

Jonesport and Beals Local Economy Project 2022 – 2024

Final Report

1. Background

Like many small, rural communities in Maine, the communities of Jonesport and Beals are in need of accurate local-level data and information to help guide local decision-making. However, many widely used data sources are either inaccurate or unavailable at the local level for small communities. In 2022, the Towns of Jonesport and Beals began working with Sunrise County Economic Council, Downeast Institute, University of Maine Machias, Margaret Chase Smith Policy Center at UMaine, rbouvier consulting, and Maine Sea Grant (the project partners) toward augmenting the data that are available to improve local decision-making. The project was funded by a grant from the University of Maine MARINE program.

To get started, the project partners met with a group of community members who represented a variety of interests in the communities' local economies. Community members from the Select Board, and Planning Board, municipal committees including Budget, Economic Development, Harbor, Shellfish, and Working Waterfront, and local business people all met for the first time in March, 2022. The purpose of the meeting was to identify initial ideas on what residents want to learn more about and care most about in relation to the local economy. In addition, conversations were held with students at Jonesport and Beals high school in May, 2022 to identify questions from local youth. Finally, in June 2022, conversations were held at Moosabec Variety, Jonesport Pizza, the Town Halls, post offices, and library to gather community members' questions more broadly. In total, conversations were held with 65 community members in the two towns.

These ideas and questions from the community conversations are an essential part of the Jonesport and Beals local economy project. The ideas contributed were related to each other in order to identify major themes. These themes include (from most commonly noted, to least common): *Fishing and Fisheries; Employment and Industry; Infrastructure and Taxes, Costs, and Inflation; Housing and Real Estate; Population and Demographics.*

The research team then collected data to help answer the communities' questions and conduct an initial economic analysis. Following the completion of the analysis in spring, 2023, further conversations were held at various locations in Jonesport and Beals. During this next round of conversations, community members were asked if the analysis made sense with what people knew about their communities, as well as to identify any other sources of local-level data that would be important to review. Key themes from this next round of community conversations include the following:

- Available data track primary employment, but many community members rely on diverse sources of income.
- There was a perception that Covid-19 resulted in significant changes in local industry composition, but those may not be well reflected in available data.
- Data on fisheries landings in the two towns appear to be more accurate when the towns are evaluated as a whole, rather than separately.

- Commercial fishing licenses for larger vessels are increasing.
- There is a need to account for economic trends of seasonal residents extending their stays in the communities and the increase in remote workers.

Once the community members reviewed the data, it was determined that while the data seemed to be largely representative of the communities, there were areas where improved accuracy is needed to inform local decision making. The project team searched for other sources of data that may offer alternative insights into some of the issues encountered by the community members. This report presents the data that are available, the shortcomings of that data, and proposes a method by which local communities may be able to augment that data.

Project Partners

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2. Introduction

This report addresses several themes that arose during the community conversations. The sections below pose several sample questions, representative of the questions posed by community members, followed by an overview of the available data on the topic, and finally a brief discussion of the data limitations and remaining questions.

3. Theme: Fishing/Lobstering Economy

Sample Questions:

1. How many people work in the fishing industry?
2. What percentage of the workforce is in fishing/lobstering?
3. What is the second biggest industry by employment?
4. What percentage of the economy is fishing or fishing related?
5. What are the trends in profitability of lobstering (both revenue and costs)?

3.1. Employment in Fishing/Related Industries

3.1.1. Overview

The table below indicates that roughly 20 percent of total employment within Jonesport is related to commercial fishing in some way, while more than half of employment within Beals is related to commercial fishing. It is important to note that the jobs located in Jonesport and Beals are not necessarily held by the residents of Jonesport and Beals. Likewise, those who live in the two towns are not necessarily employed within the towns. More on this in Table 1 below.

Table 1: Direct Employment (1) in Jonesport and Beals, 2018 and 2021

IMPLAN category	Jonesport 2018	Jonesport 2021	Beals 2018	Beals 2021
Commercial Fishing	78.5	179.7	68.7	78.6
Wholesale grocery(2)	48.2	105.6	45.5	54.4
Animal production, except cattle and poultry(3)	4.7	6	0.4	0.3
Scenic and sightseeing transportation(4)	3.7	8.5	0	0
Boat Building	2.5	4.7	0.6	0
All other crop farming(5)	0.7	1.1	0	0
Truck transportation (6)	6.6	11.3	0	0
Scientific Research and Development	0	11.1	126 (7)	1.75
Total	144.9	328	241.2	135.2
As percentage of total employment	18.9%	22.0%	62%	57.3%

Source: IMPLAN. IMPLAN employment data uses data from the Quarterly Census of Employment and Wages (QCEW), County Business Patterns, and other sources to estimate employment.

Notes:

- (1) Employment includes full time and part time employment.
- (2) Probably primarily fishing related.
- (3) Most likely aquaculture.
- (4) Includes fishing charters.
- (5) Includes seaweed farming.
- (6) May or may not be fishing related.
- (7) Likely the Downeast Institute.

3.1.2. Data Questions and Limitations

As illustrated in Table 1, above there are some issues with the available data. One obvious issue is that employment in the “Scientific Research and Development” category) is listed as over 100 in Beals in 2018, but does not show up in 2021. Another question is that the available data indicate that employment in commercial fishing more than doubled from 2018 to 2021 in Jonesport, which requires verification.

Other difficulties include determining what percentage of an industry is fishing related. For example, the industry titled “Animal production, except cattle and poultry” includes aquaculture, but to attribute all the employment to that category would require verification. The same question applies to trucking.

3.2. Output from Fishing-Related Industries:

3.2.1. Overview

While the above section shows the importance of employment in the fishing industry for the two towns, another question regarded the profitability of the industry. Table 2 below shows the revenue that can be attributed to the fishing industry, using IMPLAN. These figures show the direct gross revenue for each of the associated industries. It should be noted that gross revenue is not the same as profit, as profit is the difference between gross revenue and costs. Revenue from fishing-related industries as a percentage of overall revenue stayed about the same in Jonesport, whereas it decreased in Beals from about two-thirds of overall revenue to slightly more than half. However, note the fact that the discrepancy in the category “Scientific Research and Development,” noted above, accounts for the majority of the difference. This again points to the importance of “ground truthing” the data using local knowledge.

Table 2: Direct Output (1) in Jonesport and Beals, 2018 and 2021

IMPLAN category	Jonesport 2018	Jonesport 2021	Beals 2018	Beals 2021
Commercial Fishing	\$7,478,000	\$14,695,000	\$6,543,000	\$6,429,000
Wholesale grocery(2)	\$7,398,000	\$21,079,000	\$6,989,000	\$10,827,000
Animal production, except cattle and poultry(3)	\$326,000	\$675,000	\$27,000	\$28,000
Scenic and sightseeing transportation(4)	\$471,000	\$607,000	\$0	\$0
Boat Building	\$631,000	\$1,244,000	\$0	\$0
All other crop farming (5)	\$11,000	\$32,000	\$1,000	\$1,000
Truck transportation (6)	\$999,000	\$2,118,000	0	0
Scientific Research and Development	\$0	\$2,072,000	\$24,917,000	\$327,000
Total	\$17,314,000	\$42,522,000	\$38,477,000	\$17,612,000
As percentage of total output	23.2%	24.6%	63.5%	54.0%

Source: IMPLAN. IMPLAN employment data uses data from the Quarterly Census of Employment and Wages (QCEW), County Business Patterns, and other sources to estimate employment.

Notes:

- (1) Output is defined as gross receipts. It is not a measure of profitability.
- (2) Probably primarily fishing related.
- (3) Most likely aquaculture.

- (4) Includes fishing charters.
- (5) Includes seaweed farming.
- (6) May or may not be fishing related.

3.2.2. Data Questions and Limitations

There are data limitations evident in Table 2 as well. Not all of the output in a particular industrial category may be fishing related. Revenue for the “Scientific Research and Development” category seems to be misclassified.

