay J.C., and R. Bruce Rettig. 1978. "Limited Entry Revisited." In *Limited Entry as a Fishery Management Tool*, edited by R. Bruce Rettig and Jay J.C. Ginter, 157–172. Seattle: University of Washington Press.
- Glaser, Barney G., and Anselm L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Hawthorne, NY: Aldine de Gruyter.
- Goffman, Erving. 1959. *The Presentation of Self in Everyday Life*. New York: Anchor Books.
- Gordon, H. Scott. 1954. "The Economic Theory of a Common-Property Resource: The Fishery." *Journal of Political Economy* 62 (2): 124–142.
- Guba, Egon G., and Yvonna S. Lincoln. 1994. "Competing Paradigms in Qualitative Research." In *Handbook of Qualitative Research*, edited by Norman K. Denzin and Yvonna S. Lincoln, 105–117. Thousand Oaks: Sage Publications.
- Haartsen, Tialda, and Viktor Venhorst. 2010. "Planning for Decline: Anticipating on Population Decline in the Netherlands." *Tijdschrift Voor Economische En Sociale Geografie* 101 (2): 218–227.
- Hall-Arber, Madeleine, Chris Dyer, John Poggie, James McNally, and Renee Gagne. "New England's Fishing Communities." Cambridge, MA: MIT Sea Grant, 2001.
- Hamilton, Lawrence C, and Melissa J Butler. 2001. "Outport Adaptations: Social Indicators through Newfoundland's Cod Crisis." *Human Ecology Review* 8 (2): 1–11.

- Hamilton, Lawrence C., Chris R. Colocousis, and Sámal T. F. Johansen. 2004. "Migration from Resource Depletion: The Case of the Faroe Islands." *Society & Natural Resources* 17 (5) (May): 443–453. doi:10.1080/08941920490430232.
- Hamilton, Lawrence C., and Oddmund Otterstad. 1998. "Demographic Change and Fisheries Dependence in the Northern Atlantic." *Human Ecology Review* 5 (1): 16–22.
- Hansen, Sune Jon. 2011. "Om Fisk, Familie Og Færdigheder: Udpluk Fra et Etnografisk Studie af Relationerne mellem Lokalitet, Erhverv og Uddannelse." *Praktiske Grunde. Tidsskrift for Kultur- og Samfundsvidenskab* 2-3: 77–86.
- Hawley, Amos H. 1944. "Ecology and Human Ecology." *Social Forces* 22 (4): 398–405.
- Hegland, Troels Jacob, Kristen Ounanian, and Jesper Raakjær. 2012. "Why and How to Regionalise the Common Fisheries Policy." *Maritime Studies* 11 (1) (June 6): 7. doi:10.1186/2212-9790-11-7.
- Hegland, Troels Jacob, and Jesper Raakjær. 2008. "Implementation Politics: The Case of Denmark under the Common Fisheries Policy." In *Making Fisheries Management Work*, edited by Stig S. Gezelius and Jesper Raakjær, 161–198. Springer.
- Heise, David R. 2010. "Surveys with Vignettes." In *Surveying Cultures*, 75–86. Hoboken, NJ: John Wiley & Sons, Inc.
- Hendriksen, Line. 2012. "'Landet' Er Det Nye Sort." *Antropologisk*. <http://antropologisk.dk/landet-er-det-nye-sort/> (Access February 12, 2016).
- Holland, Daniel S., and Joshua Wiersma. 2010. "Free Form Property Rights for Fisheries: The Decentralized Design of Rights-Based Management through Groundfish 'sectors' in New England." *Marine Policy* 34 (5) (September): 1076–1081. doi:10.1016/j.marpol.2010.03.007.

