

FOR GENERATIONS TO COME: EXPLORING LOCAL FISHERIES ACCESS AND
COMMUNITY VIABILITY IN THE KODIAK ARCHIPELAGO

By

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Abstract

The sustainability of fisheries and fishing-dependent communities depends upon numerous political, cultural, economic, and ecological factors. My research explores a key threat to this sustainability in Alaska – the graying of the commercial fishing fleet. As current fishermen approach retirement age and a decreasing number of young people obtain ownership-level careers in Alaska’s fisheries, succession impacts become an increasingly pressing issue. This research utilized a political ecology framework and mixed methods ethnography, including 70 semi-structured interviews and 609 student surveys, to study local fisheries access and community viability in the Kodiak Archipelago communities of Kodiak City, Old Harbor, and Ouzinkie. This research documents barriers that fishermen face at different stages in their careers and describes related implications. Findings indicate that opportunities for rural youth and fishermen are increasingly constrained by interrelated economic and cultural barriers that have created equity and sustainability concerns. Furthermore, research suggests that the privatization of fisheries access rights is a major catalyst of change that has amplified these barriers, generated social conflict, and resulted in a transformed paradigm of opportunity compared to decades past. Secondly, this research compares fishermen’s identities and livelihood motivations to dominant framings in academic literature and policy realms. This comparison reveals that in-depth understandings of fishermen are not well explained by narrow economic assumptions and instead include broader social and cultural dimensions. Lastly, exploration of the entangled relationships between fisheries access and rural youth pathways demonstrates increasing pressures within coastal communities, such as globalization, outmigration, youth ambivalence, substance abuse, and overall constrained opportunities. Nonetheless, coastal communities are working towards increasing local resilience to external pressures through social network support and some youth are bucking demographic trends by moving into fishing livelihoods. Due to the suite of threats facing fishing people and communities, it is increasingly important to have a deeper understanding of natural resource management impacts and local dynamics within fishing communities in order to plan for sustainable coastal futures.

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Chapter 1 Graying of the Alaskan Fishing Fleet and Research Approach

1.1 Introduction

Alaska's commercial seafood industry is the state's largest private-sector employer in terms of jobs and provides social, cultural, and economic benefits to coastal communities throughout the year (Alaska Seafood Marketing Institute [ASMI], 2014). Alaska is often promoted as a model for sustainable fisheries (Loring, 2013), yet fishing communities across the state face a number of challenges ranging from fluctuating fish stocks and markets to the restructuring of access rights (Carothers, 2015; Sethi, Reimer, & Knapp, 2014). Demographic trends in Alaska's fisheries are a key concern for the sustainability of fishery systems and fishing-dependent communities. Recent studies exploring the loss of local access rights in Alaska's fishing communities point to lack of young people entering into fishing careers as a key component of the problem (Carothers, 2010; Lowe, 2012).

In 2015, the average age of all Alaska state permit holders was 50.3, up nearly 10 years since 1980 (Gho & Farrington, 2016). What this demographic change means for many coastal fishing communities is that far fewer younger people today are engaged in commercial fishing than in past decades. In the rural fishing villages of the Kodiak Archipelago, for example, there has been an 84 percent decline of people under 40 years old holding salmon purse seine limited entry permits compared to historic highs (Commercial Fisheries Entry Commission [CFEC], 2015). These trends are referred to as the "graying of the fleet" and this phenomenon represents a suite of concerns from global trends in fisheries management towards the commodification of fisheries access rights to the outmigration of rural youth from their home communities. The overall decline in Alaskan youth becoming owner-operators of fishing businesses poses challenges for the sustainability of cultural fishing traditions, fishing communities, and also "deprives the industry of future sources of innovation, adaptability and enterprise" (White, 2015, p. 291).

As the bulk of Alaska's fishermen approach retirement age, the potential impacts of succession of access rights on rural livelihoods and coastal economies is increasingly identified as a pressing policy and social issue (Carothers, Lew, & Sepez, 2010; Knapp, 2011; State of Alaska, 2012). A recent study confirmed that barriers to entry are the most commonly perceived negative impacts of fishery management programs that limit and commodify access rights

(Carothers, 2013). Other studies demonstrated that while coastal youth in Alaska highly value fishing careers, they also expressed concern about the marginal opportunities for entry and advancement in this sector given increasing costs (Lowe, 2012, 2015). These barriers to entry and upward mobility have generated a persistent problem for Alaska's fisheries. In 2012, the Alaska State Legislature passed a resolution stating that the graying of the fleet is a pressing area of concern for the entire state (State of Alaska, 2012). These human dimensions of fisheries – key concepts such as equity, access, and cultural identity – are increasingly recognized as important components to consider in management decisions. Such factors inform questions about regulatory impacts upon fisheries systems that are comprised of people, fish, communities, and economies (Chambers, 2016). As described in this thesis, the graying of the fleet and shifting privatized regulatory structures have created a crisis in fisheries access particularly for youth, rural, indigenous, and small-scale fishermen.

Defining “small-scale” in fisheries is challenging as the term is used in diverse places to represent distinctive contexts (Carvahlo, Edward-Jones, & Isidro, 2011). General definitions are largely about comparative characteristics in relation to local, regional, and global fleets, as well as having to do with ownership structure (i.e., corporate or family) and ecological impact of fishing gear (e.g., trawl versus hook and line). In this thesis, small-scale defines those operations whose vessel length and harvesting capacity are small compared to other vessels in gear or fishery-specific fleets, involving owner-operator fishing households, comparatively short in-shore trips, and relative small amount of capital and energy involved (Food & Agriculture Organization of the United Nations [FAO], 2016; Jacquet & Pauly, 2008). Carvahlo et al. (2011) found that:

Most fisheries worldwide are characterized by a dualism in the form of co-existence of small and large-scale operations competing for the same limited resources, fishing grounds and markets. The two sectors are different, not only in scale of operation but also in the level of technology, employment generation and the degree of capital intensity and investment. (p. 360)

As Kodiak fishing communities and economies are changing it is important to provide an in-depth understanding of these shifts. The commercial fishing fleet is aging and Kodiak area

youth face particular challenges as they attempt to take the helm of the industry that has contributed greatly to regional communities and culture. New entrants must secure financing for permits or quota on top of vessel and gear costs in the context of uncertain fish prices and fluctuating global seafood demands. Young fishermen face business diversification challenges in part due to the commodification of fishing rights and the continued closing off of fishing prospects. Older fishermen contend with choices about how to exit the industry in ways that support their retirement but also allow for entry of the next generation. This work addresses such concerns including shifts in maritime resource access and what the loss of local fisheries participation and social capital means for the long-term viability of Kodiak Archipelago fishing communities, people, economies, and cultural identities.

1.2 Literature Review

1.2.1 Fisheries Enclosure, Neoliberalism, and Commodification of Access

Political ecology informs a growing body of knowledge that challenges common assumptions in fisheries management that support enclosing the ocean fishery commons through privatization (e.g., Carothers & Chambers, 2012; Hébert, 2014, 2015; Højrup, 2011; Langdon, 1980, 2015; Pinkerton & Davis, 2015). Fisheries enclosure represents a shift from a social contract of maritime resources belonging to the public often regulated through informal common-property arrangements, to more formally regulated access through individual ownership of resources by various methods (Holm, Raakjær, Jacobsen, & Henriksen, 2015). In this work, the term privatization refers to the process of restructuring access to fisheries resources from public and open access to individual, private, and commodified access. This process has roots in the political ideology of neoliberalism, which traces back to University of Chicago economists in the 1970s. It places a strong emphasis on private property rights, economic efficiency values, and devolution of risks to the private sector in conjunction with decreased government support. Neoliberal policies gained favor as a counter to North American welfare state policies that utilized government subsidies as a tool to increase wealth equity among citizens. The neoliberal ideology reconstructed the image of ideal citizens as individualistic speculators engaged in continued entrepreneurialism, with little expectations of government help in the face of social or ecological risks. The naturalizing of such images is evident in the way that fishermen are

conceptualized in today's fisheries policy trends and associated discourses (Pinkerton & Davis, 2016).

Carothers and Chambers (2012) explained that privatization processes in fisheries often involve marketization, the establishment of mechanisms to monetize and enable the transfer of fishing rights, and commodification, which converts access itself into a commodity that may be bought or sold on the market. Privatization measures stipulate different rules and implications dependent upon specific regulatory structures (Mansfield, 2004). Two distinctive examples of privatized access in Alaska's fisheries are: 1) limited entry permits, which are transferable rights that allow unlimited individual harvests within specific state fisheries managed by regulated openers and closures and; 2) individual transferable quotas (ITQs) or individual fishing quotas (IFQs), which allow the holder to buy, sell, or lease access to allocations of fisheries quota through the market (Foley, Mather, & Neis, 2015; Højrup, 2011; McCay, 1995; Pinkerton & Davis, 2015). Mansfield (2004) clarified that:

What makes ITQs different – and what makes them a dimension of particularly neoliberal approaches to fisheries governance – is that they marketize allocation of fish catch. Individual fishers receive an annual initial quota allocation that represents a percentage of the total catch. Each year thereafter, fishers can then either catch that amount, or lease or sell their quota allocation to other fishers. (p. 320)

Many authors agree that privatization processes, which commodify access to fisheries resources by creating private property rights, continue to be framed as essential, logical, and inevitable (Foley et al., 2015; Hersoug, 2006; Mansfield, 2011). These neoliberal economic discourses rely on Gordon's (1954) and Hardin's (1968) foundational writings on the "tragedy of the commons," in which they argued that common pool fisheries resources without privatization result in rent dissipation, operation overcapitalization, and greedy "rational actor" behavior (Mansfield, 2004, 2011). According to Hardin (1968), "The alternative of the commons is too horrifying to contemplate. Injustice is preferable to total ruin" (p. 1247). The tragedy of the commons plot represents economically rational actors as being eternally self-interested and solely profit-seeking beings, who in the absence of private property rights will seek to utilize as much of a common resource as possible, ending in ruin for others and the environment. Access

privatized through quota systems (IFQs, ITQs), often referred to as economic “rationalization” or catch shares, represents the economic rationality that proponents attach to private property and market approaches while suggesting that alternatives are in fact “irrational” (Carothers, 2008; Mansfield, 2004). This dominant trope undermines livelihood fishermen by framing them as irrational users, which become redundant and unproductive within capitalistic systems (Carothers & Chambers, 2012).

The pervasiveness of this approach is evident in the prominent discourse of “too many fishers chasing too few fish” (Longo, Clausen, & Clark, 2015, p. 48) and subsequent maritime enclosure policies, which often downplay resulting socially negative externalities, such as barriers to entry and fleet consolidation (Pinkerton & Davis, 2015). Following these trends, commercial fishing opportunities become progressively more limited through management programs with market-based solutions assumed to address a suite of fisheries problems ranging from economic viability to resource conservation. Furthermore, market-based resource regulation methods have been promoted largely as a tactic to reduce fleet overcapitalization and create more economically efficient operations (Larabi, Guyader, Macher, & Daurès, 2013). Mansfield (2004) summed up this argument:

What were once public resources are enclosed as private property for the benefit of a few. And this new form of marketable property is presumed to lead to increased efficiency – as the least efficient operations sell their quota to the most efficient ones, thus reducing total capacity – and better stewardship of the resources. (p. 321)

More recent research suggested that the linking of ecological benefits with the privatization of fisheries to end the supposed race for fish represents an additional, but largely unsubstantiated, argument disseminated by privatization proponents (Carothers, 2010; Carothers & Chambers, 2012; Donkersloot, 2016).

Despite the widespread circulation of privatization discourses, there are competing narratives that identify the social implications of such economic restructuring and aim to more broadly recognize the complexity of fisheries systems (Høst, 2015). Social scientists continue to challenge framings of fishermen as merely economically rational actors and critique the reliance on tragedy of the commons plot to shape resource management structures (Mansfield, 2004,

2011; Pinkerton & Davis, 2015). Global concerns about fishery privatization programs point to myriad sociocultural impacts upon fishing fleets and communities (e.g., Carothers, 2008, 2010, 2011, 2013, 2015; Carothers & Chambers, 2012; Eythórsson, 1996; Holm et al., 2015; Pollnac & Poggie, 2006; Rosvold, 2007). As such, many have argued that neoliberal management programs have played significant roles in fundamentally remaking fishery systems around the world evidenced by resulting consolidation of fishing fleets, shifts in core social values, concentration of wealth, and the creation of additional barriers to access for the next generation of fishermen (Carothers 2013, 2015; Olson, 2011).

Questions of equity continue to plague privatization management programs and their effects on both fishing livelihoods and fleet composition (Carothers & Chambers, 2012; Koslow, 1982). For instance, the consequences of limiting and commodifying fisheries access in Alaska tend to disproportionately impact rural and primarily indigenous fishing communities, suggesting the importance of considering structural inequity and stakeholder agency (capacity to act independently and make decisions) within such programs (Carothers, 2011; Carothers et al., 2010; Himes-Cornell & Hoelting, 2015). Permit transfer trends during the years following Alaska's Limited Entry Act demonstrated variation among fisheries, regions, and ethnicities, with the most severe distributional shifts evident in transfers from Alaska Native fishermen to non-Native and particularly non-resident fishermen occurring in Bristol Bay fisheries (Kamali, 1984). Thus, alternatives to neoliberal privatized policies call for deeper incorporation of human dimensions and greater integration of community considerations into management (Langdon, 2015; Symes & Phillipson, 2009). The loss of fisheries access and population outmigration from small remote fishing communities in Alaska highlights the link between community sustainability and fisheries access (Apgar-Kurtz, 2015). However, shifting ownership from rural fishermen local to their fisheries to urban fishermen not local to the fisheries they pursue continues to be a multifaceted issue involving non-market cultural values as well as varying levels of access to financial capital (Knapp, 2011). Accordingly, any fisheries management program restructuring access must seek to fully grasp not only probable economic implications, but also the broader social outcomes these policies have upon the fishing peoples and communities (Holland, Kitts, Pinto da Silva, & Wiersma, 2013).

1.2.2 Rural Youth Pathways and Coastal Communities

Human geography and youth studies rely on an understanding of the contemporary realities of rural livelihood pathways. Complex dynamics at play include structural inequalities, social influences, and available local resources, which combine to shape young people's choices, aspirations, and perceived opportunities. Recent studies highlight the importance of elucidating the intricate relationships between place, change, and youth identities, specifically within the rural landscape (e.g., Corbett, 2005, 2013; Donkersloot, 2005, 2010, 2012; Power, Norman, & Dupré, 2014). Rural ideology exemplifies the "rural idyll" as a set of characteristics that construct communities as innocent, timeless, and contrary to urban places (Barlow & Cocklin, 2003). Furthermore, the idyll concept represents a landscape indicative of a high quality of life within tight-knit communities that are deeply connected to the natural environment and often romanticized as such (Clope & Milbourne, 1992). Conversely, the "rural dull" suggests the diversity of rural images and highlights the "countryside as characterized by boredom, a lack of opportunities and non-modern features" (Rye, 2006, p. 417). Previous youth studies suggest that globalization has profound impacts upon rural communities, especially resource-dependent ones and may lead to diminished generational attachments to place. These modern transformations situate today's youth in the position of negotiating their identities and rural existence in an increasingly dissimilar landscape than that of their predecessors (Kraack & Kenway, 2002).

Youth connection to rural space and perceptions of opportunity must be understood within the context of subjective experiences in specific places (Donkersloot, 2010, 2011). Young men and women negotiate social positioning and attachment to place within the realms of social, cultural, and symbolic capital (Bjarnason & Thorlindsson, 2006; Donkersloot, 2012). A range of factors influences local youth participation in fisheries; therefore, it is important to approach the graying of the fleet and youth culture as explicitly multidimensional. As connections to space and conceptions of rurality are influenced by economic and cultural capital (Rye, 2006), so are local opportunities for youth within fishing-dependent communities. These opportunities have become more complicated by social classes, shifting educational aspirations, and gendered labor divisions (Corbett, 2005, 2007). For example in Alaska, recent access privatization processes in fisheries governance has created more evident and hardened social divisions within coastal communities (Carothers, 2015).

Various disciplines have identified the outmigration of rural youth as a key threat to the sustainability of fishing communities (Bjarnason & Thorlindsson, 2006; Corbett, 2007; Hamilton & Otterstad, 1998; Hamilton & Seyfrit, 1994). Lowe (2015) described how rural youth in Alaska appear to be interested in “hands-on” work, such as construction and fishing, and yet are also conflicted by the applicability of higher education in their home communities combined with uncertainty about the future of fisheries. As such, youth are often encouraged to pursue college without the emphasis upon return and may receive warnings from adults about the risks involved in commercial fishing livelihoods (Lowe, 2015). Similarly, rural coastal community members in Atlantic Canada traditionally have viewed education as impractical in terms of place-based livelihoods, however more recent shifts situate education as a vital pathway for youth to consider (Corbett, 2013). Rural youth and their families tend to balance the cost of education with the earning potential of local jobs, indicating tensions between cultural encouragement to pursue education credentials and rural community-based livelihood opportunities that often do not match well with such credentials (Corbett, 2005). Research suggests that youth decisions to return to rural regions after educational attainment is largely linked to life pathways where family background, choice of spouse, and children are weighed with labor market opportunities and subjective geographic social variables (Corbett, 2005; Rérat, 2014).

Youth trajectory trends in rural Alaska include highly gendered and ethnic migration patterns. Female youth aspirations often lead to increased outmigration while in general young men tend to remain within their home communities to pursue resource extractive careers, such as mining or fishing (Donkersloot, 2007; Hamilton & Seyfrit, 1993). This paradox between education and place-based career aspirations is further complicated by gender differences, as higher education does not always produce higher economic opportunities for those women who choose to return to their home communities (Corbett, 2007). These trends illustrate the interrelated domains of local fisheries access, coastal community viability, and rural youth pathways.

Rural locality and community identity are intrinsically linked and sensitive to broader shifting globalized trends and restructuring (Kraack & Kenway, 2002), notably within maritime communities. As in rural youth studies, anthropology suggests that the connection between place-based identities and social organization in fishing communities is associated with dominant cultural practices characterized by unique community and regional aspects. Barlow and Cocklin

(2003) explained that, “Community and rurality are social constructs and as such they are fluid and dynamic. They are continuously redefined through the interaction of lived experiences with long-held beliefs and representations” (p. 517). Holen (2014) described the importance of subsistence and commercial fishing activities in rural Alaska within the context of widespread concern regarding unknown future changes to natural resource dependent places and people.

Previous research frames fishing livelihoods as being directly linked to the instability of the fishing industry and exposed to ecological shifts, management restructuring, and economic conditions resulting from globalization of the seafood industry (Hébert, 2015). Mechanisms that aim to reduce risk within commercial fishing communities involve diversifying fishing portfolios, meaning the set of fisheries that fishermen participate in (Sethi et al., 2014). Therefore, resilient communities and individuals have the ability to adapt to unforeseen and planned political, environmental, economic, and cultural changes (Symes & Phillipson, 2009). The call for increased focus on the role of policy impacts upon the fishing communities denotes overall concern about the sustainability of such livelihoods and connection to place and fishing activities (Symes, Phillipson, & Salmi, 2015).

1.3 Theoretical Approach

1.3.1 Political Ecology

Political ecology provides a perspective for framing human and environment relationships that embraces interrelated socio-ecological systems. This framework assumes that complex cultural, social, political, economic, and ecological processes influence such relationships. It seeks to uncover underlying power dynamics by exposing embedded root causes of conflicts (Blaikie, 1985; Robbins, 2012; Robbins, Hintz, & Moore, 2014). Furthermore, this lens aims to uncover discursive practices, taken-for-granted assumptions, and highlights spatial links between local and global economies (Andreatta & Parlier, 2010). The eclectic political ecology field emerged as an analytical framework in direct response to “apolitical” ecology, which tends to ignore the political economic contexts within which environment conflicts are created, and rather places blame for problems at the proximate local level (Robbins, 2012). As a reaction political ecology instead explores the global to local drivers that shape human-environment relationships.

One of the major tenants of political ecology asserts that environmental costs and benefits are unequally distributed around the world and result in the unequal distribution of wealth and power. By viewing ecological systems as power-laden this framework allows researchers to be explicit about the politicization of environmental issues in their studies. Political ecology also acknowledges the role of the researcher as a human being with their own perspectives and place-attachments that shape the research process (Blaikie, 1985; Robbins, 2012; Robbins et al., 2014). Robbins (2012) has described political ecology as a two-prong approach comprised of the hatchet and the seed. The hatchet does the work of critical theory through critiquing dominant framings of environmental issues and the seed seeks to inspire a bridging of theory and practice to a re-envisioning of human-environment systems with increased equity as a goal, which rejects the inevitability of dominant framings (Blaikie, 1985; Robbins, 2012; Robbins et al., 2014).

1.3.2 Theory of Access

The theory of access compliments political ecology by defining access as “the ability to derive benefit from things” (Ribot & Peluso, 2003, p. 153), such as fisheries resources. Ribot and Peluso (2003) framed people’s ability to benefit from natural resources as largely shaped by intricate webs that either enable or constrain their use. This theory expands the concept of access to include private property within a set of factors comprised of broader institutions, social, political, and economic relationships along with other discursive processes that structure benefits (Ribot & Peluso, 2003; White, 2015). Similar to political ecology, access theory aims to identify the underlying mechanisms that inform how benefits from natural resource benefits are “gained, maintained and controlled” (Ribot & Peluso, 2003, p. 160). In the context of fisheries regulation trends that are increasingly reliant on private property and the market to regulate access to fisheries, this theory advocates for the exploration of underlying processes at work that influence which people are able to gain benefit from the environment and which are not.

I use Ribot and Peluso’s (2003) division of social action to characterize fisheries participation within the categories of: 1) gaining access as a generalized process; 2) access maintenance as an expenditure of resources and power in order to retain resource access and; 3) access control as the ability itself to mediate access of others (Berry, 1993). As political ecology explores the uneven distribution of costs and benefits in human-environment relationships,

access analysis correspondingly aids in understanding the factors that lead to differential resource benefits among stakeholders. In this thesis resource benefits are understood to be complex and include various economic, social, and cultural dimensions. In other words, benefits from fishing may include both ex-vessel (dockside) profit accumulation through fish sales and also cultural identity performance through the social reproduction of fishing activities.

1.3.3 Power and Governmentality

Understanding power, knowledge, and agency (capacity to act independently and make decisions) necessitates a deeper exploration of embedded assumptions utilized by fisheries policy makers. How do dominant discourses, such the neoliberal race for fish concept, become naturalized as hegemonic truths? The theory of access equates access to a bundle of powers that mediates human and natural resource relationships and resulting benefits (Ribot & Peluso, 2003). The French philosopher Michel Foucault's (1979, 1991) work that scrutinized the role of power within society serves as an important reminder that associations are constantly shifting and that positionality matters in terms of understanding circumstances of access. Because fisheries resources themselves cannot be directly controlled, social scientists propose that fisheries management revolves around the control of humans involved in the harvest of such resources, which makes fisheries management fundamentally a social and cultural issue as well as a biological and economic one (Høst, 2015).

Much like political ecology and the theory of access, Foucault's work on the relationships between power and knowledge is valuable for revealing underlying equity issues in fisheries access. He suggested that dominant discourse normalizes and reinforces cultural perspectives and practices (Foucault, 1979, 1991). Foucault's writings situated knowledge as deeply linked to power relations because it exerts control that regulates human conduct (Hall, 1997). Seemingly common-sense tropes, such as the problems of the tragedy of the commons and the race for fish, assume particular sets of individual values and behavior; as do solutions posed to address these problems with property rights and market mechanisms that become framed as essential for regulating these behaviors. Foucault's (1979, 1991) theory of governmentality suggests that governance power itself has the capacity to dictate particular human behaviors without obvious coercion in ways that favorably impact certain fishery stakeholders over others (Jacobsen, 2013). Furthermore, this theory frames neoliberalism as a political agenda rather than merely an

ideology. Hébert's (2014) work on the performative nature of market devices illustrated the power of governance as she described how the field of economics actually shapes and formats economic systems rather than functioning as a distanced observation of theory. Hofmeyr (2011) further explained that:

Governmentality is an analytical notion closely linked to changing historical rationalities of power, rather than a rigid descriptive mechanism that establishes one rationality of governing once and for all, that is the same for all times and places, and that infuses political orders in predicative, regular and uniform ways. (p. 19)

In this thesis the governmentality theory is used to explore the ways in which dominant assumptions and ways of thinking in fisheries management become normalized within individual fishermen and communities themselves. Especially as market-based access regulations become more widely accepted and promoted globally, adaptations to external influences means that people increasingly internalize capitalistic mandates, values and discourses, and subvert other interests.

1.4 Kodiak Archipelago Background

The Kodiak Archipelago is comprised of numerous islands, including the largest, Kodiak Island, surrounded by the Trinity Islands, Afognak Island, and Shuyak Island among many smaller ones. Kodiak Island is the second largest island in the United States and the largest in the State of Alaska, with the nickname of the "emerald isle." The archipelago is located along the western border of the Gulf of Alaska amid extremely rich fishing grounds. Kodiak's islands are largely mountainous with coastlines dotted with deep bays and scattered islets and an interior speckled with lakes and streams (Chaffin, 1967). The weather is notoriously fickle where passing rain, fog, and high winds are known to provide extreme variation even throughout a single day. There is moderate to heavy rainfall through the year with an annual average of 76.4 inches and 83.3 inches of snowfall (Kodiak Chamber of Commerce, 2014). Storms frequent the island during the winter months of December through March, often disturbing travel.

The Alutiiq (or Sugpiaq) people have inhabited these islands for at least 7,500 years supported by the maritime environment (Crowell, Steffian, & Pullar, 2001). Archaeologists have

identified Ocean Bay, Kachemak, and Koniag as three periods of Kodiak's prehistory and these time periods refer to differences in cultural practices, but all incorporated ritually elaborate subsistence hunting and fishing practices (Mason, 1995). In large part due to the inhospitability of the interior, pre-historic Alutiiq people depended upon coastal marine resources for survival including marine mammals, waterfowl, fish, and intertidal species. Early migratory hunting and foraging patterns (Fitzhugh, 2003) developed into later sedentary villages, often near salmon producing streams around the archipelago that allowed for surplus production and storage of food (Knecht, 1995; Steffian, Saltonstall, & Kopperl, 2006).

In 1784, Gregorii Shelikof led the Russians as they violently established their first permanent colony in Alaska at Three Saints Bay nearby the village of Old Harbor and set the stage for tragedy and cultural transformation. After actively repelling several armed attempts but ultimately being defeated by Russian forces, many Alutiiq people around the archipelago were killed or enslaved and forced to hunt and supply the sea otter fur trade. The transition from a subsistence lifestyle to the introduction of a slave labor economy by the fur traders fundamentally altered life in this region. Though indigenous people were at first forced into slave fur harvesting, they were later forced to work wage labor where wages were comprised of food and other Russian items (Pullar, 2009).

Hundreds of indigenous people perished on a large rock formation near Sitkalidak Island by Old Harbor as they tried to escape from Shelikof's men shortly after their arrival (Mason, 1995). This location has several names including the Russian name of "Razbitoi Kekur," roughly translated to the rock where there was crushing defeat; the Alutiiq place name of "Awa'uq," which means to become numb; and lastly the common English site name of "Refuge Rock" (Crowell et al., 2001, p. 54). Continued exploitation, loss of sovereignty, and the influx of disease plagued the indigenous people of the region until colonial rule transformed into a cultural mixing of Alutiiq and Russian families and the widespread adoption of the Russian Orthodox religious faith. Epidemics were first recorded in 1804 of previously non-existent illnesses, such as influenza, tuberculosis, and venereal diseases, and they continued to decrease the Native population through time. During the end of the Russian era the remaining Kodiak indigenous population lived a bicultural existence blending traditional subsistence practices with the increased normalization of activities introduced by the Russians, such as agriculture, wage labor, and the incorporation of the Russian language (Pullar, 2009).

The sale of Alaska from Russia to the United States in 1867 resulted in continued cultural change throughout the archipelago. The U.S. military established its presence and American companies moved in to take advantage of the sea otter trade and developed the subsequent commercial salmon canning industry in the 1880s. The twentieth century brought U.S. government schools into Kodiak's villages and deliberate cultural assimilation occurred, including the prohibition of the Alutiiq language in schools. American churches and missionaries also inundated the region resulting in somewhat tense relations with the already established Russian Orthodox faith. An influenza epidemic swept through the region in 1918 and further reduced the Alutiiq population down to 2,300 at the time of the 1920 census (Crowell et al., 2001).

Environmental disasters have also impacted Kodiak region residents across the entire island chain with massive fisheries related effects. The 1912 Novarupta volcanic eruption near Katmai on the mainland spread ash throughout the archipelago and stories tell of a darkening sky that some believed to be "the biblical Judgment Day" (Crowell et al., 2001, p. 65). The 1964 Good Friday earthquake and tsunami severely disabled Kodiak's fishing fleet and largely destroyed the villages of Afognak, Kaguyak, and Old Harbor. Several decades later in 1989, the Exxon Valdez oil spill halted commercial and subsistence fisheries and introduced deep schisms between fishermen who were hired for clean-up efforts and those who were not. These events and experiences are part of Kodiak's history and as Elder Sven Haakanson Sr. said in 1997, "You've got to look back and find out the past, and then you can look forward" (Crowell et al., 2001, p. 19). This thesis takes such advice to heart as it aims to inform sustainable fisheries policy and community development measures that incorporate lessons learned from the past.

1.4.1 Fisheries Regulatory and Economic Landscape Snapshot

Large-scale commercial fisheries have been established around the Kodiak Archipelago since the first salmon cannery was built in Karluk in 1882 near one of the largest natural sockeye salmon runs on Kodiak Island (Roppel, 1986). There are over 800 salmon producing streams within the Alaska Department of Fish and Game (ADF&G) Kodiak Management Area that contribute to an incredibly productive fishery (Himes-Cornell et al., 2013), in addition to the Kodiak Regional Aquaculture Association hatchery that supplements wild salmon runs. State managed fisheries within three nautical miles (nm) of the coast are governed by the Alaska

Board of Fisheries decision-making body and implemented by the ADF&G. Federal fisheries are managed within the United States' exclusive economic zone between three nm and 200 nm through the regional North Pacific Fishery Management Council (NPFMC or Council) and implemented by the National Oceanic and Atmospheric Administration. The International Pacific Halibut Commission (directed harvest) and the NPFMC (bycatch) manage the halibut resource.

Prior to statehood, fisheries in Alaska's waters were heavily fished by outside entities resulting in questions about how to manage fishery resources for long-term sustainable yield. In 1972, the Alaska State constitution was amended to allow for limited access to commercial fisheries within state waters. Contemporary commercial fisheries drastically changed with the creation of the Limited Entry Act (AS 16.43) enacted in 1973 and in 1974 the newly created Commercial Fisheries Entry Commission began to implement and oversee the purchase and transfer of limited entry permits. Permit transfers may occur by gift, sale on the open market, or special circumstance medical transfers. Today, 65 commercial fisheries, including 26 salmon fisheries, are managed within this state system (CFEC, 2015). The value of salmon limited entry permits held by Kodiak Island Borough residents has fluctuated greatly since implementation and has increased over the last decade, while local permit ownership itself has declined. In 2005, Kodiak region residents owned 398 permits worth about \$11 million. Ten years later, local ownership decreased to 289 permits but were valued at \$29 million (McDowell Group, 2016).

In federal fisheries, the "derby days" for halibut and sablefish ended in 1995 with the implementation of a privatized access program in the form of IFQs. At the beginning of the IFQ program, 4,831 fishermen (3,976 Alaskan; 855 non-Alaskan) were issued halibut quota shares for all regulatory areas. As of May 2016, there were 2,420 (1,885 Alaskan; 535 non-Alaskan) quota holders, nearly a 50 percent reduction of people owning quota (National Oceanic and Atmospheric Administration [NOAA] Fisheries Service, 2016). Between 2005 and 2014, groundfish deliveries of cod, rockfish, and flounders roughly doubled, whereas pollock landings have increased by 162 percent within the Kodiak Island Borough. Halibut landings fell by nearly 70 percent during that time period and the number of Kodiak Island Borough resident halibut IFQ holders has fallen every year, from 291 in 2005 to 219 in 2014 (McDowell Group, 2016). At the same time, the amount of quota shares owned by Kodiak residents has been relatively stable illustrating consolidation of wealth and access.

Amendment 66 (to the NPFMC Gulf of Alaska Groundfish Fishery Management Plan) was implemented in 2004 to address the issue of quota declines in rural Gulf of Alaska (GOA) communities. It allowed for a group of 42 communities to purchase and lease halibut and sablefish quota shares through non-profits (called community quota entities, or CQEs) to promote maintained or increased participation in these federally managed fisheries. However, the only communities to develop CQEs, purchase, and actively fish this particular quota have been Ouzinkie, Old Harbor, and Adak since Amendment 66 was put into practice. Though other eligible rural communities have the ability to participate it appears that lack of funds has kept them from doing so (NOAA Fisheries Service, 2015).

Access to the Bering Sea and Aleutian Island (BSAI) crab fisheries was privatized through a transferable quota system in 2005. Research into the relatively immediate impacts of the management change showed significant consolidation of vessels and crew jobs as well as changes in crew and skipper compensation (Knapp, 2011). This program had a substantial impact upon Kodiak regional fishermen and businesses, as many vessels were historically home-ported in Kodiak City. The early experience with crab rationalization (Knapp, 2006) has raised concerns about the potential impacts of proposals for IFQs in GOA groundfish fisheries. Participant observation from the 10 year programmatic review at the June 2016 NPFMC meeting illustrated widespread persistent philosophical objections to monetized privatization and questions about how to balance privatization goals with community and fleet protections. Other federal fisheries have been integrated into privatized programs, such as central GOA rockfish with an initial pilot program (Fina, 2011), and federal trends point to increasing catch share quota programs throughout the country. Currently, the NPFMC is reviewing possible bycatch management programs for the GOA trawl fishery, though no final action has been taken. At the time of writing, alternatives included catch shares programs with allocated targeted species, individual bycatch quota programs that would only allocate non-directed species, and community fishing associations, where resource access would be anchored within community organizations (Donkersloot, 2016).

Commercial fishing, maritime support services, and seafood processing are the driving forces behind the Kodiak region's economy and fishery-related employment constitutes a large portion of work for the local and transient labor pool. In 2014, the Port of Kodiak ranked second in the United States for fish landings and third for value. The latest economic impact report,

which surveyed the Kodiak Island Borough's seafood industry, cited that in 2014 approximately 488 million pounds of seafood were delivered to Kodiak processors producing \$151 million dollars to resident and non-resident harvesters. Total fish landings within the Kodiak Island Borough have increased from 2005 to 2014 by 33 percent, up to 488 million pounds. In 2014, the seafood industry represented 30 to 40 percent of the region's local economy in terms of income and employment, respectively (McDowell Group, 2016). Over 27 major state and federal fisheries are pursued and Kodiak hosts a diverse fleet of large and small vessels representing multiple gear groups (Sepez, Tilt, Package, Lazarus, & Vaccaro, 2005). Chapter 2 of this thesis will further discuss this heterogeneous organization of production capacity and how it contributes to nuanced dynamics within the commercial industry and the plurality of fishermen and fishing operations (Høst, 2015).