3.3. Operating Costs in Fishing Industries

3.3.1. Overview

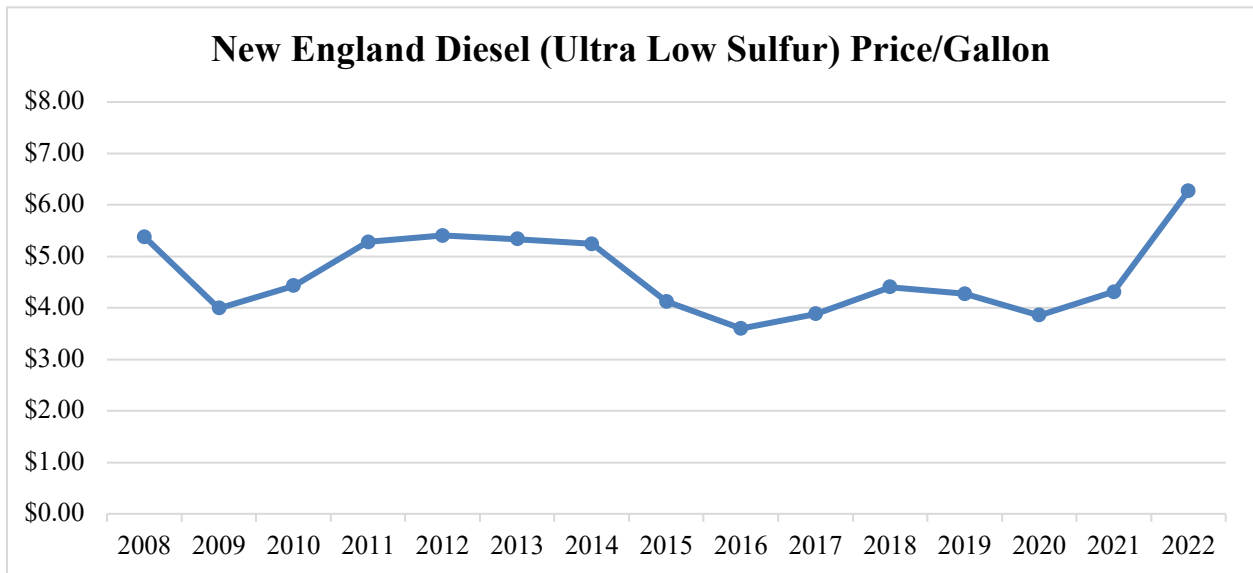
While section 1.2 investigated the output of fishing industries in Jonesport and Beals, this section investigates some of the operating costs related to the fishing industries. Our data show that while fuel prices have generally remained steady (with some fluctuations), the price of bait fish (primarily herring) has increased. Of course, there are other costs that harvesters face (namely the cost of gear), but as the quantity and type of gear required differs widely, any further data collection would have to be highly specific.

Fuel Costs

The primary input costs in fishing industries are fuel and bait. The graph below shows the cost of low sulfur diesel fuel in New England since 2008 (adjusted for inflation). Although the data are not Maine-specific, they still indicate the rapidly rising cost of fuel from 2021-2022.

Along with the per gallon cost of fuel, it is worth considering the number of miles that fishing vessels travel, as well as the fuel efficiency of the boats used. Data on these factors are not readily available.

Figure 1: New England Diesel Price/Gallon

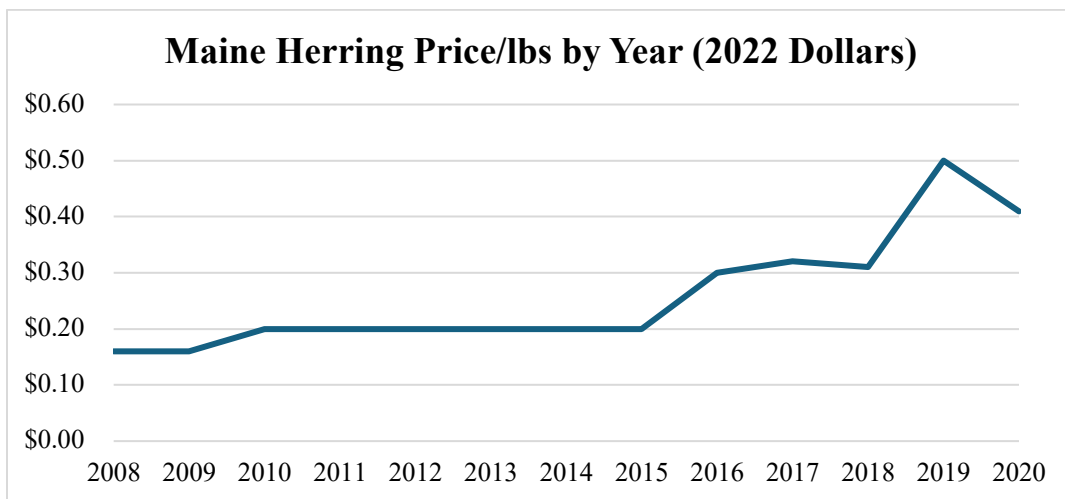


Source: U.S. Energy Information Administration (EIA)

Bait Costs

One of the primary sources of bait used in the Maine lobster industry is Atlantic herring. The graph above shows the ex-vessel value of these bait fish per pound. Dealer markups would likely increase these costs further. Nonetheless, the graph illustrates that the price of herring has increased dramatically over the past few years. Community members also mentioned that harvesters have been using pig hide for bait in recent years, due to a shortage of herring (which likely contributed to the rise in price) (J. S. Stoll et al., 2022). However, data on how pig hide prices have changed over time was not readily available.

Figure 2 Maine Herring Price by Year



Source: Department of Marine Resources (DMR)

Lobster and crab license fees

Table 3 below shows the fees for crab and lobster licenses. These fees have not increased since 2010. Although the Department of Marine Resources (DMR) proposed to increase lobster license fees in 2017, the proposal was never approved (Overton, 2017).

Table 3: Lobster and Crab License Fees by Class

Type of License	Fee
Class 1	\$301 (\$65 for under 18; \$66 for over 70)
Class 2	\$603 (\$301 for over age 70)
Class 3	\$888 (\$443 for over age 70)

Source: Department of Marine Resources

3.3.2. Data Questions and Limitations

While the available data indicate an increase in the per unit price of fuel and bait, it does not answer the question of *how* much fuel and bait harvesters are using. To truly answer the question of how costs are changing for harvesters, researchers would need to know how far harvesters are going to reach their catch, and how much bait they are using. The research team did not have easy access to data on how gear and equipment prices have changed over time.

Moreover, the research team did not have data on other costs such as gear and other equipment. Requirements for new types of gear and equipment, such as weak rope and weak insert requirements, as well as “trawling up” and gear marking requirements, were put into place to protect the right whale in 2022. While further regulations were “paused” until 2028, the uncertainty surrounding the new requirements and the costs needed to implement them make it difficult for harvesters to determine their operating costs (Maine Department of Marine Resources, 2023).

4. Theme: Evolution of the Fishing Industry

Sample questions:

- (1) Are fewer species being caught?
- (2) How has the fishing industry evolved over time in Jonesport and Beals?
- (3) Is the fishing industry consolidating?
- (4) How has access to the fishery changed over time?

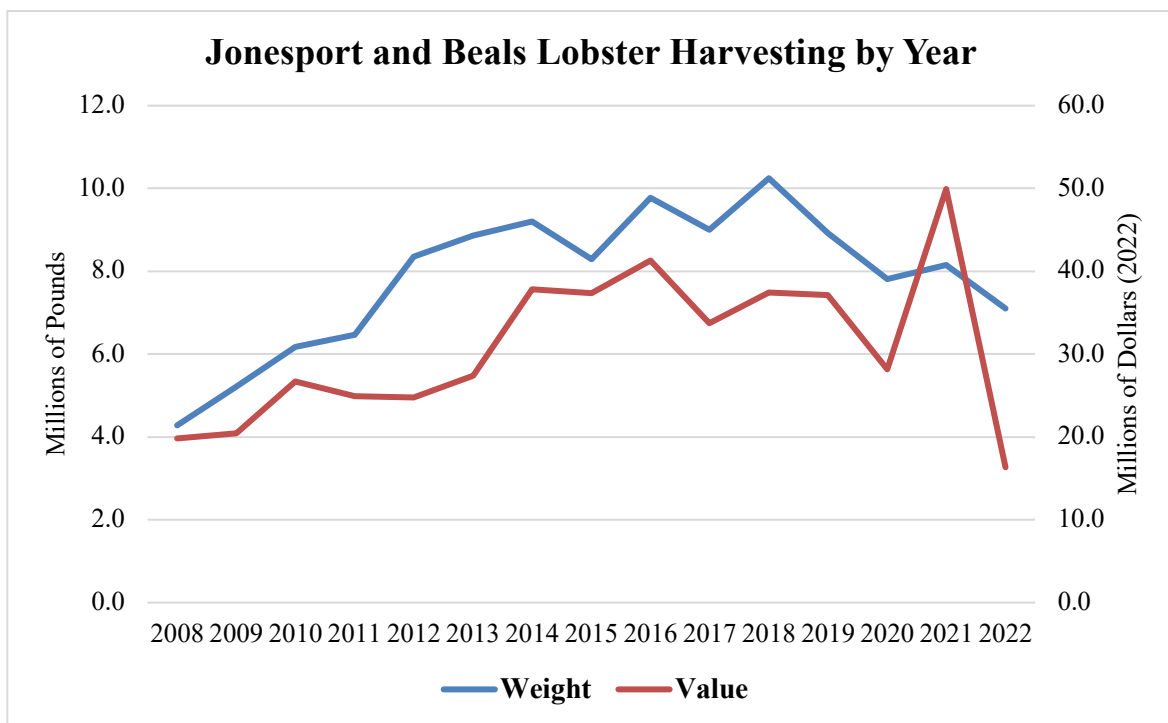
4.1. Pounds and Value of Different Species