- Holm, Petter, Jesper Raakjær, Rikke Becker Jacobsen, and Edgar Henriksen. 2015. "Contesting the Social Contracts Underpinning fisheries—Lessons from Norway, Iceland and Greenland." *Marine Policy* 55: 64–72.
doi:10.1016/j.marpol.2015.01.011.
- Høst, Jeppe E. 2012. "Captains of Finance – an Inquiry into Market-Based Fisheries Management." Copenhagen University.
- Jacob, Steve, Frank L Farmer, Michael Jepson, and Charles Adams. 2001. "Landing a Definition of Fishing Dependent Communities: Potential Social Science Contributions to Meeting National Standard 8." *Fisheries* 26 (10): 16–22.
- Jacob, Steve, Michael Jepson, and Frank L Farmer. 2005. "What You See Is Not Always What You Get: Aspect Dominance as a Confounding Factor in the Determination of Fishing Dependent Communities." *Human Organization* 64 (4): 374–385.
- Jacobsen, Søren. 2015. "Kystfiskere: Kvotesystemet Har Spillet Fallit." *Altinget*, October 20.
- Jasso, G. 2006. "Factorial Survey Methods for Studying Beliefs and Judgments." *Sociological Methods & Research* 34 (3) (February 1): 334–423.
doi:10.1177/0049124105283121.
- Johnsen, Jahn Petter, and Jostein Vik. 2013. "Pushed or Pulled? Understanding Fishery Exit in a Welfare Society Context." *Maritime Studies* 12 (4): 1–20.
- Jones, Estelle Victoria, Alex James Caveen, and Tim Stuart Gray. 2014. "Are Fisheries-Dependent Communities in Scotland Really Maritime-Dependent Communities?" *Ocean and Coastal Management* 95: 254–263.
doi:10.1016/j.ocecoaman.2014.04.025.
- Juda, Lawrence. 2001. "Basic Trends in the Evolving Law of the Sea and Their Implications for Ocean Use Management." *Oceanography* 14 (2): 17–22.

- Karlsdóttir, Anna. 2008. "Not Sure about the Shore! Transformation Effects of Individual Transferable Quotas on Iceland's Fishing Economy and Communities." In *Enclosing the Fisheries: People, Places, and Power*, edited by Marie E. Lowe and Courtney Carothers, 99–117. Bethesda, Maryland: American Fisheries Society.
- Lange, Ida Sofie Gøtzsche, Lea Louise Holst Laursen, Claus Lassen, and Ole B. Jensen. 2014. "Lost in Transit." In *Networked Urban Mobilities*. Copenhagen.
- Larabee, Jonathan M. 2012. "Sector Management in New England's Groundfish Fishery: Dramatic Change Spurs Innovation." Portland, ME.
- Larkin, Paul A. 1977. "An Epitaph for the Concept of Maximum Sustainable Yield." *Transactions of the American Fisheries Society* 106 (1): 1–11.
- Lawrence, Mike. 2015. "Deal deadL New Bedford Casino Backer Abandons Bid." *The Standard-Times*, July 22. <http://www.southcoasttoday.com/article/20150722/NEWS/150729795> (Access February 12, 2016).
- LeBlanc, Steve. "Feds Auction 550 Acres off Massachusetts for Wind Energy." *WBUR News*.
- Lemieux Oragano, Christina. 2012. *How to Catch a Lobster in Down East Maine*. Charleston, SC: History Press.
- Levy, Robert I., and Douglas W. Hollan. 2015. "Person-Centered Interviewing and Observation." In *Handbook of Methods in Cultural ...*, edited by H. Russell Bernard and Clarence C. Gravlee, 2nd ed., 313–342. Lanham: Rowman & Littlefield.
- Lyon, Christopher, and John R. Parkins. 2013. "Toward a Social Theory of Resilience: Social Systems, Cultural Systems, and Collective Action in Transitioning Forest-Based Communities." *Rural Sociology* 78 (4) (December 14): 528–549. doi:10.1111/ruso.12018. <http://doi.wiley.com/10.1111/ruso.12018>.