Additional economic drivers in the Kodiak region include the visitor industry, which continues to grow in recent years with the assistance of the Discover Kodiak Bureau non-profit organization that has a mission to promote sustainable development of the tourism industry throughout the borough. As with most of Kodiak's basic economic sectors tourism is reliant on natural resources as tourists visit for scenery, photography, camping, hiking, sport fishing, and hunting. Tourism tends to be seasonal in Kodiak, with 76 percent of visitors traveling during the summer season. According to the Alaska Visitor Statistics Program, travelers who visit the Kodiak region, as well as other Southwest destinations, usually stay longer than an average visitor to Alaska and they are more likely to become repeat visitors (Kodiak Chamber of Commerce, 2014). The United States Coast Guard (USCG) base in Kodiak City employs many enlisted personnel as well as some Kodiak civilians. The healthcare and education sectors are also large employers throughout archipelago communities. Property tax is the number one source of revenue for the entire Kodiak Island Borough with a mil rate that has increased in recent years and currently ranges from 10.75 percent to 14.75 percent. In 2012, the Borough collected \$11.2 million in property tax and the estimated assessed value of residential, commercial, and personal property was \$1.04 billion. During the same year the Borough collected \$1,970,265 in taxes from the seafood and timber industries (Kodiak Chamber of Commerce, 2014).

1.4.2 Connectivity

The Kodiak Archipelago is accessible only by air and sea. Two airline companies offering around seven flights daily between Anchorage and Kodiak, as well as two cargo carriers, serve the Kodiak State Airport. Smaller local airlines travel between Kodiak and Ouzinkie, Old Harbor, Port Lions, Karluk, Larsen Bay, and Akhiok, as none of the outlying villages are accessible by road (Figure 1.1). The state airport has three paved runways of differing sizes along with FAA tower services. There is a municipal airport with a 2,883-foot runway and three floatplane facilities in town (Kodiak Chamber of Commerce, 2014). The Alaska Marine Highway System has an office based in Kodiak and is serviced by the Alaska State ferries M/V Tustumena and the M/V Kennicott. Flight time between Kodiak and Anchorage is roughly 45 minutes to one hour and ferry travel time to Homer on the Kenai Peninsula takes nine to 13 hours depending on which ferry is taken. Round-trip airfare between Anchorage and Kodiak in June 2012 was \$360 (Himes-Cornell et al., 2013), compared to \$514 in April 2015 for non-refundable tickets according to the Alaska Airlines website. At the time of writing, round-trip fares between Kodiak and Homer on the Alaska State Ferries cost \$166 for passengers without a vehicle or cabin. Approximately 140 miles of state roads connect the City of Kodiak, Chiniak, Monashka Bay, Womens Bay, and the USCG base.

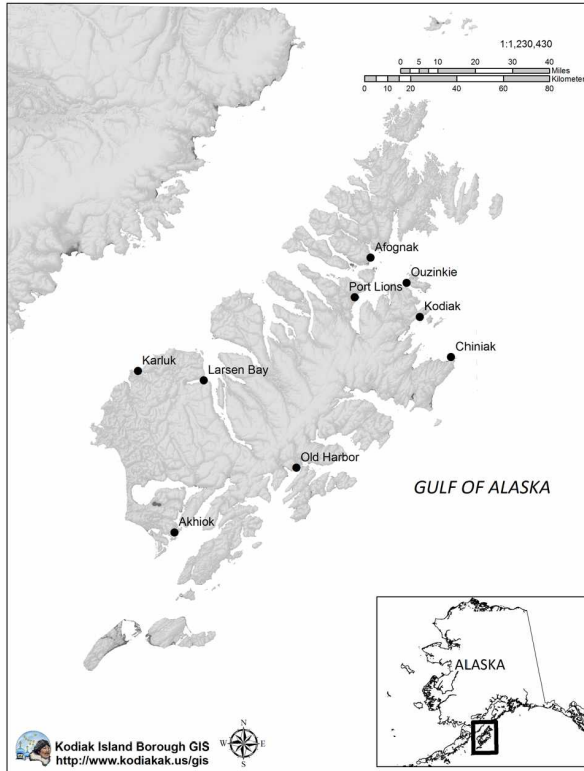


Figure 1.1 Map of the Kodiak Archipelago.

Map: Courtesy of the Kodiak Island Borough.

1.4.3 Study Community Profiles

1.4.3.1 Kodiak City

The Kodiak community exists on the northeast corner of Kodiak Island in the Gulf of Alaska and lies 252 miles south of Anchorage (Himes-Cornell et al., 2013). The population in 2010 was 6,130 where roughly 10 percent identified as Alaska Native alone, 37 percent as Asian, and 40 percent as white (US Census, 2010). Roughly 6,000 additional people live on the road system or remotely near Kodiak but outside of city limits. Kodiak is also home to the largest USCG base in the country with a transitory population of about 3,000 total including active duty personnel and family members (USCG Base Kodiak, personal communication, September 18, 2016). Kodiak was first incorporated in 1940 and is a Home Rule City with elected Mayor and City Council positions. There are four Kodiak Island Borough School District (KIBSD) elementary schools, one middle school, and a recently remodeled high school. Numerous

churches, stores, restaurants, and bars represent the highest concentration of services available within the archipelago.

The City of Kodiak owns and operates the Port of Kodiak and provides vessel moorage with 650 stalls and mooring buoys in the St. Paul and St. Herman Harbors for vessels up to 150 feet and serves as the maritime hub of activity for the entire archipelago. There are several city maintained public dock facilities with grid, fuel, water, and storage capabilities and the city installed a 660-ton marine travel lift on Near Island in 2009, which is the largest mobile boat hoist north of San Diego (Kodiak Chamber of Commerce, 2014). Fuller's Boat Yard is a privately owned haul-out yard with a travel lift for roughly 75 boats and is utilized by fishermen from around the archipelago (seen in Figure 1.2). Kodiak has a wide range of maritime support firms that directly and indirectly service the commercial fishing sector. Marine hardware supply, fuel sales, groceries stores, refrigeration, marine electronics, hydraulics, fiberglass fabricators, and welding are just some of the related businesses that service the local community and are also used by outlying village residents. Government and educational organizations that operate out of Kodiak include the National Ocean and Atmospheric Administration Fisheries Laboratory, the Alaska Department of Fish and Game, the University of Alaska Fairbanks Kodiak Seafood and Marine Science Center, and the University of Alaska Anchorage Kodiak College.



Figure 1.2 Channel view in Kodiak City. Photo: Danielle Ringer.

1.4.3.2 Old Harbor

Old Harbor is located on the southeast coast of Kodiak Island roughly 70 miles southwest of Kodiak City. The population in 2010 was 218 and nearly 88 percent identified as Alaska Native alone (US Census, 2010). This community is one of Kodiak's six outlying Alutiiq villages and the daily pace is quite different than in the regional hub of Kodiak City. Unpaved roads connect the three main sections of town spread out along the water. The community has a boat harbor, ferry pier, combined KIBSD K-12 school, Russian Orthodox Church (Figure 1.3), United States Post Office, Tribal offices, and several sport lodges that accommodate visiting tourists for hunting and fishing activities.



Figure 1.3 Old Harbor Russian Orthodox Church. Photo: Danielle Ringer.

The Good Friday earthquake of 1964 destroyed nearly the entire community, but the village was rebuilt and incorporated as a city in 1966. Today, Old Harbor's economy revolves around commercial fishing, community services, and tourism. Most community members also participate in subsistence fishing, hunting, and gathering practices throughout the year. Fishing families primarily harvest salmon, cod, and halibut and deliver commercial catches to processor tenders or travel to Kodiak City or the Alitak cannery on the southern tip of Kodiak Island. The Old Harbor CQE, *Cape Barnabas, Inc.*, is able to lease halibut quota share in regulatory areas 3A and 3B and sablefish throughout the Gulf of Alaska. While 15 individual Old Harbor residents made halibut landings in 1995, only four did so in 2014, representing a decline of 73 percent in participation (NOAA Fisheries Service, 2015).

1.4.3.3 Ouzinkie

The community of Ouzinkie lies on Spruce Island just northwest of Kodiak City by roughly 12 miles. The 2000 United States census reported a population of 225 with a total of 81 percent residents identifying as Alaska Native alone. The 2010 census data illustrated a sharp population decline down to 161 with nearly 80 percent identifying as Alaska Native alone (US

Census, 2010). There is the KIBSD K-12 school, Russian Orthodox Church, health center, and harbor (Figure 1.4) that serve the community. Ouzinkie was once a bustling seafood processing village, however the 1964 Good Friday earthquake and tsunami destroyed the Ouzinkie Packing Company cannery. The community received funding to rebuild a cannery in a different location but after several years the new Ouzinkie Seafoods cannery faced financial problems and was sold to George Grant and Hal Tobey in 1972. They renamed the company Glacier Bay Seafoods and increased production capacity for shrimp with new and specialized equipment. This building burned down in late 1975 and there have been no canneries in operation since then (S. Morgan, personal communication, May 22, 2016).



Figure 1.4 A nearly empty Ouzinkie boat harbor in May 2015.

Photo: Danielle Ringer.

Community members traditionally worked in the commercial salmon fishery and local government employment. Similar to other outlying Kodiak Archipelago village and predominantly indigenous communities many people continue to live subsistence lifestyles. However, commercial fishing participation has declined in recent decades. The Ouzinkie CQE, *Ouzinkie Community Holding, Inc.*, is eligible to lease halibut and sablefish quota within the

same areas as Old Harbor. A total of 13 individuals made IFQ landings in 1995, compared to six in 2014, a decline of 54 percent (NOAA Fisheries Service, 2015).

1.5 Research Objectives

This thesis focuses on the Kodiak Archipelago in the Gulf of Alaska and investigates the three study communities of Kodiak (often referred to as Kodiak City for clarity), Old Harbor, and Ouzinkie. This research aims to further understand local dynamics within the commercial fishing industry and how an aging fleet without substantial new entry of owner-operators poses particular challenges to the sustainability of fishing livelihoods and communities. This thesis research has three guiding objectives:

- 1) To document barriers that fishermen face at different stages in their careers and describe the implications of such barriers. (Chapter 2)
- 2) To investigate the role of commercial fishing in fishermen's identities and motivations and to compare these to dominant assumptions about fishermen's behavior. (Chapter 3)
- 3) To explore the relationships between access to local fisheries, youth livelihood pathways, and the viability of coastal communities. (Chapter 4)

1.6 Methods and Data Analysis

My thesis research was conducted as part of a larger study, *Graying of the Fleet: Defining the Issue and Assessing Alternatives*, funded by Alaska Sea Grant and the North Pacific Research Board (see fishermen.alaska.edu). Courtney Carothers, Rachel Donkersloot, and Paula Cullenberg lead the project. This research employed a mixed methods ethnographic approach that included: semi-structured interviews, student surveys, participant observation, and a literature review of related research. I conducted 70 semi-structured interviews in Kodiak City, Old Harbor, and Ouzinkie with a diverse set of crew, skippers, owners, and owner-operators representing multiple gear and fisheries groups. Respondents included 59 males; 11 females¹; 51

¹ Many females who fish prefer to be called fishermen as opposed to other gender-neutral phrases such as “fisher” or “fisherperson” (Mason, 1993; Miller & Johnson, 1981).

locals; eight non-locals (Alaska residents not living in Kodiak region); and 11 non-residents (residents of other states). The project team and local leaders identified key respondents for their varied experience with our domain of study. Other respondents were selected through purposeful nonprobability chain-referral (snowball sampling), where key respondents were asked to suggest fishermen to interview within each community (Bernard, 2011). This sampling approach allowed for a cross-section of fishermen of various ages, gender, background, fisheries, and gear types.

Interviews were digitally recorded with informant consent (Appendix A) and typically lasted between thirty minutes and one hour. Interview locations included onboard vessels (Figure 1.5), respondent's residences, Kodiak Seafood and Marine Science Center offices, sport lodges, and coffee shops. The project interview protocol covered many topics, including individual and family fishing backgrounds, perceptions and experiences with fisheries management, and aspects of community life (Appendix B). Respondents were offered stipends for their time (\$25 per interview and \$50 for Elders). Semi-structured interviews were supplemented by informal conversations with fishermen and community members, which were documented within confidential field notes. Interviews were fully transcribed and inductively coded using the qualitative data analysis Atlas.ti software. Coded text assisted with the identification of salient and other contextual themes. Transcript coding and analysis was guided by grounded theory (Strauss & Corbin, 1990), which is an iterative process where topics begin to emerge from the data as research progresses (Bernard, 2011).



Figure 1.5 Ringer interviewing fisherman in vessel galley. Photo: Maggie Nevin.

Interview data and participant observation informed the development of a survey instrument that was administered to 609 middle and high school students from the three study communities between April and May 2015. In total, 54 percent of the overall 2014/2015-student body enrollment in the KIBSD completed surveys. Surveys were distributed to students present in school on a single date in each community with the assistance of the schools. Students who were not present in classrooms on the survey date, who did not have parental consent to take part in general anonymous surveys, or who chose not to participate were not captured in this survey data. The anonymous survey focused on student background, commercial, and subsistence fishing connections, perceptions about quality of life within communities, education and career goals, and commercial fishing interest (Appendix C).

Survey questions included a range of open-ended, multiple choice, and Likert scale questions. Paper survey responses were entered into Microsoft Excel and analyzed with Statistical Package for the Social Science (SPSS) software. Throughout this thesis survey results are best understood in the context of the diversity and population size of the student body in each community. For example, Kodiak City middle and high schools are home to a broader range of student backgrounds than in Old Harbor and Ouzinkie. Kodiak Archipelago's villages have predominantly Alaska Native populations, while Kodiak City has the presence of the USCG base

with transient non-resident personnel and families and the year-round seafood processing labor force primarily comprised of Filipino and Hispanic community members.

Lastly, this study involved in-depth participant observation. Participant observation is the foundational method of cultural anthropology and situates the researcher within the communities they study to immerse themselves in daily life and culture, while concurrently allowing for a distanced analysis (Bernard, 2011). Participant observation for this study included spending time talking with fishermen on the docks in port, briefly joining fishing trips, attending joint City of Kodiak and Borough Kodiak Fisheries Workgroup meetings, attending the North Pacific Fishery Management Council² meeting, Salmon Life Social, and Crab Fest Carnival. This ethnographic approach, along with my status as a Kodiak community member, a lifelong Alaskan from a Homer fishing family, and my role in my husband's commercial fishing business served as a contextual base for my data collection and data analysis.

1.7 Organization of the Thesis and Presentation Approach

This thesis is organized into five chapters, including this introductory chapter. Chapter 2 documents barriers that fishermen face at different stages in their career and discusses the implications of such barriers. Chapter 3 presents a comparison between framings of fishermen in dominant discourse and policy processes with ethnographic accounts of fishermen's identities and motivations for fishing. Chapter 4 explores the relationships between fisheries access, youth livelihood pathways, and the viability of Kodiak's coastal communities in the context of the changing commercial fishing industry. Chapter 5 presents overall conclusions as well as future research directions.

In this thesis I attempt to share perspectives from fishermen and youth in order to provide an in-depth understanding of the complexities embedded within rural fishing livelihoods. I use block quotes from interviews and open-ended student survey questions to illustrate, in respondents' own words, key aspects of how intricate human-environmental systems interact in the social reproduction of commercial fishing activities. Interview excerpts are accompanied by a

² Held in Kodiak City during June 2016.

description of general age (younger or older³), community, and date in order to provide context to perspectives. Note that interview and survey data are presented within each chapter accompanied by discussion rather than separate chapters presenting results and discussion of implications⁴.

³ This study investigated generational experiences and attitudes and grouped participants into “younger generation” and “older generation” categories. While age was not categorically asked in interviews, a combination of under or over 40 years of age and my knowledge of participants assigned descriptors.

⁴ Following the American Psychological Association (APA) style guide (2010), previous studies, methodology, and research results are written in past tense, whereas implications of the results are in present tense in order to allow readers to situate the matters at hand. Descriptions of theories and literature itself are also written in present tense as conclusions from previous research occur in the present.

Chapter 2 Commercial Fishing Livelihoods

2.1 Introduction

Interviews with Kodiak region fishermen inform the first objective of this thesis to document barriers that fishermen face at different stages in their careers and describe related implications from the perspectives of respondents. Federal and state regulatory programs over the past several decades have unquestionably constrained Alaska's commercial fisheries access opportunities compared to historic experiences and stakeholders continue to debate successes and failures of previous management plans. Decades after the implementation of the limited entry and IFQ programs, fisheries in Alaska can serve as case studies to explore the multigenerational impacts of restructured fisheries access. Some interview respondents framed these compounded changes in the context of the "American Dream" of fishing. If the American Dream is a national ethos that embodies equal opportunity for upward mobility and prosperity based on hard work regardless of class, then Alaska's pre-privatization fisheries once offered this classic dream. With enough hard work alone fishermen could prosper, often supporting their families throughout the year based solely from fishing income. Although indigenous perspective may not claim the concept and language of the American Dream, in this thesis the phrase is used specifically to evoke values of egalitarianism and hard work in combination to attain financial stability and cultural well-being. The American author James Truslow Adams (1931) described the American Dream as:

That dream of a land in which life should be better and richer and fuller for everyone, with opportunity for each according to ability or achievement. It is a difficult dream for the European upper classes to interpret adequately, and too many of us ourselves have grown weary and mistrustful of it. It is not a dream of motor cars and high wages merely, but a dream of social order in which each man and each woman shall be able to attain to the fullest stature of which they are innately capable, and be recognized by others for what they are, regardless of the fortuitous circumstances of birth or position. (pp. 1214-1215)

The following sections in this chapter describe thematic barriers that respondents discussed in context of this transformed paradigm and American Dream of fishing. Though the barriers and related implications that interview respondents described are embedded within broader and cross cutting dynamics, for clarity this thesis presents them by the overarching themes of privatization, economic, political, and cultural barriers. As the following sections and subheadings are used for organization purposes, they are recognized as multidimensional barriers and implications should be understood in relation to each other.

2.2 Barriers and Implications

2.2.1 Barriers: Privatization

As discussed in Chapter 1, privatization refers to market-based fisheries management tools that often commodify and marketize access to fisheries resources. While programs, such as limited entry permits and individual fishing quotas (IFQs), greatly differ in specifics they both distribute limited fishing opportunities through market mechanisms (Høst, 2015; Pinkerton & Davis, 2015). Increasing privatization of fisheries access over the past several decades has created barriers to both entry and upward mobility (Carothers, 2015), illustrating how fishing activities become influenced and constrained in response to management parameters (Høst, 2015; Jacobsen, 2013). This performative power of market forces and their influence on people's behaviors and values, in addition to local fishing dynamics as shaped by fishermen's self-governance, provides examples of governmentality at work. Furthermore, the implications of management systems that transform rights to fish into a transferable commodity that can be bought and sold on the market often alters modes of production favoring large-scale companies over smaller family and locally-based operations with the owner-operator as captain (Høst, 2015). Though various mechanisms in Alaska have been implemented to address this, such as owner-on-board requirements (Van Der Loo, 2013), interview respondents continued to discuss these shifts as profound and persistent. Respondents tended to frame shifts towards privatization at the heart of the complex graying of the fleet problem and thus the long-term viability of fishing communities.

2.2.1.1 Commodified and Marketized Access

As nearly all interview respondents noted, the introduction of market-based access limitations profoundly altered the American Dream of fishing in Alaska. Today, opportunities are constrained and hard work alone is not the deciding factor in fishing success as it was said to have been in the past. Although previous generations did have to invest in vessels, gear, and operating costs, this research shows that Kodiak fishermen continue to frame the commodification of access itself and subsequent iterations from permits to quota as fundamentally remaking fishery systems by creating and entrenching social classes resulting in substantially changed rural fishing communities and livelihoods. Some respondents specifically connected such changes with the now normalized discourse of “you gotta pay to play” indicating the pronounced paradigm shift of opportunity in fishing compared to before fisheries privatization. Largely replacing the traditional ethos of working one’s way up in fishing, research results indicate that now access to capital at the outset of one’s career in many ways determines livelihood pathways and opportunities for coastal community members. Several young fishermen explained these generational differences as well as value tensions embedded in treating fishing opportunity as a commodified asset:

My parent’s generation, and I know somebody that did this, they came to Kodiak and bought a 20 foot open skiff a couple of skates of halibut gear and they hand lined halibut. It was an open access fishery and he’d just go out front, fill his boat with halibut and drive it back here and offload it. At this point he now owns one of the nicest boats in the fleet – beautiful big 58 foot boat; that’s what you could do back then. You could show up with a backpack and fifty dollars, enough to buy some hooks and could go out and you could catch your own bait and start catching halibut. And back then they were big halibut and cod. It was the American Dream you know. Guys would do it all the time, they’d show up with nothing and they’d leave what we call “Carhart millionaires” you know. A guy looks ragged around the edges but man he’s a fish-killing machine and that’s still a real thing in this town but that’s going away. That’s gonna be gone if you give it ten years when these guys get out of the fishery that is no longer gonna be a thing. If you’re not already rich you’re not gonna get rich. (Younger local fisherman, Kodiak, 02/12/2016)

I was thinking about selling my stuff [fisheries access rights] to pay for my house, pay bills. Not everything but sell one of my assets or something because I was trying to not ask my dad for help. He was like, 'Oh I can help you' and I was like, 'Well I got these assets that are worth a lot of money. I could just get rid of those and then wait for you to retire and I could take over.' That was the only time that I thought about getting out of fishing, but I didn't want to be out of fishing. (Younger local fisherman, Old Harbor, 05/14/2015)

General consensus from respondents confirmed the perception that commercial fisheries need some sort of access and harvest limitations in order to maintain viable and profitable fishing livelihoods and fish resources. However, the types of programs that have been created to limit fishery participation were described as hotly debated and the monetization of access specifically was repeatedly mentioned as problematic in interviews, despite the interview protocol never asking about these programs directly (Appendix B). Many respondents desired to see alternative solutions developed to ease entry and upward mobility within fishing, while others questioned the touted ecological claims made by proponents of catch share programs:

Obviously restricted access fisheries have become necessary in order to control the size of the fleet and fish resources. However, given the downward trend of the halibut stock, I question if this was truly accomplished [with quota]. (Younger non-resident fisherman, Kodiak, 08/21/2014)

2.2.1.2 Limited Entry Permits versus IFQs

Respondents commonly framed the differences between permit and quota fisheries as fundamentally about modifications in competition and the relationship between fishing skill and fishing success. Quota-based fisheries were described as less competitive once access is obtained through purchase, because harvesters already have their quota limits before they leave to go fishing and income was discussed often as “guaranteed.” On the other hand, many respondents noted that privatization measures through limited entry permits are preferred to quota-based systems as they still allow for competition whereas prospects of hitting it big are embedded in

the attractiveness of fishing livelihoods. These notions of hard work and ability to fish competitively relate to American Dream constructs and the stripping of the “spirit of the hunt” and transformation of fishermen into what some called “sharecroppers.” Some respondents were also philosophically opposed to “owning the fish” within quota systems:

Somebody is gonna write the book on IFQs and then people are gonna go, ‘Is this true? Is this really true? Surely these guys wouldn’t have let this happen? Wouldn’t have let the National Marine Fisheries Service sell a public resource to a small group of people who could just cash out. And then bring the quotas up so high for a few years so that they could actually cash out bigger and then leave the rest of the people in the future that buy into this thing holding the bag.’ (Older local fisherman, Kodiak, 05/23/2014)

The federal government is coming in and they want to privatize everything. The smaller amount of people, the easier to manage... They’ve already done that with the halibut and crab seasons here. There was talk of them doing IFQs and my family was huge in the petitioning and arguing for limited entry like we do for salmon, and it got passed [for Tanner crab], which was great cause that makes it a lot easier cause you don’t feel like you own the fish or the crab. You own a permit to go try and catch some so the price is a lot more steady and easier for other guys to buy and sell, rather than just have a cap of halibut and I want to sell to you, and this big guy sells it to this big guy and none of it filters down through the community. (Younger local fisherman, Kodiak, 09/16/2014)

Nearly all younger respondents without direct ties to IFQ fisheries viewed them as largely “cut off” and acknowledged the substantial advantage that people with family connections have in initially accessing those fisheries. Respondents often stated that it is not one single issue that contributes to the difficulties in gaining and maintaining access to fisheries but rather a constant squeeze of impacts exacerbated by privatization. A majority of respondents also noted that market-based fisheries access leads to additional financial and cultural implications for those that were not initially awarded allocations of rights. The following excerpts from interviews illustrated access-related challenges associated with privatized management:

Basically opportunity within the trawl fishery is limited now. I think that window is closing very quickly. I think you're gonna see more consolidation [in the next 5-10 years]. I think Alaska is incredibly unique in that you have these two models of management [state and federal] that are in direct competition with each other. That's neither good or bad or whatever. They just are. (Younger non-resident fisherman, Kodiak, 04/07/2015)

Owning quota? No, it's a lost cause. There's absolutely no reason to speculate on that. It's a losing proposition. (Older local fisherman, Kodiak, 02/12/2015)

I like to think that salmon is on the rise, but whether it's things like halibut? It's already been rationalized, which right there just means that the derby thing wasn't working out so they had to do something about that, which cut a lot of people out. That became a fishery that you can't just get into. Now you can't. Nobody. Anybody who's going to spend that much money getting into halibut is not very business savvy in my opinion. (Younger local fisherman, Kodiak, 05/24/2014)

Other younger respondents referenced graying of the fleet trends and compounded difficulties for each new generation in the context of privatization:

I think it's only gonna get tougher for the next generation. Guys are still slowly trickling in, but it's a slow process. There's a group of us that kind of all got in at the same time and then there's only been a handful of additions since then and it's just getting harder and harder every year for the next guy that wants to do it, even if he does have the attitude. (Younger local fisherman, Kodiak, 09/17/2014)

One of the things that I don't think people really understood when they started doing IFQs for crab, halibut, and sablefish, was how will that affect the next generation. (Younger local fisherman, Kodiak, 10/14/2014)

In general, quota fisheries were perceived to have priced themselves out of reach for those who are not wealthy or already involved with family in quota fisheries. Many respondents mentioned the hurdle of the major up-front investment necessary to enter the lucrative halibut fishery and the challenge of meeting loan payments for such large amounts of debt. Respondents overwhelmingly indicated that gone are the days where small-scale operations could easily enter and benefit from fisheries like halibut; now entry involves more upfront costs and business decisions necessary in order to go fishing:

With halibut, if you buy quota, basically quota is priced according to the most efficient harvesters and their returns. So unless you're going to make a major investment where you can get the same return, it doesn't make sense to buy it. You're basically buying an overvalued asset. It doesn't really work on the small-scale anymore. (Younger local fisherman, Kodiak, 05/23/2014)

I want to get some IFQ halibut quota, but just going through the numbers with the bank and basically you can't. Even at seven bucks a pound for halibut, you can't make the payments for the loan to get the quota. I was gonna get 10,000 pounds or so, which is about a \$400,000 loan. (Younger non-local fisherman, Kodiak, 11/14/2014)

It's not like steel anymore. It's not that boats are worth anything in your fishing business, it's your rights. It's the right to be able to fish. In fact it's gotten to the point where it almost seems like the value of the boats is almost discounted because it's the value of the rights, which are the most important thing in the fishing business. Of course it was just the opposite when I started, it was the steel that as the most valuable part. The fishing right was just whatever it cost for your license with the state or feds or any other kind of licensing that was involved. Now it doesn't matter if you have a boat or not, if you got the rights. (Older local fisherman, Kodiak, 06/05/2014)

I think every time you set a financial limitation for people entering our fisheries, it's going to limit the number of people participating, or capable of participating. My friends haven't bought in [to halibut], but I know with the old money here, you know the kids

whose parents buy them boats and stuff like that, I think it helps all of them get into fisheries because they have more income. (Younger local fisherman, Kodiak, 05/30/2014)

However, some other younger crewmembers already on “quota boats” viewed the lucrative IFQ fisheries as a direct benefit to their pocketbooks. The following sentiments demonstrated the belief that initial recipients and those left in a fishery after initial consolidation do benefit, but at the expense of others:

Quota is great. I think it's a good thing. I'm only saying that because my boat's one of the top boats in Kodiak. It'll help with when everybody is together and you have certain boats that go out and just don't care and they catch up the bycatch then you can't go out and catch your fish after that. And on a boat like what we're on, we have such little bycatch it's not even funny. We can put all of our fish down and be fine with our bycatch, so when we have boats shutting down a season because they caught too much bycatch and we're sitting there like, 'Man we can keep fishing this but our overhead is gone.' So rationalizing it would actually be good for us because we'd be able to catch our fish, make our money, and come back to town sooner. You wouldn't have to worry about other people screwing up the whole deal. (Younger local fisherman, Kodiak, 06/13/2014)

We fought most of it [crab rationalization] but we were on the losing end. But in the end, looking back on it I admit there's some very positive things. The biggest positive thing is that everybody that's left in the fishery, I'm singling out the crab fishery now, everyone left in the crab fishery makes more money now than they ever made and it's guaranteed. (Older local fisherman, Kodiak, 07/30/2015)

2.2.1.3 Hub and Village Perceptions

Interviews revealed notable differences between how permits and quotas were viewed by fishermen between the hub of Kodiak City and the rural outlying villages. Old Harbor and Ouzinkie community members tend to have long ancestral ties to commercial fishing and the majority of community members identify as Alaska Native. Older Alutiiq fishermen often framed the privatization discussion around the introduction of limited entry permits as a

fundamental shift in resource access. This focus highlighted key shifts compared to rural indigenous people's traditional ability to benefit from fishing resources for thousands of years, deepening the cultural disconnect between fishing livelihoods and market-based access rights. Village respondents principally expressed concern that salmon permits have become a considerable economic barrier to entry for rural youth that has disenfranchised traditional opportunity. Later IFQ impacts were also felt in the villages, but the creation of CQEs aimed to provide some mechanisms to regain access into catch share quota systems for rural village residents.

It's a challenge for younger guys with permits who can't get a boat. The salmon permits for Kodiak are pretty cheap. Kodiak is entry-level [for salmon]. Then they can work their way up to bigger, higher dollar fisheries. (Younger local fisherman, Old Harbor, 03/10/2015)

They [rural youth] shouldn't have to buy a permit. Just get the experience and go fishing. It would be nice to have all that stuff thrown out, especially [for] these coastal communities. I mean, we don't have any industry, how are we supposed to survive out here? Before limited entry we had about 40 boats that fished out of here. Then a lot of the people after the tidal wave, then people got welfare checks and then they started selling their limited entry. I was totally against limited entry because all these kids that were growing up wouldn't go fish. Many of these coastal communities, the only way you survive is fishing, and there's no other income but fishing. These communities are dying because of that. All our kids are doing something else, cause they can't go fishing. (Older local fisherman, Old Harbor, 05/13/2015)

In the hub of Kodiak City, many of the fishermen interviewed were second or multi-generation fishermen and predominantly non-Native. The impact of limited entry permits emerged from the data as far more normalized and accepted among respondents in the hub than in the village study communities. For example, salmon seining was largely portrayed in Kodiak City as still providing ample opportunity because of the sheer number of permits in the fishery along with relative low prices (compared to other state seine permits). Whereas respondents

described the introduction of IFQs in the 1990s as a foundational shift for hub fishermen similar to what village fishermen experienced in the 1970s with limited entry. In both the hub and outlying villages of the Kodiak Archipelago, younger respondents expressed the normalization and acceptance of permits to some degree. Perhaps because IFQs are a more recent introduction or because they represent a more extreme perversion of the American Dream ethos and traditional core fishing values, they continued to be highlighted as a primary contributing factor in decreased fishing community resilience. Many fishermen in Kodiak City remarked that limited entry permits may be favored over IFQs because they are perceived to still provide a chance for upward mobility that is fundamentally different than being required to purchase quota shares in order to go fishing:

Other things work better than rationalization. Limited entry has worked great. There's a fee for a permit; at least you have access. Regardless, you might say that about halibut. You can buy shares of that too but it's not the same when you're buying pounds, that's a different thing. (Older local fisherman, Kodiak, 05/23/2014)

Limited entry as helped the community and fishermen cause its way more small guy oriented. (Younger local fisherman, Kodiak, 09/16/2014)

2.2.1.4 Entry-Level Fisheries

Many respondents talked about the need to acquire a competitive operation in order to remain involved in Kodiak area fisheries and that most entry-level fisheries and boats tend to be considered inferior in today's competitive industry comprised of diverse stakeholders. Respondents generally said that salmon and cod are the two fisheries that have not been "cut up and divided" like other rationalized fisheries and therefore were framed as entry-level. Some mentioned the jig fishery as one example of a fishery that is relatively easy to gain access to; however, as study respondents noted, it is very difficult to operate a profitable business from jigging alone. Since cod jigging has relatively low overhead and gear costs and can be prosecuted with just one person on the boat, some said it has become flooded with new participants during years when other fisheries' catches or prices were low. Respondents explained that the influx of experienced fishermen and larger vessels into the jig fishery after

poor salmon seasons makes the fishery less lucrative for younger new entrants and the handful of long-time fishermen who solely focus on cod jigging. The jig fishery experiences these fluxes because it is one of the only open access fisheries remaining and therefore funnels people into it who are not able to purchase limited entry permits and/or quota in other fisheries. One respondent remarked:

You can just go out to Fish and Game and get a \$75 permit and jump on a skiff even and go out cod jigging. That's how I got into it; cause its super low end. But I don't know about this year, some guys did good cod jigging, but I didn't. It seems harder to do cod jigging these days. (Younger local fisherman, Kodiak, 10/27/2014)

Though the Kodiak purse seine salmon fishery is often referred to as entry-level within the state, Kodiak seiner respondents pointed out that with increasing vessel, net, and skiff prices in addition to the permit, outfitting an operation can be a \$400,000 investment or more. Most salmon fishermen respondents noted the sheer number of Kodiak salmon seine permits available and while some were interested in buyback programs to increase the value of the permits, others were conflicted because such a policy change would benefit their businesses, but it would also create further barriers to entry for others. Though the average 2014 price of \$50,600 for a salmon limited entry permit is inexpensive compared to other regional salmon permits, it is a substantial amount of money for a young person to come up with. This price has also been as high as \$156,000 and posed a formidable hurdle to entry in previous decades. Furthermore, there were 372 permits renewed (residents and non-residents) in 2015 and only 180 were actively fished (CFEC, 2016). This disparity implies the practice and ability for individuals who may not be fishing participants to financially invest in fisheries while permits prices are low and to gain windfall benefits if and when they choose to sell them. Several respondents described the disjointed pathways involved in entry and upward mobility within today's paradigm of opportunity in Kodiak fisheries:

I went from having to pay just \$75 a year for my open access jig card miscellaneous finfish to paying \$100 a year to keep active my \$40,000 salmon permit, which I had to borrow money to buy. In Kodiak they say that salmon is an entry-level fishery. Bull.