4.1.1. Overview

Both the pounds and value of lobster landed in Jonesport and Beals increased from 2008 to 2014, but then declined slightly. The value of the harvest (adjusted for inflation) is shown in the red line, in Figure 3, and increased steadily until 2021, when it declined sharply. Clam value and harvesting in Jonesport both peaked in 2011-2012, and then declined to near zero.

Lobster

Figure 3: Jonesport and Beals Lobster Harvesting by Year

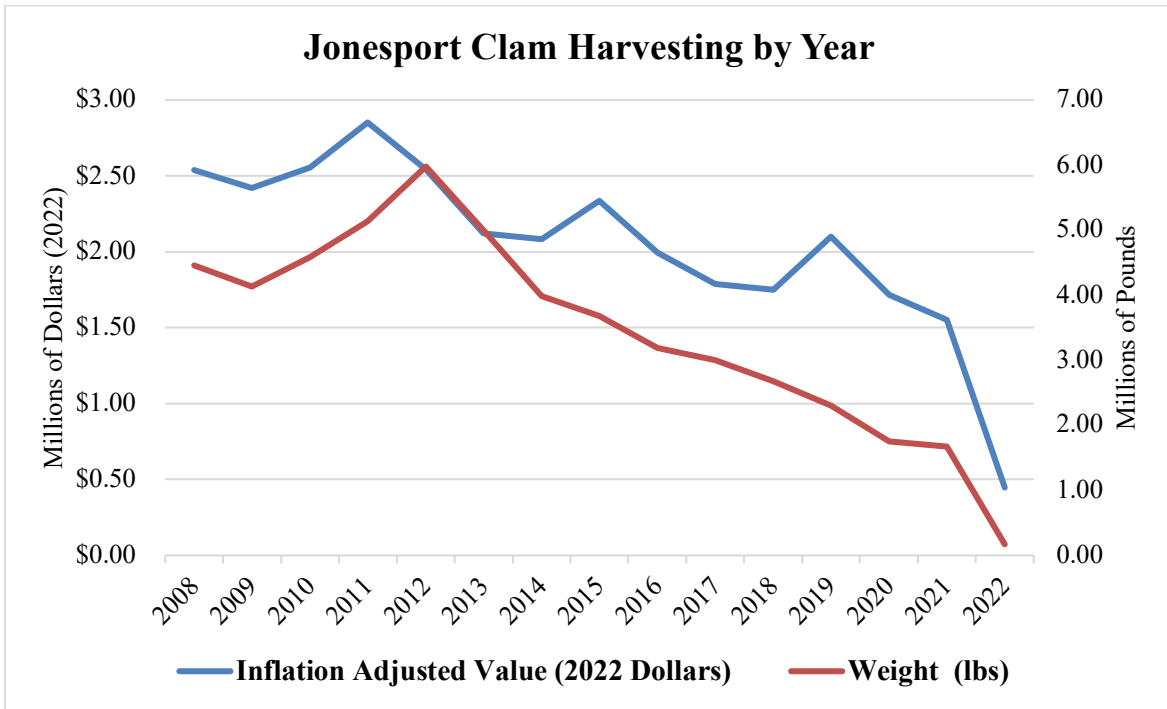


Source: Department of Marine Resources – Landings Portal

Clams

Figure 4 below shows the same data for the clamming fishery in Jonesport and Beals indicating that clam value and harvesting in Jonesport both peaked in 2011-2012, and then declined to near zero (data were not available for landings in Beals). These data immediately raise a question, as participants in the workshops held in Jonesport and Beals noted the importance of clamming to the local economy. It is unclear if the data from the DMR are incorrect or if something else would explain the seeming discrepancy.

Figure 4: Jonesport Clam Harvesting by Year



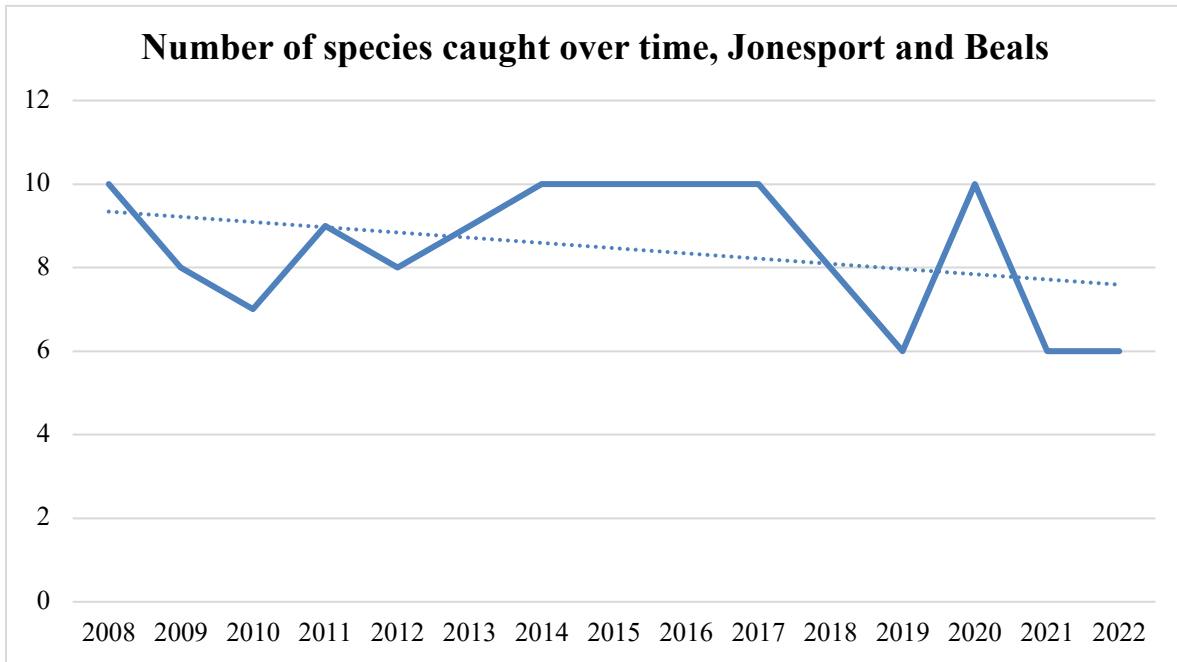
Source: Department of Marine Resources – Landings Portal

4.2. Number and Mix of Species Landed

4.2.1. Overview

Figure 5 shows that the number of species landed in Jonesport and Beals has fluctuated over time, with a decline in recent years. The mix of species has likewise changed, as shown in Table 4.