- Lyster, Helle. 2015. "DR2 Undersøger: Kvotekonger Og Små Fisk." Denmark: Danmarks Radio.
- MacCannell, Dean. 1973. "Staged Authenticity: Arrangements of Social Space in Tourist Settings." *American Journal of Sociology* 79 (3): 589–603.
- . 1989. *The Tourist: A New Theory of the Leisure Class*. Revised Ed. New York: Schocken Books.
- Macinko, Seth. 1997. "The Virtual Fisherman and the Dude: Property Rights and Social Transformations in the Halibut and Sablefish Fisheries off Alaska." In *Social Implications of Quota Systems in Fisheries*, edited by Gísli Pálsson and Guðrún Pétursdóttir, 165–176. Copenhagen: Nordic Council of Ministers.
- . 2007. "Fishing Communities as Special Places: The Promise and Problems of Place in Contemporary Fisheries Management." *Ocean and Coastal Law Journal* 13 (1): 71–94.
- . 2014. "Lipstick and Catch Shares in the Western Pacific: Beyond Evangelism in Fisheries Policy?" *Marine Policy* 44: 37–41. doi:10.1016/j.marpol.2013.08.004.
- Macinko, Seth, and Daniel W. Bromley. 2002. "Who Owns America's Fisheries?" Washington, DC: Island Press.
- Macinko, Seth, and William Whitmore. 2009. "A New England Dilemma: Thinking Sectors Through." Kingston, RI.
- Maine Department of Marine Resources. 2012. "Maine Lobster Apprenticeship Program." Accessed 12 February.
<http://www.maine.gov/dmr/rm/lobster/ApprenticeBrochureApril2012WEB.pdf>
- Magnuson-Stevens Fishery Conservation and Management Act, 2007, Public Law Number 94-265, 109th Congress, 2nd Session. (January 12, 2007).

- McCay, Bonnie J. 1995. "Social and Ecological Implications of ITQs: An Overview." *Ocean & Coastal Management* 28 (1-3): 3–22.
- McGoodwin, James. 1990. *Crisis in the World's Fisheries: People, Problems, and Policies*. Stanford, CA: Stanford University Press.
- McKay, Jessica. 2015. "2015 New Zone Entrants for Limited-Entry Lobster Zones." Memo to Lobster Zone Council Members, <http://www.maine.gov/dmr/rm/lobster/2015NZEMemo.pdf> (Accessed February 12, 2015).
- McKenzie, Matthew. 2010. *Clearing the Coastline: The Nineteenth-Century Ecological & Cultural Transformation of Cape Cod*. Hanover, NH: University Press of New England.
- MRAG. "Assessment of the Status, Development and Diversification of Fisheries Dependent Communities: Hirtshals Case Study Report." Brussels, Belgium: MRAG, 2006.
- Murphy, Sean P., and Jim O'Sullivan. 2015. "New Bedford Casino Developer Withdraws Bid." *The Boston Globe*, July 22. <https://www.bostonglobe.com/metro/2015/07/22/new-bedford-casino-developer-withdraws-proposal-letter-says/DqaLeTmImEHLfhXigdQBgJ/story.html> (Accessed 9 February 2016).
- Murray, Grant, Teresa Johnson, Bonnie J. McCay, Mike Danko, Kevin St. Martin, and Satsuki Takahashi. 2010. "Creeping Enclosure, Cumulative Effects and the Marine Commons of New Jersey." *International Journal of the Commons* 4 (1): 367–389.
- Murtinho, Felipe, and Tanya M. Hayes. 2012. "Adaptation in Resource-Dependent Communities: A Call for Greater Methodological Clarity in Adaptation Field Research." *Society & Natural Resources* 25 (5) (May): 513–522. doi:10.1080/08941920.2011.604068.