Entry-level if you have a quarter of a million dollars, cause that's what it costs. If you want to buy a small, not really competitive, doesn't have any of the gear you're gonna need operation in Kodiak, it's gonna cost you a quarter of a million. If you want to buy a competitive operation in Kodiak, and when I say operation I mean net, skiff permit and boat, we're talking upwards of \$500-800,000. That is not entry-level, that is the opposite of entry-level. (Younger local fisherman, Kodiak, 02/12/2016)

Cause salmon is really high end you know, you gotta have a seiner, you gotta have a net, you gotta have a snag skiff you gotta have a four man crew, insurance, all this stuff It's a really huge investment to get into salmon. (Younger local fisherman, Kodiak, 10/27/2014)

Just the current cost of getting in is the biggest thing. You know you have to have a boat that's able to fish in weather, especially in Kodiak, we have to fish in some heavy seas and big wind and so a crew trying to get a loan through the state you just can't really get a competitive boat. You really need RSW⁵ to do it correctly and you gotta be able to fish in weather. (Younger local fisherman Kodiak, 09/17/14)

There's no entry-level [fisheries]. There's no way to make a living at it [fishing] anymore. (Older local fisherman, Kodiak, 02/02/2015)

2.2.1.5 Diversification Challenges and Increased Precariousness

Overall, the results of this research indicate that very few fisheries remain open to newcomers to move into owner-operator roles without substantial initial investment for access rights. Several of the older respondents explained that it always felt expensive to get into fishing, but that today there are less available fisheries for up and coming fishermen to participate in, due to access commodification. Interview respondents asserted that one of the most important survival mechanisms in a fluctuating natural-resource industry is to diversify fishing portfolios

⁵ Refrigerated sea water systems used to chill fish within vessel fish holds.

by participating in multiple fisheries. This research suggests that the ability to participate in multiple fisheries is influenced by political, economic, and ecological factors; however, individual circumstances, community constraints, and regulatory programs that limit entrance make diversification prospects for current and prospective fishermen increasingly tenuous. Respondents tended to attribute the foundational cause of barriers to expanding fishing portfolios to access privatization. Kodiak region fishermen agreed that diversifying fishing portfolios is much more difficult now than in the past, and that this was also a key factor affecting the ability or desire to live within local fishing communities (as discussed in more detail in Chapter 4). Respondents explained that the gradual removal of stepping stone fisheries because of privatized access tends to plateau fishermen in “entry-level” fisheries or as crew on other people’s vessels:

You have a year like this year with salmon where it’s not very good, you need to have something else to fall back on. Some halibut IFQs or jigging cod or Tanners. Something. The eggs in the basket thing. (Younger local fisherman, 09/11/2014, Kodiak)

It would be really nice if there was a third fishery, or a second fishery, that’s easy to get into. Cause it would be nice to fish more. Like halibut, but halibut is impossible to get into. If you had the boat and you had some knowledge, it would be nice to have easier access to some kind of resource out there besides cod. I mean, cod’s okay but it’d be nice to be more diversified. (Younger local fisherman, Kodiak, 10/27/2014)

I bought my [salmon] permit for \$45,000 but that was when permits had really gone down at that time. That was a lot of money in 1983, a lot of money. I don’t think in terms of borrowing money it’s any harder now than it was then. There was just a lot more opportunity: more boats for sale, a lot more fisheries to be involved in. If I wanted to I could have just bought some kind of weird little chunker and gone halibut fishing and would have probably been fine in retrospect. I think the big difference is that there’s not as much to do with your boat. I mean then you could come up with an idea to do something and you’d get paid for it. I built all these octopus pots one year but I mean we were getting back \$1.50 for octopus. And fuel was only \$0.71 so everything you did was profitable. Now, if you want to try to do one of these little ancillary fisheries... you gotta

assume you're gonna lose money doing it until you figure it out or get lucky. So, I don't think there's the opportunity to just go out and do something new for free, which basically then you could go out and try something new and actually make some money at it. (Older local fisherman, Kodiak, 05/23/2014)

You have to do a multiple fishery. Now that makes sense if you're 55 years old, have your own seiner... You can do these entry-level fisheries like a jig fishery and let's say you can leverage that and purchase some halibut quota or purchase a Tanner crab permit. But for someone starting out, we're forced to look at one fishery and work for somebody else. (Younger non-local fisherman, Kodiak, 10/02/2014)

You need fish and you need access to them. Those are the big things. As long as there's fish and as long as you can access them. It's important to diversify, and I think there's a big problem right now. Guys are having trouble finding other [fisheries]. (Younger local fisherman, Kodiak, 05/23/2014)

Limited diversification options for fishermen have been shown to relate to diminished flexibility and overall resilience to change (Seara, Pollnac, & Colburn, 2016), exacerbating risk and reliance on single fisheries. Interviews in this research also revealed that established fishermen are more able to weather poor fishing seasons or low prices compared to new entrants and the volatility of financial income combined with fixed costs, such as insurance and debt repayment, continued to be brought up key challenges. Respondents were aware of these uncertainties in fishing and identified diversification as a key strategy to increase stability. However, they also described how younger generations who were not initially allocated permits and quota are placed in the precarious position of relying on one to two fisheries as their sole source of livelihood income. Similar to previous studies (Carothers, 2015), respondents described the risky nature of upfront financial investment in the context of shifting harvest availability and limits as a substantial barrier for new entrants' willingness to take on debt. Increased risk related to access restructuring therefore requires youth and new entrants to make even more of a gamble than their predecessors. Even with sweat equity and perseverance, the struggle to overcome access purchase barriers indicates the transformed playing field in

commercial fisheries today in Alaska since the implementation of limited entry permit and quota programs. Though limited entry has been in place for nearly 40 years and many fishermen have found means to enter the salmon industry, the more recent iterations of quota systems increasingly stack the odds against those working towards the American Dream in fishing careers. Respondents repeatedly cited risk and instability in reference to the privatization of access and limited upward mobility opportunities:

The volatility of the fishery in general is kind of a challenge. To invest that much money is sort of scary. (Younger non-local fisherman, Kodiak, 11/14/2014)

I guess one of the scary issues is because the capital costs have gotten so high, because of restricted access to the resources because of privatization and rationalization, people are making half million dollar bets on a single fishery and these stocks plummet and they have these loan payments. It could financially wreck people for a lifetime. (Younger local fisherman, Kodiak, 10/14/2014)

Basically on these docks here when you look at the small boats and most of the businesses it's cod and salmon. I think it's [a] pretty risky position to have so many boats in, especially when cod really doesn't generate that much revenue for most of these boats. (Younger local fisherman, Kodiak, 05/23/2014)

Obviously there's financial barriers and you know it's really expensive to buy into most of the really profitable fisheries. I guess it's all high-risk high reward but you have to have also the knowledge of how to do these things. You can't just walk in the door and become a decent fisherman. (Younger local fisherman, Kodiak, 05/30/14)

You know at 21 years old and some guy coming up, 'I'll carry the loan – half a million dollars.' I'm not sure if I'm that much of a risk taker. You know that's pretty good coming from a fisherman, but I don't know if I'm that much of a risk taker to have gone on with something like that when I was young. (Older local fisherman, Kodiak, 06/05/2014)

There's not a lot of intermediate options out there. The cost of buying a boat and the cost of buying fishing rights, it's getting too expensive. (Younger local fisherman, Kodiak, 05/23/2014)

Many respondents discussed their career goals as a continuation of what they are currently doing if already in owner-operator positions or aspiring to move into such roles. Some younger hired skippers for large-scale operations referenced the balance between keeping “sweet gigs” where they run multi-million dollar operations but enjoy not being responsible for the more unpleasant parts of vessel ownership, such as debt payment and overall maintenance costs. While this group seemed somewhat interested in ownership positions, they mentioned the barriers and costs associated with trying to personally build up to what they are already running as hired skippers. Some younger respondents interested in ownership-level careers expressed preference for smaller vessel platforms and did not necessarily all strive to own brand new 58 foot limit seiners. Many were aware of the difference in operating costs between 38 and 58 feet and some expressed interest in fishing their own operations and making enough money to get by, indicating lifestyle fishing is still a sought after pathway for some local youth:

It seems to me like those guys with the big boats, they have to fish year round because they owe so much money and the upkeep is so much. Like this boat, it seems like the guys with the little boats, they're the ones that fish all summer and then take the winter off (Younger local fisherman, Kodiak, 10/27/2014)

It's not like you go from a 25 footer up to a 50 footer you only get 25 feet more problems. It's exponential, pretty wild. I bought a 38 footer and you got a much larger engine so you're burning much more fuel. It's more complicated, the electronics and the gear. (Younger local fisherman, Kodiak, 02/12/2016)

I like to be able to make enough just in salmon. Need enough to pay bills and feed the kids. If it's a good year we get to vacation off island; if it's a bad year we go vacation on skiff in the straits. (Younger local fisherman, Old Harbor, 03/20/2015)

2.2.1.6 Social Conflict of Initial Allocation and Leasing Practices

Equity issues resulting from previous fisheries privatization are evident through enduring social class stratification present in interview and participation observation data. Although the egalitarian ideology of fisheries (Mason, 1993) and the American Dream ethos may be replicated through discourse in Alaska, class entrenchment remains obvious within the study communities. Most respondents talked about initial quota allocation as systems where “the rich got richer and the poor got poorer.” Absentee ownership has further polarized fishing community members between the “haves” and “have-nots” where distinct classes of fishermen are able to remain rent recipients while leasing access to active fishermen based on their historical participation. Additionally, many respondents cited the monetizing of natural resource access as counter to traditional fishing lifestyle values. One younger fisherman explained the creation and entrenchment of social classes resulting from IFQ fisheries:

That’s another thing about IFQs that automatically shuts the door for anybody that wants to do it, pretty much the rich got richer on that deal. (Younger local fisherman, Kodiak, 09/25/2014)

Social transitions following policy changes often exhibit conflict between various stakeholders (Ribot & Peluso, 2003). Interview respondents suggested that due to the diverse nature of Kodiak fisheries and vessels (Figure 2.1), in addition to various histories of privatization within specific fisheries, there is marked tension between gear groups as well as between local and non-local fishermen. This “tragedy of commodification” encompasses the negative impacts discussed in this thesis, such as the unequal and consolidated wealth creation, resulting in social conflict (Carothers, 2010; Longo et al., 2015).



Figure 2.1 Fishing vessels with diverse gear in Kodiak.

Photo: Danielle Ringer.

Many fishermen, despite being hard working, stated that those who were gifted transferable commodity access rights within one generation were given an unfair advantage within the fishing industry. Following generations and those who were not initial recipients of permits and quotas continually referenced perceptions of equity. Furthermore, others described unmistakable conflict embedded in gear specific groups:

I can understand why there is animosity between these groups, but I think it's not productive. You know, none of us are going anywhere so bickering and fishing between us seems counterintuitive trying to make this industry last for a while. Because we're very lucky and fortunate to have this resource. (Younger non-resident fisherman, Kodiak, 06/01/2014)

I think it's very tense. I think there should be more unity in the fishing community than there is. There is a lot in the younger crowd and especially in crewmembers and stuff, but it ink there's still a big kind of rift between fishermen just because they are competitive

when you look at it, but there's no need to be unfriendly competition. And there's no need to be negative to other fishermen, but there's so much between the different fishing boats and stuff I wish it wasn't quite that way. (Younger local fisherman, Kodiak, 09/15/2014)

There is a gear separation deal. Between us and draggers. The dragger is kind of the other side and us smaller boats are kind of on this side. You'll find that out as time goes on. There's been a lot of politics. (Older local fisherman, Ouzinkie, 09/11/2015)

Kodiak fishing communities have well-known highliner fishing families who hold power, social, and financial capital. Young people with parents who were initially awarded allocations of fishing quota shares were often referred to as someone whose “dad has Qs”, to reflect the additional advantage that that young person would have if interested in entering fisheries. While family connections were viewed as beneficial, those who did not receive kinship transfer of quota, permits or vessels, and those who did not have fishing families alike sometimes viewed other young people that had such support as “spoon-fed.” This perception illustrates continued values of wanting hard work to equate to prosperity and the dilemma of reconciling such values with upward mobility, social class realities, and commodification of access:

There's sort of this divide between people who have quota and those who don't, and there's not much mobility between there. People sell their quotas; you can go to the non-quota owning class, but not so much the other way around. (Younger local fisherman, Kodiak, 05/23/2014)

As some fishing values shift in response to privatized programs (Carothers, 2015), the creation of new expectations of fairness and inter-fleet equity issues are surfacing in the Kodiak region. The NPFMC meeting held in Kodiak City in June of 2016 demonstrated two opposing philosophical perspectives on how to address trawl bycatch in the Gulf of Alaska (GOA). The trawl fleet largely argued that a quota catch share program with cooperatives that allocated directed and non-directed prohibited species catch would address the so-called race for fish (as discussed in Chapter 1), by allowing trawl operators to easily communicate about hot spot bycatch locations and also to fish during safer weather windows. Others referenced the need to

learn lessons from past rationalization programs that monetized quota access of a public resource essentially barring future participants from enjoying the same opportunities that initial recipients of quota experienced. Some respondents expressed worry that creating a GOA quota system for trawl gear would set a precedent in the region and that lobbyists would next push for pot cod to move to IFQs. Others questioned the pressure to move from the current limited license program (LLP) structure to a catch share program and cited economic pressure from processors and those currently involved in the fishery as a major catalyst in the growing momentum at the Council meetings. Pro-catch share advocates argued for the need of market-based tools for trawl fishermen to better utilize bycatch and increase groundfish profitability (Figure 2.2). These inter-fleet equity issues present at the Kodiak Council meeting illustrated various perspectives from current trawl participants including that GOA groundfish has been left out of rationalization for too long. One respondent explained the situation:

Whatever's gonna happen at the Council in the next couple of years is pretty critical I think. My dad was working on Gulf. I guess you could call it Gulf rationalization right after AFA [American Fisheries Act] came in. We were supposed to have this 12 to 15 years ago and it's tough, we really need a better management structure. We could be doing so much a better job [with bycatch]. (Younger local fisherman, Kodiak, 04/15/2015)

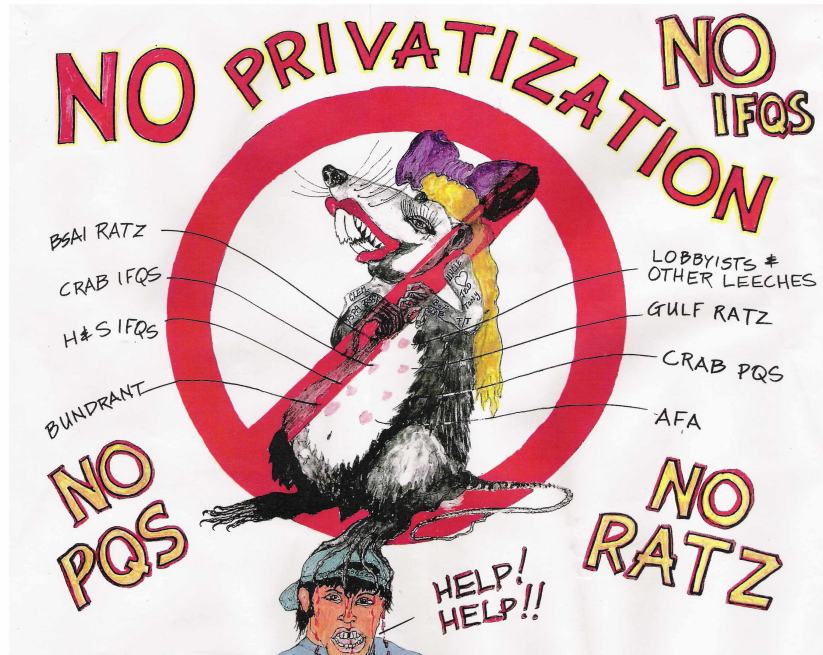


Figure 2.2 Anti-privatization poster by Ludger Dochtermann from 2006.

Discourse shifts evidenced in poster rhetoric differences from 2006 (Figure 2.2) to 2016 (Figure 2.3) illustrate the normalization and prevalence of “catch share” IFQ language, as well as a broader shift from anti to pro-privatization and rationalization. This evident spin on use rights within a decade where fishermen are asking for rationalization rather than fighting against it without obvious coercion demonstrates Foucault’s (1979, 1991) theory of governmentality as described in Chapter 1. In Kodiak City the performative power of neoliberal market-based approaches to resource governance was demonstrated in framings of privatization during a trawl industry parade (Figure 2.3), though there were other community members and fishermen present who expressed agitation about the use of such discourse.



Figure 2.3 Trawl parade during the NPFMC meeting in Kodiak in June 2016.

Photo: Danielle Ringer.

Since limited entry permits may not be legally leased outside of temporary medical transfers, leasing discussions in Kodiak centered on quota fisheries. Leasing practices have also generated widespread conflict and in terms of pay equity; IFQ fisheries have introduced leasing practices that equated to vastly different contracts for crew and hired skippers than in the past. Many respondents critiqued practices where the owner takes varying percentages off the top of profits before dividing benefits among the harvesters on deck. Some crewmen discussed fishing on Bering Sea crab boats and halibut boats with IFQs as working on “slave boats” or in a “sharecropper” system where their labor did not directly relate to how successful the boat was. Quota systems that economically promote leasing practices, where much of the fishing profit goes to the quota holders that are often not on the boat or even in fishing communities, provides yet another example of how privatization has transformed the paradigm of fishing opportunity. Below multiple respondents from various ages and fisheries explained this change:

So that's a serious problem with the kinds of consolidation that privatization brings. And you can see it one fishery after another as they privatize it. It's not really worth it for

guys to work on deck anymore. And so you can see it in all these fisheries the longline fisheries, that's exactly what happens, your pay gets cut immediately in half They just take half the money and give it to you and the guy that owns the quota. That's the reality of it. And so all those crab jobs are gone. I don't think anybody will be able to do what we did. Again, because there's just not opportunity. (Older local fisherman, Kodiak, 07/15/2014)

I hear horror stories all the time of guys who get on [quota boats]. Their boat that they fished black cod or halibut on for years, they sold their quota. Well you gotta find a new job. Alright that happens. So they go to work on a company boat and leased quota where the owners of the boat will lease the quota to the boat or the skipper of the boat will lease the quota to the corporation for 70-75 percent. So the crew gets paid on 25 percent. A lower wage than they had before just on percentage and they get nicked and dined to death. I talked with an unnamed crew. I remember this distinctly, one of the reasons why I had a chance to go out west and never did. They were working on a very large crabber that fished opies [opilio] and red crab and one guy in particular we were talking and sorting fish and I said, 'Well you guys must do really well.' And he looked at me with the most earnest eyes and said, 'We fished 1.8 million pounds of opie crab. I made \$11,000. That's why I'm tendering this summer and I've never done it before. I'm probably getting out of the fishery.' What's wrong with this picture? 1.8 million pounds, that's leased quota. There has to be some sort of legislation solution that we as younger members of the fleet can lobby for. Because that's just robbery. It is slavery. (Younger non-local fisherman, Kodiak, 10/02/2014)

Just this last month I did halibut on the [boat name], and that's an obvious example of the way quota diminishes the amount of money returning to communities cause the [quota] shareholders were getting 50 percent, then the boat owner was getting 25 percent and then all the costs were taken off and then the shares were split five ways. So I ended up making less than 3 percent of the gross. I think there's misconception when people talk about regulating a fishery. They say, 'It's being overfished so we need to regulate it' but the actual method for determining the total allowable catch doesn't

change. The race for fish ends, I guess, but I mean we were still working 22 hours a day and I don't know what we would have done differently if you were racing for fish. You're still setting 14,000 hooks a day. I don't think our stewardship – like we're not more conscientious of the fish that we're catching because we're fishing a quota system. If anything, when you diminish the percentage of pay that a deckhand gets you get lower quality deckhands and that increases danger on a boat because you have a less qualified person working in the same position. I don't think it really makes it safer in that regard. (Younger local fisherman, Kodiak, 05/30/2014)

I think that the situation with lease of Qs [and] lease of permits is probably a fairly important one to tackle. If you're looking at the age of the older guys they're hanging onto their permits of course, but a lot of them are fishing them. A lot of them are leasing them to other people to fish. And now I'm not sure exactly how financially that situation works for permits. And for Qs though, it's a whole different game. Because a lot of these Qs are leased, paying out 50-60 percent to the person who owns it. In many cases they do not even have to be on the boat when their Qs are fished and in some cases they do. And you're looking at these huge corporations like Trident, which started the subsidiary B&N for the purpose of fishing Qs that Trident itself was not able to fish. So you're looking at the consolidation of Qs in the hands of very few people. And then the Qs are basically halved from year to year on the amount of fish that you can catch with those Qs. A lot of these guys have to just basically stop fishing their Qs, guys that don't own huge amounts of them because it's not financially viable for them to crew a boat and try to fish such a small amount of Qs. (Younger local fisherman, Kodiak, 06/01/2014)

Several respondents explained that crew involved in IFQ fisheries are sometimes paid daily wages of around \$150 as opposed to receiving a percentage of the overall profit, which implies the broader changes in traditional perceptions of benefit equity in fisheries (Carothers, 2015; Carothers & Chambers, 2012). This example signifies the power of management regimes to alter fishing practices and catalyze shifts from traditional systems of payment to set daily wages, which leads to profit accumulation for owners at the expense of crew who used to share such benefits in previous pay systems. While the daily wage pay practice was not described as

extensive in practice and it may shield crew from fishing trips with low harvests, it also bars them from greater reward for hard work on good fishing days. Some respondents explained that while there are less crew positions in quota fisheries than before consolidation, crew spots tend to be regarded as highly valued, even though other ethnographic accounts question such framings due to the realities of pay arrangements, particularly for greenhorns.

2.2.1.7 Q-Teasing and Other Inequities of IFQ Fisheries

Carothers and Chambers (2012) discussed the concept of “Q-teasing” in Kodiak fisheries, where crew are made to dedicate their labor for the promise of a position in a future IFQ fishery, that may or may not materialize. They also noted that some captains may require crew to fish less lucrative fisheries as a precursor to attaining a spot on deck for halibut trips. Ethnographic research in this work revealed that Q-teasing not only exhibits further entrenching of class roles and power, but such practices also place further barriers and challenges upon young and new fishermen who struggle to maintain viable operations with full crews. As these marginalized captains often participate in entry-level fisheries, such as salmon seining, they cannot compete for crew when compared to 58 foot limit seiners that have quota holdings to be prosecuted after the salmon season. As virtually all respondents noted that finding “good crew” was a challenge throughout their fishing careers, this practice made possible by privatization programs illustrates yet another way that fishery relations between crew and captains are being remade through management programs informed by neoliberal philosophies.

Rural communities and small-scale fishermen therefore become pitted against each other in some ways, essentially “battling for the scraps” of fisheries access, benefits, and crew. Such access barriers have prompted some small-scale fishermen in Kodiak City to argue against programs that aim to benefit outlying village residents in fisheries, as they claim fishermen in the hub of Kodiak are also struggling to survive. Village-specific opportunities, such as the community quota entity (CQE) program in Old Harbor and Ouzinkie, may further polarize and create tensions between hub and village community members. One younger fisherman explained how corporate structures embedded within programs aimed at aiding rural fishing communities represent an additional barrier with which those not able to access them must compete:

Recent and ongoing policy changes are hindering young fishermen. For example, the NPFMC has been favoring the corporations of CDQs, CQEs and in the near future CFAs [community fishing association] through policy changes to their advantage. In other words, young fishermen who pay taxes are being outcompeted. There are many forms of discrimination being enacted by the NPFMC against fishing families. (Younger non-resident fisherman, Kodiak, 08/21/2014)

2.2.2 Barriers: Power and Politics

Interviews illustrated widespread dissatisfaction with overall fisheries regulations, largely due to perceptions about fishermen's agency (capacity to act independently and make decisions) within state and federal management processes. Younger and local respondents often expressed irritation about the discourse prominent at regulatory meetings disseminating market-based approaches as inevitable and many felt that their individual voices were not as powerful as well-funded lobbying groups representing big business.

2.2.2.1 Harvester Agency in Regulatory Processes

All respondents discussed the contentious role of politics and money in fisheries management and some described the significant difference between large-scale vessel and processor lobbying power compared to small-scale and individual fishermen's ability to effectively influence outcomes. Kodiak region fishermen across ages and gear types tended to be critical of trickle down economic logic and noted corporate big business, such as processing company owned fishing operations, as detrimental to their communities and influence in fisheries politics. Interview data suggests that complex regulatory systems have not only fundamentally altered opportunities through the privatization of access but have also further estranged decision-making power from fishing communities and individual harvesters. The following respondents expressed their perceptions of various regulatory processes:

I've gone to a few [meetings] up in Anchorage for groundfish. There was this program called a license limitation program, which is LLP licenses, for cod fishing in federal waters. When I bought this boat it came with an LLP for longlining cod and I used it every winter. I put landings on it and then the Council came up with that you have to

have an endorsement on your LLP. So when all that was going on I was flying up to Anchorage to those meetings and we got to stand in front of the Council and tell them our point of view and how that's going to affect us. Well when they did that math I missed the qualifying period by one month. 30 days and I missed it by about 1,000 pounds for what they were averaging, so I lost my permit. So I was kicked out of that fishery because of politics. It's pretty much what happened with the IFQs, the rich got richer and even today a newcomer to the industry wouldn't be able to go longlining cod if he doesn't have that permit. And if I wanted to get back into the federal water fishery for cod fish in the winter, I gotta go buy the same permit I used to have for over \$100,000 for this size boat. (Younger local fisherman, Kodiak Archipelago, 09/25/2014)

These political systems were put in place decades ago and the same people run the systems. It's extremely hard to break in. People get how hard it is to get a permit, how hard it is to get a [set net fishing] site, or get a boat. It's even harder to break into the other half of the job, which is the political arena, and it's two-fer job. It gets so competitive and back to the politics, fishermen that are in these power positions they have 30 years worth of bias. Biased opinions, grudges against people. (Younger local fisherman, Kodiak, 10/21/2014)

They're just constantly regulating and doing these things that feel like they're trying to keep the small business, the small fishermen down. I can remember when my dad had to buy a life raft for his boat, which is a great thing to have on the boat mind you, but that was a huge cost to them that they hadn't had to do before. (Younger local fisherman, Kodiak, 09/16/2014)

When you look at some of the bad negative aspects of that process [government], we see that magnified in the fish regulation process. So if you're a powerful organization or entity you have more say before the Council than say some guy that walked off his boat and wanted to go up there and was concerned about certain regulations that were being considered that would affect him. So those are frustrations that unless you want to roll up your sleeves and are really dedicated into getting into the politics and the lobbying that

appears to be required for the most part when it comes to fishing. You kind of either hire somebody else to do that or you just kinda retreat. (Older local fisherman, Kodiak, 06/05/2014)

Younger fishermen overwhelmingly referenced the importance of being involved in the decision-making processes that will in part determine the future of commercial fisheries in Alaska, notably in reference to the graying of the fleet and imminent retirement of many of the leaders in the Kodiak region fishing fleet:

You really have to keep up with the rules and regulations as thing change. (Younger local fisherman, Old Harbor, 05/14/2015)

I would like to be more involved, especially as I get older and thinking about where I wanna go in this industry. I feel like I do need to get more involved. My generation is the one that needs to have a voice, because a lot of these guys are getting ready to retire. The ones who've been crewmembers for the last ten years are now starting to get boats and the fleet is changing hands basically. We're gonna be the ones that are left with whatever these guys have left us. I feel like we have to stick together to get what we want out of this and everyone needs to be on the same page, otherwise you have things like canneries walking all over you and making decisions for you. (Younger local fisherman, Kodiak, 05/24/2014)

It is very important to be aware of fisheries policy. Like the old saying goes, 'if you aren't at the table, you're on the menu', meaning that unless you are there to defend your livelihood, your fishing rights will slowly be eroded. (Younger non-resident fisherman, Kodiak, 08/21/2014)

Interview discussion of management largely focused on the differences between state and federal systems, such as variation in management tools, perceived power at meetings and overall connection to local fishing communities. As noted in the previous section on privatization barriers, the majority of respondents expressed preference for Alaska's state fisheries systems,

which are regulated with licenses and limited entry permits rather than quota systems. They also articulated support for local Alaska Department of Fish and Game (ADF&G) offices that are available for fishermen to go into and talk to managers throughout the year and many said that managers living in fishing communities are more likely to have a realistic and immediate pulse on issues and changes within various fisheries. However, ADF&G staff live in Kodiak City and therefore outlying village fishermen experience an additional level of separation from decision-makers compared to hub-based fishermen. Respondents also largely described the state system as doing a better job of advocating for smaller user groups that tend to get “steamrolled” in the federal system, which was locally perceived to have a bird’s eye view of what is actually happening on the ground in fishing communities. The Alaska Board of Fisheries process was said to play “fast and loose” with the ability to respond quickly to a single voice, whereas the federal North Pacific Fishery Management Council process was seen by many to be less approachable and where change can take much longer due to entrenched bureaucracies and distanced staff. One older respondent explained the embedded nature of politics, money, and power within fisheries management systems that tend to disenfranchise individual, local, and smaller fishing operations without access to vast financial capital:

Management is kind of a joke. Management is basically just a bunch of people that are counting numbers and stuff that already got caught. The fishermen know more about what’s actually happening in the ocean than the management does, however all fishermen are biased and everybody’s out to get their own angle. Management is supposedly unbiased, but that’s not true either. There’s a lot of collusion going on, a lot of politics in the fish business. There’s a lot of lobbyists. Fishermen don’t have the time or money to lobby for their own needs. They pay lawyers to do that for them, if they have enough money to. (Older local fisherman, Kodiak, 02/12/2015)

2.2.2.2 Fishermen’s Political Representation

Younger respondents tended to view their generation as more united than previous generations and many noted this may be because they did not directly experience some of the more divisive processes from the 1989 Exxon Valdez oil spill cleanup contracts and initial halibut and sablefish IFQ allocations. Because of this many young fishermen expressed hope for

the possibility of youth to come together within the region and move beyond grudges from the past. Momentum to support the next generation of fishermen is evident in programs like the Alaska Young Fishermen's Summit sponsored by Alaska Sea Grant. Young fishermen networks may function as support bases that could contribute to successful pathways for entering commercial fishing. One younger fisherman explained these lingering generational tensions in context of previous perceptions of equity and the potential for youth to move forward:

When I think of the younger generation I think it's pretty inclusive, I think everyone gets along. When I look maybe to my dad's, the baby boomer generation, it was pretty divisive because there were a lot of winners and losers. Our generation of fishermen that are coming up, all seem to me at least, that we're all in it together for the most part. There aren't any of the resentments or divides that happened in the community when the piece got cut up. (Younger local fisherman, Kodiak, 10/14/2014)

Despite the prevalence of interview discussion about cohesive harvester voices within the political management realm as being critical to the future of local fisheries, the large salmon fleet comprised of many younger and new entrant fishermen, currently lacks any sort of unified representation. Though some Kodiak region fisheries have representative organizations (e.g. Alaska Jig Association and Alaska Whitefish Trawlers Association), the salmon fleet's once active organizations have dismantled. Respondents noted that this lack of political voice increases marginalization at fisheries policy meetings and increases vulnerability to price control from seafood processing companies. While the collective memory among older salmon seiners tended to focus on previous failed price strike attempts and other difficulties in organizing, several respondents asserted the need for some sort of active association in response to recent salmon price fluctuations and poor returns⁶:

⁶ During September 2016 Alaska Governor Bill Walker officially requested the federal government to declare a salmon disaster due to poor pink salmon returns in the Kodiak, Lower Cook Inlet, Chignik, and Prince William Sound management areas.

In Kodiak Regional Aquaculture Association (KRAA) politics, seiners should have more say but the set net people tend to be more organized, have more power, educated, less salty and they see that certain choices benefits set netters. (Younger local fisherman, Kodiak, 09/23/2014)

We tried to form a seiner's association there for a while, but Alaska being so big, southeast to Bristol Bay, there's no way that we can get together. It was kind of a nice thought. And it almost worked but it seemed like everybody had different agendas and you could have ten fishermen in this room and have ten different opinions. I guess that's true with a lot of industries though. And then you've got fishermen that've been competitive against each other for years, and they might have their own little beefs. Like you know, 'you corked me five years ago you son of a gun and I don't even wanna be in the same room with you.' Yeah, never forgotten that. They're like elephants you know. But hopefully, things will bounce back one day. (Older local fisherman, Kodiak, 10/06/2014)

It [marketing association] would be better for fishermen but fishermen being fishermen, a lot of the time we're our own worst enemy you know. There's that independence that feeling that all they all complain about the cod price but that's all we do is complain about it. Just gets to that and then when the heavy lifting starts, 'Ahhh, I got something else to do.' (Older local fisherman, Kodiak, 06/05/2014)

They [trawlers] have what they call lobbyists. I don't know if we [salmon fishermen] should hire somebody or what. Kind of to look out for our best interests, cause nobody really talks for us. (Older local fisherman, Kodiak, 10/06/2014)

As political ecology explores the underlying causes of conflicts in human-environment relationships, analysis of interview data illustrates how the politics involved in allocation decisions, which structure natural resource use tends to benefit those who know how best to influence regulatory processes at the local, state, and federal levels. Such power dynamics are

created by differential ability among diverse stakeholders to stay abreast of upcoming fisheries issues and attend meetings, which are often not held in rural fishing communities.