Figure 5 Species Landed in Jonesport and Beals



Source: Department of Marine Resources - Landings Portal

Table 4: Number of Species Landed in Jonesport and Beals, 2008 - 2022

Year	Blood-worms	Soft Clam	Atlantic Rock Crab	Jonah Crab	Blue Sea Mussel	Elver	Halibut	Menhaden	Periwinkle	Sand-worms	Sea Scallop	Sea Urchin	Ocean Quahog	Atlantic Herring
2008	X	X	X	X	X					X	X	X	X	
2009	X	X	X		X					X		X	X	
2010	X	X			X					X	X	X	X	
2011	X	X	X		X				X	X	X	X	X	
2012	X	X	X						X	X	X	X	X	
2013	X	X	X			X			X	X	X	X	X	
2014	X	X	X			X	X			X		X	X	X
2015	X	X	X		X	X	X		X	X	X		X	
2016	X	X	X		X	X			X	X	X	X	X	
2017	X	X	X	X		X	X			X	X	X	X	
2018	X	X	X			X					X	X	X	X
2019		X	X			X					X	X	X	
2020	X	X	X	X		X	X	X			X		X	X
2021		X		X		X		X			X		X	
2022		X		X		X		X	X		X			

Source: DMR Landings Portal

4.2.2.Data Questions and Limitations

While data on commercial landings are required to be reported to DMR under Chapter 8 of the Department of Marine Resources Regulations, these data need to be verified with the local community. Throughout the project, community members expressed skepticism that the data from the DMR are accurate. In 2023, DMR amended chapter 8 to require all harvesters holding an active lobster license submit monthly trip level catch reports (Department of Marine Resources, n.d.). Prior to this requirement, ten percent of the crab and lobster license holders were randomly selected to report landings.

4.3. How has the fishing industry evolved over time?

4.3.1.Overview

To answer this question, we looked at data from DMR regarding the number and type of lobstering licenses issued to Jonesport and Beals residents. A Class 1 license holder is issued to an individual, and anyone assisting that license holder must also have a Class 1 license. Class 2 license holders may engage 1 unlicensed crew member under their direct supervision, except where otherwise specified in the Maine State statutes. A Class 3 license allows for the licensee to have a crew of up to four unlicensed individuals. An increase in the percentage of Class 2 or Class 3 licenses relative to the percentage of Class 1 licenses issued might indicate an increase in the size of lobstering crew.

The project team found that over the eight-year period from 2016 - 2023, the number of Class 1 lobstering licenses over time has stayed relatively steady (except during the pandemic), but with a precipitous drop in 2023 from 80 licenses to 63. The number of Class 2 licenses was also relatively steady, but with a sharp increase in 2023 from 118 to 320. The reason for this increase is not known. The number of Class 3 licenses has typically been between 47 and 57, but with an increase to over 60 in 2022 and 2023.¹ Taken as a whole, the number and type of licenses does seem to indicate growth in the size of the crews in the area.

4.3.2.Data Limitations and Questions

The data above indicate that fewer individual licenses are being sold, and that the percentage of two or more harvester crews is increasing. While license data indicate that the length of the lobstering boats has not changed, the project teams does not have readily accessible data on the width of the existing lobstering fleet.

4.4. How has access to the fishery changed over time?

4.4.1.Overview

¹ License data are available from DMR by request. Data do not indicate out of which port a particular harvester operates. However, they do indicate the address of the license holder. Numbers given are for license holders who list Jonesport, Beals, and Machias as their mailing address.

Access to fisheries is a combination of regulatory access and physical access. Regulatory access has been found to have dropped by over 50% from 1990 - 2014. The number of different license types in 1990 required for access to the Maine fishery increased from 21 in 1990 and over 100 in 2014. Physical access to the fishery in other parts of Maine has likewise decreased.

Regulatory access to fishery

In a 2016 article in the journal Global Environmental Change, authors Joshua Stoll, Christine Beitzl, and James Wilson noted that the regulatory environment facing commercial fishermen has changed drastically over the period 1990 - 2014 (and likely has continued to evolve) (J. Stoll et al., 2016). The authors define “access” as the “relative number of fisheries that a fisher can target given the assemblage of licenses that he or she holds in a particular year” (page 82). Viewed in this way, the authors conclude, access to fisheries had dropped by over 50% in the intervening time period. The number of different license types available has ballooned from 21 in 1990 to over 100 in 2014.

Physical access to fishery

In addition to regulatory access to the fishery, physical access to the intertidal zone is increasingly a concern. Despite Maine having a long coastline, less than 12 percent of it is publicly owned. Access to the intertidal zone has historically been a patchwork of formal and informal agreements between fishermen and landowners. An unpublished draft report from Manomet (Manomet and Harpswell Marine Resources Committee, 2023) notes that overland access to the intertidal zone is being lost at an increasing rate, driven by a number of factors including changes in property ownership, gentrification pressure, limited parking, and sea level rise.

4.4.2. Data limitations and questions

As the article documenting the loss of regulatory access to the fishery was published in 2016 (and the work for the article conducted earlier than that), the project team does not have an easy way of ascertaining whether regulatory access to the fishery has continued to decrease. Moreover, there has been no inventory of public and private access points in Jonesport and Beals and whether arrangements with landowners are formal or informal.

5. Theme: Employment and Industry

Sample Questions:

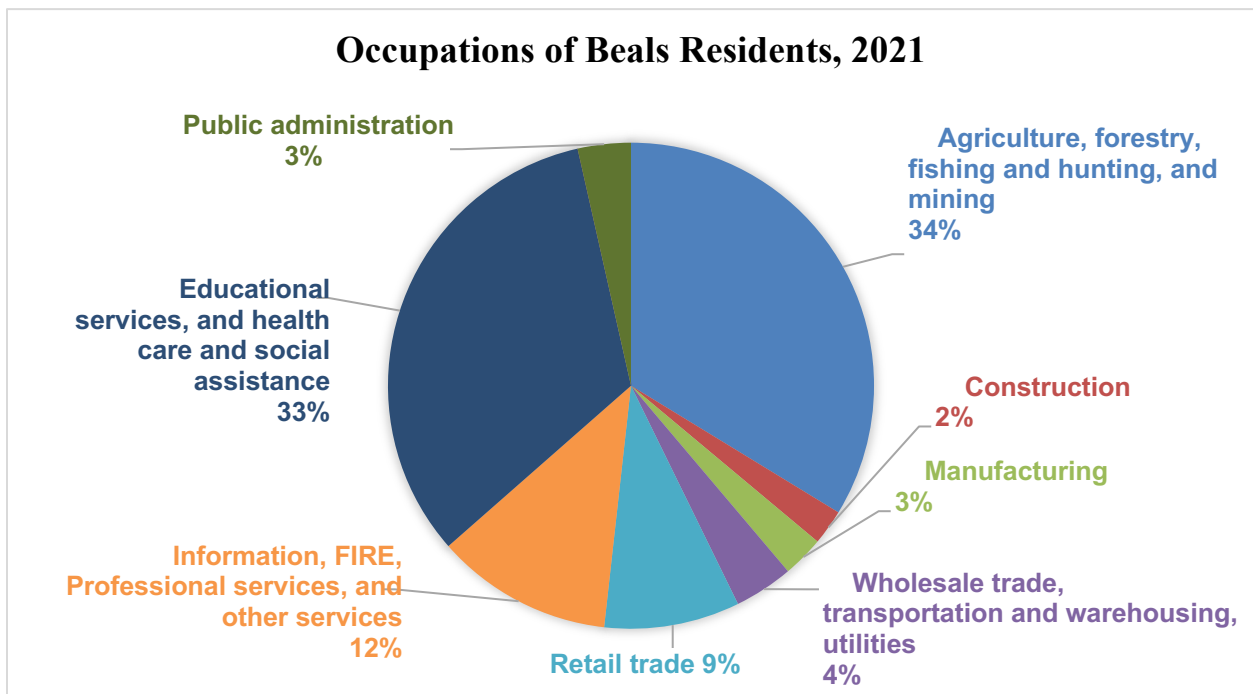
1. Where are people employed? How has that changed over time?
2. Has there been a change in labor force participation over time?
3. What industries are growing versus shrinking?