- Musante, Kathleen. 2015. "Participant Observation." In *Handbook of Methods in Cultural Anthropology*, edited by H. Russell Bernard and Clarence C. Gravlee, 2nd ed., 251–292. New York: Rowman & Littlefield.
- Nadel-Klein, Jane. 2000. "Granny Baited the Lines: Perpetual Crisis and the Changing Role of Women in Scottish Fishing Communities." *Women's Studies International Forum* 23 (3): 363–372.
- . 2003. "Fisherfolk under Glass? Memory and the Heritage Wars." In *Fishing for Heritage: Modernity and Loss Along the Scottish Coast*, 171–212. Oxford: Berg Publishers.
- National Marine Fisheries Service. 2007. "Community Profile of Culter, ME."
- . 2008a. "Community Profile of New Bedford, MA."
- . 2008b. "Community Profile of Provincetown, MA."
- National Oceanic and Atmospheric Administration. 2004. "Fisheries of the Northeastern United States; Atlantic Sea Scallop Fishery; Amendment 10," 69 Federal Register 120 (23 June 2004), pp. 35194-35224.
- . 2014. "Commercial Fisheries Statistics." <https://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/monthly-landings/index> (Accessed February 12, 2016).
- New Bedford Whaling Museum. 2011. "The City's Evolution--From Old Dartmouth to New Bedford, Whaling Metropolis of the World." <http://www.whalingmuseum.org/learn/research-topics/citys-evolution> (Accessed 30 September 2015).
- New England Fishery Management Council. 2015. "Amendment 18 to the Northeast Multispecies Fishery Management Plan, DEIS." Newburyport, MA.

———. 2015. "Public Hearing Document for Amendment 18 Draft Environmental Impact Statement to the Northeast Multispecies Fishery Management Plan." Newburyport, MA.

Nietschmann, Bernard. 1979. "The House at Cotton Tree." In *Caribbean Edge: The Coming Of Modern Times to Isolated People and Wildlife*, 1–7. Indianapolis, IN: The Bobbs-Merrill Company, Inc.

Norman, Moss Edward, and Nicole Gerarda Power. 2014. "Stuck between 'the Rock' and a Hard Place: Rural Crisis and Re-Imagining Rural Newfoundland Feminine Subjectivities." *Gender, Place & Culture* 00 (March 2015): 1–17. doi:10.1080/0966369X.2013.855707.

Norton, Michael. 2015. "Cape Wind Backs out of New Bedford Terminal Lease." *WBUR News*. Accessed September 30. <http://www.wbur.org/2015/03/02/cape-wind-backs-out-of-new-bedford-terminal-lease>.

Olson, Julia. 2005. "Re-Placing the Space of Community: A Story of Cultural Politics, Policies, and Fisheries Management." *Anthropological Quarterly* 78 (1): 247–268. doi:10.1353/anq.2005.0014.

———. 2006. "Changing Property, Spatializing Difference: The Sea Scallop Fishery in New Bedford, Massachusetts." *Human Organization* 65 (3): 307–318.

———. 2011. "Understanding and Contextualizing Social Impacts from the Privatization of Fisheries: An Overview." *Ocean & Coastal Management* 54 (5) (May): 353–363. doi:10.1016/j.ocecoaman.2011.02.002.

Olson, Julia, and Patricia Pinto da Silva. 2014. "Changing Boundaries and Institutions in Environmental Governance: Perspectives on Sector Management of the Northeast US Groundfish Fishery." *Maritime Studies* 13 (1): 3. doi:10.1186/2212-9790-13-3.