2.2.2.3 Increased Bureaucracies and Additional Skillsets

Respondents explained that along with increased costs to enter and maintain fishing operations there have also been increased safety regulations and bureaucratic processes that complicate fishing participation. Today, managing a successful fishing operation requires additional sets of business skills and understanding to navigate complex fisheries regulatory systems and bureaucracies. This added set of skills creates additional barriers for new entrants and sheds light on how previous allocations of rights likely favored those already holding such skills. Remaining vigilant and aware of changing regulations and required paperwork was noted as particularly difficult for both the older and very young fishermen. Most fishermen discussed this change as an increasingly bothersome but compulsory part of fishing, much like additional regulatory requirements. Reedy-Maschner (2010) explained the overall bureaucratic technicalities that fishermen must contend with in order to pursue their fishing livelihoods:

Simply to go from Monday to Friday, the Aleut have to negotiate multiple levels of government and governmentality (Foucault 1979) especially with regard to economic activities. Alaska's bureaucracy is such that the state and federal governments regulate similar things in different ways, carving up the ocean and the land with regard to subsistence and commercial harvesting. (p. 73)

Respondents consistently noted that restructured fisheries management programs forced fishermen to become highly professionalized and formal business fishermen. Some respondents said that in the past one could live a fairly good life by just being able to catch a lot of fish but that through time fishermen have had to transform into businessmen as well. Reforming what a fishermen must be in order to maintain a viable fishing operation indicates overall cultural change informed by management evolutions where lifestyle fishermen may not be able to compete with businessmen who are continually investing and more easily able to diversify their fishing interests. Several respondents noted:

Halibut is a big pain...given all the paperwork. (Younger local fisherman, Old Harbor, 03/20/2015)

You just have to pay more attention to what's going on. The new observer program had a skipper last fall that never called in for an observer and he'd been working with the program. He was an older guy that started fishing when he was in his 20s and the change into where you've got to become more involved with the management and the enforcement part of the fisheries as opposed to before you just had a fishing license. If it was open you could go fishing, [you] didn't have to worry about being in contact with somebody letting them know when your trips are gonna be. So it's been a little tough for some of the older guys to kind of swing around. You hear a lot of complaining about it, which I guess is somewhat typical....And a lotta time those things are important, in the process that's how government works, that's how fish politics works in a lot of ways, fish management. It's disappointing to see that science and just common sense isn't, but that's everybody's complaint. (Older local fisherman, Kodiak, 06/05/2014)

2.2.2.4 Inevitability and Irreversibility Framings

As discussed in Chapter 1, the tragedy of the commons discourse and related private property rights have been increasingly touted as inevitable and commonsensical models in fisheries policy realms. The arguments espoused by economic efficiency proponents are based on a certain set of assumptions and values that largely ignore the human dimensions of fishing. Carothers and Chambers (2012) argued that, “Theoretical abstraction has made the privatization of fisheries appear as inevitable progress in fisheries management across diverse political processes” (p. 199). Respondents expressed similar perspectives about the importance of “holding off the tidal wave” of rationalization programs. Younger respondents in particular expressed irritation about the discourse heralding privatization through quota systems as the inevitable solution to natural resource management issues. Respondents pointed to the cultural, economic, and social problems stemming from such dominant discourses and several young fishermen were eager to see alternative limited access programs without attached commodification. Some respondents went on to say that the inefficiencies within fleets supports

rural fishing communities and allows for marine service companies and local employment to thrive, thus linking net fishery benefits with continued availability of entry points:

It's frustrating when you get the people that are supposed to be looking out for our federal fisheries, and there's no other discussion. They're just saying, IFQs, ITQs, rationalization as if it's the only way to go. And it's not. We've had twenty years of evidence that it doesn't accomplish what they're saying it accomplishes. There are other options. It doesn't mitigate bycatch, it doesn't mitigate overcapitalization of the fleet. It doesn't mitigate any kind of environmental issues. All it does is literally pulls boats, and with boats comes jobs, away from small communities or states for that matter. If ten boats could catch the entire TAC and there's a 100 boat fleet, the minute you rationalize what's gonna happen? You're gonna lose the 100 boat fleet, you're gonna have a ten boat fleet and each one of those boats is gonna be so top heavy that you wouldn't believe. Those ten boats are gonna catch the quota. They say it's an efficiency thing. There is something intrinsically valuable in the inefficiencies of our fisheries, because those inefficiencies are what create jobs and that's what keeps small communities like this one vibrant. (Younger local fisherman, Kodiak, 02/12/2016)

The perceived irreversibility of management programs was also a key element among respondent concerns. Legally, both state and federal fisheries management plans are subject to reversal or alterations as provided for in the state constitution and federal Magnuson Stevens Fishery Conservation and Management Act; however, the experienced reality of these programs to date suggests that market-based access rights tend to function as private property in perpetuity and that programs are near impossible to fundamentally change once implemented. Many respondents lamented the creation of new economic assets and limitless durable harvest privileges that generates systems where initial permit or quota holders are gifted windfall commodities and may end up moving away from fishing communities as they benefit financially from a far. The lack of perceived significant changes to privatized programs once adopted by management, especially so for catch share quota systems, was continually brought up as a frustration among a diverse set of respondents. Others explained that future generations therefore

become burdened with the necessary purchase of such rights in order to access fishing livelihoods:

It [rationalization] had to have affected this community whether it's a positive or negative. I don't think they intended this, but if you're an outsider and a "have-not" you look at all these guys who were initially awarded all these IFQs and where do they live now? So when they see some people who had lived here and then halibut rationalization came in and they were maybe more astute business-wise and could kinda see how to explore how the system worked and [were] able to take advantage of it more than others, well they're living in Scottsdale [Arizona] now. And how do you get back out of that, once you get it centralized into people that have taken advantage of what was available, how do you get that back into a system to where you can address some of those issues of the graying of the fleet or what not. (Older local fisherman, Kodiak, 06/05/2014)

2.2.3 Barriers: Economic

As discussed in the previous privatization barriers section, all of the interview respondents to some extent indicated that financial considerations pertaining to fisheries access rights has created substantial impediments for people to enter the commercial fishing industry in an ownership capacity. Financial concerns emerged as the most salient theme from the qualitative interview data analysis. The common discourse of "buying in" now predominantly refers to access rather than just vessel and gear as in the past. However, access theory suggests in addition to private property rights, the ability to benefit from natural resources relies on further economic, cultural, and institutional processes (Ribot & Peluso, 2003). As such, ethnographic data indicates that access to financial capital has become a far more principal preliminary consideration for prospective fishermen that shapes which people are able to participate in fishing and benefit from local Kodiak resources. Furthermore additional economic considerations are at play within fisheries systems, such as succession practices, financial literacy, and ramifications of the globalized seafood industry.

2.2.3.1 Access to Capital

Recent generational changes within Kodiak fisheries mirrors issues apparent in global fishery systems, including the concentration of resource ownership where market-based governance programs tend to favor larger and more established operations with easier access to capital (Høst, 2015). Respondents described various avenues that prospective and current fishers pursue to address financial challenges currently present in fisheries access and rural living. State and federal fisheries loan programs, bank loans, cannery loans, friends and family support, and more informal “pay after fishing” arrangements are some ways that individual fishermen may combine in order to put together and maintain operations. However, each of these funding sources has particular drawbacks that question the assertion that entry support need only be addressed by funding financial assistance programs. Fishermen of all ages noted access to capital is difficult and that it is generally tough for young people to do so without some form of assistance:

It's hard for a 20 or 25 year old that really doesn't have any background or collateral, I guess you could say. The banks don't want to take a chance on somebody like that. And when my grandson got started it was pretty easy, I talked him into buying a permit. And then when I couldn't fish anymore he just stepped right in and took over my boat. (Older local fisherman, Ouzinkie, 05/09/2015)

[You] better have understanding parents or a really friendly uncle willing to loan you enough money to do it. There's no really realistic way for anybody of any age that you would even consider young, to own enough collateral for a bank to consider giving them such a high-risk loan. It's hard enough to come up with a loan for a house. Banks don't like giving 'em out. It's much worse to give 'em out- to ask them to give away money for a high interest, high-risk loan. Expecting that you might make some money next year... or you might not! At one point in time it was pretty much anybody that [had] a skiff and wanted to go fishing could. And now regulations changed so much that there's not really any point. Unless you happen to have an extra half a million dollars kicking around. (Older local fisherman, Kodiak, 02/12/2015)

The financing is not always there for everyone to get into crab and halibut. It's a major issue. That was part of my issue. I would have loved to own a boat I just didn't have the financing at the time to get a boat. It's a big purchase at that point. (Younger non-resident fisherman, Kodiak, 09/25/2014)

From I've talked to my dad about I definitely see how much harder it is to get into than it was in the late '70s when he got into it. There's so much restriction on the fisheries these days compared to when he got into it... He spent a couple years fishing halibut commercially out of a 19 foot skiff and made great money doing it. You can't do that anymore. You can't just buy a skiff and jump in to it. There's a lot of money involved. Just a lot of restrictions on all the fisheries these days... I think it's hard for people to keep fishing all year because when my dad first got into it he had a tiny little boat and he fished everything... And you can't do that anymore because of all the quota and all the federal fisheries. I feel the struggle. And not that you can't fish year round, but I can't fish year round for myself right now. And it didn't take him more than a year or so to get into fishing and then own his own boat and get up and running. And once he had his own boat that was the only restriction. Once he owned his own boat, he could do whatever he wanted. And you can't do that anymore. (Younger local fisherman, Kodiak, 09/15/2014)

I think you're gonna see more company owned boats [in trawl fleet], because as the history has assigned value or commodity, a tradable asset, and the fact of the matter is that I can't go to the bank and get a loan for 12 million dollars to buy a x [boat name] or something you know. It's just a financial impossibility. (Younger non-resident fisherman, Kodiak, 04/07/2015)

It's hard for them [young people] to get the loans. I know the Kodiak permits are high. Then you gotta get all the equipment and all that stuff pretty tough. And then finding a crew, that's another hard part. (Older local fisherman, Ouzinkie, 05/15/2015)

The State of Alaska's Department of Commerce, Community, and Economic Development commercial fishing loan fund program has specific eligibility requirements

depending on which type of loan is pursued. For example, the website (Loan Programs, n.d.) states the lending limits for a vessel purchase under Section B as:

The total balances outstanding on all permit loans made under Section B of the Commercial Fishing Loan program may not exceed \$200,000. All other loans made under Section B of the Commercial Fishing Loan program may not exceed \$100,000. The total outstanding balances on all loans made under the program may not exceed \$400,000.

While state programs do facilitate entry for some fishermen, several respondents explained that these borrowing opportunities are somewhat limited for youth because of personal financial situations (e.g., lack of down payment funds) and absence of familiarity with loan process logistics (e.g., timeline of approval process). Some respondents also mentioned that the lending limits are often below the threshold of market prices for whole fishing operations:

If you are going to buy a permit, you are going to buy a boat, you are going to buy a skiff, let's just use seining as an example, and the state's loan value is only up to \$200,000. Well, you can't buy a very nice operating seiner right now. You go look at Dock Street Brokers, GSI, Alaska Boats and Permits, Copper River Boats, I would challenge you to find very many boats under \$200,000 that you would not have to put another \$200,000 into, or you would feel safe and/or be able to be very competitive in the market. That's the biggest thing. The guidelines and the loan values that are out there don't meet supply and demand of the market today. (Older local fisherman, Kodiak, 09/16/2014)

There are also collateral requirements and the state program's maximum amount for vessel loans is 65 percent for Alaska vessels of either the survey value or the purchase price, whichever is lower. This means that even those who are able to benefit from the program must supply the remaining capital to cover the full cost.

I just got the wind taken out of my sails when I started looking and there wasn't a whole lot of options. I'm not an Alaskan resident. There's great options for Alaska residents for

loans. And it started getting harder and harder to work for somebody else when you know that you can be the guy making those decisions. (Younger non-resident fisherman, Kodiak, 09/25/2014)

Respondents referenced social networks in fishing communities as pathways that enable new entrants to access capital. Established fishermen often support upcoming fishermen with tips on available gear advertised solely by word of mouth and even introduce former crewmembers looking to move up to local loan officers, in effect extending their status and reputation to particular fishers in the next generation. One younger fisherman described this network connection that helped to facilitate his ability to secure a bank loan to get into fishing:

I first started my relationship with First National Bank when I bought my first boat. I was brought in by my skipper and he introduced me to the loan officer at the time. The loan officer took a risk on me, cause I didn't have a credit card, I had no credit score, no previous credit history. But because of his friendship with my skipper I guess, he lent me the money and that started my relationship with them. (Younger local fisherman, Kodiak, 02/12/2016)

2.2.3.2 Access to Vessels and Set Net Sites

The difficulty in purchasing or leasing vessels changes from year to year and purchase price reflects the value of the previous fishing seasons. Respondents explained that good Kodiak salmon seasons often mean that starter boats will go up in price and some talked about the instant inflation of “anything you can put a net on” following lucrative seasons. The same goes for bad seasons due to poor prices or runs and it can be difficult for anyone to “unload” boats. The following younger fishermen described the lack of smaller boats under 58 feet currently being built and the enormous costs of new vessels that are built to fish several gear types and fisheries:

There's no shortage of people that want to get boats and want to get into it. Nobody's building boats anymore. That makes the boat prices pretty high, even for a crummy little used boat. That's become a barrier. The number of fishermen now is almost limited by the number of boats that are out there. There's a few guys building them, some of these

kind of millionaire guys, but besides that they're sinking just as fast as they're being built. Delta makes those 58 foot superwides; it would cost a few million. The starter boats, they're coveted. This boat I got for not that much, and now you can't find a boat like this. (Younger local fisherman, Kodiak, 05/23/2014)

Salmon set net sites are often family oriented and owned; however, respondents brought up site availability around the archipelago as a key barrier as there is little site turnover outside of family connections. The most advantageous locations are often held for generations and passed down within families, so new entrants without those connections must either purchase less desirable sites, make those connections, or are not able to enter that fishery. In addition to availability of successful location sites, the pricing of set net permits is comparatively high in the Kodiak region. For example, set net permit prices in the Bristol Bay region on average are less expensive than drift permits (\$38,600 compared to \$149,500 in 2014), and offer more affordable entry points for young people to break into salmon fishing. However, the opposite is true in the Kodiak region as salmon purse seine permits averaged \$50,600 in 2014 whereas set net permits averaged \$77,500 (CFEC, 2016). One younger respondent summed up this predicament:

You can maybe afford a little tiny seiner, but then you've got the mega-seiner out there and you can't compete with that. Same thing with the set net site. All the good sites are already taken by these fishermen that already have these great sites. There's no sites left. And then all the really good sites, like out on the capes and stuff are bought or gone. We couldn't go someplace else to fish if we wanted to, just cause the sites are gone. Maybe you'll get a site, but it's really cruddy site and you've got one little net, one little permit and so, is this really worth it for me? (Younger local fisherman, Kodiak, 10/21/2014)

2.2.3.3 Financial Literacy

The importance of money management was a central theme in interviews. Fishermen's taxes were discussed as being notoriously high and complicated to understand, and many fishermen choose to hire accountants who take care of the business side of their operations. Others did not want to spend the money on such services and did their finances in house, often

with the help of their land-based spouses. One comment frequently mentioned relating to fishing and money was the nature of seasonal payments where paychecks are received at the end of fishing seasons. Such big lump sum checks can be exciting but often detrimental to healthy financial management, especially for young crewmembers. Balancing financial requirements, such as fixed debt, with personal lives was repeatedly cited in interviews as a high stress factor, particularly for new entrants.

Interviews illustrated that many fishermen also have Internal Revenue Service issues fueled by the fishing lifestyle. Respondents explained that the cyclical nature of the fishing paycheck tempts crewmembers and captains to engage in financial behaviors that leave little for taxes. As such, back-taxes were cited as a common problem for fishermen seeking to transition into ownership-level careers. This was discussed as a vicious cycle that most young fishermen go through and it ends up “biting them in the ass” as they get older and decide that they want to own a boat. Many of these young fishermen did not recognize until it was too late the importance of credit scores, tax history, and a financial resume in order to put together a loan to purchase a fishing operation. Some said that increased education in school about fishery-specific business and financial management skills would likely benefit local fishing communities. Respondents from all study communities referenced financial literacy issues:

I think fishermen are probably some of the worst planners around. Like young fishermen just kinda, you get a \$10,000 check and you go spend the \$10,000 check. (Younger non-local fisherman, Ouzinkie, 05/10/2015)

I have an IRS issue, which I'm trying to get under control right now. Young, dumb, make a lot of money, partied it all away, didn't pay taxes. You know, the typical. (Younger non-local fisherman, Kodiak, 06/13/2015)

What messed me up is my taxes. Especially jumping into this business getting a boat and not knowing anything about anything. I was still a minor so I wasn't even paying taxes. I was paying taxes, but my dad would do it and I would have nothing to do with it. He'd take care of my expenses and everything and he'd just give me a check at the end of the season and he'd already have the taxes taken out just like a land job. So it was good, and

then when I got older and started fishing for other boats and other people, he wasn't there to do that for me. It's so easy to just spend your money and then the IRS comes knocking on your door and... it's gone. We fishermen are the highest taxed people in the United States. Even taxed higher than all the millionaires and billionaires out there. Last year I started my season with \$120,000 deficit from the cannery. Because I was bad on my taxes and I'm finally getting caught up. Because I couldn't apply for, or I couldn't get approved for a state loan. I filled out but couldn't get approved because I owed taxes from when I was crewman on other people's boats. Until you get caught up you can't do anything like that. (Younger fisherman, Kodiak Archipelago, 05/14/2015)

2.2.3.4 Exit and Intergenerational Succession

Fishing livelihoods are further complicated in that those who pursue commercial fishing as their principal occupation are choosing career paths without provided retirement or benefits packages. In Alaska, fishermen's operations, including their vessel, gear, and fishing rights, become a de facto windfall source of retirement when they sell or lease their assets. This obscures the graying of the fleet problem, as aging fishermen must decide how to liquidate their operations on the market or plan the passing to younger fishermen. The following respondents explained the challenges involved with self-employed fishing careers:

One thing my dad taught me when I was young is there's no retirement fund for fishermen. There's no 401K, there's no benefits, if you will. You get paychecks and that's it. So you kind of have to build your own benefits. So at this point in my life I'm young and I realize that I have an opportunity there to do what a lot of fishermen haven't and plan for a future. (Younger local fisherman, Kodiak, 09/15/2014)

You know we don't have any retirement programs and unless you're someone like myself or someone who's gotten up into a position where the boat business is your retirement, these are sorts of things you can kind of use in lieu of throwing your money in the stock market or a retirement account that every decade or two gets flushed down the toilet and you start all over. (Older local fisherman, Kodiak, 06/05/2014)

It's tough, because you're considered self-employed, so you get hit with higher taxes. Taxes are nuts. And you of course, have no health care, that's a big part of that. It doesn't offer a lot of stability, I think that's why people think about settling down with someone and starting a family and it's like, 'well I don't have insurance and don't have a guaranteed job this month and what would happen? So people bail out. They don't go into fisheries because it's easier to get a 9-5 with insurance. (Younger local fisherman, Kodiak, 10/21/2014)

Succession is generally a process that occurs over time rather than a single event and various agreements are made between current and prospective participants and within families (Lobley, Baker, Whitehead, & Hilchey, 2010). Often succession does not necessarily entail a full handover of the operation, but rather a lease-to-own with financing by a parent, relative, or previous skipper. A number of older respondents questioned the equity involved in handing over their operations outright when they personally experienced difficulties building up their businesses over many years. Though succession-planning and direct transfer of fishing business advice is available within Alaska (Rice, 2006), interviews documented few instances where such plans were formalized or informed by professional guidance. Furthermore, some described the practice of selling access to someone outside of a fishing community as equating to the loss of local small businesses, which in turn impacts local taxes, school enrollment, and presence of social capital. The theory of access can be used to frame exit as the ability in some ways for current fishermen to “mediate others’ access” (Ribot & Peluso, 2003, p. 158). In the Kodiak region, the concentration of permits and quota in the hands of a few appears to result in the controlling of access through availability, as some older fishermen and even non-fishers will hold onto access rights as they act as tradable assets.

In interviews, intergenerational relationships among fishermen, both contentious and supportive, were discussed as key components in fishing succession practices. The key question in the succession of commercial fishing businesses is how to support both exiters who need to fund their retirement and young entrants who likely do not have access to such capital. The creation of economic assets in the form of fishing rights further exacerbates succession practices, as financing is needed on both ends of the transaction. Respondents asked questions like, does it come down to individual fishermen to take on the graying of the fleet problem and self-sacrifice

or self-finance the next generation of fishermen? Should the state and nation take some responsibility for the outcomes of previous programs that created such problems? How can entry be subsidized to ensure viable communities and industries? These questions illustrate the holistic understanding that fishermen have of the realities of fishing livelihoods and how management directly impacts opportunities and the increased instability of such pathways. The following respondents framed the concept of succession through entry and exit as a necessary but complicated process:

In order for the guys that are older to get out of fishing there's got to be a next generation getting in to buy permits and boats. I know some of the guys that have been able to put a lot of money away over the years and probably have 5-10 years of fishing left in em' and some guys that over the years have just put money back into their boats and houses. For them to get out they'll have to get a good sum of money out of their permits and everything they've got invested in their business. (Younger non-local fisherman, Kodiak, 12/12/2014)

I think for the first time in 25-30 years that there is a core of guys that are similar in age under 40 that have the interest and energy just to do it [salmon fish]. Which is one of the things that makes it a little bit harder for guys like me. You know, they're all young and aggressive and pain in the ass just like we were when we were starting out. (Older non-resident fisherman, Kodiak, 08/31/2015)

I look at all the captains of our fleet right now and they are all older. They're gonna be looking at retiring probably in 10 years or less, where does it go after that? Most of them would sell out to liquidate out their operation. But, that's gonna be to the highest bidder and it's not gonna be our young ones. (Younger local fisherman, Old Harbor, 05/14/2015)

Intergenerational tensions beyond succession issues also arise as cultural values shift due to modernized circumstances. For example, value systems belonging to one generation's identity focused on working-class fisheries may differ from the next generation where perceptions of

opportunity and traditional rural occupations may appear less attractive (Kraack & Kenway, 2002). Several older fishermen explained predicaments concerning retirement decisions in the context of ushering in the next generation and how to keep their operations intact:

So I think that's also why a lot of our younger generation who's educated looks at this and goes, 'what's the incentive for me? Yeah I'll make x amount of dollars, but unless you're putting x amount of dollars back into the boat, what do I have- what future do I have or long-term retirement?' And the answer that people say is you just need to get an investor and do that. But we also have to admit that there's a lot of people in fishing that are not- it's generally still a blue-collar job and they're not educated in finance. They're just thinking about next year. They're not thinking about the next generation or next decade and it's a big kicker. What are you going to live on? What am I going to live on when I'm 65? How am I going to retire out of fishing? So do I let go of my boat and let the new guy come in? That's the other kicker. How does that new guy, let's say X come into fishing when I'm not willing to sell my boat, what happens? Boat values stay up. They can't afford to come in because I'm not going to let go of my boat. It's a tough one. (Older local fisherman, Kodiak, 09/16/2014)

I'm 64 going on 65. My son is interested in fishing; he's kinda coming around. He runs the boat for tendering and is gonna start running the boat doing the backside of the cod seasons and what not on one of the boats. So I'm always kinda looking for a way, how do you get out of this without- you either have to get out of it in little pieces and disperse it among a whole bunch of other people, or if you're gonna try to a certain extent keep it intact? Cause basically on one boat we have crewman that have been with us for 6, 7, 8 years, which is really unusual. And I do feel like in some ways, it's something you've worked to build up and it seems to be working pretty doggone well and if I sell out, it just goes away overnight. I think about getting out of fishing – my son's getting interested in fishing, he helps run one of our boats. I don't know if it's best to get out in little pieces, or keep it intact. I want to protect the crewmen, because we've got 6-7 years of their loyalty, and it's something we've worked to build up, and it'll just blow away if I sell out. (Older local fisherman, Kodiak, 06/05/2014)

I don't have a son or a kid or relative that's interested in going into fishing. But, you know, I may have to extend credit to somebody to get out of this and get the kind of money that I want. That's certainly not what I want to do, but it's a consideration. (Older non-resident fisherman, Kodiak, 08/31/2014)

Respondents of all ages made similar illusions to “kids these days,” even younger fishermen who tended to view teenagers as technology-obsessed and lazy who lack the hard work ethic that is required in fishing. Survey data showed the average screen time among Kodiak students to be 2.28 hours per day (although the question asked about video games, television, and internet time, and not specifically about phone screen time). Current fishermen, including younger harvesters, noted the role that reality TV about Alaska has had on incoming youth looking for adventure and wanting to become like the people they see on the *Deadliest Catch*. Other young adult fishermen noted that they hope to see high school aged youth continue to acknowledge the value in fishing livelihoods because of the tradition and way of life. Many respondents described that youth from coastal communities will likely be drawn to explore other places and the big cities and even if they leave for jobs or adventure, hope that they will feel the draw and return to fish. However, several older quota holders said that they just do not see the interest in young people to commit to one boat and stick it out for the long haul in order to buy into ownership, which may be reflective of generational differences in perceptions about multiple careers and various experiences.

A lot of people make money fishing and they'll take that and go out, learn different trades, go to school, go to the city. But they'll get tired of that. Cause I did. I went out there and I missed the ocean, the money and just be out in the fresh air all the time. There's no place I'd rather be and you just gotta let those kids go out and do that. Cause eventually they'll come back. It's in their blood; they can run, but they can't hide. (Younger local fisherman, Old Harbor, 05/15/2015)

We've hired lots of guys who go just basically as good deckhands, good workers who know what it's about, but they have no interest in anything permanent. If you kind of float

from boat to boat you end up not having to do boat yard work and do the low paying kind of grub work that's really not enjoyable. These guys that bounce around from boat to boat a lot of time don't have to deal with those sort of things. But if you're gonna take that kind of work attitude then you can't complain about, 'well oh I didn't get any IFQs or I didn't get this opportunity.' To get that opportunity you have to be a little more steadfast I guess. (Older local fisherman, Kodiak, 06/05/2014)

2.2.3.5 Globalization and Modernization

Globalization can be understood as the processes by which systems become worldwide in scale (Heininen & Southcott, 2010), such as the global free market of the seafood industry. As globalization has changed the world markets for raw materials, rural economies and livelihoods are increasingly required to function within these market demands. Global seafood economies consist of webs of international firms that make production and consumption decisions that have both direct and indirect influences upon local activities in fishing communities. Unpacking the concepts of food security, fisheries access, and seafood product values at the local level begins to trace networks embedded in power relations that dictate how fishery systems function. For example, in the era of globalization factors, such as increasing fish farms, have a tangible impact on wild salmon markets and therefore the activities in fish farming entrepreneurial countries far from Kodiak's communities are greatly influencing local fishermen's livelihoods. Hébert (2015) described a similar situation in the Bristol Bay region and situated salmon producers within the economic downturn of the early 2000s, where globalization created new and more potent connections between disparate locations.

In conjunction, the modernization of the fishing industry evident in increased fishing vessel size and enhanced technology represents a connection between higher cost and essentially more to worry about for fishermen to become and remain competitive in today's fisheries. The fleets have changed and most boats have gotten larger; a 38 foot platform used to be an ideal boat when there was more bay fishing but now the competitive platforms are new multi-million dollar 58 foot limit seiners that can fish in worse weather, pack more fish, provide more comfortable onboard living, and participate in multiple fisheries. One respondent remarked:

You have to be able to pack x amount of fish, realistically you have to be able to refrigerate x amount of fish; you have to be able to compete in weather; you have to be able to house the crew with a certain amount of quality of living. The fleet has changed and a lot of the boats have gotten larger and the styles of fishing have changed. It used to be a lot more of bay fishing and the fleet size was smaller, as far as vessel size. (Older local fisherman, Kodiak, 09/16/14)

Technology onboard fishing vessels has also changed in recent years and while Kodiak has traditionally supported a salmon fleet that cooled fish with ice in the hold, shore-based processors in Kodiak City have continued to phase out buying iced fish. International Seafoods of Alaska (ISA) was the last processor to buy ice-boat salmon but during the winter of 2015 they confirmed rumors and sent out a letter to their entire fleet saying they would not be buying ice fish for the next salmon season⁷. Therefore, remaining ice-boat fishermen were required to attain access to capital in order to install the expensive systems to upgrade older boats, or purchase vessels already with RSW. Respondents explained the “dying breed” of ice-boats within the Kodiak salmon seining fleet:

I've spent a lot of time on an ice-boat and that's a dying breed of fishermen. Pretty soon there won't be any iceboats because RSW has taken over and nobody wants to buy fish from an iceboat. Even though I will argue till I'm blue in the face that I think our fish are better quality when they're iced. I've seen people deliver fish from RSW boats and I'm like, you know they wait to turn it on until right before they deliver to save fuel or whatever. I was always taught to take pride in the product you deliver and it should be an outstanding product. (Younger local fisherman, Kodiak, 05/24/2014)

⁷ At the time of writing during the 2015 and 2016 salmon seasons, several ISA boats were allowed to continue utilizing ice rather than RSW but were somewhat limited by delivery options.

[There are] not too many ice-boats left and I think maybe one more cannery this year I know they told all their fishermen, 'no more ice-boats next year.' So there's a bunch of guys that- and after this season where a lot of guys didn't really make a lot of money, trying to put in probably around \$80-100,000 for an RSW system after this season. That's gonna be tough for a lot of guys. (Younger local fisherman, Kodiak, 09/17/2014)

The fleet has changed so much from the '70s, '80s and early '90s to now in that the percentage of boats like this limit boat, the big boats that can go out and catch 50-100 thousand pounds in a day, is very different. You know, most of the boats were smaller that are like 25 thousand pounds. (Older non-resident fisherman, Kodiak, 08/31/2015)

These quotes illustrate the pressure to remain competitive with the constant upgrading of technology that provides further challenges for fishermen with perceptions of “get big or get out.” The costs associated with attaining more modern and expensive equipment and gear in order to compete with larger vessels targeting the same resource demonstrate shifting operating considerations in a largely export-driven Kodiak seafood economy.

2.2.3.6 Harvester, Processor, and Market Relationships

International currency fluctuations, competition from farmed fish production, and consumer demands obscures the local link that fishermen have to the price per pound of fish that they bring to the docks, with much of market control being outside the hands of harvesters. Ethnographic research revealed significant underlying power dynamics shaping the relationships between small-scale and large-scale fishing harvesting operations, seafood processors, and the broader global seafood industry. In large part fishermen conveyed concern about this lack of control and negotiating power with processors about ex-vessel prices alluding to perceived price collusion among the processors. Respondents stated that the more canneries the better in terms of processing competition and that a loss of healthy competition is detrimental to the community and fishermen. Some also lamented the lack of strikes signifying a loss of power on the harvester's side. Respondents mentioned that the more boats that processors are allowed to purchase and thus the more specific fishery quota that becomes tied to companies, the lower the price they can offer to independent fishermen because they will have access to fish product with

or without them to some extent. Respondents noted that most fishermen go fishing when seasons are open, often uninformed of actual ex-vessel prices other than dock rumors.

We would be getting a lot better price for our p-cod right now if we had a marketing association that was strong enough to have a majority of the fleet belong to it, and the right kind of person leading negotiations with processors on that but they can just kind of pay what feels right to them now. (Older local fisherman, Kodiak, 06/05/2014)

The handful of processors here that pay me \$0.17 a pound for rockfish when I can sell them on the dock in California for \$14 a pound – it's just ridiculous to me. [People] already owe their souls to the company store. We fear change. (Older local fisherman, Kodiak, 02/12/2015)

Respondents described relationships between fishermen and seafood processors (also referred to as canneries) as both symbiotic and antagonistic. Though there is a history of strained relationships, respondents continually noted the importance of sustained working relationships. The processors need fish to buy and the fishermen need a market for their catch. For such a seemingly simple transaction relationship, shifting underlying dynamics have created complicated relationships between individual fishermen and processors. Processors in Kodiak will also sometimes assist new entrants with pre-season start up loans or house-payment loans and provide tender service as well as dockside delivery infrastructure. Many fishermen voiced the importance of maintaining positive relations with their companies but remained somewhat skeptical about the equity of power in such relationships.

However, such processor loans are not available to everyone in need of assistance. Respondents explained that social network connections and reputation play an important role in determining who receives processor assistance, as do the characteristics of each processing company as some simply do not lend money. Older fishermen, particularly in the villages, described previous relationships with processing companies that would carry fishing families throughout the year and hard times, but stated that those relationships have fundamentally changed. Though purchase orders and loans are still somewhat commonplace, the role of companies supporting year-round village family life appears has transformed:

A lot of them will finance fishermen for the first time when they're in their 20s and they have no collateral to put down and they're taking the risk. Obviously for their own benefit but it is a big risk and when a bank won't finance you sometimes a processor will and I don't think people know about that. In longlining it's not like that, but in the salmon industry and cod sometimes, in the salmon industry for sure you can get loans through the processors and that's a really valuable resource that is given to not all, but to some. (Younger local fisherman, Kodiak, 10/14/2014)

It was tough at times. When the canneries would show up in the spring they'd bring groceries, cause we didn't have any freezers to freeze fish or any kind of meat. Kodiak [an older spelling of Kodiak] Fisheries we used to fish for them. All these people, I think when I was a kid there were about 30 boats that fished for Kodiak Fisheries. And the cannery would give us credits so we could buy groceries and at the end of the season they would take the grocery bill out, then whatever money we had we would buy winter canned goods and flour and sugar, so we could survive through the winter. (Older local fisherman, Old Harbor, 05/13/2015)

Respondents also noted the deeper power dynamics intrinsic in harvest and processor relations, which become heightened in financial lending agreements and price setting:

We never got money from anybody. We did it all ourselves, so we don't owe the cannery any money. So that's really nice. I mean heck, if they loan me \$10,000 bucks I'm gonna keep fishing for them till I pay them the \$10,000 but if they're not, then there's nothing tying me to them. (Younger local fisherman, Kodiak, 10/27/2014)

When I first started people borrowed money from the canneries to get started. That was just the regular deal. You borrowed all your money from the cannery they loaned you for boats and the canneries had just finished, a lot of the canneries still had boats. And then we still went on strike all the time but it was kind of perfunctory I mean, it was obvious that we wouldn't get anymore if we didn't but it was kind of expected that they would

come up with something and we would eventually agree to it. It wasn't until the price really sank down out of nowhere that we had to form the salmon association and we hired a guy. A professional negotiator. At that time it had sunk to an all-time low communication with them. After that, I don't know for whatever reason but I assume because some people got out of the business that were kind of sticklers and didn't like to capitulate to any kind of fishery demand. (Older local fisherman, Kodiak, 05/23/2014)

More [canneries] hinder than help [fishermen], but obviously we need them. My relationship to [cannery name] is that they got me going, I owe them a lot. Not money anymore, I paid them off every dime I owe them but I feel a certain sense of loyalty to them because they took a big risk on me. I had never been salmon fishing before [as a captain] and they lent me a lot of money. I had never owned an operation, it was my first time buying a salmon operation, I hadn't even gone and put my net in the water and they decided they'd take a risk on me and lent me a substantial amount. (Younger local fisherman, Kodiak, 02/12/2016)

Irrespective of the support that canneries give fishermen, respondents conveyed overall concern about the consolidation of processors within Kodiak City in recent years and the increasing vertical integration among some firms. In 2000, there were 15 shore-side processors in the Kodiak community (Himes-Cornell et al., 2013) compared to eight to ten active processors in 2014 (Donkersloot, 2016; NOAA Fisheries Service, 2014). Trident Seafoods recently purchased several seafood processing plants in Kodiak City resulting in a visibly altered working waterfront (Figure 2.4) and some community members referenced the growing business in negative terms (Figure 2.5).



Figure 2.4 Trident's new facility addition. Blue building as backdrop to the survival suit race during 2016 Crab Fest. Photo: Danielle Ringer.



Figure 2.5 Port of Kodiak harbor dock cart with anonymous sticker.

Photo: Danielle Ringer.