5.1. Occupations of Residents

5.1.1. Overview

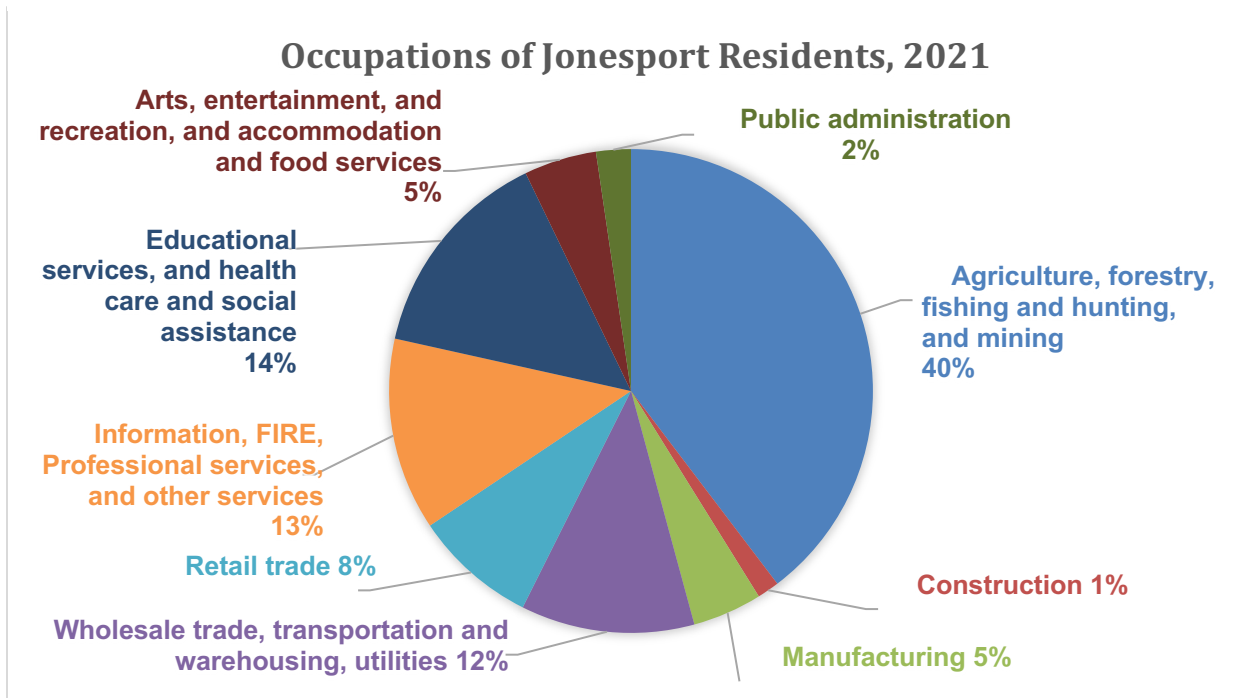
Figures 6 and 7 show that, in 2021, the two largest industries in which Beals residents were employed were natural resource related (agriculture, forestry, fishing, hunting and mining) and education, health care, and social assistance. The natural resource related industry was also the top employer for the residents of Jonesport, with the second largest industry nearly a tie between the education, health care, and social assistance industry, the FIRE (finance, insurance, and real estate) industry, and wholesale trade and transportation.

Figure 6 Occupations of Beals Residents, 2021



Source: American Community Survey, CS 5-Year Estimates Data Profiles, 2021

Figure 7 Occupation of Jonesport Residents, 2021



Source: American Community Survey, 5-Year Estimates Data Profiles, 2021

Self-Employment

The American Community Survey (ACS) also asks about the number of residents who were self-employed. In Beals, of the 86 people who were estimated to work in the “agriculture, forestry, fishing and hunting, and mining” industry, nearly 90% of them were estimated to be self-employed, with the remaining 10 percent working in private industries (*American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP02, 2021*). For Jonesport, of the 188 estimated workers in the “agriculture, forestry, fishing and hunting, and mining” industry, nearly 82% were self-employed, with the remaining 13 percent working for private industries.

The research team was able to obtain data on self-employment tax for Jonesport for 2020. Those data show that 250 self-employment tax forms were obtained by the IRS in that year, which is relatively close to the overall estimate of the number of self-employed individuals in the ACS. Data were not available for Beals for privacy reasons.

5.1.2. Data Limitations and Questions

The reliance on self-employment underscores the need for caution when using Quarterly Census of Employment and Wages (QCEW) data for this sector, as the QCEW database does not include proprietors and the unincorporated self-employed, or unpaid family members.

Data are from the ACS, 2021 five-year estimate.² However, there are two difficulties with relying on data from the ACS: (1) the high margins of error and (2) data on industry reflects the primary source of employment only, whereas many people in Jonesport and Beals rely on multiple sources of income.

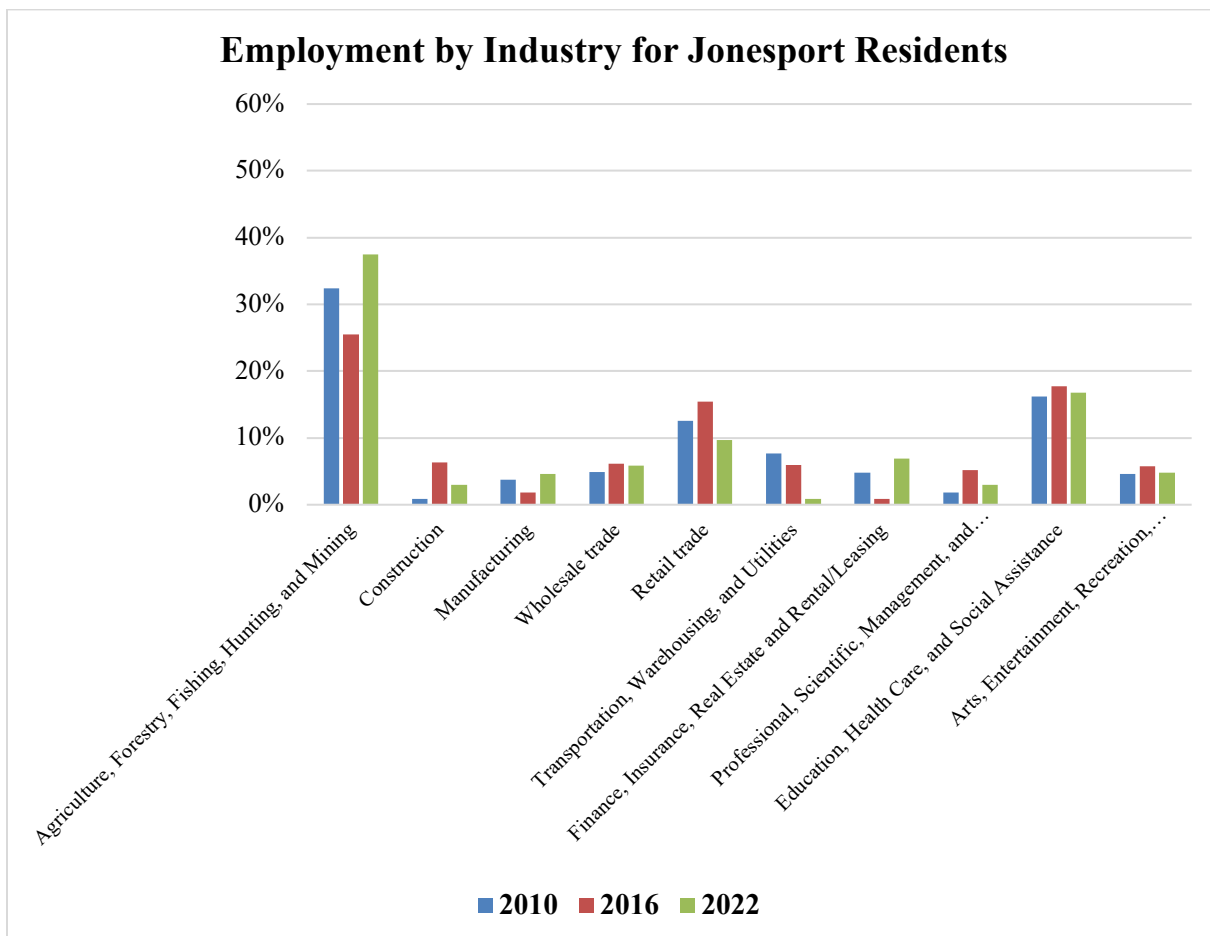
5.2. Employment by Industry

5.2.1. Overview

Jonesport resident employment in natural resource industries increased significantly from 2010 – 2021. Beals resident employment decreased in natural resources industries and increased in professional services from 2010 – 2021.

Figures 8 and 9 below add to that snapshot by showing how the main occupations in the towns have changed since the 2010 ACS (covering the period 2010 through 2015).