- Ommer, Rosemary E, and Barbara Neis. 2014. "Introduction to the Special Feature on Rebuilding Fisheries and Threatened Communities." *Ecology & Society* 19 (3). doi:10.5751/ES-06960-190349.
- Ounanian, Kristen, and Troels Hegland. 2012. "The Regional Advisory Councils' Current Capacities and Unforeseen Benefits." *Maritime Studies* 11 (1) (August 28): 10. doi:10.1186/2212-9790-11-10. <http://www.maritimestudiesjournal.com/content/11/1/10>.
- Packer, Martin J., and Richard B. Addison. 1989. "Introduction." In *Entering the Circle: Hermeneutic Investigation in Psychology*, 13–39. Albany, NY: State University of New York Press.
- Pálsson, Gísli, and Agnar Helgason. 1995. "Figuring Fish and Measuring Men: The Individual Transferable Quota System in the Icelandic Cod Fishery." *Ocean & Coastal Management* 28 (1-3): 117–146.
- Perry, R. Ian, Rosemary E. Ommer, Manuel Barange, Svein Jentoft, Barbara Neis, and U. Rashid Sumaila. 2011. "Marine Social-Ecological Responses to Environmental Change and the Impacts of Globalization." *Fish and Fisheries* 12 (4): 427–450. doi:10.1111/j.1467-2979.2010.00402.x.
- Phillipson, Jeremy. 2000. "Delimiting Fisheries Dependent Regions: The Problem of Inadequate Data." In *Fisheries Dependent Regions*, edited by David Symes, 17–28. Oxford: Blackwell Science Ltd.
- Phillipson, Jeremy, and David Symes. 2015. "Finding a Middle Way to Develop Europe's Fisheries Dependent Areas: The Role of Fisheries Local Action Groups." *Sociologia Ruralis* 55 (3): 343-359. doi:10.1111/soru.12098.
- Pinet, Paul R. 2009. "Waves in the Ocean." In *Invitation to Oceanography*, 5th ed., 230–261. Boston: Jones and Bartlett Publishers.
- Port of Hirtshals. 2016. "Offshore Service." [www.portofhirtshals.com/offshore/offshore service](http://www.portofhirtshals.com/offshore/offshore-service) (Accessed February 8, 2016).

- Power, Nicole G, Moss E. Norman, and Kathryne Dupré. 2014. "'The Fishery Went Away': The Impacts of Long-Term Fishery Closures on Young People's Experience and Perception of Fisheries Employment in Newfoundland Coastal Communities." *Ecology And Society* 19 (3): 6. doi:10.5751/ES-06693-190306.
- Raakjær Nielsen, Jesper. 1994. "Participation in Fishery Management Policy Making." *Marine Policy* 18: 29–40. doi:10.1016/0308-597X(94)90087-6.
- Raakjær Nielsen, Jesper, Tomas Vedsmand, and Peter Friis. 2000. "Fisheries Dependent Communities in Denmark: Three Contrasting Examples." In *Fisheries Dependent Regions*, edited by David Symes, 39–49. Oxford: Blackwell Science Ltd.
- Redfield, Robert. 1947. "The Folk Society." *American Journal of Sociology* 52 (4): 293–308.
- Relph, Edward. 1976. *Place and Placelessness*. Pion Ltd.
- Rios, Simón. "With Cape Wind Faltering, New Bedford's Future as Offshore Wind Hub Uncertain." United States: WBUR. <http://www.wbur.org/2015/04/06/new-bedford-terminal-cape-wind-future> (Accessed February 12, 2016).
- Robinson, Mike, and Melanie Smith. 2006. "Politics, Power and Play: The Shifting Contexts of Cultural Tourism." In *Cultural Tourism in a Changing World: Politics, Participation and (Re)presentation*, edited by Mike Robinson and Melanie Smith, 1–17. Channel View Publications.
- Ross, Helen, and Fikret Berkes. 2013. "Community Resilience: A Rejoinder to Debra J. Davidson." *Society & Natural Resources* 26 (1) (January): 25–29. doi:10.1080/08941920.2012.749769.
- Ross, Natalie. 2015. "Understanding the Fishing 'Community': The Role of Communities of the Mind." *Sociologia Ruralis* 55 (3): 309–324. doi:10.1111/soru.12094.