Some respondents cautioned against the dangers of fewer processing companies and questioned the ability for smaller processing companies to compete with larger corporations:

Trident's just purchased how many boats within the last two years? And I'm not saying they're evil. We live in a capitalist society. They're capitalist. It's free market you know. Do I agree with it? No. Do I think it's a good thing? No. But it's happening and I'm just amazed how fast it's happened. And their financial resources are immense and they're gonna leverage that to purchase more boats, more quota [groundfish]. And that's a direct fit into the Federal management regime. I think there'll still be opportunity for independent trawl fishermen. I can only really talk about that cause that's all I know, I'm not gonna pretend to speak for other people. But it's interesting just to see how fast things are changing. (Younger non-resident fisherman, Kodiak, 04/07/2015)

Additionally, numerous respondents stated that the relative lack of public infrastructure, such as cranes and icehouses, to allow for direct marketing and custom processing has stifled harvesters from branching out from current processor relationships. Kodiak region's isolation and reliance on barges and planes to move product reduces opportunity to interface with retail outlets and consumers for the individual fisherman, even more so than mainland rural Alaskan fishing communities. Chapter 4 will discuss growing momentum for small-scale marketing support, but despite these efforts respondents were deeply concerned about the increasing the "David and Goliath" relationship between powerful processors and individual harvesters. Current small-scale fishing operations also must contend with larger vessels' priority at the shore-based processor facilities. For example, during the winter months trawl vessels bring much larger quantities of groundfish to the dock and the quantity and steady supply equates to priority for delivery service accommodation. Some respondents explained that it is not uncommon for small-scale jig vessels to lose their markets for several weeks at a time during this season. Kodiak City respondents explained the scenario of processor-owned vessels as detrimental overall to independent fishing operations:

The thing is they're really vertically integrated, which is not supposed to be legal but it's what has happened basically. So a lot of guys that either work in management in the canneries or own portion of the canneries, also own companies that own boats or members of their families own companies that own boats. So they have a vested interest in certain kinds of boats and certain company deals. Unfortunately it's probably gonna mean that we don't see really high cod prices again. Because even like this year, there's just no reason. There's no upward pressure on the price. Traditionally the big boats would fish cod January, February and really by middle of March all cod fishing with big boats was finished. Now since privatization, if I'm a cannery and I own a boat and I own quota, well then I can send my boat to go get my quota whenever it suits my purposes and there's no reason for me to every pay more for the cod. (Older local fisherman, Kodiak, 07/15/2014)

They need to stop the canneries being allowed to buy boats. Cause that is definitely changing the price in fisheries, it's not good. They're capitalizing on it, they're buying boats, they're taking money and then they're paying less for fish. And we've seen a decline in the last two years because of it. (Younger local fisherman, Kodiak, 06/13/2014)

I think now there's something different going on where you have the canneries kind of directly investing into the fisheries, buying boats and buying fishing rights, and we can't compete with them. In terms of expanding into federal fisheries, I think the canneries are making it more difficult. (Younger local fisherman, Kodiak, 05/23/2014)

I personally feel in looking around, and it's not just one fishery, but more of a holistic view of the North Pacific ecosystem as it is, we as the young fishermen do not have any sort of control over what is going. Nothing. I feel rotten for young people who have purchased boats – we're cannery slaves and this is a company town. It is our obligation to fight a more global war against globalization by taking on the canneries, by taking on towns like Kodiak who don't have a public ice dock. (Younger non-local fisherman, Kodiak, 10/02/2014)

2.2.3.7 Resource Fluctuations and Instability

Ecological changes and resource fluctuations have also resulted in declines in fishing opportunities and illustrate yet another element that is out of fishermen's control. Previous generations in the Kodiak region had the opportunity to pursue shrimp⁸, king crab, Tanner crab, and herring with healthy stocks and markets. However, at the time of writing the Kodiak area state Tanner crab fishery has been closed since 2012. This closure placed fishermen in vulnerable positions, as many local boats and community members traditionally relied on this resource for winter revenue and subsistence. While resource fluctuations are common in fisheries, the decline of stocks resulting in decreased fishing openers and total allowable catch limits further strains the viability of fishing operations by forcing reliance onto remaining accessible fisheries. The following younger fishermen explained how in addition to privatization of access, ecological shifts exacerbate instability for fishermen:

Things like tanners, you know, that's almost nonexistent. My dad used to fish tanners for a long time every year. Dungeness has been completely out-fished in Kodiak. It's do-able, but it's hard to work for yourself year round as a young fisherman. (Younger local fisherman, Kodiak, 09/15/2014)

And how they're putting everything into quotas. I just hope that doesn't happen to crab around here [Tanners], but then there hasn't been any crab. There was a huge abundance of crab around here and it just kind of disappeared. You'd go out and set a pot out in the middle of the bay and you'd get a full pot of Tanners. And now you go set that pot and you don't get no Tanners. Not one. You get a couple cod. Even the cod fishing's gone downhill since I started doing that. The world is turning. It's changing. (Younger local fisherman, Old Harbor, 05/14/2015)

⁸ There was one fisherman in Kodiak City who targeted shrimp during this research data collection phase between 2014 and 2015.

Rationalization almost eliminated all opportunity for young guys to get in. You can do Tanner crab without quota, but the last few years there haven't been any Tanners to fish. (Younger local fisherman, Kodiak, 09/23/2014)

I was gonna buy a Tanner permit, but this is gonna be the second year without a Tanner fishery. Herring's in the total dumps, which I would love to get into the herring fishery but there's no point in it right now. (Younger non-local fisherman, Kodiak, 11/14/2014)

2.2.4 Barriers: Cultural

As the theory of access suggests there are multiple processes at work that shape the ability for people to benefit from natural resources; this final section explores several of the cultural barriers that respondents discussed in interviews. Themes included personal life sacrifices, shifts in generational connections to commercial fishing, challenges moving from deck to wheelhouse, and gender specific barriers for women. Fishing livelihoods necessitate spending time on the water and away from loved ones, one of the most identified sacrifices that fishing requires. Younger fishermen repeatedly discussed this sacrifice between fishing and personal lives:

You're always going to be gone, and so for me the biggest struggle is always measuring the amount of money you're going to make and measuring it against whatever quality of life you would have had. Do you not go out fishing because your wife is sick or something? Is it worth \$2000 to give her soup? You know I don't know. For the guys that are making a lot of money is it worth \$20,000 to not see your kid born? You're always measuring money versus something that's not as easy to measure. (Younger local fisherman, Kodiak, 05/30/2014)

Anybody that's thinking about getting into it, or is already into it and wants to move up, you have to know you're gonna have to sacrifice a lot of things. You won't always be able to take a vacation that year. You're gonna be married to that boat if you buy one. You pretty much have to be dedicated to what you do and enjoy what you do, cause if

you don't it won't work out for you. (Younger non-resident fisherman, Kodiak, 09/25/2014)

However, this intensive work followed by extended time off the water also provides many fishermen the luxury to work hard for several months a year and enjoy free time with family outside of fishing seasons:

One of the things I really like about salmon fishing in particular is that I don't necessarily have to work the rest of the year. Having flexibility the rest of the year to travel and spend time with my family is pretty important to me. It's been interesting getting to know some of the guys that are older and see what their experiences are. Especially some of the guys that have basically spend most of their lives being gone six months out of the year between herring and salmon. It's being interesting to see how hard that's been for them on family life and relationships. (Younger non-resident fisherman, Kodiak, 12/12/2014)

2.2.4.1 Access to Fishing Experience

Respondents discussed access as a broader theme that included access to experience and knowledge, illustrating the importance of access theory in understanding resource benefits as being shaped by multiple factors. In school surveys, many students referenced a lack of fishing experience and knowledge among young residents as an important barrier to entry. The marked dip in youth's firsthand experience compared to familial ties within all study communities illustrates compounded multigenerational loss of connections to fishing (Figure 2.6). As the implementation of privatized programs with permits and IFQs reduced the number of crew positions available in Kodiak through vessel consolidation, it also diminished means for rural youth to gain experience.

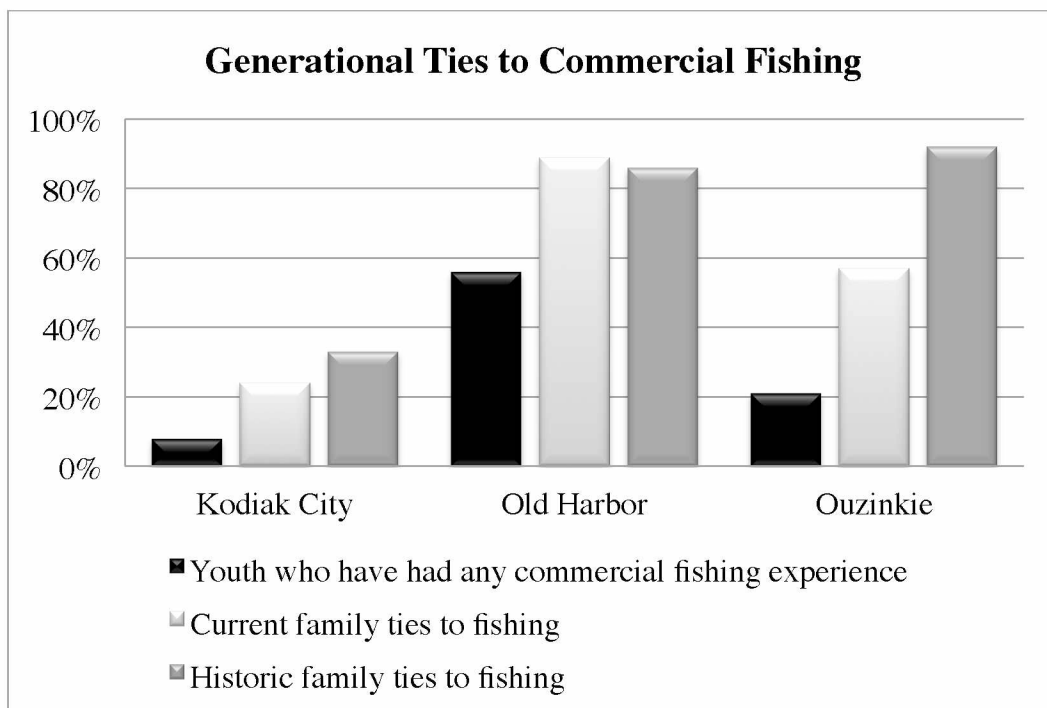


Figure 2.6 Student survey results: Generational fishing connections.

Kodiak City (n=571); Old Harbor (n=9); and Ouzinkie (n=14).

Some respondents explained that decreasing small-scale, local, and independent or family-fishing operations within the Kodiak’s fishing communities has resulted in diminished opportunity specifically for youth to gain experience:

One thing I can say is encouraging maybe the younger people in high school to go fishing for the summer. I feel like there are a lot of people who come from outside but a lot of the kids in the community who don’t have that experience and I feel like that could potentially help even if they decide they don’t like it. (Younger local fisherman, Kodiak, 10/07/2014)

State and federal labor laws prohibit minors under the age of 16 from working on fishing boats unless employed by a parent who owns and operates the vessel. In interviews some captains said that they would not hire crew under the age of 18 because of insurance logistics and litigation possibilities. Overall, research suggest that youth connections to commercial fishing has decreased. Such multigenerational loss of fishing experience compounds the graying of the fleet

problem and also complicates solutions to address it. Furthermore, the difference in youth exposure between the village communities of Ouzinkie and Old Harbor (Figure 2.6) points to broader shifts in rural differences and highlights the importance of understanding community specific characteristics.

Interview respondents differentiated those who wanted to get on a boat for experience crewing and those who wanted to move into owner positions. While there was overall concern about fewer jobs in the quota fisheries because of consolidation, some fishermen maintained that there remain opportunities to get on a boat as crew, though not as many as in the past and not as plausible to work up through the ranks into ownership. Dock walkers seeking jobs are generally more frequent after good years of fishing but there was agreement that there are less people around looking for jobs than in the past. Respondents stated that before the implementation of halibut IFQs the majority of Kodiak area salmon boats would pursue the fishery after the salmon seine season and crew had the opportunity to retain their position on the boat and participate in multiple fisheries from the same deck. In the excerpts below, respondents reflected on the importance and diminishing nature of learning opportunities for young people to gain necessary fishing skills and knowledge in rural communities, particularly within IFQ fisheries:

It [IFQs] right away affected communities. There was lots of jobs lost and it's hard for anybody to find a job in an IFQ fishery. Pretty much they kept the experienced guys that were fishing on those boats for a long time and they're still out there. It's hard to find a job on those kind of boats now. If you do find a job as a greenhorn you don't get paid enough. (Younger local fisherman, Kodiak, 09/25/2014)

Less and less boats fishing halibut so they only want top-notch crew guys. Very sought after, so less opportunity for green guys to get on deck and get experience. Even if you can get onboard you're making 3-4 percent of 40 percent because the IFQ owner takes 60 percent off the top. On a 58 footer there are usually five guys on deck splitting percentages and there's one guy at home sitting on the couch and getting rich. (Younger local fisherman, Kodiak, 06/05/2014)

They can always crew. In terms of advancing between crew and owner-operator and captain I think it's kinda hard now because boats are worth so much and there's all these liability issues with leasing out boats. People used to be crewmembers and find a boat to lease and they'd do that for a few years and they'd buy their own boat or something like that. I think that intermediate stop doesn't really exist anymore. So either you're a crewmember or you take this major financial leap to buying your own boat. (Younger local fisherman, Kodiak, 05/23/2014)

You don't see the younger kids as much anymore. And all of me and my buddies—high school—we always—even starting in junior high, we—almost all my buddies, we had fishing jobs. And now as a captain—besides some of the owners that have their sons, you don't see a lot of 14-, 15-, 16-year-old crewmembers anymore. And I think that some of that is probably with the school systems and some of that is lack of desire from the kids, too. All of us were driving new pickups and had our spending money but it was because like I said, most of the families, somebody in the families were fishing. It was pretty commonplace. (Older local fisherman, Kodiak, 09/16/14)

2.2.4.2 Moving from Crew to Captain

Crew dynamics were also noted as a key element of maintaining viable commercial fishing operations and can lead to the successes or struggles throughout various fishing seasons. For example, the Kodiak area salmon seine fishery lasts from June to October in tight quarters onboard, so crew dynamics are a crucial component for a captain, particularly a new one, to contend with. Respondents of all ages noted the challenges involved with managing human resources while also simultaneously learning to run a successful fishing operation:

Crew dynamics is the most important part of the fishing industry hands down. It'll make or break a vessel straight up. (Younger local fisherman, Kodiak, 09/15/2014)

Finding crew, sometimes you get some good guys and they stay, come back year after year. And sometimes you get different crew, kinda hard. (Older local fisherman, Ouzinkie, 05/15/2015)

Beyond the barrier of finding good crew who are reliable, capable, and trustworthy, respondents expressed the importance of learning how to manage people as the boss and also the difficulties they experienced in establishing boundaries with crew, particularly for young captains.

I started running it [operation] when I turned 17. Being 17 and still in high school and I had a whole veteran crew that'd been fishing for years. So it was pretty tough showing them who is boss cause those guys have been doing it way longer than I have. So that was probably one of the toughest parts was trying to gain respect from a veteran crew. They didn't like taking orders from a kid. But once we started working everybody did what they were supposed to do and then they would always have opinions but in the end I was the one that would tell them that my opinions were what counted. But I learned a lot from them. (Younger local fisherman, Kodiak, 09/25/2014)

You have to be a good people person. You have to be able to listen and sometimes bit your tongue, and to be able to discipline your crew without hurting their feelings to the point where they want to quit. You have to take 'em to the side and you don't want to do it in front of the whole rest of the crew. To know when to get upset, they have to know that you're upset and that you're disappointed in them and they need to do better. It was a little harder when I was younger. Cause some of the guys I was hiring were older than me. So they would tend to dictate what we were doing, but it didn't take me long to learn just to tell 'em, 'You know, that would probably work really good on your boat. So when you get your boat, I want you to try that and come back and tell me how that works. But until then we're gonna do it my way, cause it's my boat, I'm the one that has the big, huge investment.' (Older local fisherman, Kodiak, 10/23/2014)

Crew. I'm sure you've heard this a million times, but they are the hardest thing I've had to deal with. Because I went from jigging primarily by myself and then as a crewmember I was a skiff man for a good portion of my seining career so I didn't have to deal with crew. All of a sudden I'm on a 38 footer and I've never been a boss before, and I still don't know how to be a boss. Cause you're not just a boss. You're boat dad and you're

living with them. It's totally new. It's been a hard transition. (Younger local fisherman, Kodiak, 02/12/2016)

I have a cousin, this years his first season as a captain, and he's learning to be a captain. But moving up from being a deckhand to a captain, he's realizing that he's learning his job but he also needs to have the management skills to be able to teach and manage his crew. (Younger non-local fisherman, Kodiak, 06/12/2014)

2.2.4.3 Gender Roles

Female respondents indicated that their fishing experiences had been differentiated from their male-counterparts in particular ways. The commercial fishing industry has historically been a male-dominated industry within a culture where fishing is an extension and performance of gender norms. Some respondents explained that the majority of women who participate in Kodiak area fishing largely come from fishing families or have network connections that facilitated their entry onto boat decks, which may shelter them from typical perceptions about women in fishing. Fishing family daughters generally received support to participate in their family's operations but encountered additional barriers different from their brothers or male counterparts. Some female respondents explained they were only allowed to work on family boats in high school, while others expressed social tensions they experienced with identity performance encompassing femininity and commercial fishing capability:

I thought about it [working on a non-family boat]. I wanted to go but my dad was like, 'I don't really feel comfortable with you going out', which was understandable. I was really young and it's different with the boys. The boys just go out fishing with whoever and it doesn't matter how old they are. But I was okay with it and I still get to go out fishing sometimes. (Younger local fisherman, Old Harbor, 05/13/2015)

Both my parents have always stressed, 'You are a girl. Be a girl. Don't try to be a guy', which I don't really understand what they were saying. Cause I'm just myself I'm not trying to be anything. I think they both wish I was a little bit more feminine, especially my

mom. She hates that I'd rather be in rain gear than heels. (Younger local fisherman, Kodiak, 05/24/2014)

Stereotypes about women working on commercial fishing boats and actual or perceived sexual tensions with crew or skippers was referenced as being an additional barrier for women trying to gain access to the industry, particularly so for those without family or network connections. Gender dynamics clearly affect fishing communities; some women reported being told they would not be hired because the wife of the captain did not want a woman onboard as a crewmember. In the Kodiak region it still remains a largely male-dominated industry where very few women move into owner-operator positions. For example, in the 2015 Kodiak salmon purse seine fishery there were only two female captains out of 180 actively fished limited entry permits (CFEC, 2016), though there were more in crew positions throughout the fleet.

2.3 Conclusion

This chapter addressed research data that suggests a transformed paradigm of opportunity in Alaska's commercial fishing sector compared to experiences by previous generations of fishermen. Respondents largely noted that access to fishing careers is constrained by market-based management programs that disenfranchise those who were not initially awarded rights. These limitations are particularly pronounced in rural fishing communities where alternative employment opportunities are limited and have resulted in an exodus of rural and small-scale fishermen from the industry. Respondents overwhelmingly pointed to the extreme difference in opportunity experienced within one to two generations, where current hopeful fishermen must now contend with a web of constraints due to the "closing off" of fisheries through privatized management.

While barriers other than privatization contribute to the graying of the fleet, respondents overall described commodified and marketized access as a fundamental remaking of fishery systems. Overall, ethnographic interviews portrayed a general philosophical divide between distinct ways of managing and privatizing fisheries access. Though historical experiences with limited entry permits have clearly disenfranchised many rural and Alaska Native stakeholders, today one of the key distinctions discussed by respondents was the difference between limited entry permits and IFQ catch shares. Respondents largely agreed that privatization results in

fishery systems with rampant generational inequity and entrenched class warfare. Today upward mobility goals for fishermen become stifled as working for themselves year-round is no longer viable for most, as was commonplace in the past. These shifts represent the transformed paradigm of opportunity in the context of the American Dream, the ethos attaching hard work to upward mobility regardless of class or financial capital from the outset. While the equitable distribution of fisheries resource access rights continues to be a prominent issue in regulatory realms, the ways in which the impacts from previous enclosure policies reverberate through communities remains evident through transformed behaviors and values in direct response to governance. Such shifts embody broad alterations of traditional pathways and represent produced and embedded social conflict among fishermen.

Other interrelated barriers documented in this research include political and power dynamics that shape which voices are received and understood in regulatory settings. Respondents continually noted their dissatisfaction with overall fisheries management processes due to perceived low-levels of harvester capacity to influence and shape outcomes. Economic barriers included variation in people's ability to access capital in order to participate in commercial fishing; the amplified overall necessity for harvesters to increase financial literacy; and strained relationships between harvesters and processors. Cultural barriers documented in interviews included diminished opportunity for youth to access fishing experience within communities where local fishing participation has faded in recent decades, particularly so for family and small-scale operations. Respondents also noted increased challenges from transitioning from the deck to the wheel house as young fishermen in the context of privatization of access rights as well as gender specific barriers that women faced getting into and moving up within the industry.

Chapter 3 A Tale of Two Framings

3.1 Introduction

This chapter explores the second objective in this thesis to investigate the role of commercial fishing in fishermen's identities and motivations and to compare these to dominant assumptions about fishermen's behavior. The characteristics of fishing livelihoods are explored in order to further understand the role of commercial fishing activities in fishermen's identity creation and performance. This work suggests a reframing of fisheries systems is needed to expand the dominant and limited representations of what commercial fishing activities embody. Social and cultural dimensions are emphasized throughout this chapter to present a more holistic depiction of fishing people and places in the Kodiak Archipelago. Foucault's (1979, 1991) theory of governmentality and power frames this chapter, in particular as to how dominant discourses like the "race for fish" and the "tragedy of the commons" actually work to transform fishery systems and fishermen themselves through performative mechanisms as they push neoliberal ideology (Hofmeyr, 2011).

3.2 Rational Actor

As discussed in Chapter 1, the tragedy of the commons narrative represents "rational actors" as being eternally self-interested and as solely profit-seeking entities that, in the absence of private property rights, will seek to utilize as much as an open access resource as possible, ending in ruin for others and the environment (Pinkerton & Davis, 2015). This dominant framing also undermines livelihood fishermen by framing them as "irrational" users, which become redundant and unproductive in capitalistic systems (Carothers & Chambers, 2012). Even as social scientists challenge the widespread dogma of the tragedy of the commons and rational actor metaphors in policy creation, various forms of privatization continue to be promoted as the best answer to fisheries dilemmas. As privatization promotes altered individual and group behaviors as a direct response to management parameters, the system itself can be viewed as one that actually creates more self-interested actors and subverts traditional fishing values.

Fundamental power dynamics inherent in fisheries governance therefore has the capacity to alter fishing practices and fishermen's behavior without any ostensible coercion, demonstrating governmentality at play. Some younger respondents alluded to this ability as they

framed such economic “rational” behavior as representing individualistic and profit-seeking behavior directly tied to the creation, maintenance and control of commodity fishing rights. The following interview excerpt demonstrated a young fisherman’s question of privatization proponent’s arguments that market-based quota systems relieve race for fish scenarios:

They say that rationalization will make people fish safer cause there won't be a race for fish. That is incorrect. No matter what, people are gonna overcapitalize their boats. Well now they have this quota that's worth a couple of million dollars so they're gonna dump every single dime they can into their machines so they can catch the fish even quicker. Cause the quicker they catch the fish, the more fish they can lease. They want to top that boat out and the only way to attract people's quota is to be this big topped-out-over-capitalized behemoth. So that flat out didn't work. They said it's gonna make things safer. Again, it has not changed any of the practices other than to get rid of half the fleet. People still fish in the same weather. I know 32 foot Bay boats that have quota that will go slam down the whole east side down to 3B in October. (Younger local fisherman, Kodiak, 02/12/2016)

Though few fishermen talked about being motivated exclusively by financial expectations, several youth who fished for a short period of time did express such motivation. Some fishermen felt that non-locals, particularly non-residents, were much more in it for the money than Alaskan fishermen. Carothers’ (2015) survey data showed differences in motivational factors between crew and owners or owner-operators (crew were more likely to participate in fishing strictly for economic compensation compared to owners and owner-operators), suggesting a possible generational shift connected to access opportunities determining who enters fishing and for what reasons. Several younger fishermen noted the difference in drive and definitions of success among diverse fishermen:

I only went one year. That was last year and I only did it for the money. I don't like fishing. (Younger local fisherman, Old Harbor, 05/14/2015)

For others success could be putting in twenty years in a fishery, working their butts off and then at the end having a two to three million dollar fishing operation. (Younger local fisherman, Kodiak, 10/14/2014)

3.3 Ethnographic Accounts

This section provides an in-depth ethnographic account about fishermen's motivations and seeks to deconstruct narrow rational actor framings. Conventional paradigms in fisheries governance tend to inadequately incorporate non-economic factors and devalue other forms of information, whereas my research instead shows that these non-economic factors are critical to understanding fishermen and their engagement in fishery systems. Respondents in Kodiak study communities were largely concerned about the sustainability of resources as many referenced the linkage of ecological well-being to the welfare of the viability of their livelihoods, which were said to provide pride, independence and the basis of coastal identities. This evidence argues for a de-homogenizing of framings and depictions of fishermen that acknowledges contrasting dominant ideologies and actual motivations among harvesters. The following sections and interview excerpts serve to expand such paradigms.

3.3.1 Fishing Motivation

Commercial fishermen's identities are shaped by partaking in fishing activities and often tied to generational values and unique lifestyles (Pollnac & Poggie, 2008). This research documented motivational factors among Kodiak region respondents including valuing independence and tradition, identity performance, intergenerational knowledge transmission, and pride in harvesting wild food. Traditional and cultural values surrounding maritime activities demonstrate the importance of embedded place-based fishing livelihoods (Brakel, 2001). Fishing activities are a cultural keystone practice in the Kodiak region, particularly so for Alaska Native Alutiiq people with thousands of years of ancestral ties to ocean resources. Fishing serves as a context within communities for socializing youth and newcomers to the archipelago ranging from recreation to subsistence to commercial activities.

3.3.1.1 Independence

In interviews freedom was often linked by respondents with the desire to have an outdoor and adventurous job, as many fishermen explained they are not interested in “9-to-5” office jobs:

Being your own boss. In other industries it's hard to become your own boss, always working for a manager or supervisor. With fishing it's 100 percent yours. (Younger local fisherman, Kodiak, 09/23/2014)

Oh the freedom. I mean I'm always sitting in the same chair looking out the same windows but the view from my office is constantly changing. I'm my own boss. You have the freedom and adventure, everything. It's life. (Younger local fisherman, Kodiak, 09/17/2014)

I guess I can't really imagine doing anything else with my summers. I just really like to work outside and fishing lets me do that. (Younger local fisherman, Kodiak, 10/07/2014)

I don't believe in real jobs. I don't want one of them, I don't punch a clock well. (Older local fisherman, Kodiak, 10/23/2014)

My goal is to just work for myself and to prepare for someday, I'm going to have a family and I want to be able to have opportunities to be with my family as well as make money. I don't want to be a slave to another boat owner or quota owner or something like that. I'd like to find some balance to fishing and everything outside of it. (Younger local fisherman, Kodiak, 05/30/2014)

Numerous young fishermen referenced today's transformed paradigm of opportunity within fishing in relation to their career motivations. As these respondents were motivated to move into owner-operator positions, the following fisherman explained the perceived disconnect in upward mobility between limited entry permit and quota IFQ fisheries:

In Kodiak, it's seining. Everything else you won't be the owner. Halibut boat, you'll skipper for years and just run the boat, not catching your own fish. (Younger local fisherman, Kodiak, 09/23/2014)

3.3.1.2 Endless Learning and Love of Fishing

Commercial fishing offers an environment of endless learning within the workplace and this aspect was repeatedly mentioned in interviews as being highly valued. Respondents of all ages referenced that fishing livelihoods provide a way to make a living while engaging in work shielded from boredom as the scenery, weather, and fish provide new and challenging circumstances:

You can never stop learning and there's a thousand right ways to do something and a thousand wrong ways. (Younger local fisherman, Kodiak, 09/16/2014)

There's so much to learn. You learn every day. I mean, even the Elders. They know a lot but they still learn how fish or moving or the world is changing. It's always different. (Younger local fisherman, Old Harbor, 05/15/2015)

Good work ethic. The drive to keep going if you keep screwing up. You just have to keep fishing you just stay out there and keep working at it. Even if you're not catching fish you're getting experience of not catching fish and you're learning from that. You're building. Like you might not be making money but you are learning. (Younger local fisherman, Kodiak, 10/14/2014)

When asked if they ever thought about getting out of fishing, many respondents initially joked “of course” and “especially after bad seasons”, but then followed up with a solid “no.” Several of them said they would fish until they physically are not able to do so anymore. Respondents continually framed fishing careers as more than just a job, and rather as a way of life where everything people do is centered on fishing during and before fishing seasons:

I never think about getting out of fishing. I've wanted to be a fisherman since I was eight years old. I love this and there's nothing in the whole world that makes me as happy as what I do. It's the best use of my time I could think of (Younger local fisherman, Kodiak, 02/12/2016)

We're all trying to make an investment and make this as good as it was for our parents, trying to make it good as that for ourselves. (Younger local fisherman, Kodiak, 10/14/2014)

Others described the money derived from fishing as what sustains their families and allows them to continue doing what they love, because it provides income support as well as personal satisfaction:

It fed my family for years. I have two boys and my wife she didn't work. It definitely supported us through thick or thin. I was halibut fishing back then in the derby days, pre-IFQ. I did real well, I pushed hard, got lucky too. It just made it for me, I was able to buy a really nice piece of property and build a house. (Older non-resident fisherman, Kodiak, 10/23/2014)

Both younger and older captains mentioned being motivated to have good fishing seasons in part so that they can write their crew big checks, referencing pride in supporting others and the importance of social connections through fishing practices. The social aspect of fishing lifestyles creates a specialized community that connects all fishermen regardless of gear-type or age. Fishing careers are highly valued for these connections that are made during the course of one's career and continued meeting of new people who filter in and out of the industry. Research suggests that broader understandings of the complex motivations for fishing beyond merely financial profit are needed at the policy level in order to incorporate importance of social relationships within fishing activities. Personal financial profit is certainly an important part of a sustaining a commercial fishing operation, but both younger and older respondents cited the pride related to teaching others and helping to support other people's livelihoods through fishing.

I like teaching people that are willing to learn. When I see crew guys, and there's only been like one or two of them, but I have seen crew guys that turn out to be pretty awesome. And honestly writing a decent check to crew at the end of season, cause it's evidence of my hard work and their hard work and that feels good. That just feels good cause it shows we had a good team, we all worked well together, we all made money together. (Younger local fisherman, Kodiak, 02/12/2016)

I like it when my crew makes a big check. I like the idea that I've done something good and I like it when we do something just right. Like we feel we've doing something that not many other people can do. (Older local fisherman, Kodiak, 05/23/2014)

That's one of the things that I really like about the fishing community is that people are generally pretty willing to help new guys and help everybody else even though when we're out fishing we're often times competing for the same resource. (Younger non-local fisherman, Kodiak, 12/12/2014)

Themes about loving to fish also permeated interviews. When talking about weathering thin seasons or other difficulties, the love of fishing was evoked as a key motivating factor in persevering. The following respondent quotes directly challenges economic framings of solely profit driven individualistic fisherman:

I have so much fun doing it [fishing]. I love it. I love being on the water. I love doing what I do. Putting my gear in the water is probably one of the most satisfying feelings you'll ever feel. (Younger local fisherman, Kodiak, 02/12/2016)

If you don't love it you won't do any good, cause you can't just go out there and fish, you gotta like to fish. (Younger local fisherman, Kodiak, 06/13/2014)

[Fishing] is just what I wanted to do since I was a kid. Everybody wanted to do other things and I said, 'I'm gonna be a captain. I'm gonna be a fisherman. That's all I wanna

do for my life.' That's so far all it's been. (Younger local fisherman, Old Harbor, 05/14/2015)

I really try to have people on my boat that love doing what they're doing. I'm out there to help people live their dreams and have a good time. (Older local fisherman, Kodiak, 10/23/2014)

We got nothing to complain about; we get to fish. (Older local fisherman, Kodiak, 05/23/2014)

3.3.1.3 Pride

Fishermen from all communities expressed a great deal of pride stemming from harvesting fish and their values regarding direct correlation between hard work and the reward, particularly so for non-quota fisheries. Generally respondents connected pride with actively engaging in fishing activities and harvesting natural and wild food sources (Figure 3.1):

You're going out and catching food for people. You're actually going out and providing something. And it's kind of nice; you can look down in your fish hold and see that you created something. (Younger local fisherman, Kodiak, 09/11/2014)

I just think about being on my dad's boat, being with my dad. I mean, that was a pride for me. To be part of something, a bigger something. And to feel like you're a part of it, and a family operation. (Younger local fisherman, Old Harbor, 05/14/2015)



Figure 3.1 Child's boat jacket in a fisherman's home. Photo: Danielle Ringer.

Student survey results revealed that roughly 33 percent of Kodiak region students felt that people look up to fishermen in their communities, while 17 percent disagreed and 50 percent reported being neutral (Figure 3.2). In Old Harbor, where engagement in fishing is high among youth, 70 percent of students agreed that fishermen have high status in the community. However, the overall regional neutrality indicates generational shifts, as many youth are unsure about the current status of commercial fishing livelihoods.

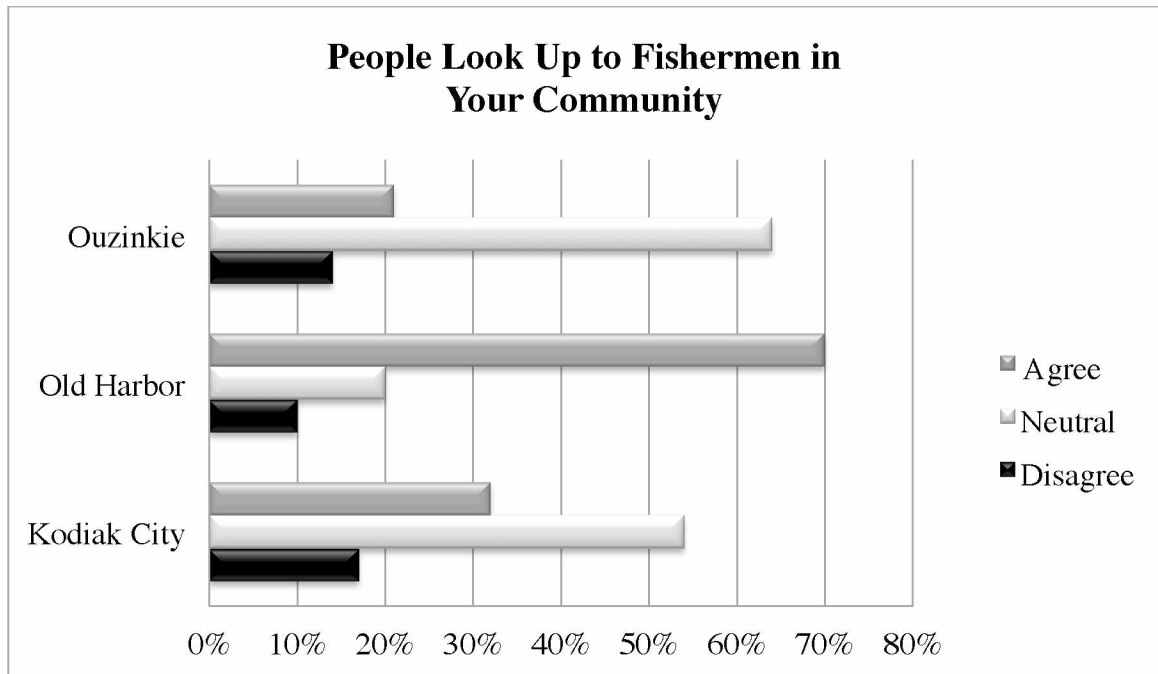


Figure 3.2 Student survey results: Status of fishermen.