Figure 8: Employment by Industry for Jonesport Residents

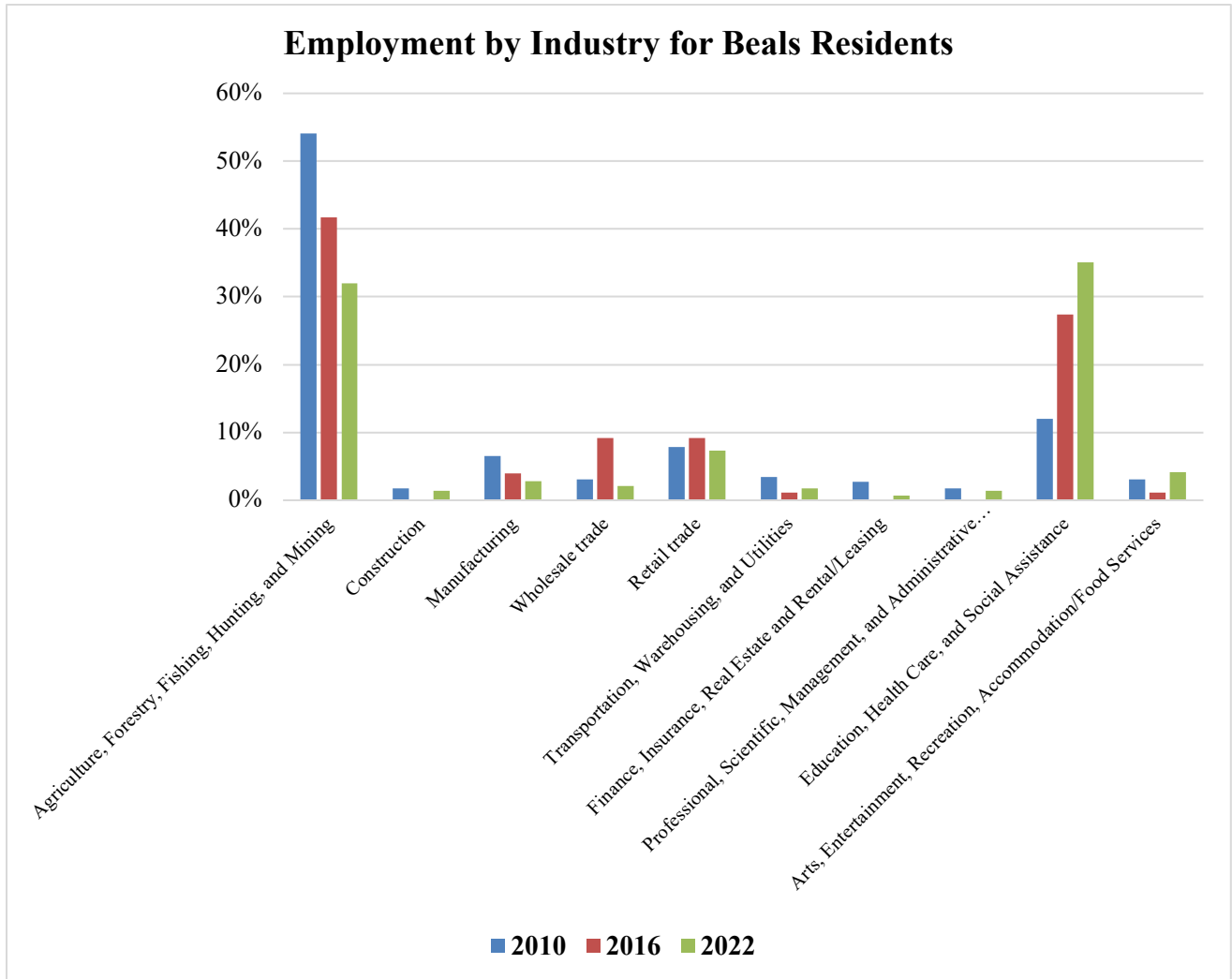


Source: American Community Survey

² The ACS publishes one-year estimates and five-year estimates. Five-year estimates are “rolling averages,” where data are collected over a period of time. Although one-year estimates may be more current, we use five-year estimates due to the large margin of error in small samples.

Figure 8 demonstrates that the Jonesport residents seem to be becoming more dependent on the agriculture, fishing, hunting and mining industry than was the case in the 2016 ACS.

Figure 9: Employment by Industry for Beals Residents



Source: American Community Survey

In both the 2010 and the 2016 American Community Survey (ACS), the agriculture, forestry, fishing and hunting industry was the largest employer of Beals residents. Figure 9 seems to demonstrate a shift towards “white collar” work, with professional, educational, and health care services employing a larger percentage of the population of Beals.

5.2.2. Data Limitations and Questions

As mentioned earlier in this report, the ACS has two major limitations: the wide margins of error and reporting of only the respondents’ primary source of employment. Second or third jobs are not reported.

5.3. Labor Force Participation

5.3.1. Overview

Table 5 shows that the labor force participation rate in both towns has increased over time, particularly for women in Beals. The labor force is made up of people who either currently have a job or are actively looking for a job. It does not include those individuals who are retired, “discouraged workers” (i.e., workers who have dropped out of the labor force due to the inability of securing a job), or informal workers (those who work “under the table”). The increase in the labor force participation rate in Jonesport and Beals is notable, as Maine’s overall labor force participation is at an all-time low.

Table 5: Labor Force Participation Rate

Labor Force Participation Rate (Women’s rate in parentheses)		
	Jonesport	Beals
2015 ACS	51.4 (42.2)	54 (40.2)
2021 ACS	54.7 (46.7)	66.5 (60.3)

Source: American Community Survey

Commuting

Data from OntheMap show that in 2021, of the people in the workforce, 87.2% of the residents of Jonesport worked outside Jonesport, while the remaining workers were employed within the town itself (United States Census Bureau, 2021). In 2021, the average commute time for Jonesport residents was 17.9 minutes compared to 16.7 minutes in 2015 (United States Census Bureau, American Community Survey Five Year Estimates, 2021).

In 2021, 93.6% of Beal’s workforce were employed outside of Beals, while the remaining workers were employed within the town (United States Census Bureau, 2021). According to the American Community Survey, the average commute time in Beals was 13.6 minutes in 2021, compared to 15.2 minutes in 2015 (United States Census Bureau, American Community Survey Five Year Estimates, 2021).

The difference between the industries in which the residents of Jonesport and Beals work, and the businesses that are located in the municipalities, resulted in some confusion among project participants. Some asked, for example, “what do people do here for a living?” which is a very different question from “how many people are employed at businesses located in town?” Figures 8 and 9 above answer the question of what the residents of Jonesport and Beals do for a living, while Table 6 and 7 below indicate those employed at reporting businesses within Jonesport and Beals.

Table 6: Number of Establishments Reporting Wages Paid to Employees

Establishments Located in Jonesport and Beals, 2011-2022				
Year	Jonesport		Beals	
	Establishments	Average Annual Employment	Establishments	Average Annual Employment
2011	52	309	19	88
2012	50	302	18	94
2013	46	286	19	88
2014	47	291	19	87
2015	57	322	22	107
2016	56	334	23	103
2017	57	351	22	98
2018	55	323	21	101
2019	55	278	20	113
2020	55	267	20	102
2021	58	284	20	109
2022	57	274	21	108

Source: (US Bureau of Labor Statistics, 2023)

Table 6 demonstrates that the number of establishments covered by the QCEW located in both Jonesport and Beals has grown slowly over time. Average employment, however, illustrated in Table 7, seems to have peaked in 2018/2019, then began to decline.

Growing versus declining industries

In terms of industries that employ people, the construction industry in Jonesport is growing, while employment in health care and social assistance is decreasing. Data for Beals cannot be shown at this level of disaggregation for privacy reasons.

Table 7: Establishments Located in Jonesport: Average Annual Employment By Industry

Establishments Located in Jonesport: Average Annual Employment By Industry							
Year	Ag, Forestry, Fishing Hunting*	Construction *	Educational Services	Finance and Insurance	Health Care and Social Assistance	Other Services (except Public Administration)	Retail Trade
2011	.	4	60	.	76	.	47
2012	.	.	61	.	.	.	47
2013	.	.	58	.	.	.	46
2014	.	10	53	.	.	.	49
2015	6	14	.	9	.	14	55
2016	6	18	.	10	.	13	55
2017	8	20	.	9	76	13	57
2018	9	21	.	9	.	13	53
2019	11	.	54	8	22	13	50
2020	10	.	.	8	21	15	44

2021	10	26	.	10	21	17	43
2022	5	23	.	9	18	15	50

*Characterized by high degrees of self-employment.