- Rossi, Peter H., and Andrew B. Anderson. 1982. "The Factorial Survey Approach: An Introduction." In *Measuring Social Judgments: The Factorial Survey Approach*, edited by Peter H. Rossi and Steven L. Nock, 15–67. Beverly Hills, CA: Sage.
- Saarinen, J. 2005. "'Destinations in Change': The Transformation Process of Tourist Destinations." *Tourist Studies* 4 (2) (August 1): 161–179.
doi:10.1177/1468797604054381.
- Salmi, Pekka. 2015. "Constraints and Opportunities for Small-Scale Fishing Livelihoods in a Post-Productivist Coastal Setting." *Sociologia Ruralis* 55 (3): 258–274. doi:10.1111/soru.12095.
- Sauer, Carsten, Katrin Auspurg, Thomas Hinz, and Stefan Liebig. 2011. "The Application of Factorial Surveys in General Population Samples: The Effects of Respondent Age and Education on Response Times and Consistency." *Survey Research Methods* 5 (3): 89–102.
- Schaefer, Milner B. 1957. "Some Considerations of Population Dynamics and Economics in Relation to the Management of the Commercial Marine Fisheries." *Journal of Fisheries Research Board of Canada* 14 (5): 669–681.
- Schnegg, Michael. 2015. "Epistemology: The Nature and Validation of Knowledge." In *Handbook of Methods in Cultural Anthropology*, edited by H. Russel Bernard and Clarence C. Gravlee, 2nd ed., 21–54. New York: Rowman & Littlefield.
- Schwartz, Shalom H., Jan Cieciuch, Michele Vecchione, Eldad Davidov, Ronald Fischer, Constanze Beierlein, Alice Ramos, et al. 2012. "Refining the Theory of Basic Individual Values." *Journal of Personality and Social Psychology* 103 (4): 663–688.
- Semrau, Jakob, and Juan José Ortega Gras. 2013. "Fisheries in Denmark." Brussels, Belgium: European Parliament. <http://www.europarl.europa.eu/studies>. Accessed 6 February 2015.

- Sepez, Jennifer, Karma Norman, Amanda Poole, and Bryan Tilt. 2006. "Fish Scales: Scale and Method in Social Science Research for North Pacific and West Coast Fishing Communities." *Human Organization* 65 (3): 280–293.
- Smythe, Tiffany C. 2010. "Can Coastal Management Programs Protect and Promote Water-Dependent Uses?" *Coastal Management* 38 (6) (November 16): 665–680. doi:10.1080/08920753.2010.529037.
- Sønvisen, Signe Annie, Jahn Petter Johnsen, and Jostein Vik. 2011. "The Norwegian Coastal Employment System: What It Was and What It Is." *Maritime Studies* 10 (1): 31–56.
- Spradley, James P. 1980. *Participant Observation*. Toronto: Thomson Learning.
- St. Martin, Kevin, and Madeleine Hall-Arber. 2008. "Creating a Place for 'Community' in New England Fisheries." *Human Ecology Review* 15 (2): 161–170.
- Stern, P. C., T. Dietz, and G. A. Guagnano. 1998. "A Brief Inventory of Values." *Educational and Psychological Measurement* 58 (6) (December 1): 984–1001. doi:10.1177/0013164498058006008.
- Stidham, Melanie, Christine Olsen, Eric Toman, Stacey Frederick, Sarah McCaffrey, and Bruce Shindler. 2014. "Longitudinal Social Science Research in Natural Resource Communities: Lessons and Considerations." *Society & Natural Resources* 27 (10) (June 10): 1104–1108. doi:10.1080/08941920.2014.905895.
- Stilgoe, John R. 1994. *Alongshore*. New Haven: Yale University.
- Symes, David. 2000a. "Fisheries Dependent Regions: Scoping the Problem." In *Fisheries Dependent Regions*, edited by David Symes, 3–14. Oxford: Blackwell Science Ltd.
- . 2000b. "The Future for Fisheries Dependent Regions." In *Fisheries Dependent Regions*, edited by David Symes, 209–220. Oxford, UK: Blackwell Science Ltd.