On the other hand, older interview respondents expressed pride in seeing young community members participating in fisheries but were also concerned about limited local fishing opportunity within rural communities:

I like it at the end of the day [when] you've worked really hard and your body is tired, your mind is tired but you know in your heart of hearts that you just put in a day of a good long day's honest work. You can go to bed satisfied. (Younger local fisherman, Kodiak, 10/14/2014)

Look how young he is and he does good fishing. Makes everybody proud when these young guys do that you know. A lot of these guys just lay around here, don't do nothing cause they don't have permits. But otherwise, that's how the story goes out in these villages. Big ups and downs, here and there's fishermen. Some guys want to fish, some don't and get other jobs and stuff. And here in the villages there isn't very many jobs. (Older local fisherman, Ouzinkie, 05/15/2015)

3.3.2 Fishing Cultural Identity

Identity formation is a process informed by lived experiences as well as response to external perceptions and forces. As such, understandings of fishermen's identities must include myriad personal characteristics, such as age, residency, and familial background. As Reedy-Maschner (2010) described, "Part of identity is to have a future... The hope of this continuity is the place where identity is renewed seasonally as well as generationally" (p. 247). The following quotes expressed local fishermen's perspectives on cultural identity tied to fishing within each study community:

It gives you your identity. For me it's just part of my home and where I am and where I live and it gave me really good strong work ethics. And I think that's one of the things that a lot of kids are lacking these days. It does, it gives you discipline and I don't know. It's just a lifestyle. It's a way of life. I couldn't imagine not being around it or not doing it. I value all the years that I had on the boat and the time that I had with my family. And most of the time it was- there towards the end- it was just my dad and I on the boat. But throughout high school it was my sisters were stacking seine alongside me and my brothers in the skiff and mom and dad were on the deck. So it was a family operation and you just can't take that time ever back- it's pretty amazing. (Younger local fisherman, Old Harbor, 05/14/15)

It's a way of life. It's one of the few careers where everything you do is centered around this career. When we're out fishing we eat because we need to have energy to catch fish and we sleep because we need to be able to stay awake later to catch fish. Everything we do once we start fishing, that's it. It's more than a career it's a way of life for sure. (Younger local fisherman, Kodiak, 05/23/14)

As discussed in Chapter 1, Kodiak Archipelago's Alutiiq people have been living off the land and sea for roughly 7,500 years. Pre-historic and contemporary cultural traditions rely heavily on available fish, invertebrate, marine mammals, and terrestrial resources. Subsistence continues to be important to Kodiak Archipelago communities as a lifestyle as well as a supplement to annual income and diet providing food security. Kodiak community leaders

reported that region residents consider salmon, halibut, and crab as the three most important marine subsistence resources (Kodiak Chamber of Commerce, 2014). The Alaska Department of Fish and Game (ADF&G) estimated that roughly 93 percent of Kodiak Island Borough residents use subsistence salmon, 2 percent use marine mammals, 80 percent use marine invertebrates, and 95 percent use non-salmon fish (Himes-Cornell et al., 2013). One older respondent explained the link between subsistence and commercial fishing practices as a way of performing cultural identity:

It's [fishing] important to me. Besides just commercial fishing of course with our own subsistence way of life, that's really important to me. (Older local fisherman, Ouzinkie, 05/09/15)

Traditionally and today fishing activities serve as an integral part of flexible occupational patterns that enable rural coastal people to weather difficult years and ecological instabilities. The alienation of fisheries access away from predominately indigenous rural communities represents an additional way in which privatization programs and economic framings of fishermen fail to capture the broader importance of Kodiak region fishing livelihoods.

3.3.2.1 Camaraderie

Respondents repeatedly noted social connections as being a highly valued aspect of commercial fishing livelihoods. Words like family and fraternity emerged from the data to illustrate the strength of perceived and experienced social bonds within gear types, communities, and the industry as a whole. The following respondents explained:

I think people rely on each other on the docks. Probably five times today somebody has come by to borrow a tool or ask my advice on something and I've done the same. People really work together. I feel like you go out in the city somewhere and have a bunch of similar businesses that are near each other they're not going to work together the same way a fishing fleet does. People on the dock. There's sort of a fraternity among the seiners, so when I got the boat everybody's coming by and helping me out and pointing me out. Cause you know you spend just as much time in the harbor as you do out on the

water. Just from the community I got a lot of help. (Younger local fisherman, Kodiak, 05/23/2014)

I don't know how to put it into words. I mean in some ways it's almost like a family. (Younger local fisherman, Kodiak, 05/24/2014)

That's a lot of it too, in fishing, is camaraderie. Close friendships. A lot of these people, we're like brothers. There may be some guys you don't like but gosh, if you're going by and that boats on fire or whatever, you don't think of nothing. You just go get 'em and save 'em. That's the way it is. We have to be like that. It's just an unwritten law that's just right down to your bone. Nobody needs to tell you that. It's not something you can go take a course on. (Older non-local fisherman, Kodiak, 05/28/2014)

3.3.2.2 Descriptions of Fishermen

Fishermen were continually described by respondents as having to be a jack of all trades and that multiple skills are required in order to be successful in fishing. Respondents explained that fishermen fill various roles ranging from doctors to engineers to biologists and even in these complicated positions fishermen tended to focus on the rewards resulting from bringing fish onboard:

There's kind of a direct correlation to the amount of thought and effort you put into your job and the reward. And I'm not talking about monetary; it's when a pot comes up full of crab. A longline comes in and you've set in the right place and it's very obvious, and a little luck has to be involved but still there's some sort of process that you've gone through to why you did this or why you did that and when it comes out good. What's not to like? (Older local fisherman, Kodiak, 06/05/2014)

All I know is when you go out and get a boatload of fish you're feeding people. A lot of people. And we're getting paid for how much fish we deliver, so it's a direct correlation to how hard you work and to your production to how much money you make. (Older local fisherman, Kodiak, 10/23/14)

You have to be capable of so many different things in so many arenas from personnel management to finances to you know, all the physical, hydraulics and net work and welding and on and on and on. But just capable of putting the whole thing together. There's so many moving parts, people and things. And any one little thing can break and put an end to it; you just need to be able to overcome. Look ahead enough to see them coming and deal with it. (Older local fisherman, Kodiak, 08/31/15)

Respondents were asked to free associate words that they thought described commercial fishermen and the question usually incited initial laughter and some more negative stereotypes but then followed up with more positive characteristics. This question continued to illustrate the wide range of people that are drawn to fishing lifestyles. Example responses included the following words and phrases:

Hard working, crusty, dysfunctional, conservationists, smart, misfits, hodgepodge of personalities, people from all over the world, proud people, hard living, competitive, assholes, aggressive, humble, all walks of life, dirty, lively, free, committed, vulgar, drunk, good people, cocky, like to have fun, rugged, adventurous, confident, wild, knowledgeable, hard-asses, strong, family-oriented, stubborn, burly, hardcore, dying breed, eccentric, adrenaline junkies, focused, big softies at heart, scrappy, independent, capable, innovative, crafty lot, untamable, individualistic, grimy, satisfied.

3.3.2.3 Sustainability and Stewardship

Many respondents expressed concern about the role and validity of science that influence management decisions and were adamant about the importance of keeping fishery stocks healthy and abundant. Science and “good management” were linked by respondents in their conceptualizations of fisheries systems, with an overall preference to see science play a larger role in regulatory processes than political power. Fishermen’s knowledge itself was also documented in this research. Thornton and Scheer (2012) explained that local and traditional knowledge (LTK) is increasingly recognized as a body of knowledge suitable and important to incorporate into governmental resource management and policy. They defined LTK as a broad

concept including indigenous knowledge, folk knowledge, informal knowledge, and ethnoscience. Berkes, Colding, and Folke (2000) provided a more in-depth definition as “a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment” (p. 1252). Interviewed respondent’s knowledge of ecological conditions often reflected intimate, ancestral, and prolonged sources of information, as fishermen are able to observe changes on the water from day to day and year to year. One respondent considered the role of ecological change upon salmon stocks:

What kind of role does climate change have on our salmon? Too much rain, floods. I think our salmon escapement in these local systems was kind of weak, but then we got all that rain and that could have washed the eggs out. Back in '09 we had that 6.5 inches of rain, closed down the road and it washed out a lot of systems; really bad. The return from that was terrible. Like last year, we didn't have all that ice and snow. Not having too cold of temperatures and the right amount of snow is actually good for the salmon. (Older local fisherman, Kodiak, 10/06/2014)

A recent Editor’s Log in *National Fisherman* magazine opined that, “No fisherman wants to take the last fish, despite the notion the mainstream media would lead otherwise uninformed readers to believe” (Hathaway, 2016). Ethnographic interviews revealed similar sentiments where respondents were keenly concerned about threats to fishing access and the health and conservation of fishing stocks. While several respondents described themselves as stewards because of their reliance on fisheries, they were also concerned about broader ecological climate changes and bycatch impacts from certain non-selective gear types. They explained their dependence on sustainability of fisheries stocks in order to allow for continued subsistence and commercial practices and viewed their fates as linked with the health of ecological systems. Many expressed that generalized assumptions about fishermen wanting to empty the ocean of fish were deeply offensive and reflected broad misunderstandings of actual fishermen:

To be portrayed that all we do is kill everything in the ocean, it just irritates me. A lot of fishermen are smart, they're conservationists. They don't want to see a decline in their fisheries. They want to see the future bright for them and their kids. (Older local fisherman, Kodiak, 10/06/2014)

When you talk to people down south and they look at fisheries management they think that if it's conserving fish that it's good. The more fish you have the better it's working. And that's really not the goal; the goal is to generate benefit from fisheries. Part of that means you do have to conserve it and have a sustained benefit. They all see it as either you're killing fish or you're not, and they don't understand all the livelihoods that come about from it. All the protein that it provides. (Younger local fisherman, Kodiak, 05/23/2014)

Everything changes constantly with every year so it's hard to plan. In a few years it could be non-existent or just so bad that it's not worth fishing. But on the flip-side of that, I'd like to think that we've done so well with it [fishing industry] for so long that if everything's done right and people do their part, we should be able to sustain it for another 20 years. (Younger local fisherman, Kodiak, 09/15/2014)

Many respondents cited Kodiak's salmon fishery as a particularly good example of sustainable management in reference to the returning wild runs and significant local ADF&G oversight of weir counts and escapement goals that dictate fishing openers and closures. Fishermen also expressed awareness that protecting this year's stock will support next year's stock and their future livelihoods. Some salmon seine fishermen in particular were vocal about having stringent social and self-regulating boundaries in which if an individual is even suspected of "creek robbing" and thus possibly destroying a particular riverine system stock, they are considered social pariahs and shunned by the majority of the fleet on water and off. Other respondents continually noted the connection between salmon and sustainable fisheries management:

I like, specifically about salmon, is that it's clearly sustainable. There's a very distinct management plan that they have. (Younger non-resident fisherman, Kodiak, 09/12/2014)

I've gotten in a lot of arguments with people that don't understand or are very gung-ho about not fishing the ocean. But I think it's pretty important to fish the ocean and also maintain the fish in the ocean. Salmon is very sustainable and highly managed. We don't fish a lot of times that we could fish just so that the fish get up the river, and a lot of people don't actually understand that. (Younger non-resident fisherman, Kodiak, 09/06/2014)

Our area in particular [set net site] has been hit hard by some management concerns. So the stocks are down, have been for quite some time now. We're dealing with low escapement [and] low returns so we're not seeing as many fish as there were in decades before. So we've been working with Fish and Game and KRAA [Kodiak Regional Aquaculture Association] to help rebuild those runs, which has meant that we've sacrificed fishing time. We've actually lost fishing time in the last several years trying to rebuild our runs. (Younger local fisherman, Kodiak, 10/21/2014)

3.4 Conclusion

Narrow economic framings of fishermen that assume inherently greedy and self-interested behavior are easily challenged by ethnographic accounts of fishermen's identities and their motivations. Kodiak Archipelago fishermen are not homogenous individuals and this research demonstrates that they are not all destructive "rational actors." Instead, this work suggests that dominant discourse needs updating from representative understandings of fishermen and their cultural identities and motivations. Broader fisheries awareness and management would benefit from acknowledging the importance of social relationships and community support derived from participating in fishing activities. Though financial profit is unquestionably a key aspect of sustaining a commercial fishing operation it is not the only driving factor motivating the majority of fishermen interviewed in this research. Other factors documented included love of fishing and pride in intergenerational fishing traditions and performance of fishing identities. Respondents conveyed overall concern about ecosystem health

and the importance of protecting extremely valued fishing livelihoods and resources in rural places. Furthermore, the marginalization of predominately indigenous rural communities from fisheries benefits illustrates the need for culturally specific fisheries policy and how incomplete narrow economic framings currently are at capturing management implications upon fishing people and places.

Chapter 4 Fishing Community Viability and Youth Pathways

4.1 Introduction

This chapter considers the final objective of this study to explore the relationships between local fisheries access, youth pathways, and the viability of coastal communities within the Kodiak Archipelago. As fishing access continues to be alienated from coastal communities through economic and social restructuring, these changes and the impacts upon the viability of coastal livelihoods must be understood. Outcomes explored in this chapter include outmigration, substance abuse, and the severing of traditional fishing pathways away from coastal youth. As discussed in Chapter 2, ethnographic data suggests that the privatization of fisheries access can be viewed as the broader catalyst to understanding current youth perceptions about fishing livelihoods. Required increased access to capital, lack of fishing experience among youth, and rising social problems within the three study communities are both directly and indirectly tied to privatization impacts. However, community mechanisms, like social networks and collective identity values, may act to improve resilience to broader structural controls and changes.

Whereas economic efficiency-promoting management programs tend to ignore and minimize the numerous contributions that small-scale fisheries make to local communities, maritime culture persists throughout the Kodiak Archipelago remaining a fixture in everyday life within these coastal communities (Figure 4.1). The following sections share respondent and student perspectives about the challenges and benefits of rural living, youth education, and perceptions of fishing livelihoods in the context of community viability. The theory of access informs the exploration of what factors contribute to coastal community member's ability to benefit from fisheries resources outside their doors in the context of well-being and youth pathways.



Figure 4.1 Kodiak Maritime Museum exhibit display in Kodiak harbor.

Photo: Danielle Ringer.

4.2 Fishing Community Characteristics

Humans have settled near the coast for many years because of the rich environments offered by the intersection between land and sea. Today, more than 50 percent of people in the United States live in coastal communities (Bulleri & Chapman, 2010). This dynamic interface results in livelihoods and economies sustained in large part by the utilization of natural resources. As communities develop and resources experience increased extractive pressures, conflicts arise with competing interests and goals by various stakeholders (Tillotson, 2013). Alaska offers a unique example of a place where residents are even more concentrated along the coast and dependent upon maritime resources. As such, this thesis recognizes place and community specific characteristics as important components in understanding fishing community dynamics. The following sections provide specific experiences and perceptions documented within Old Harbor, Ouzinkie, and Kodiak City fishing communities.

4.2.1 Best and Worst Aspects of Rural Life

Respondents were asked to name some of the best and worst aspects of living in their communities. Many of the characteristics of community life were identified as both positive and negative as the mirror sides of concepts like isolation and small-town-feel. Respondents tended

to enjoy the isolation of being away from big cities and ability to enjoy nature, but also were frustrated with the associated difficulties and cost of transportation off island and between Kodiak communities on small planes that are extremely weather dependent. Hunting, sport fishing, hiking, and water sports opportunities were continually mentioned as highlights of living in the region. Local food harvesting practices were highly valued among community members Alaska Native and non-Native alike including picking berries and filling the home freezer with goat, deer, ducks, and fish. These shared values among Kodiak fishermen from both rural villages and the Kodiak City hub represent the importance of a sense of community among coastal people and connection to the surrounding natural environment.

The tight-knit aspect of island living provided mixed outcomes where some respondents stated they felt comfortable leaving their cars unlocked because everyone knows everyone, but others were concerned about rising crime rates, including thefts and substance abuse issues. One of the best aspects of living in study communities that was continually mentioned was the type of people that are drawn to rural coastal living. Respondents expressed a general sense that everyone “is in this thing together” for the good and the bad that rural life offers and that there is a certain level of support and obligation to other community members within such small populations. When asked what was needed for a good life the region as a commercial fisherman, many respondents noted the importance of social connections, including good spouses and friends, as a support base:

I just love fishing so the fact that I can fish is what makes this town worthwhile for me and I think [that's true] for a lot of people in this town. It's just a great community. I like that I don't lock my car or take my keys out of the ignition. I've never had a key to a house here. People are really friendly. It's beautiful and it's clean. You're sort of removed from a lot of the anxiety that develops down south. (Younger local fisherman, Kodiak, 05/23/2014)

For me, I like village life. I was born in a village, raised in village. I guess, like I say, just village life in general [is my favorite thing about living here]. You know everybody, or almost everybody. (Older local fisherman, Ouzinkie, 05/09/15)

The boats and the water [make a satisfying life]. I would rather live here than in a big city. I've been to big cities and there's really not many places you can get away from. Here you can get away and go to the beach and get away jumping on your boat. You can go anywhere you want as long as you have the resources. I like relaxed small towns like this. (Younger local fisherman, Kodiak, 09/25/2014)

The community is awesome. The fishing is great and every person has a relationship with each other because we're all participating in something together, fishing. We all have a hand in. (Younger local fisherman, Kodiak, 05/30/2014)

Home. Beautiful. Like we're a big family. Yeah, everyone here takes care of each other. I like it here because I'm able to raise my kids around my family and the way that I grew up and have the freedoms that we do, live our subsistence kind of lifestyle. It's nice. But on the con side of it, my little guy [son] needs to have a little bit more exposure. And he wants to play sports, but we can't provide that for him here. And for academic opportunities, I kind of have to take them to a larger school if I want them to get that. (Younger local fisherman, Old Harbor, 05/14/2015)

Survey data showed that students also value outdoor activities, small-town mentality, and freedom in out of the way places as opposed to urban life characteristics. When asked what about some of the worst things about living in their community, students noted the increase in drugs and alcohol, lack of activities other than outdoor recreation, and the inclement weather during the winter months. This data is indicative of the rural dull and rural idyll paradox discussed in Chapter 1. Much like Haugen and Villa's (2006) work with Norwegian rural youth, Kodiak Archipelago community youth cited notions of the idyll as reminiscent of tight social networks and inclusivity along with easy access to nature and outdoor adventures. Characterizations of the dull were also noted, such as geographic isolation and slim opportunities for employment and entertainment. These notions of youth's perceptions of rurality support diverse depictions of rural life that acknowledge entangled positive and negative elements.

4.2.2 Rural Economies

Respondents of all ages and all residency backgrounds noted the high costs of living in Kodiak's communities. Cost of living in Kodiak City, as the hub, is less expensive than outlying villages but also has more amenities to spend money on. Ouzinkie does not have a grocery store and residents rely on subsistence food and groceries purchased elsewhere that are transported on boats or by small airplanes. Old Harbor has a couple of small grocery stores but stocks are limited and prices are certainly higher than in the hub. Kodiak City experienced the recent closure of the Alaska Commercial Co. Food for Less (AC) grocery store in June 2014. The store historically supplied downtown Kodiak with furniture and clothing items in addition to food and the loss equated to the lack of full service grocery stores within walking distance from the harbor and cannery row, other than a smaller specialty store Cactus Flats Natural Foods. The AC General Manager cited profitability as the main reason for the closure and referenced economic competition from Safeway, Wal-Mart, and the USCG commissary, all of which are driving distances from downtown, although the commissary is only available to military personnel (Boots, 2014).

The availability and pricing of groceries, housing, and transportation were the top concerns that people mentioned as either why it was difficult or why they decided not to live in the region. Many local respondents explained that they subsidize grocery costs with subsistence hunting, wild greens and berry gathering, and home pack fish. Old Harbor has developed public greenhouses from an Administration for Native Americans grant and recently acquired chickens in order to supply additional local food sources. The latest Alaska Economic Trends reported that grocery items including ground beef, eggs, and milk cost more in Kodiak than in Anchorage, Juneau or Fairbanks (Fried, 2016). Heating fuel can be offset with wood burning stoves for some local fishermen, but in general respondents expressed general dissatisfaction with rising costs of taxes, groceries and housing in connection to fishing opportunities:

Because the cost of living is so high and you don't really make enough as a crewman to sustain a quality of life here. (Younger local fisherman, Kodiak, 05/30/2014)

Kodiak City housing is a controversial and challenging issue facing stakeholders and involves community members outside of the seafood industry, fisheries harvesters, processing

employees, and the USCG. Kodiak's rental prices are consistently ranked as some of the highest in Alaska providing additional challenges to youth looking to live here after school. Research conducted by the Alaska Department of Labor and Workforce Development reported that the Kodiak Island Borough topped the 2013 list for rent for a two-bedroom apartment in the entire state, with an average of \$1,401 (Fried, 2014). However, the most recent report explained that average rent rates have trended up for the borough and increased to \$1,434 (Fried, 2016). A variety of factors contribute to the high costs of housing and fluctuating availability of rentals or homes to buy, including the relative lack of land available for sale, recent changes in home appraisal values and the USCG reliance on the local housing market. The 1980s saw a housing shortage that coincided with strong employment opportunities within the seafood industry and both rentals and home sales were frequently conducted through word of mouth without any substantial time on the market. These transactions still occur today but there are also increasing homes on the market that remain there longer before selling, although rental unit vacancy rates remain lower than private home vacancies.

The USCG base is the largest in the United States and its presence influences the local Kodiak housing market as it was built in the 1930s with reported temporary housing facilities. Much of the original military housing on base has been demolished and most personnel have the choice to live in base housing if available or off-base while receiving basic housing allowance (BHA), which some respondents noted drives increased housing demand as well as rental and real estate prices. Though some housing continues to be built in the Kodiak area the market is infamously strained by incoming transient seafood industry workers and increasing USCG personnel living off of the base (North Pacific Fishery Management Council, 2010). Respondents also mentioned that most entry-level fishing vessels would not be comfortable to live on throughout the year and that challenges involved in obtaining local housing were one of the main issues facing those looking to live and work within Kodiak's communities:

If you're gonna be here you're gonna want to have a house and the house market is crazy too. If you're gonna have an entry-level boat you're not gonna want to be living on it all the time and then if you're not gonna buy a house, rent in this town is just crazy. I think basically because of the Coast Guard base and what they get for rent per month and that drives the rent market, which is pretty darn high. To get a decent nice apartment, that's a

small house payment. So then you gotta make that decision, are you gonna be here? Are you gonna just buy a house and not pay somebody else's mortgage or do you wanna pay that rent and maybe you're gonna move to Homer or maybe you're not gonna be a fisherman? The cost of living. Just the cost of groceries, everything. (Younger local fisherman, Kodiak, 09/17/2014)

This is an expensive place to live and if you want to be in a small boat fishery, you have to live here. (Older local fisherman, Kodiak, 02/2/2015)

In 2013, the Kodiak Chamber of Commerce conducted a community economic development and housing survey responding to serious housing needs within the community. Results showed that the majority of respondents believe that the current residential housing shortage is not temporary and more raw land should be developed. Open-ended responses indicated that high costs associated with building and land availability are the main concerns and challenges facing housing development. Community members pointed towards several possible solutions including incentives for developers, more Coast Guard housing, more low cost housing, and more starter homes to provide relief to the housing shortage and high cost of living on the island (Kodiak Chamber of Commerce, 2013). With rents often higher than mortgages, the housing crisis and decline in local fisheries access further exacerbates outmigration issues. As evidenced by interview data the shifting paradigm of fishing opportunity, in large part due to privatization enclosure policies, threatens not only fishing livelihood pathways but also the ability for community members remain living in fishing communities. Increasingly, respondents noted that it is becoming much more difficult to live in Kodiak fishing communities and balance high costs of living with reliance and access to only one or two fisheries.

4.2.3 Geographic Mobility and Transient Fishing Population

Respondent's perceptions of place, home, and community illustrated that while strong ties bind cultural values and community life, building a life in Kodiak's coastal communities used to be easier. Year-round fishing opportunities supplied income that built or bought many houses in Kodiak and supported family and community-based fishing operations. However, respondents explained that diminished fishing opportunities and rising costs of living have forced

many local community members to move elsewhere and either pursue employment in other parts of the state, or return seasonally to Kodiak as non-local fishermen. Interview data showed that some families who benefited from privatization allocation of fishing rights moved elsewhere and brought those rights with them, while other younger generations have not been able to access diversified fishing portfolios and are forced to move to mainland Alaska where costs of living are substantially lower.

The local circulation of fishing dollars was a central theme among respondents ranging from sales tax to bar patronage, and many were concerned about non-local fishermen that made their profits around Kodiak and returned home elsewhere to spend their money. The role of economics and flow of dollars through communities illustrates the impact of a nearly exclusively export-driven seafood industry, where many non-local community members participate and yet live outside of the Kodiak region (McDowell Group, 2016). In addition to the aging of fishery participants, Kodiak fishing communities have experienced rural population declines over the past several decades to varying degrees. For example between 2000 and 2010 the village of Ouzinkie lost roughly 28 percent of its population (US Census, 2010). Noticeably, outmigration trends are not homogenous among study communities and these differences exemplify the uniqueness of individual communities that contend with specific internal and external pressures. With rising costs of living, including housing and groceries, community residents face increasing struggles to living in coastal communities and participating in the fishing industry. Challenging framings of rural coastal communities as homogenous and asserting that instead communities are unique and complex, is relevant for fisheries policy and community development to better understand the distinctiveness of fishing people and places. The following respondents discussed residency, commercial fishing, and overall equity questions:

People coming in for the season and then they leave, which has always happened and always will happen. It's just there's not as many jobs, jobs are less paying as a whole, and money leaves the community. What little money fishing does, it doesn't stay. They might buy food at Henry's [local restaurant], buy some booze at the booze store, some groceries at Safeway for the boat, and then they might buy a t-shirt or something, and then they're out of here. And that's it. They're not making those long-term investments. They're not staying in the community, they're not buying homes, not paying property

taxes; it's a huge trickledown effect. You know, a lot of permit holders at the south end [set net] don't live in Kodiak. They come up to fish and live either elsewhere in Alaska. Not more than any other fishery, it's just an example and then part of the year they live in Colorado, California or Oregon. (Younger local fisherman, Kodiak, 10/21/2014)

A lot of our locals are moving out. Maybe if they put in a cannery, maybe the people will come back. The younger people might come back if there's a cannery or if they can go out there and harvest whatever they want to make a living. You know, people just want to make a living. (Older local fisherman, Old Harbor, 05/13/2015)

I live in Anchorage now and I'm actually thinking of buying a house in Anchorage and finding a job up there or on the slope cooking, but I would really love to come back here in the summertime to cook here or at a lodge. (Younger local fisherman, Old Harbor, 05/13/2015)

I moved away and then it was hard, I kept on coming back. And it was fishing actually that brought me back. I was like, 'I'm going back home and going fishing.' Every time I tried to move away and then I get drawn back in for fishing. (Younger local fisherman, Old harbor, 05/14/2015)

There are many fishing operations within Kodiak's waters that are not home-based out of the region's harbors. Respondents noted that the majority of outside boats hail from Washington, Oregon, and Homer. Those who choose to live elsewhere and come to Kodiak seasonally to fish avoid many of the challenges and costs associated with living in the archipelago:

This boat's from Oregon, most of the boats I've fished on have been from Oregon, out of Newport. But you know, they fish up here. We spend here months up here in the beginning of the year and another three to four months at the end of the year and most of the time we're on the boat fishing. We spend three months up here in the beginning of the year and another 3-4 month at the end of the year and most of the time we're on the boat fishing. When we get to town we'll go like eat something, you know, I think I've only been

bowling once since I've been here since 1998. (Younger non-resident fisherman, Kodiak, 02/20/2015)

In reality, Homer has a huge fishing fleet and hardly any of us fish out of Homer. I don't know how many, probably 50 seiners that are out of Homer. Probably half of them in the Sound and half in Kodiak, a few guys in Chignik. Lack of viable fisheries [in Homer] and it's a nicer place to live. (Younger non-local fisherman, Kodiak, 11/14/2014)

You know I thought about buying a house here and moving here. I seriously thought about it and I never really pulled the trigger on that for a variety of reasons, it's really expensive here. And where I live is expensive too, but it just seems more appealing. You know, you go through the salmon season and one of the things you really think a lot about is getting the hell out of here... Going and being at home for a while and not doing this. (Older non-resident fisherman, Kodiak, 08/31/2015)

4.3 Youth Pathways

Social change, including shifting education expectations and increased mobility, impacts rural youth aspirations and perceptions of the viability of traditional fishing careers. Rural youth studies within farming communities suggest that residential preferences largely coincide with perceptions of opportunity. In context of similar aging trends in the agricultural sector, particularly on family farms, fishing community youth must balance the contradictions involved with place and family attachments and perceived low opportunity in their home communities (Johnson, Elder, & Stern, 2005). These contradictions situate coastal youth in the position of weighing place attachments with coastal livelihood opportunity where the privatization of fisheries access has greatly altered traditional maritime prospects.

4.3.1 Youth Interest in Fishing

Student survey results showed a great deal of uncertainty among regional youth about fishing livelihoods. While 42 percent of students from all three communities agreed that fishing is a great career for young people and only nine percent disagreed, nearly 50 percent expressed neutrality (Figure 4.2). Old Harbor students showed the strongest sense of fishing community

identity (roughly 70 percent of students agreed Old Harbor is a fishing community compared to 40 percent of students in Kodiak City and Ouzinkie). Similarly, Old Harbor students showed the most interest in getting more involved in fishing (50 percent of students surveyed expressed a desire for more commercial fishing engagement, compared to 27 percent of students in Ouzinkie, and 17 percent of students surveyed in Kodiak City). However, only 33 percent of Old Harbor, 21 percent of Ouzinkie, and 11 percent of Kodiak City students expect commercial fishing to be a part of their futures. Student survey results reveal that of those who are interested in commercial fishing, 34 percent grew up in the study communities and 17 percent were not from fishing communities, demonstrating the link between local fisheries exposure and place-based trajectories.

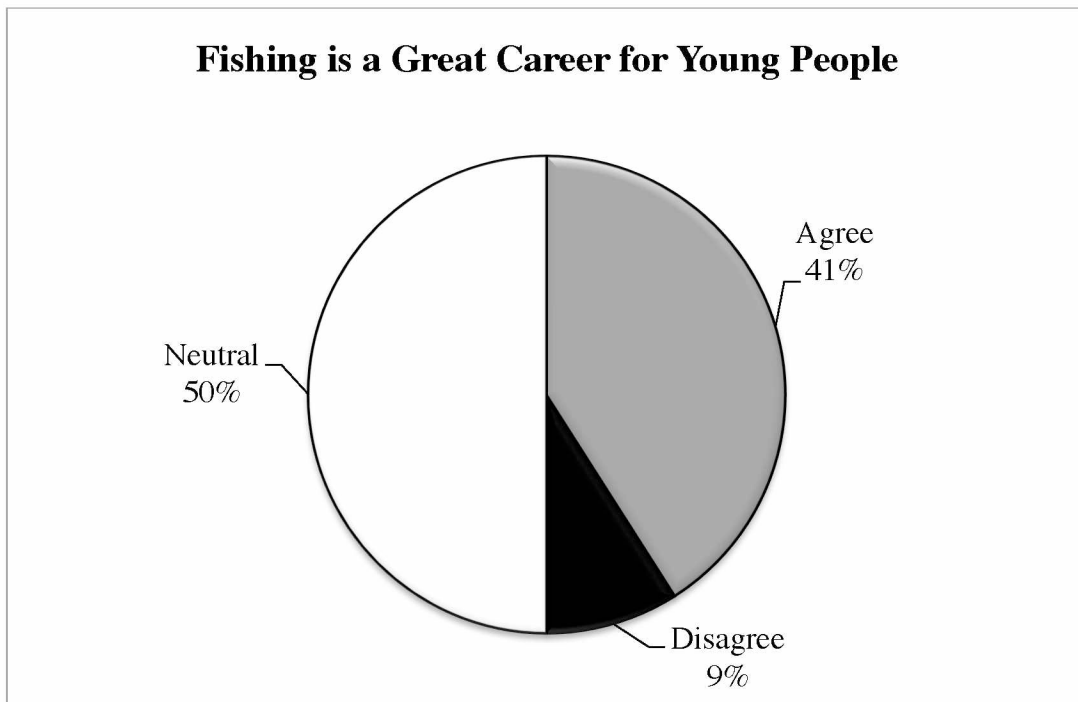


Figure 4.2 Student survey results: Perceptions of fishing careers.

These mixed survey results indicate trends reported in previous work on fishing communities that fishing may be no longer viewed as a preferred occupation for rural residents due to alterations in access, status, reward, and stability (Power et al., 2014; White, 2015). Even though many students agreed that fishing is a major part of community, there was great ambivalence about fishing as a career illustrating contradictions between cultural values and

actual viability of fishing livelihoods. Some students simply were not interested in fishing, were frustrated by homogenous framings of rural pathways of always being tied to maritime work and noted shifting reward between captain and crew:

They shouldn't bother people or try to force someone into something they don't want to do. (Student survey participant, Kodiak, May 2015)

Stop shoving fishing down our throats. (Student survey participant, Kodiak, May 2015)

A lot of vessels are rundown and un-safe for occupancy. Fishing is a great way to make a living if it's a low class lifestyle you want. Only captains make out swimmingly. My community doesn't have housing for as many people as want to live here. (Student survey participant, Ouzinkie, May 2015)

Interview respondents noted concern that youth may not be as interested in fishing careers as in the past and referenced financial and stability barriers as chief contributors to shifting perceptions:

You gotta have money to start, so where do you get all the money? You gotta go work for a number of years, and then you realize, 'It's a pretty good job I got myself in, why am I gonna go back to Kodiak and go fishing?' If you can keep a job that will pay for a fishing operation, you should probably stick with the job. What's the incentive to come back? The reward has gone down. (Younger local fisherman, Kodiak, 10/21/2014)

None of them [youth] are fishermen. None of 'em. Most of the young generation is gone doing some kind of construction, building or carpentry, or whatever they do. That's why that generation is really missing. It hurts. (Older local fisherman, Ouzinkie, 09/11/2015)

Can't really see any of the younger generation here fishing. They all seem too lazy to me.