6. Theme: Population and Socio-demographics

Sample Questions:

1. Is there a demographic shift from working-age population to retirees?
2. Are youth moving away?
3. Are people moving in and what impact are they having?
4. How many homes are seasonal or vacation homes?
5. What impact is Airbnb having on our community?

6.1. Population

Table 8 below indicates that both towns have lost population between 2010 and 2020 (US Census). Recent data from the American Community Survey (ACS) indicate that the towns may be growing slightly since the 2020 Census, but the wide margin of error from the ACS makes it difficult to be certain. The demographic patterns indicate that not only have both areas declined in population, but there has indeed been a shift from the working-age population to retirement-age population illustrated in Table 9. The data seem to indicate that young people are moving away, at least according to the 2020 Census.

Table 8: Jonesport and Beals Population by Age Group

Census	Age Demographics			
	Jonesport		Beals	
	2010	2020	2010	2020
Total population	1,370	1,245	508	443
Under 20	19.5%	19.9%	19.7%	16.0%
20 to 64	56.1%	51.8%	58.1%	54.7%
64+	24.4%	28.5%	22.2%	29.0%

Source: US Census (2010 and 2020)

Table 9: Labor Force Participation Rate

	Jonesport		Beals	
	2016 ACS	2021 ACS	2016 ACS	2021 ACS
Occupied	58.1%	60.3%	55.1%	59.0%

Source: (United States Census Bureau American Community Survey 5 Year Estimates, 2021)

6.2. Housing

Occupancy Status:

Housing occupancy rates³ seem to have increased over time, implying a lower percentage of seasonal or second homes. However, given the wide margin of error, it is possible that housing occupancy rates have not significantly changed over time (United States Census Bureau, American Community Survey Five Year Estimates, 2022).

	Jonesport		Beals	
	2018	2022	2018	2022
Occupancy Rates	56.7%	63.3%	54.2%	67.2%

Short-term rentals

According to data from AirDNA, there are 36 active short-term Airbnb listings in Jonesport, which is a 50% increase over last year. Most of them (97%) are an entire home as opposed to a room within a house. The occupancy rate varies throughout the year, with the highest occupancy rate in July. The average daily rate is \$313 (AirDNA, 2023).

Table 10 shows the breakdown of Airbnbs by number of bedrooms. The majority of Airbnbs had 2 bedrooms (51%).

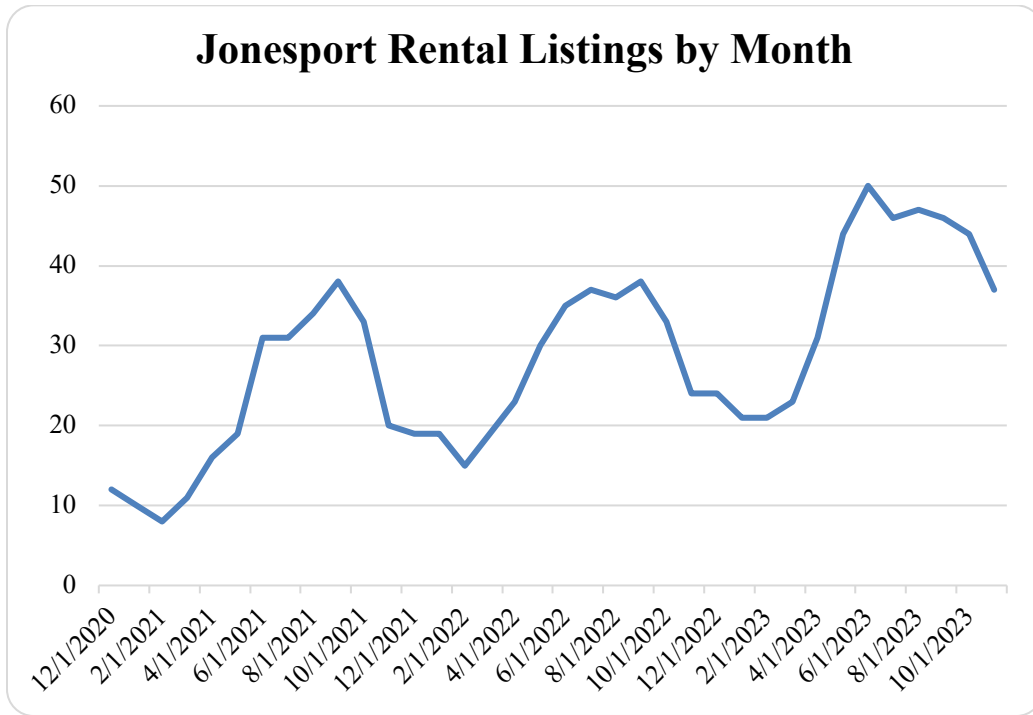
Table 10: Bedroom Numbers by Percent in Jonesport

Number of Bedrooms	Percentage
1 Bedroom	11%
2 Bedroom	51%
3 Bedroom	19%
4 Bedroom	16%
5+ Bedroom	3%

Source: (AirDNA, 2023)

³ According to the Census, a housing unit is occupied if person or group of persons living at the residence consider it their usual place of residence (<https://www.census.gov/housing/hvs/definitions.pdf>)

Figure 10 Rental Listings in Jonesport



Source: (AirDNA, 2023)

The graph above shows the active rental listing each month. On 11/1/23, there were 37 active rental listings in Jonesport. The number has fluctuated, but there is a general, consistent, increase in listings over time.

There are a total of 8 active listings in Beals. Three-quarters of them are an entire home, while 25 percent are a room within a home. The occupancy rate varies throughout the year, with the highest occupancy rate in May. The average daily rate is \$188.

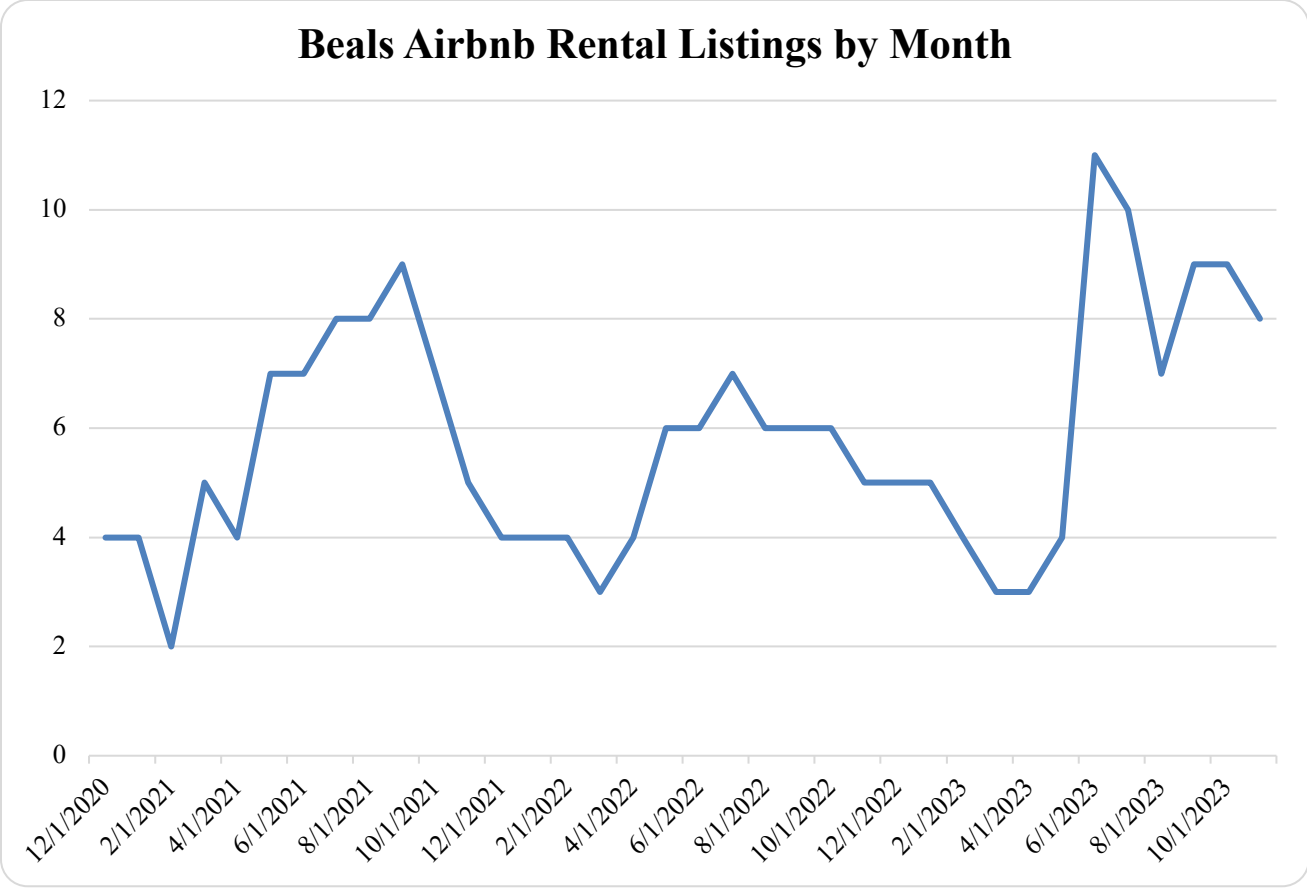
Table 11: Bedroom Numbers by Percent in Beals