- Taylor, Brian J. 2006. "Factorial Surveys: Using Vignettes to Study Professional Judgement." *British Journal of Social Work* 36: 1187–1207.
- Thompson, Cameron R. S. 2012. "Gentrification and Vulnerability of Maine Fishing Communities." University of Maine. <http://digitalcommons.library.umaine.edu/etd/1860> (Accessed July 2, 2015).
- Thunberg, Eric M., and Steven J. Correia. 2015. "Measures of Fishing Fleet Diversity in the New England Groundfish Fishery." *Marine Policy* 58: 6–14. doi:10.1016/j.marpol.2015.04.005.
- Timothy, Dallen J., and Stephen W. Boyd. 2006. "Heritage Tourism in the 21st Century: Valued Traditions and New Perspectives." *Journal of Heritage Tourism* 1 (1) (July): 1–16. doi:10.1080/17438730608668462.
- Tolley, B., and M. Hall-Arber. 2015. "Tipping the Scale Away from Privatization and toward Community-Based Fisheries: Policy and Market Alternatives in New England." *Marine Policy* 61 (November): 401–409. doi:10.1016/j.marpol.2014.11.010.
- Urquhart, Julie, and Tim Acott. 2013. "Constructing 'The Stade': Fishers' and Non-Fishers' Identity and Place Attachment in Hastings, South-East England." *Marine Policy* 37 (January): 45–54. doi:10.1016/j.marpol.2012.04.004.
- Urquhart, Julie, Tim Acott, and Minghua Zhao. 2013. "Introduction: Social and Cultural Impacts of Marine Fisheries." *Marine Policy* 37 (January): 1–2. doi:10.1016/j.marpol.2012.04.007.
- Urry, John. 1990. "The Tourist Gaze." In *The Tourist Gaze: Leisure and Travel in Contemporary Societies*, 1st ed., 1–15. London: Sage Publications.
- Ussing Olsen, Peter. 2003. *Løkken: Skudehandelere Og Fiskere, Badegæster Og Andre Løkkenfolk Siden 1678*. Løkken: Løkken Museum og Lokalforlaget Løkken.

- Vaccaro, Adam. 2015. "Six People You Meet on the MBTA's Late-Night Service." *www.Boston.com*. <http://www.boston.com/news/local/massachusetts/2015/11/23/people-you-meet-the-mbta-late-nightservice/JjW0WTZxCxBu2ZslHsLT2O/story.html> (Accessed February 12, 2016).
- Van Maanen, John. 1988. *Tales of the Field: On Writing Ethnography*. Chicago: The University of Chicago Press.
- Walker, Brian, C S Holling, Stephen R Carpenter, and Ann Kinzig. 2004. "Resilience, Adaptability and Transformability in Social-ecological Systems." *Ecology & Society* 9 (2): 5.
- Wallander, Lisa. 2009. "25 Years of Factorial Surveys in Sociology: A Review." *Social Science Research* 38 (3): 505–520.
- Wallander, Lisa, and Jan Blomqvist. 2008. "Modeling Ideal Treatment Recommendations: A Factorial Survey of Swedish Social Workers' Ideal Recommendations of Inpatient or Outpatient Treatment for Problem Substance Users." *Journal of Social Service Research* 35 (1) (November 21): 47–64. doi:10.1080/01488370802477436.
- Williams, Ruth. 2014. "The Socio-Cultural Impact of Industry Restructuring: Fishing Identities in Northeast Scotland." In *Social Issues in Sustainable Fisheries Management*, edited by Julie Urquhart, Tim G. Acott, David Symes, and Minghua Zhao, 9:301–317. MARE Publication Series. Dordrecht: Springer Netherlands. doi:10.1007/978-94-007-7911-2.
- Winther, Malene Brandt, and Gunnar Lind Haase Svendsen. 2012. "'The Rotten Banana' Fires Back: The Story of a Danish Discourse of Inclusive Rurality in the Making." *Journal of Rural Studies* 28 (4): 466–477. doi:10.1016/j.jrurstud.2012.05.003.
- Wolcott, Harry F. 1990. *Writing Up Qualitative Research*. Newbury Park, CA: Sage Publications.

Woodard, Colin. 2004. *The Lobster Coast: Rebels, Rusticators, and the Struggle for a Forgotten Frontier*. New York: Viking Penguin.

Yin, Robert K. 1981. "The Case Study Crisis: Some Answers." *Administrative Science Quarterly* 26 (1): 58–65.

———. 2003. *Case Study Research: Design and Methods*. 3rd ed. Thousand Oaks: Sage Publications.