There 's some younger ones that do logging though. None of them seem interested in commercial fishing. It's pretty much the only option of living here though, fishing or logging. (Younger local fisherman, Ouzinkie, 05/10/2015)

Younger interview respondents from fishing families simultaneously desired more stability in life than their parents may have experienced but also coveted the continuation of fisheries traditions. These fishermen were largely cognizant of the problems associated with the graying of the fleet and many wanted the livelihood to become more attractive to youth where it can provide viable business opportunities that can translate into fishing careers. Interview data suggests increasing numbers of current young fishermen with higher education and that these educated fishermen were concerned about the inherent uncertainty in natural resource-dependent careers that rely on ecological systems and market economies. The following younger respondents discussed opportunity for youth entering fisheries and how educational attainment can benefit fishing success:

I just hope there 's something left for them. I mean there are more efficient ways of fishing if we're just trying to catch enough fish to feed the world, but I hope that doesn't turn to create a scarcity of jobs. (Younger local fisherman, Kodiak, 05/30/2014)

Up and coming fishermen are encouraged to get an education. I don't think that people understand, but I think there aren't enough people that understand the importance of business and how that'll make them successful in the industry. (Younger non-local fisherman, Kodiak, 06/12/2014)

If you had talked to me three years ago I would have said I want my own boat and I'm gonna seine Kodiak. But I don't know if I really want to do that anymore. It's a huge commitment; it's a huge stress; it's worse than getting married... It's a lot of money to get into it; a lot of responsibility and you're really tied to that boat. (Younger local fisherman, Kodiak, 05/24/2014)

The instability of fishing income was continually noted as factor that added to the struggles of rural living. Other younger respondents expressed hesitancy in pursuing fishing careers other than crew positions due to the unpredictability and high level of risk involved with necessary investment in order to move up:

I don't really want to go [anymore] because you never know how good the year is gonna be. So I don't want to go out fishing and come back and pay the captain for groceries cause we didn't catch any fish. (Younger local fisherman, Old Harbor, 05/13/2014)

I'd like to be a permit holder. If anything, someone else can have a boat and I'll have a permit and do it that way. And see if I really do want to invest further in the industry. (Younger local fisherman, Kodiak, 05/24/2014)

4.3.2 Education and Encouragement into Fishing

The role of education has transformed in Kodiak Archipelago fishing communities and families where high school graduation today is expected at the very least, if not post-secondary education. Younger respondents with family fishing backgrounds typically experienced little pressure from their families to continue fishing as they age, and often instead were encouraged by their parents to pursue education or other opportunities as a backup plan to fishing. Of the Kodiak region students surveyed 92 percent said they wanted to go to college of which roughly 38 percent said they wanted to attend a technical college. The role of maritime education and the way that fishing careers are framed in schools surfaced as an important consideration in determining how youth view potential viability. In Old Harbor, survey results revealed that 60 percent of students surveyed were encouraged to participate in commercial fishing, compared to 33 percent of Ouzinkie and 22 percent of Kodiak City students. The following interview respondents explained encouragement into fishing and the importance of having a backup plan:

I guess it was always a good summer job when I was in school, but as far as doing it for a career I don't think they really encouraged it. He [dad] always said, 'You don't want to end up working with your back when you're my age.' But, I guess that's kind of the way it's going. (Younger local fisherman, Kodiak, 09/11/2014)

My parents both always stressed to my brother and I that fishing is great, but you should always have a backup because nothing is forever. Just seeing the last 10 years what's happened to the halibut industry really sheds light on that. (Younger local fisherman, Kodiak, 05/24/2014)

I dropped out of high school at 15 and went fishing for a living in Kodiak. And basically, at that time that's pretty much what was expected of high school kids. The majority dropped out before finishing and went fishing. (Older local fisherman, Kodiak, 02/12/2015)

Like in high school there'd be counselors come out and ask me what I wanted to do after high school. I always knew I was gonna fish. So they always wanted me to have something different to fall back on, so I had to always make something up. I don't remember what I made up, but I wasn't really interested in doing anything else. I tried going to college for a bit but it wasn't my cup of tea so I didn't do it. I had to quit fishing to go to orientation and stuff and they were still fishing, and that's where I was, that's where my heart was, on the boat still. It was kinda tough being away you know, for that little time anyways while they were still out catching fish. I just wasn't into the college thing at all, but now I kinda wish I did it. I was going for diesel mechanics in Juneau and I'd never been there and I was just pretty much completely lost. Didn't know anybody, I didn't really care for it there. (Younger local fisherman, Ouzinkie, 05/10/2015)

I've noticed a lot more kids dropping out of high school thinking they can just go fishing and that it'll all work out. And that's just not really realistic. In my graduating class there were only four of us and only two of us are in college. [Some] try to move but the farthest that they go is Kodiak and then they're right back here again after a few months. I think they just go there just to try to get away from here but it's just too close to home. (Younger local fisherman, Old Harbor, 05/13/2015)

Kodiak City serves as the region's hub for education opportunities and has a range of organizations focused on marine-based education development. The Kodiak high school offers an elective maritime technology course for students interested in fishing, but there is currently no required course to give all students exposure to maritime trades and some respondents expressed interest in seeing this class expanded. Additionally, the Kodiak College has developed a maritime program that is available to ages 16 and up and offers a range of skills from basic deckhand workshops to more in-depth mechanical skills for current fishermen.

4.4 Well-Being

Measuring the quality of life within fishing communities is a complex undertaking; however, well-being can be broadly understood as a composition of life, community and job satisfaction (Garcia-Quijano, Poggie, Pitchon, & Del Pozo, 2015). In this work, well-being is defined as a multidimensional concept that describes the degree to which a community, group or individual is sound and functional and includes aspects of happiness, health, and prosperity (Hicks et al., 2016; Pollnac & Poggie, 2006). An emerging body of work on well-being to inform coastal policies highlights the importance of understanding the relationships between humans and their environments and most notably that sociocultural factors in addition to economic factors influence well-being (Pollnac & Poggie, 2006). A recent publication focusing on engaging key social concepts in sustainability argued that social measures must be drawn upon in addition to natural sciences and engineering in order to enable and assess progress to sustainability (Hicks et al., 2016).

Among maritime social scientists it is generally accepted that decreased fishing opportunities for coastal residents has a negative impact on well-being for both individuals and communities (Jones, Caveen, & Gray, 2014). Many examples around the world showcase the significance of established relationships between people and fisheries access. Coastal communities in Puerto Rico report higher levels of quality of life and well-being for those that participate in resource foraging than their non-foraging counterparts (Garcia-Quijano et al., 2015). Small-scale fishing in Mexico offers food security and income to coastal residents and yet these fishermen are considered marginalized from the governmental power structures that dictate access to fisheries (Robles-Zavala, 2014). When pathways to accessing fishing livelihoods diminish within fishing communities, community members must develop resilience strategies in

order to sustain traditional livelihoods and the ability to remain in their communities (Himes-Cornell & Hoelting, 2015).

Rural coastal community members in Alaska largely value both subsistence and commercial fishing activities, though there remains concern over the future with changing economies and related impacts on livelihood traditions (Holen, 2014). Furthermore, the concentration of wealth and access rights as discussed by Carothers (2015) suggests that social conflict and divisions within communities are key examples of changes resulting from altered fisheries management programs. When social relationships are negatively altered through economic restructuring the ability for communities to work together towards development of resilience measures potentially weakens. Because social organization and thus human capacity is linked to the viability of natural resource livelihoods (Garcia-Quijano et al., 2015), evaluating fishermen and community well-being in the fishing industry illuminates complexities within fisheries systems. In this study, ethnographic data suggests that well-being considerations among Kodiak Archipelago fishermen represent contrasting ideologies between neoliberal fisheries governance and fishing livelihoods embedded within cultural coastal living. The following sections elucidate several of the key points about community and fishing well-being brought up by interview and survey respondents.

4.4.1 Sense of Place

Rural locality and community identity are intrinsically linked and sensitive to broader shifting globalized trends and restructuring (Kraack & Kenway, 2002), most notably within fishing dependent communities. Anthropologists suggest that the connection between place-based identities and social organization in fishing communities is associated with dominant cultural practices. As such, collective place-based identities are continually constructed and re-constructed as a process responding to change, local experience, and in relation to outside places and people. During times of actual or perceived livelihood restructuring, such as resource industrialization, regional identities that resist change may emerge as place attachments deepen and community members experience a sense of powerlessness within the broader socioeconomic structure (Larsen, 2004). Similar to other rural Alaskan fishing communities, Kodiak region respondent's multidimensional identities are entangled with aspects of commercial and subsistence fishing at the center of social relationships and identity performance (Reedy-

Maschner, 2010). Local fishing livelihoods are therefore themselves embedded within sociopolitical processes that dictate intergenerational knowledge transfer and the social reproduction of fishing culture (Donkersloot & Menzies, 2015).

Despite evidence of declining local fisheries access, the role of fishing in community members' identities remains evident, illustrating a similar scenario experienced in other rural Alaskan places where there is a "discrepancy between economic realities and contributions of fishing and emotional meaning imbued to fishing represents significant area of vulnerability" (Lyons, 2015, p. 100). With this understanding it should come as no surprise that fishing communities and people are concerned about how they will maintain and adapt their identities in the face of current and potential change. Outlying rural fishing communities in particular are facing not only a crisis of access, but also an identity crisis related to decreased fishing opportunities and disengagement of the younger generation from fishing. Though these trends are not as pronounced in Kodiak City as in the villages, the overall alienation of pathways compared to historical opportunities into fishing impacts all Kodiak Archipelago youth. The labyrinth of layers involved in understanding shifting values and identities reveals a slow but steady transformation of livelihoods pathways, indicative of the performative power of market-based fisheries access regulations. The following respondents discussed linkages between fishing communities and fishing access:

Talk to the guys who went through, especially the crew guys, who went through the king crab era and all the previously rationalized fisheries. I think they'd be interesting to talk to because they can explain what happened to their lives when the rug got swept out from under them. I think maybe even as that transition was taking place you could talk to cannery workers from that era or just members of the community. I imagine that financially this place took a hit. You could see what happens to a coastal community when money is taken away, where there was once an opportunity that's no longer available. (Younger local fisherman, Kodiak, 05/30/2014)

The whole center of this town is the harbor. There's two harbors. I don't know what this town would even be without fishing. Nothing, a coast guard base. A military town. But the Coast Guard wouldn't need to be here if we didn't have a fishing industry. It's a

fishing town and that should mean a little more I think. (Younger local fisherman, Kodiak, 05/24/2015)

There 's not really anything else [than fishing]. It seems like even the tourists come here to see fishing and fishing operations. (Younger local fisherman, Kodiak, 10/14/2014)

I think it's beautiful here, but it'd be hard to live here if there wasn't the draw of fishing. (Younger local fisherman, Kodiak, 05/30/2014)

Place attachments and psychological impacts of being “left on the beach,” or severed from fisheries access, complicates identity navigation as community members and local fishermen balance traditional notions of fishing with realities of transformed paradigms of opportunity. Most interview respondents described their communities as fishing communities and even in places like Ouzinkie, where there are very few remaining commercial operations, community members still strongly hold to the fishing identity, regardless of the decline in local permit or quota holders. Open-ended student survey results also support respondent’s notions of fishing communities:

Fishing has helped this community grow and stay alive for generations. Fishing is part of our heritage and a vital part of our society. Fishing is and hopefully always will be part of Alaska. (Student survey participant, Kodiak, May 2015)

I do not commercial fish. However, my family and I depend on the fishing fleet. My father owns a [marine service] business. His main customers are the fishing fleet and the Coast Guard. Without those two groups, my family would lose a majority of its income. I am thankful and appreciative for fishermen and the fishing fleet, and any means to preserve their livelihood will preserve mine. (Student survey participant, Kodiak, May 2015)

Even as fisheries have been greatly restructured by privatized access, fishing culture remains important to the region as about 74 percent of Kodiak region students agreed that fishing is a major part of life in their communities, and only eight percent disagreed (Figure 4.3), despite

only nine percent of regional young people surveyed ever having been engaged themselves in commercial fishing.

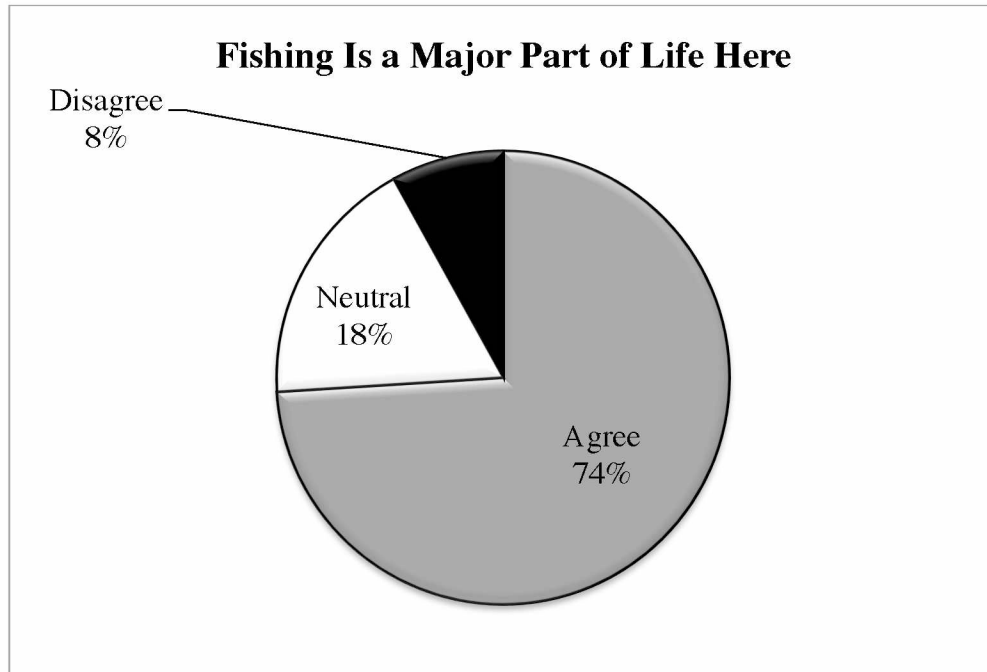


Figure 4.3 Student survey results: Role of fishing.

4.4.2 Loss of Generational Fisheries Access

Declining local access to fisheries plagues both state and federal fisheries in Alaska. Between the implementation of the limited entry program in Alaska’s state fisheries in 1975 and 2014 more than 2,300 permits migrated or were sold outside of rural fishing communities (CFEC, 2015). Similar trends surfaced in analyzing federal fisheries, where rural Gulf of Alaska communities holding halibut and sablefish quota declined by 50 percent since the IFQ program beginning in 1995 (NOAA Fisheries Service, 2015). The loss of fishing rights hence threatens the viability, population, and economic opportunities within coastal communities. As many fishermen criticize the “framing of fishing rights as alienable commodities” (Carothers, 2008, p. 68), it is plausible that as community-based fishermen struggle with the realities of rural living some feel pressured to sell access rights in order to maintain short-term stability.

The outmigration of fishing rights from rural communities was continually referenced during interviews as a chief concern among Kodiak fishermen and some local respondents

expressed desire to see community-based access programs to reverse this trend and increase local ownership in fishing rights. Many Kodiak region fishermen who were present for the beginning of limited entry and IFQs actually fought against the implementation (Carothers, 2008). Some of these were the fishermen who became initial holders (or issuees) of rights depending on their activity during qualifying years. As discussed in Chapter 2, Elders in Old Harbor and Ouzinkie frequently described the days before privatization and asserted that permits and IFQs need to be thrown out in order to give people a chance at surviving in rural communities where there is no other industry. Several older fishermen referenced that once fishing rights themselves became transferable and had dollar values, they lost their livelihood access through divorce settlements. Respondents described a sense of initial disbelief that fishing rights could be sold outright likely complicated understanding of the foundational change that limited entry and IFQs would have upon fishing communities and people:

They should've given every family household a certain amount of IFQs so they can keep living out here. But fighting with the [International Pacific] Halibut Commission, you'll never beat [them]; you'll never get anywhere. You can't fight the Halibut Commission cause you ain't gonna get nothing from those guys. It's hard. Put these kids back to fishing so we don't have to draw that stupid welfare check and food stamps. Get away from that stuff. It destroys people, no good. It's poison. I was up in Anchorage, I testified against that and nothing happened. There were a bunch of us up there testifying the halibut IFQs. My son would probably live here if he could've got to fish. You know all our boys would be fishing; we'd have a good fleet here. Now we've got nothing. (Older local fisherman, Old Harbor, 05/13/2015)

I was a millionaire until I divorced. Cause it seems like I was working from season to season and the bank account wasn't growing that well, but then we got divorced and put all this stuff together and I had to give her half of it. We were actually doing pretty well, we ended up buying a house down there and I have one in [the village]. I got the shack and she got the mansion. But that saved my butt; I got to keep this one [boat]. If it wasn't for my halibut and black cod, let me save the rest of the stuff with not having to sell out.

So she went away and I still had about a million bucks in fishing assets. (Older local fisherman, Kodiak Archipelago, 09/11/2015)

4.4.3 Loss of Social Capital

The outmigration of youth and community members has severe social capital ramifications for coastal places. Rural communities around the world are experiencing population loss as young people are leaving their hometowns in search of urban opportunities (Bjarnason & Thorlindsson, 2006). Survey results from this study show a great deal of ambivalence about preferences after high school (Figure 4.4); however, 18 percent of Kodiak City, 20 percent of Old Harbor and 33 percent of Ouzinkie students said they would like to return seasonally to their communities. Conversely, none of Old Harbor, 18 percent of Kodiak City and 40 percent of Ouzinkie students said they would leave and not return to settle. Overall regional comparisons between male and female students showed only slight variation; the largest difference was that only four percent of females said they would stay in home community, compared to nine percent of males.

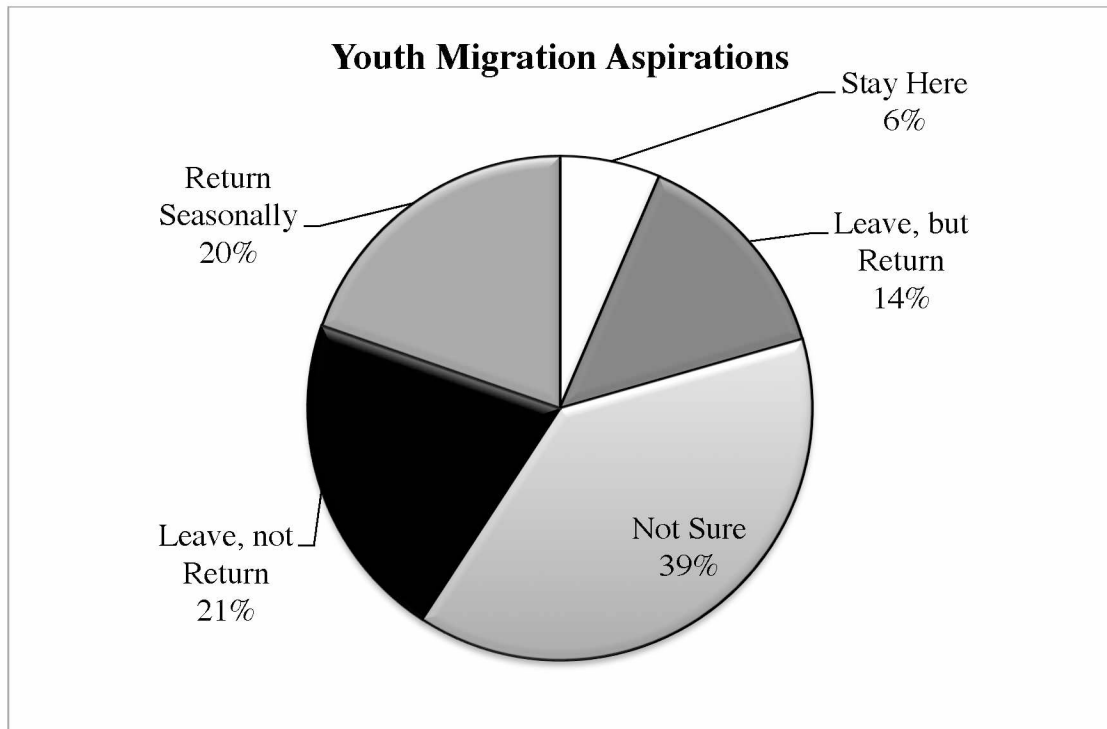


Figure 4.4 Student survey results: Kodiak region migration choices.

A recent *Kodiak Daily Mirror* editorial written by newspaper staff titled “Make Them Want to Come Back” pointed to this problem with a request for high school graduates to come back to Kodiak and acknowledged the issues present for youth trying to live in the community. Staff wrote, “If you choose to leave, good luck, and check back in whenever you can. If you stay or return later in life, we promise to help make Kodiak a home worthy of the best graduates as friends, neighbors and citizens” (Kodiak Daily Mirror Staff, 2016). As Elder, King, and Conger (1996) explained of rural Midwest America, diminished socioeconomic opportunity, weakening social ties, and urban educational possibilities surface as driving forces for American youth outmigration from their rural hometowns. The popularized “brain drain” and “female flight” concepts of the outmigration of educated youth exemplify the current dilemmas facing many rural fishing communities to retain social capital (Hamilton & Seyfrit, 1994).

Outmigration issues also include the exodus of young professionals and fishing families, which threatens the future social fabric of coastal communities. The societal and financial contributions that resident fishing operations make to their communities are substantial. For example, land-based partners of fishermen tend to contribute to overall social capital within fishing communities through grassroots organization and volunteering through such efforts as Kodiak City events like Galley Tables Storytelling and fundraising initiatives for the new public library. If younger fishing families continue to struggle living within the communities that they fish out of and are forced to move elsewhere and return only to harvest seafood resources, communities will undoubtedly lose out on future leaders within local community dynamics and fisheries regulatory realms. The geographic loss of social capital and commodified fisheries access has entangled connections between people and place, as some community residents are moving away from rural places where fishing (and other) opportunities are perceived to be low.

4.4.4 Substance Abuse

Rowdy behavior, especially surrounding drinking rituals among fishermen, has become culturally embedded in maritime lifestyles. Though many fishermen referenced that their communities used to be much wilder than they are now, the party lifestyle is still maintained and performed by many fishing industry participants (Mason, 1993). The wildest fishermen were described as younger crew and non-local or non-resident fishers, who may view their fishing seasons as time to let loose before returning home to their families and daily life. Most of

Kodiak's downtown bars are supported in large part due to the cyclical fisheries that support their patrons. Alcohol cannot be purchased in Old Harbor and Ouzinkie, but it can be brought by vessel or plane. Problems stemming from drinking and drugs were acknowledged by some and several captains operate alcohol and drug free vessels, often after personally experiencing histories of associated problems. Substance abuse issues appear to contribute to the derailment of fishing career pathways and overall operation success. Student survey responses to the open-ended question asking about their greatest community concerns revealed 38 percent of Kodiak youth were worried about drugs and alcohol issues:

I feel that our community is going downhill. The majority of our fishermen do drugs and over drink. This is a major problem in our community considering the fishermen may influence our youth. (Student survey participant, Kodiak, May 2015)

Rural substance abuse is increasing across the country; however, the typical framing of substance problems as a primarily urban problem ignores the explosion of rural social ill (Pruitt, 2008). Rural American youth are a high-level risk group and rather than being immune to urban problems, well-being challenges in rural places are unique and complicated (Van Gundy, 2006). Acknowledging rural substance abuse among youth challenges the rural idyll concept of innocence in out of the way places. Kodiak's indigenous population and related historical or current substance abuse must also be understood in the context of post-colonialism (Hazel & Mohatt, 2001). Multigenerational trauma can be linked to high rates of substance misuse and additional related health magnitudes, whereas cultural oppression and the disempowerment of Native peoples resonates today through remnants of destabilization. Walters, Simoni, and Evans-Cambell (2002) clarified that, "The cumulative effects of these issues have been characterized as a 'soul wound' among American Indian peoples and constitute considerable historical trauma" (p. S109).

While some respondents acknowledged varying degrees of substance abuse connected to the commercial fishing industry, Kodiak City has experienced severe spikes in drug and violence related crimes in recent years. Respondents noted the "old days" of drugs in Kodiak during the highs of the crab boom popularized cocaine, alcohol and marijuana whereas today different drugs are becoming more common within both the fishing fleet and wider community. As

methamphetamines and heroin are smuggled into the region via air or ferry, addiction among youth and community residents becomes an increasing problem. Many hired skippers and captains specifically mentioned they seek crew without drug or alcohol problems when they are filling crew positions, alluding to the prevalence of addiction-related issues among potential crewmembers. There has also been intensification in thefts of guns and home burglaries in the Kodiak City area during this research signifying crime increase and potential for outbreaks of local violence. In 2014, city Chief of Police Rhonda Wallace explained to a City Council work session that, “We have guns. We have money laundering. We have violent crimes. We have drugs. We have identity theft. We have all these kinds of crimes” (Mladineo, 2014).

Whether it's drugs or alcohol, I've seen some of that out there [in community], where you're struggling in life also and it kind of translates in to your career. So if you're an alcoholic that can't function, then it's hard to keep crew, it's hard to keep fishing, it's definitely a struggle. (Younger non-local fisherman, Kodiak, 09/18/2014)

Either these kids have a court date or they're drinking. There's so many bigger issues that we have with our younger generations. Whether it be with drugs or alcohol. I think commercial fishing and getting out there is definitely a whole new different perspective. I had a crewmember a couple years ago now that had a meth problem for a while and he kicked it. He was in a big city, wanted a change. And this guy comes here and he fishes with me and he's considered a greenhorn and gets out there and he sees the wide open space and everything. It was the greatest therapy that he could have gone through. At the end of the season he looked at me and goes, 'After what I just did and where I did it, now I can do anything.' It was a really good thing for him. (Older local fisherman, Kodiak, 10/06/2014)

4.5 Livelihood and Sustainability Shifts

The term “sustainability” is widely used by various stakeholders in Alaska and beyond in relation to the commercial fishing industry. Definitions used by government agencies and seafood businesses portray broad meanings, but often make no mention of fishing communities or social well-being. Loring (2013) evoked socioeconomic problems ranging from the

disenfranchisement of Alaska Natives to food insecurity, questioning the veil of sustainability in Alaska's commercial fisheries and the promotion of biological and economic models that marginalize the social element. As this thesis aims to explore the relationships between fishery access restructuring, community viability, and youth pathways, I acknowledge multiple understandings of sustainability. However, I suggest that more holistic definitions and use of the term that incorporates social dimensions are required.

Developing practices that support current resource health and utilization without compromising such use for future generations suggests the need for the prescription of goals beyond simply biological and economic thresholds. In addition, resource health considerations should include fishermen themselves as inhabitants within fisheries systems. In discussing fishing communities as special places Macinko (2007) summed up this paradigm reckoning when he asks, "Can we imagine using the term 'sustainable' to describe a situation in which, over the long term, the bond between people and place is destroyed?" (p. 75). In the federal Magnuson Stevens Fishery Conservation and Management Act, the National Standard 8 provides for the consideration of economic and social factors in the Council's decision-making processes, which aims to minimize adverse economic impacts at the community level while recognizing the importance of fisheries resources to fishing communities (NOAA Fisheries Service, 2009). This standard provides the mechanism for incorporating human dimensions of commercial fishing into policy, but an elevation of such dimensions to the level of biologic and economic importance and more in-depth synthesis of available data could be improved in regulatory processes.

4.5.1 Resilience and Responding to Change

In the Kodiak region respondents continually explained that limited access to fisheries resources and rural costs of living have constrained and often displaced traditional fishing livelihoods and families. The subsequent restructuring of fishing fleets, fishermen, and communities may be best understood as a "sea change", in which multiple drivers are transforming local fishing traditions (Donkersloot & Menzies, 2015). In light of dominant fisheries management programs applying restrictive market-devices that restructure fishing activities it is imperative to understand how these challenges impact fishing community members (Garcia-Quijano et al., 2015). Resilient communities have the ability to adapt to unforeseen and

planned political, environmental, economic, and cultural changes. Coastal community resilience largely depends on the ability of community members to feel that they can affect their own well-being as well as a community's capacity for organizing various resources to create and pursue strategic development plans (Himes-Cornell & Hoelting, 2015). Seafood price fluctuations and natural resource abundance cycles further necessitate the ability to diminish reliance on a single fishery as the sole source of livelihood income. As external threats, such as increased regulatory oversight and privatization of the ocean commons, to traditional fishing livelihoods continue, the existence of social networks linked with identities that are created, maintained and performed by fishing participation appear to act as community resilience reinforcing mechanisms.

The livelihoods approach to understanding human environment relations suggests that rural people have differential capability to respond to economic and ecological crises and highlights their assets, such as fisheries access, savings, and food security, assist in determining resilience and vulnerability (Allison & Ellis, 2001). Access analysis and political ecology inform ethnographic data analysis that suggests fishing livelihoods, emotionally and economically linked to island living, may act as a stabilizing force for community members and strengthen resilience to change. The following sections highlight some of the various coping mechanisms at play within the Kodiak Archipelago.

4.5.1.1 Non-Fishing Employment

Many respondents cited the lack of alternative fisheries and non-fishery employment as a challenge in stabilizing viable and locally based fishing operations. Kodiak City offers more employment opportunities than the outlying villages, both in terms of fishing jobs because of more boats and also non-fishing jobs. Even so, jobs are considered somewhat limited when compared to mainland Alaska opportunities or in the rest of the United States. When asked what other opportunities for employment there were, most Kodiak City respondents mentioned marine services and fishing industry related jobs such as fiberglass, electrical, and welding. Customer service related jobs at bars and restaurants largely disinterested respondents, but they acknowledged the link to the fishing industry in most Kodiak job sectors. Construction and teaching were frequently listed as other employment in Kodiak but the seasonality of construction only allows for some fishermen to participate in this trade outside of fishing seasons. Many fishermen have spouses employed in education, healthcare, or government sectors

and provide the stability of benefits for fishing families. However, some respondents noted that though they may have taken time off from fishing to pursue other employment or educational pathways, they often returned to fishing because of the pull of unique lifestyle and the romance of being on the water where the fruits of labor are readily apparent.

In rural villages, the Tribes and Native corporations actively try to provide jobs for people, especially for the younger people. Old Harbor is particularly active and the Old Harbor Tribal youth program with funding to hire high school students to work in the office around school and teaches everyday job skills. The Old Harbor Native Corporation also has an internship program and a scholarship foundation that assists students in accessing higher education as well as vocational certificate-based trainings and some younger community members referenced this as valuable, but that it also removes youth from the village. Some younger respondents in Ouzinkie were interested in the possible development of a sawmill, which would provide additional employment. As noted in Chapter 1 community profiles, Old Harbor community members have invested in the tourism sector with existing hunting and fishing lodges and at least one student noted their interest in seeing that sector grow. Several student survey participant and interview respondents noted the need for increased rural employment opportunities:

We need more visitors. (Student survey participant, Old Harbor, May 2015)

There's [few] local jobs that people do. Like whatever the city wants them to do or Tribal Council. There's four steady jobs at the Ouzinkie Native Corporation and then once in a while they have a project come up and they'll hire two, three, or four guys. But as far as anything full-time permanent, it's pretty hard to depend on. (Older local fisherman, Ouzinkie, 05/09/2015)

There aren't very many jobs. The main employers I see are the Tribe- there are some jobs that come available through there that are kinda seasonal or random that you can apply for to work winter time and then go fishing in the summertime. But for part it's through KANA [Kodiak Area Native Association] or the school district, and those jobs have

people pretty much year round or that's their primary job and they get those every year. (Younger local fisherman, Old Harbor, 05/14/2015)

If I knew that ahead of time [about IFQs], I probably would have fished halibut. But then I don't think they should have taken that fishes away from these coastal communities, cause that's the one thing we go, is fishing. Like Old Harbor had 400 people that lived here, right now I don't think we have 150 people, cause there's no way to make any money. Cause the fisheries have been taken away from us. And our kids are going to school and a lot of people are moving out cause there's no jobs so we're losing all our people. They should be able to go harvest what they want, and go sell them and survive. People just want to survive. They're happy if they make enough money to survive through the winter and it's sad. (Older local fisherman, Old Harbor, 05/13/2015)

There's not really a whole lot to do in the winter besides go out hunting once and awhile. It's pretty chill for the most part in the winter. Like me and my buddy we always ask each other, 'If you quit fishing today, what would you do?' And our answers are maybe try to go find a slope job or something. That might be the only thing. (Younger local fisherman, Ouzinkie, 05/15/2015)

Younger respondents who have not been able to diversify their fishing portfolios due to high access costs noted that non-fishing employment is increasingly important to supplement their seasonal fishing income in order to make boat and permit payments. Seasonal work, such as teaching and construction, were noted as possible alternatives to fit within fishing seasons. Some younger fishermen with families to support felt pressure to pursue non-fishing employment in order to provide steady paychecks and income in the context of shifting opportunity in fishing, particularly for those seeking to move into ownership positions:

It's a little hard finding a lot of jobs because a lot of guys don't want to hire you knowing that you're going to be gone every summer. So it's kind of hard finding people that are willing to work with you in that way. I've directly not gotten jobs because of it, and that's kind of a bummer but it also gives you a whole lot of freedom that you don't get

otherwise. Cause I can go home and mess around for a couple of months and not really worry about having a job. (Younger non-resident fisherman, Kodiak, 09/06/2014)

I think that's the key, is being able to find something to do during your off season. Cause you know fishermen we're just like farmers. We have bad weather. Say it's down in the teens for a month or two at a time, it freezes all these little rivers up and if we get lots of rain, it washes the eggs out. (Older local fisherman, Kodiak, 10/06/2014)

Putting my gear in the water is probably one of the most satisfying feelings you'll ever feel. That being said, I definitely think about diversifying my land portfolio. I would like to go back to AVTEC [Alaska Vocational Technical Center], some kind of school so I just have other options when the weather is shitty and you can't take a 38 footer and do anything with it. I wanna be able to do a land-based job that can pay the bills. Supplemental income. (Younger local fisherman, Kodiak, 02/12/2016)

Increased reliance on other sectors for employment and income is an important resilience strategy that many rural people rely on to decrease vulnerability in resource dependent places (Jones et al., 2014; Wink, Hadland, & Laurent, 2007). Several fishermen said that younger people in particular appear to be more interested in stable jobs that provide health insurance and retirement. Outside employment was also discussed as a detrimental factor for the graying of the fleet, as young people who may be working to save up money to get into fishing begin to see the stability of income and life support that non-fishing related jobs provide. More local resilience strategies become evident as Kodiak region fishing families creatively combine fishing and non-fishing income to get through each year. Due to the seasonal nature of fisheries, land-based spouse's employment tends to provide stable income and benefits to compliment self-employed fishing income. The following younger respondent discussed the realities of fishing livelihoods compared to non-fishing employment and that the sheer cost and involved risk may keep many youth from pursuing owner-operator careers in today's transformed paradigm of opportunity:

So then you fish for a summer and you know a little about fishing, but that doesn't get you anywhere near buying a permit, buying a site, it's a huge investment. So maybe you

work for a few years in high school and you figure out a lot of it and you learn how to run a set net site, you think. But then where are you gonna get your money? You have to have a job to get the money, and to get the permit and site. So you go to college, take off for a couple of years then you get a better job and you never come back. And I think that's what's happening to a lot of kids. They're interested initially, they have a few great summers, but then they go off to school and they never come back because they realize it's really expensive, it's hard work and it's always a gamble. (Younger local fisherman, Kodiak, 10/21/2014)

4.5.1.2 Maritime Training and Infrastructure Support

The interview protocol asked respondents what they would like to see to support pathways into fishing and what alternatives may help address the graying of the fleet, such as apprenticeship programs. Concepts of formalized fishing apprenticeship programs to learn fishing skills generally seemed somewhat impractical to respondents, as they explained that informal apprentice relationships already exist to some extent between captains and crew. However, some fishermen referenced interest and potential value in specific skill-building workshops from net mending to financial management and fishing related business knowledge. The Kodiak College and Alaska Sea Grant show interest in providing such trainings, as well as connecting more formally with the KIBSD, but further community collaboration and vision is needed in order to contend with the various challenges and opportunities involved with the future of maritime education in coastal communities. Respondents hoped to see educational outreach for prospective and current fishers about how to become involved in the management realm. Skills, such as writing proposals and knowing the difference between the state and federal fisheries management processes, were repeatedly mentioned as beneficial for current and upcoming fishermen:

People need to know how to do proposals and what not. That's really key in our upcoming fisheries, our next generation. Because if we're not careful we're gonna get squeezed right now by corporate and there's gonna be a lot of charter and whatnot here in Kodiak. They're gonna start demanding, the sports fishermen, it's just gonna keep going on down the chain. I think it'd be something that would help; it would be

something that would help our next generation of fishermen for sure. (Older non-local fisherman, Kodiak, 09/18/2014)

When asked during interviews what could be done to support local fishermen and viable careers respondents noted the importance and current lack of public fisheries infrastructure and community conversations about the development of public crane, ice, and cold storage availability within Kodiak City continue. Some respondents explained that this type of facility would allow harvesters to further engage in direct marketing within and outside of the community as well as the opportunity to access the seafood market during periods when the main processors are at capacity with other large-scale deliveries. Direct marketing could be an alternative option to supplement income and to get higher prices for small catches. Direct marketing sales largely require the ability to attain ice and use cold storage for the product until after sales are completed. Processors generally will not give a vessel free ice if fishermen are going to sell the harvest elsewhere. Though there is a small family operated commercial smoke house in Old Harbor and the village corporation is also interested in the development of additional processing capacity that could utilize the expanding runway, the general consensus in interviews was that increased development of public facilities would help to support independent (non-processor owned) fishing operations. Some respondents in Ouzinkie also noted their interest in seeing seafood processing once again become part of the community's endeavors. Below several fishermen expressed their interest in increased seafood buyer competition as well as more fishermen influence and control involved in the sale of their catch:

I think that it'd be really cool to get a little cannery here again. Just do the CQE program, the halibut that the city has here. They can process their halibut here and get that shipped out. That'd be really good money, do like halibut and cod. That would create jobs around here. People would be able to use their skiffs to go cod jigging and they'd create some jobs for people to work in the processing plant. (Younger local fisherman, Ouzinkie, 05/10/2015)

I'd like to see a privately owned dock. I'd like to see a fisherman owned co-op that owns cold storage. I'd like to see a lot more small mom and pop operations and I'd like to see

more marketability. I think it's sustainable for a lot longer, I think it makes ex-vessel value go up tremendously. (Older local fisherman, Kodiak, 02/12/2015)

Organizations like the Alaska Marine Conservation Council (AMCC) and their Kodiak Jig Seafoods initiative are increasingly seeking to support this route for small-scale fishermen, but island challenges and sustained custom processing capacity in Kodiak City to supply niche markets remains an issue. Picked Willy's specialty seafood processing plant produces in-house pickled seafood items and has worked with AMCC to process cod and rockfish from jig fishermen. Sun'aq Tribe of Kodiak also operates the Kodiak Island Wildsource business that buys from local fishermen and their efforts will be expanding in the future as they purchased the old Ursin cannery facility in Kodiak City in early 2016.

4.5.1.3 Successful Pathways into Fishing Careers

Utilizing White's (2015) work that explored recruitment into United Kingdom crab fisheries, the process of becoming a fisherman can be understood as navigating separate but associated trajectories. White suggested that formally getting into fishing begins with participating in authority-based access ranging from legislation, license requirements and mandatory certifications. Learning to be a fisherman connects different relational and structural access mechanisms, which focus more upon the social dimensions of fishing communities and include access to capital, labor, and social relations that support the development of experience and skills. White's model fits well within Kodiak fishermen's experiences and provides a template for understanding the complex and simultaneous hurdles that new entrants must address when striving to obtain fishing livelihoods, whether it is as a career crew or owner-operator. Kodiak region respondents explained that successful pathways are typically delineated by family or non-family paths and involve various motivations that are highly dependent on cultural backgrounds. Kodiak Area Native Association's Rural Comprehensive Economic Development Strategy stated that although current economic and regulatory conditions have altered the succession steps for rural fishing operations, there remains opportunity within maritime careers (Kodiak Area Native Association, 2015). Most respondents noted that attitude and drive were important components in overcoming the intimidation involved with getting or moving up in the fishing industry:

Well I had no idea what I was doing so that was challenging. That's about it. It's a natural learning process and I came in with a pretty low level of knowledge when I started. (Younger local fisherman, Kodiak, 05/23/2014)

I think the ocean and fishing tends to be one of those things that if you don't have a little bit of experience on the ocean or doing things on a boat, then it's kind of unattainable for you. Or it's definitely intimidating, so having more people know more about navigating safely on the ocean and holding classes would help it become more attainable and give people the courage they need to go up to a skipper and say, 'I know how to do this here and I would be a great person to help you.' And maybe they fall in love with it and they buy the boat from them eventually. This could be really intimidating for someone. I could totally see that. But if you're just able to have a couple of little things here and there that you know, you can integrate better. (Younger non-resident fisherman, Kodiak, 07/08/2014)

I guess your attitude towards it is huge. Because if you own the boat, then you're making the decisions, then you're really only limited by your initiative and your ambition. I think that access to funding to make improvements to your boats and to buy into the fisheries is almost as important. (Younger non-resident fisherman, Kodiak, 06/01/2014)

Family connections, support, and knowledge networks were referenced in all interviews as an additional advantage and benefit for those looking to get into the industry. Spending time and working with family through fishing activities is a longtime Kodiak region tradition. In the past many kids would work throughout high school on the family boat gaining experience and income and then use saved money and family financial support to purchase vessels, set net sites and access rights. Young fishermen from fishing families also referenced interest in moving away from family operations in order to gain additional experience and prove something to themselves and their parents about their skills and self-reliance, though family connections and social networks still contributed to success in finding other positions. Despite leaving the family operation, this group carries with it initial support and exposure that provides confidence and

skills from a young age. Now and in the past, family connections assist in entry and upward mobility for young fishermen.

Young fishermen expressed a strong desire to continue family fishing traditions and to follow in their father's footsteps, answering the call, and feeling it in their bones. However, young fishermen referenced mixed signals from their fishing parents who were willing to teach them fishing skills but also encouraged them to pursue higher education. Many young community members continue to view local fishermen as role models as they grow up. Some expressed being born into fishing, wanting to fish since they were kids, and wanting to emulate the lifestyles their parents were able to have because of fishing. This motivation becomes challenged as overall fisheries access is limited and trajectories into fishing livelihoods are not as clear cut as in the past, suggesting that family support to facilitate entry is increasingly important.

I've been fishing for my whole life. On the boat since I was two. I kind of just fell right into it, I guess. He [dad] helped me out a lot fishing, you know, buying my boat and everything. (Younger local fisherman, Old Harbor, 05/15/2015)

You know all the kids working for their dads and working for their family boat, I would just try to tell them to stay in there because you know, start running that boat. I mean a boat's a thing that's like a family heirloom. Make sure it's always pristine and you hand it down. And once your dad can't do it, ante up and do it. That's what I would say is keep it in the family and grind on. Keep doing what you're doing Kodiak. Kill fish and keep it in the family. (Younger local fisherman, Kodiak, 09/16/2014)

This year I went off on my own and got a job not through him [dad] and I didn't use my family connections or anything like that. So to him, that makes him really happy that I'm not just relying on him for a job every year. Cause I could, that would be the easiest thing to do, just keep working for my dad. But it's a little bit more of a challenge when you go just go off on your own. (Younger local fisherman, Kodiak, 05/24/2014)

I saved up a lot of money but I think with the help of my dad, I owe a lot to him. H really helped me out a lot and I don't know- a lot of kids do something and they get tired of it and leave it. My dad helped me stay on track and he didn't let me fail cause if I failed it would have messed up his life credit wise and we would have lost everything. That helped me out in the growing up part. My responsibility. Once I started doing it and we started making payments that was my motivation to keep going and pay all that back. (Younger local fisherman, Kodiak, 09/25/2014)

My friends haven't bought in [to quota-based fisheries], but I know with the old money here, you know the kids whose parents buy them boats and stuff like that, I think it helps all of them get into fisheries because they have more income. (Younger local fisherman, Kodiak, 05/30/2014)

As far as the lifestyle goes, I kind of envy kids who grew up on boats- boat babies- cause all my friends did that and I thought it'd be really cool way to grow up, you know. Go out with Pops every summer and fish. And I think it raises some really good traits in people. To fish at an early age. Teaches them hard work. (Younger non-local fisherman, Ouzinkie, 05/10/2015)

I'm sure you've heard this from a lot of people; the way they got into fishing was through family. (Younger local fisherman, Kodiak, 10/21/2014)

People without family ties also successfully get into fishing and move into ownership-level careers, often with the support of social networks comprised of personal relationships and social interactions. As discussed in Chapter 2, access to financial capital is sometimes facilitated through informal mentor-apprentice relationships. Former captains often serve as guides for crewmen looking to move into their own operations. Support ranges from personal financing, assistance in locating equipment or vessels, and overall advice. These relationships are a key component for ushering in the next generation of fishermen around Kodiak communities. Respondents explained that prospective fishers looking for crew positions or general fishing

advice without family connections are advised to walk the docks, develop social networks, and eventually one of those connections will pay off and they will find a position on a boat:

You kind have to have family or family friend connections to get a job, say you want to crew for someone at a site. You can start in high school, you can get a job crewing either on a boat or at someone's set net site but it's tough. You have to have those connections already established. And the jobs, they're just so few and far in between, how do you land on them to begin with? (Younger local fisherman, Kodiak, 10/21/2014)

A lot of guys they make their connections for acquiring funding through family, friends, things like that, people that have millions of dollars to invest in their operation basically. But I'd say that even guys that don't have that sort of opportunity, it can take them longer but they're still quite capable of making it there eventually. (Younger non-resident fisherman, Kodiak, 06/01/2014)

When I was a young guy getting in and had a problem, floating me on helping me build a net and then waiting for me to catch some fish and make some money and pay my bill. It's just kind of one that that I really like about the whole community is that people are generally really helpful. And if you have a mechanical issue and you don't know how to fix it, everybody's happy to chime in with an opinion or share their experience. (Younger non-local fisherman, Kodiak, 12/12/2014)

I'd say 60 percent of the fishing lifestyle is networking. It's about who you know, your reputation and so if you're a good person and you have good work ethic, it should be no problem to find and keep a job. (Younger local fisherman, Kodiak, 09/15/2014)

4.5.1.4 What About the Future?

Nearly all respondents expressed some level of concern about the future of Kodiak region communities in reference to youth and fishing opportunities and changes from previous decades. The loss of unique small-scale businesses and the overall feel of the community were noted by respondents as negative diachronic changes, particularly so in Kodiak City:

Like back in the old days Kodiak used to be a pretty big town, especially when the fishing season started. There was a lot of businesses, when the crab fishing was big here there was more life, more nightlife, more everything here. As soon as the crab fishing went to IFQs a lot of boats were put out of business, a lot of crew got put out of work, a lot of business in town closed – all the small businesses. Now Kodiak is just a town. It's still a fishing town, but it's not like it used to be. (Young local fisherman, Kodiak, 09/25/2014)

We think about it now, especially with our child on the way. We think, what's in it for her? Is there gonna be a fishery for her? Is she gonna wanna stay? Is it something that she's gonna want to take on her whole life? Or, would she rather go on and get a city job someplace else, where she knows she'll get paid? Will it be worth it for her and her family to continue? That's what we'd like to see. (Younger local fisherman, Kodiak, 10/21/2014)

The survey asked students about their perceptions of the future of their communities. Ouzinkie students reported the bleakest view of the future of all the study communities. Nearly 57 percent disagreed that the future looks good for young people who remain, and only seven percent agreed. In contrast, 70 percent of Old Harbor students agreed that the future looks good for young people who stay, and no students disagreed with this statement (Figure 4.5). When asked if the future looks good for youth that stay in their communities less than 10 percent of Ouzinkie and only 25 percent of Kodiak students saw a positive future, again indicating a paradox between perceptions of community well-being and local opportunity. The pessimism among young students in Ouzinkie may relate to the perceived lack of local recreational, social, and fishing opportunity, as has been discussed sharp declines in population and fishing participation have occurred over time.

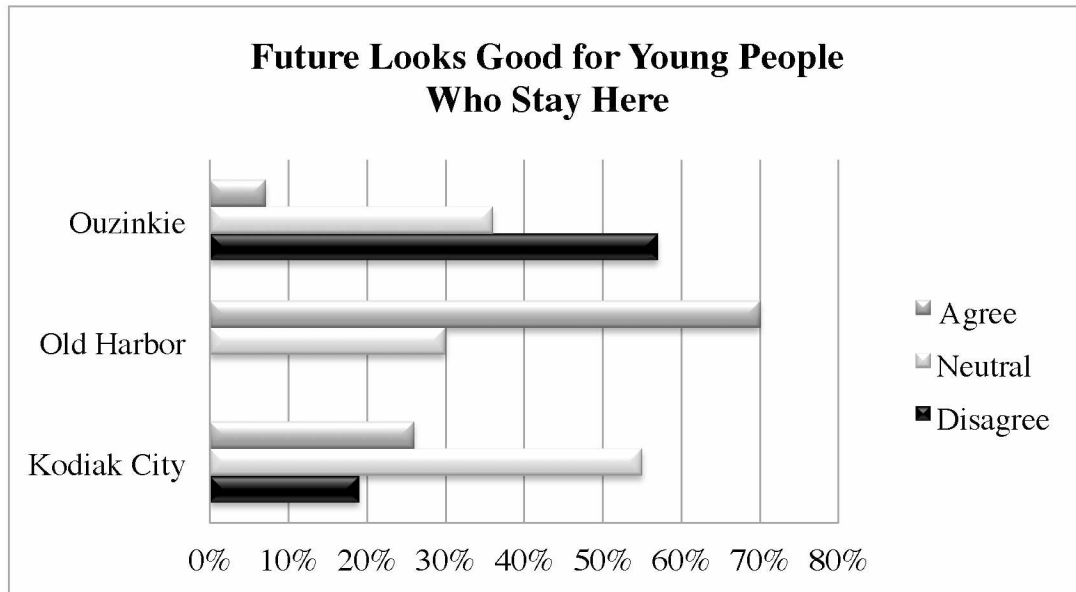


Figure 4.5 Student survey results: Opinions of future by community.

4.6 Conclusion

This chapter explored rural community viability and youth pathways in the context of commercial fishing access within the Kodiak Archipelago. Overall, research shows that complex factors contribute to fishing community challenges beyond solely economic considerations. Ethnographic research demonstrates that decreased local access to fisheries as an outcome of privatization is linked to corresponding community and individual well-being impacts. Findings from this study suggest a link between increased barriers for fishermen within coastal communities and the increase of community vulnerability, including outmigration of youth and struggles for people to adapt to rising costs of living without corresponding rising employment opportunity. Cultural changes exhibited within these study communities indicates that expectations for youth to pursue higher education that often relates to opportunities outside home communities without the emphasis upon return may also be causal factor to the graying of the fleet. Holistic understandings of the graying of the fleet necessitate acknowledging youth ambivalence towards fishing in the cultural, historic, and current experiences within fishing communities. Due to the suite of threats facing fishing people and communities, it is increasingly important to have a deeper understanding of local dynamics in order to plan for sustainable coastal futures.

Kodiak's rural communities have weathered extreme changes throughout history and have overcome profound pressures, such as Russian colonialism and American cultural assimilation. However, alteration in legal access to public marine resources potentially represents a change that rural community members are not able to adapt to. Furthermore, as rural fishing communities consist of people dependent upon marine resources where identity is specifically linked to fishing practices, fishermen themselves should be framed as iconic inhabitants of Kodiak communities. Hence, in terms of community viability local access to fishing can be considered a resource itself that provides and supports pride, food security, economic viability, and cultural well-being.

Chapter 5 Conclusions and Future Directions

5.1 Thesis Conclusions

This thesis explored data from ethnographic interviews, participant observation, and student surveys from Kodiak Archipelago study communities to better understand the graying of commercial fishing fleet problem. Political ecology, theories of access, and Foucault's theory of governmentality framed understandings of the objectives and exposed dominant assumptions and underlying power dynamics prevalent in the commercial fishing sector. Tackling the first objective resulted in documentation of factors contributing to barriers that fishermen face at different stages in their careers and described the implications of such barriers. Overall, the graying of the fleet is a multidimensional problem. My research showed a complex set of interrelated political, economic, ecological, and cultural factors that shape fishery systems, and determine which people are able to benefit from fisheries resources and which are not.

Although the interview protocol never asked directly about the privatization of access rights, respondents continually noted it as a major catalyst of change that has amplified barriers, remade fishery systems, and contributed to the graying of the fleet. There remains concern about previous management programs and skepticism about the initial allocation of perpetual ownership of rights to a small set of people within one generation. The current climate in Alaska's commercial fisheries for a young person to enter or diversify is tenuous and shaped by these increasing privatization trends. The crisis experienced within rural fishing communities from restructured privatized access has resulted in a transformed paradigm of opportunity, a mutated American Dream. This alienation and commodification of fisheries access away from predominately indigenous rural communities represents additional ways in which privatization framings fail to capture the broader importance of fishing livelihoods to coastal people.

The second objective investigated the role of commercial fishing in fishermen's identities and motivations compared to dominant narrow economic assumptions about fishermen's behavior. This comparison showed that dominant framings break down when fishermen actually discussed their values and perceptions of diachronic changes involved in fishing livelihoods. Narrow framings of fishermen as individualistic rational actors were critiqued through ethnographic evidence of social and cultural motivations among Kodiak Archipelago fishermen. My political ecology analysis rejects the inevitability of these framings and instead suggests that

broader social and cultural dimensions are important to understand. Commercial fishing participation in Kodiak's communities was continually expressed as a livelihood rather than just a job. Therefore, access to commercial fisheries itself could indeed be considered a community resource that deserves and clearly requires protection.

Lastly, this work explored the intricate relationships between local fisheries access, youth livelihood pathways, and viability of coastal communities. Kodiak's rural communities are changing in significant ways. Local community members and fishery stakeholders are struggling to cope with increased pressures from a variety of factors, including globalization, rural costs of living, outmigration, and substance abuse. Coastal youth expressed both interest and uncertainty when asked about the viability of commercial fishing livelihoods, and many were interested in pursuing higher education outside of their home communities. Understating the graying of the fleet problem means embedding youth ambivalence in the cultural and historical experiences of specific fishing communities. Furthermore, access and viability conditions must be improved for both fishermen and fisheries resources so that the seafood industry and coastal communities can survive and thrive for generations to come.

This work contributes to broader and ongoing debates about the social resilience and sustainability of the people and communities involved in commercial fishing. It suggests that a paradigm shift is required in order to re-envision fisheries management that values and incorporates the social component into policy objectives and assessments without only prioritizing economic indicators. I hope that this thesis increases public awareness about the importance of fishing livelihoods in rural Alaska beyond the dollar. As federal, state, and local decision-makers move forward with shaping fisheries access in Alaska and beyond, it is essential that long-term generational understandings of marine resources, communities, and fishermen be taken into account in order to maintain the existence of current and future stakeholders.

5.2 Future Research

Future research building off of this work could further investigate the disparities between youth perceptions of rural life within the two village study communities of Old Harbor and Ouzinkie, in addition to studying the remaining Kodiak Archipelago villages. More broadly speaking, as this research highlights the importance of cultural well-being within fisheries systems, regional specific indicators could be developed in conjunction with community

development measures and fisheries policy. Aspects to consider would be interrelated factors, such as local fisheries access rights, substance abuse, crime rates, housing prices, and seafood market health (local and global). Though this work touched on succession dynamics within the commercial fishing industry in the context of intergenerational relationships, additional research expounding upon the barriers to exit and the development of a profile of exiters would further inform understandings of the graying of the fleet trend. Lastly, promotion of the overall incorporation of social science studies concerning commercial fishing into fisheries management processes could be developed as a strategy to advance holistic understandings of fisheries systems for all stakeholders.

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Appendices

Appendix A: Informed Consent

Informed Consent Form

Graying of the Fleet in Alaska's Fisheries

IRB Project Title 555479-3 Date Approved 7/7/14

Description of the Study:

You are being asked to take part in a research study about the commercial fisheries of Alaska.

The goal of the study is to learn more about young people and fishing. We want to know more about obstacles young people face. We want to understand how young fishermen develop successful fishing careers. We hope to gather new ideas for policies that may help young people enter fishing. You are being asked to take part in this study because you were identified as an expert in these topics.

We encourage you to ask questions and take the opportunity to discuss the study before making a decision on whether or not to participate.

If you decide to take part, we would set up a 30 to 60 minute interview with you. We would like to audiotape our interview(s) with you. We will use these tapes to help us recall the information that you provided in the interview. The audio files may be interesting for you and your family. We will offer you a copy of your interview. With your permission, we could also add these files to the Oral History Collection at the University of Alaska Fairbanks (UAF) Library. We would contact you and get your permission prior to cataloguing your interview tapes.

Risks and Benefits of Being in the Study:

We do not expect any risks for you if you take part in this study. You may feel uncomfortable being interviewed and/or audiotaped. We will try our best to conduct the interviews in a place and in a format that is comfortable for you.

You may not receive any benefits from taking part in this study. The knowledge that we collect in this study might help us understand more about the graying of the fleet in Alaska. This information may help fishery managers and community leaders plan for future decisions.

Compensation:

We will compensate you for your time at \$25/hour.

Confidentiality:

The information we collect will be stored in a locked office. Only the research team, Courtney Carothers, Rachel Donkersloot, Paula Cullenberg, Jesse Coleman, and Danielle Ringer, will have access to any confidential information that we collect in our interviews, unless you would like to archive your interview for future use. If you are comfortable, we would like to audio-tape the interview to help us in note-taking. The files will be kept in password-protected files, in a locked office at the University of Alaska Fairbanks and the Alaska Marine Conservation Council. If you would like your interview available for the public, we can provide a copy of the tape to the Oral History Collection at UAF for future generations. We will also supply you with a copy of our interview if you would like. Any information we collect will not be linked with your name without written permission. For example, if we would like to quote you, we would contact you again and ask for your permission to so.

Voluntary Nature of the Study:

Your decision to take part in the study is completely voluntary. You are free to choose not to take part in the study or to stop taking part at any time.

Contacts and Questions:

If you have questions now, feel free to ask us. If you have questions later, you may contact:

Courtney Carothers
Associate Professor
School of Fisheries and Ocean Sciences
University of Alaska Fairbanks

Rachel Donkersloot
Project Manager
Working Waterfronts Program
Alaska Marine Conservation Council

907-274-9699

rachel@akmarine.org

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The UAF Institutional Review Board (IRB) is a group that reviews university research projects involving people. This review is done to protect the people participating in the research. The committee wants to help make the project the best it can be for the participants' benefit and the researchers'. If you have questions or concerns about your rights as a research subject, please contact the Research Coordinator in the Office of Research Integrity at 474-7800 (Fairbanks area) or 1-866-876-7800 (outside the Fairbanks area) or uaf-irb@alaska.edu.

Statement of Consent:

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been provided a copy of this form.

Yes, you may use my name to acknowledge my participation in this study

No, I wish my identity to remain private

Yes, I would like a personal copy of my interview

No, I do not want a personal copy of my interview

Yes, you may share my interview with the Oral History Collection at UAF

No, please do not share my interview with the Oral History Collection at UAF

Would you like to supply your mailing and/or email address to receive updates about the project?

These will be kept confidential and used only for mailing project-related correspondence.

Mailing Address:

Email:

Signature of Participant & Date

Signature of Person Obtaining Consent & Date

Appendix B: Interview Protocol

Graying of the Fleet /Next Generation of Fishing Research Project

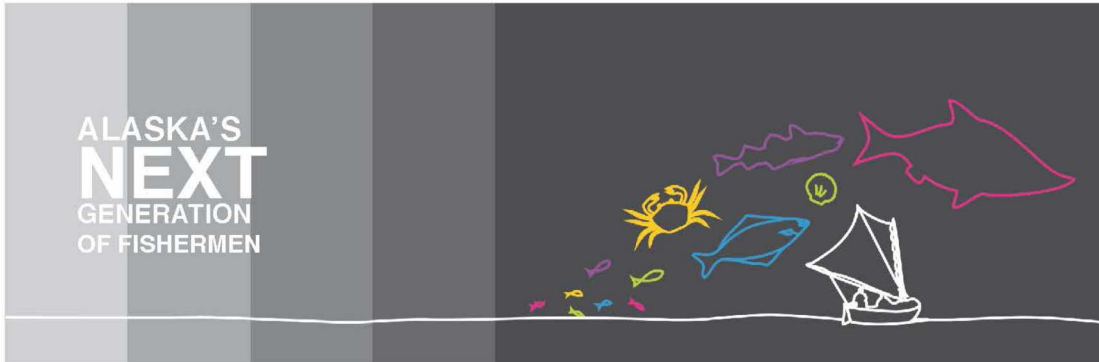
Semi-structured Interview Questions

August 2014 Update

1. Tell us a little about your personal fishing background.
 - a. When/how did you start fishing?
 - b. Describe your first fishing job.
 - c. Did your parents/family encourage you to get into fishing?
 - d. Do you have family ties to fishing and community?
 - e. Were you born here? How long have you lived here? Are your parents from here? Grandparents?
2. How were you able to enter into your fishery(ies)? [What opportunities did you have?]
3. What challenges did you face getting started in fishing?
4. What barriers exist for the next generation of fishermen trying to get their start in fishing?
5. [crew only] What types of traits do you value or look for in a captain or vessel as crew?
6. [crew only] How do (young) people here, who aren't from a fishing background, go about getting a crew job?
7. [crew only] What do you think is the most difficult thing about being a crewman?
 - a. What is the most rewarding?
8. What are the biggest hurdles to managing your fishing operation/being a successful crewman?
9. What skills do you need to be successful in fishing?
 - a. Are these skills you learned as a deckhand? Is this something anyone has taught you? Would that have been helpful/feasible?
 - b. Prompts: business skills, financial management, getting a market, managing crew, knowledge of where and how to fish, etc.
10. What is your relationship to the canneries? Did they help/hinder you to become a fisherman?
 - a. Tell us more about how canneries are involved in fisheries in this community?
11. What are your career goals moving forward?
12. Did your parents/family encourage you to move away from and/or stay here? Why/why not?
13. Do you think your parents/family would prefer that you stay in the community? Why/why not?
14. Where do you see yourself in five years? Ten years?
15. What do you need to be able to make a satisfying livelihood fishing [a happy fisherman]?

16. Have you worked other jobs (in addition to fishing)?
 - a. Do you still?
 - b. How important is this job to your monthly/yearly income?
 - c. Is this work fishery related (outside of the harvesting sector)?
17. [Bristol Bay only] Are you familiar with BBEDC's Permit Loan Program?
 - a. Have you used the program?
18. What are your thoughts on current fisheries management?
19. Do you ever think about getting out of fishing?
 - a. Do you have an exit plan to sell and/or transfer your permit?
20. What other employment opportunities are available to people here? Can you see yourself in this field/line of work?
21. What do you need to live a good life [be happy] in your community?
22. What do you think are the best aspects of living here? What do you think are the most difficult?
23. When you think of successful fishermen in your community, what do you think makes them successful?
 - a. Are there struggling fishermen here? What challenges do they face?
24. How do you imagine the fishing industry here in ten or 20 years?
25. How would this community change if fishing was no longer a thriving industry/[part of the community]?
26. What would you like to see in your community and region to support fishing in the future?
27. What options are there in your community/region/fishery for the next generation to get involved in fishing?
28. What does the fishing lifestyle (culture, way of life) mean to you?
29. What aspects of fishing give you the most pride?

Appendix C: Survey Instrument



a school survey for

**BRISTOL BAY +
KODIAK ARCHIPELAGO**

experiences and opinions about fishing and your community



Dear Student,

Thank you for participating in the research project: **Alaska's Next Generation of Fishermen**. This study focuses on young people's attitudes toward and participation in the commercial fishing industry.

You are being asked to participate in this project because you are a student in the Bristol Bay and Kodiak Archipelago regions.

Your participation is entirely voluntary. The success of this study depends on your willingness to complete the following survey. **Any information you provide will be confidential. Your name will not be used in this study.** The surveys do not have your names on them. No one will know exactly what you report.

One of the major goals of this study is to better understand what factors influence young people's involvement in the commercial fishing industry. To do this we are asking you to tell us about yourself, your home community and the local fishing industry.

Please answer as many of the survey questions below as possible. If you have a question during the survey please ask a member of the research team for help.

Thank you!



Section 1: Fishing Background and Your Opinions



Note: "fishing" in this survey means commercial fishing, unless the question specifically asks about subsistence fishing.

F1. Have you ever worked in commercial fishing? Yes No (skip to Question F3)

a. If Yes, please describe your background _____

b. In your fishing work, have you fished with...family? Yes No ...**non-family?** Yes No

c. How many years of commercial fishing experience do you have? _____ years

F2. Are you currently involved in commercial fishing? Yes No

If Yes, please describe your current position(s) _____

F3. Are you interested in getting involved or more involved in commercial fishing? Yes No

If Yes, what fisheries are you interested in? _____

F4. Does anyone in your family fish commercially...now? Yes No ...**in the past?** Yes No

If Yes, who and what fisheries? _____

F5. How many generations of your family have fished commercially? _____ generations

F6. How important is income or employment from commercial fishing to your family? (Circle one)

Not important at all Used to be important, but not anymore Somewhat important Very important

F7. How important is subsistence fishing (or personal use/home pack) for your family? (Circle one)

Not important at all Used to be important, but not any more Somewhat important Very important

F8. How would you rate your subsistence fishing activity (or personal use/home pack) over the past few years? (Circle one)

Never fish Rarely fish Occasionally fish Somewhat active Very active

F9. Why might you or another young person NOT enter commercial fishing? (Circle all that apply)

- a. Fishing costs too much money to start
- b. Fishing jobs are hard to find here
- c. Training and skills are hard to find
- d. Fishermen don't want to hire young people
- e. Can make better money doing something else
- f. No family ties to fishing
- g. Lack of interest in fishing
- h. Other _____

F10. Have you been encouraged to enter commercial fishing? Yes No

If Yes, who encouraged you, and what reasons did they give? _____

F11. If you don't see yourself becoming a full-time fisherman but see yourself having a profession that allowed some time off, would you want to go commercial fishing? Yes No

F12. What changes could be made in your community or region to help young people get into fishing?

F13. How much do you agree or disagree with the following statements?

Please circle one number for each item

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a.	Fishing is a great career for young people here	1	2	3	4	5
b.	People look up to the fishermen in this community	1	2	3	4	5
c.	Fishing is mostly for people who can't get other work	1	2	3	4	5
d.	Fishing doesn't really suit me	1	2	3	4	5
e.	I think I will be involved in commercial fishing in the future	1	2	3	4	5
f.	It is difficult for young people to become fishermen	1	2	3	4	5
g.	People my age cannot count on commercial fishing as a career	1	2	3	4	5
h.	There are lots of opportunities to get involved in fishing here	1	2	3	4	5
i.	Fishing is a major part of life here	1	2	3	4	5
j.	I would take a hands-on class about commercial fishing if offered	1	2	3	4	5
k.	Fishing is too hard (tiring, painful, cold, etc.)	1	2	3	4	5
l.	If I wanted to, I could find a job fishing for the summer	1	2	3	4	5
m.	Fishing is fun	1	2	3	4	5
n.	My parents/family encourage me to become a fisherman	1	2	3	4	5
o.	Young people aren't very motivated to fish	1	2	3	4	5
p.	Cannery jobs are a good way to earn money	1	2	3	4	5
q.	I expect commercial fishing to be a part of my future	1	2	3	4	5
r.	You can make a living from fishing	1	2	3	4	5

F14. Do you want to go to college? Yes No

F15. Do you want to go to a technical school? Yes No

F16. I prefer learning: (Circle one) From books & teachers With my hands Both

Section 2: Your Community

C1. What town are you in right now? _____

C2. Did you grow up in this community? Yes No
If No, where did you grow up? City: _____ State: _____ Country: _____

C3. Have you lived here for all or most of your life? Yes No

C4. Did your parents and grandparents grow up here?

Mom: Yes No
 Dad: Yes No
 Any grandparent: Yes No

C5. How satisfied or dissatisfied are you with the following items related to your community?

Please circle one answer for each item

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a.	This is a good place for kids to grow up	1	2	3	4	5
b.	I'm happy living here	1	2	3	4	5
c.	There is nothing for young people to do here	1	2	3	4	5
d.	The future looks good for young people who stay here	1	2	3	4	5
e.	It would be hard to find a job that would suit me here	1	2	3	4	5
f.	If I knew I could find a good job, I would stay here	1	2	3	4	5
g.	It would be hard for me to find a marriage partner here	1	2	3	4	5
h.	My parents/family encourage me to go to college	1	2	3	4	5
i.	My parents/family would prefer if I settled here	1	2	3	4	5
j.	Young people can learn fishing and marine-related skills here	1	2	3	4	5
k.	There are good opportunities to learn fishing skills at school	1	2	3	4	5
l.	Young people face many challenges here	1	2	3	4	5
m.	I'd like to return to fish, but not live here permanently	1	2	3	4	5

C6. After high school, I would prefer to... *(Please circle one)*

Stay here Leave, but eventually return to settle down Not sure yet Leave, and not return to settle down Return seasonally

Please continue to the next page.

Section 2: Community (continued)

C7. How much do you agree or disagree with the following statements?

Please circle one number for each item

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a.	I feel that I belong here	1	2	3	4	5
b.	This community has everything that I need for a happy life	1	2	3	4	5
c.	I know the history and heritage of my community	1	2	3	4	5
d.	I don't have to go to college to be a success	1	2	3	4	5
e.	My ideal job is available in my community	1	2	3	4	5
f.	I'm proud to live in this community	1	2	3	4	5

C8. What do you think are the...

Best things about living here?	Worst things about living here?

C9. What are the biggest concerns you have about your community?

C10. Describe what kind of work you hope to be doing five years after finishing high school?

C11. If you were given the opportunity to do on-the-job-training, what kind of work would you be interested in training for?

C12. How would you define success?

C13. Think of the most successful person you know. What makes him or her successful in your opinion?



Section 3: Your Background



Please circle or fill in the most appropriate answer.

B1. Age _____

B2. Grade level _____

B3. Gender _____

B4. Where do you consider your home community to be? _____

B5. Which category, or categories, best describes you? (Circle one or more)

- | | |
|--|-----------------------|
| 1. Asian | 5. Hispanic or Latino |
| 2. Alaska Native or American Indian | 6. White |
| 3. Black or African American | 7. Other _____ |
| 4. Native Hawaiian or Pacific Islander | |

B6. What is your ethnic ancestry or national origin? (for example: Russian, Norwegian, Mexican, etc.)

B7. Do you identify as Alaska Native? Yes No

If Yes, what group(s) do you identify with? _____

Are you a tribal member? Yes No

B8. What language(s) do you speak at home? _____

B9. How many hours a day do you: play video games/watch TV/spend on the internet for fun?

0 1 2 3 4+

B10. In general, how do you feel about your life?

It's really bad It's bad I'm not sure It's good It's really good

Appendix D: IRB Approval Letter



(907) 474-7800
(907) 474-5444 fax
uaf-irb@alaska.edu
www.uaf.edu/irb

Institutional Review Board

909 N Koyukuk Dr. Suite 212, P.O. Box 757270, Fairbanks, Alaska 99775-7270

June 3, 2014

To: Courtney Carothers, PhD
Principal Investigator

From: University of Alaska Fairbanks IRB

Re: [555479-2] Graying of the Fleet in Alaska's Fisheries: Defining the Problem and Assessing Alternatives

Thank you for submitting the Amendment/Modification to the Personnel List referenced below. The submission was handled by Exempt Review. The Office of Research Integrity has determined that the proposed research qualifies for exemption from the requirements of 45 CFR 46. This exemption does not waive the researchers' responsibility to adhere to basic ethical principles for the responsible conduct of research and discipline specific professional standards.

Title:	Graying of the Fleet in Alaska's Fisheries: Defining the Problem and Assessing Alternatives
Received:	May 28, 2014
Exemption Category:	2
Effective Date:	June 3, 2014

This action is included on the June 4, 2014 IRB Agenda.

Prior to making substantive changes to the scope of research, research tools, or personnel involved on the project, please contact the Office of Research Integrity to determine whether or not additional review is required. Additional review is not required for small editorial changes to improve the clarity or readability of the research tools or other documents.