Number of Bedrooms	Percentage
1 Bedroom	38%
2 Bedroom	13%
3 Bedroom	38%
4 Bedroom	13%
5+ Bedroom	0%

Source: (AirDNA, 2023)

Table 11 above shows the breakdown of Airbnbs by number of bedrooms. Most Airbnbs offered were either 1 Bedroom (38%) or 3 Bedroom (38%).

Figure 10: Rental Listings in Beals



Source: AirDNA

The graph above shows the total number of Airbnb rental listings in Beals monthly. There were 8 active rentals as of 11/1/23.

7. Improving the Accuracy of Local-Level Data: Guidance

The goal of this project was to augment the data that are available to small, rural communities in order to improve data access for local decision-making. Through the process of working with community members to understand local data needs, collecting relevant data to address those needs, and testing that data with local knowledge, several themes and questions emerged to help guide future efforts.

The first issue concerns the gap between the type of question asked and the “answer” that the available data is capable of providing. One example was the common question – *Where are people employed?* While that question seems clear, it soon became apparent that there are potentially two different questions that required two different types of data to answer. The first question, “how many people are employed at businesses located in town”, could be addressed by the types of businesses that were physically located in Jonesport and Beals, and the economic activity (employment, output, etc.) that were attributed to those businesses. The second question, “what do the residents of Jonesport and Beals do for a living” could be addressed by looking at the occupations of the citizens of Jonesport and Beals. Since a good portion of the residents of the towns do not actually work in town, those two questions are distinct from a data

perspective. Additionally, perceptions of the local economy may be more informed by how the local economy used to be, rather than what it is currently.

Secondly, it became apparent that, even when there was a match between the questions that people asked and the answers that could be given by available data, some data gaps remained. For example, the Quarterly Census of Employment and Wages (QCEW) is a widely relied-upon source of data for investigating the types of businesses located in an area and the number of people they employ. However, the QCEW reports data for businesses covered by State unemployment insurance laws. Therefore, it does not include proprietors, those who are self-employed, unpaid family members, or certain farm or domestic workers (US Bureau of Labor Statistics, 2023). In an area characterized by high degrees of self-employment, therefore, the QCEW does not give an accurate picture of a community's economy. Some of these data gaps could be "bridged" by finding other sources of data, thereby cross-checking and verifying existing sources of data.

Third, there are some areas where data simply aren't available. Or, to be more precise, the data do exist, but it would take significant time and effort to collect them and make them accessible. One example is the fact that many people in Jonesport and Beals earn income from multiple sources. But data on occupation gathered by the American Community Survey (ACS) only asks about the primary source of employment, giving a distorted picture of what people do for a living. This is a case where the local knowledge of community members is invaluable to the research. As we've found through this project, active collaboration between researchers and members of the community (also known as participatory action research) helps to generate improved project outcomes. This is because it recognizes that standard data sets are only the first step to understanding community issues, and that the knowledge of those with lived experience in the community is essential. While a full description of participatory action research is beyond the scope of this report, such a methodology uses knowledge embodied in the community itself to answer relevant, community-based questions.

The remainder of this guidance is organized by theme, much like the first part of the report. For each theme, we highlight the data sources available, the gaps in the data, and the method that the researchers used to try to address those gaps or shortcomings. We highlight those areas where we feel that participatory research by the communities themselves might be necessary and appropriate.

Theme: Fishing/Lobstering Economy

Data sources used: IMPLAN, EIA, DMR

Data shortcomings: Some obvious anomalies in the data available from IMPLAN; broad industrial categories in IMPLAN make it difficult to ascertain what percentage of the categories are fishing-related; data on fuel prices from EIA are not local; local skepticism regarding accuracy of data from DMR.

Methods used / recommended:

- The research team used data from IMPLAN to determine what percentage of local economic activity was attributable to the fishing industry. Because IMPLAN uses data from various sources

to estimate economic activity, it is an improvement over QCEW data, which may not report be accurate in industries characterized by high degrees of self-employment.

- The research team verified that the numbers presented by IMPLAN seemed to be reasonable.
- The industrial categories used by IMPLAN are not always self-explanatory. Therefore, the data from IMPLAN need to be verified at the local level. A survey of local businesses to determine what industry/category they belong to would help classify economic activity more accurately.
- A method for keeping track of local diesel prices and sales would give a better indicator of local conditions.
- There is a need for tracking the price dealers charge for baitfish, rather than the ex-vessel price.
- A local survey is needed to ascertain how much pig hide is being used as bait and what the costs are.
- Finally, there is a need to know exactly what type of gear is being used in the fishery, as well as the cost of that gear.

Theme: Evolution of the Fishing Industry

Data sources used: DMR Landings Portal; DMR

Data anomalies/shortcomings: Local skepticism regarding accuracy of data from DMR.

Methods used / recommended:

- During the community meetings, we found that harvesters from either Jonesport or Beals would land their catch wherever the highest price was to be found. Therefore, the research team combined landings from the two ports when reporting. It is possible that landings data include landings from harvesters from other areas.
- While data on the length of boats in the fishing fleet indicate that the length of boats has not changed over recent years, a local survey could help determine whether the width of boats had changed. This would help to determine whether the size of boats, as well as the size of the crew, has changed.
- It would be helpful to know whether the number of licenses required by DMR for harvesters has changed since 2014.
- An inventory of physical access points and whether the access granted is formal or informal is needed to determine if the overland access to the fishery is declining.

Theme: Employment and Industry

Data sources used: ACS, OntheMap, QCEW, Internal Revenue Service Schedule SE

Data anomalies/shortcomings:

- ACS data for rural areas have wide margins of error. Respondents are asked about their primary source of employment, whereas many residents have two or more jobs.

- QCEW does not report self-employment and does not report at high levels of disaggregation⁴ for small areas like Beals.

Methods used / recommended:

- The research team verified that the percentages reported by ACS seemed to be reasonable.
- The research team obtained data from the IRS Schedule SE on self-employment for Jonesport. However, data were not reported for Beals due to privacy concerns.

Theme: Population and Socio-demographics

Data sources used: Census, ACS, AirDNA

Data anomalies/shortcomings:

- ACS data for rural areas have wide margins of error.

Methods used / recommended:

- The research team used data from AirDNA to verify community observations.
- Data on school enrollment could be used to augment ACS data.
- Change of address data can be obtained from the US Postal Service for a fee. However, for such small areas, they may be suppressed for privacy reasons.

8. Conclusion

The purpose of the Jonesport and Beals Local Economy Project is to identify approaches to augment data available to small, rural communities in order to improve data access for local decision-making. The intended outcome is that these identified approaches might serve as models for other communities. This report presents an overview of the project, the data that are available, the shortcomings of that data, and proposes a method by which local communities may be able to augment that data.

The project with Jonesport and Beals focuses on a process of active collaboration between members of the community and the researchers that involves working with community members to understand local data needs, collecting relevant data to address those needs, and testing that data with local knowledge. A key tenant of this process is that standard data sets are only the first step to understanding community issues, and that the knowledge of those with lived experience in the community is essential.

Collaboration with the communities began in spring 2022 when conversations were held with community members to identify initial ideas on what residents wanted to learn more about and care most about in relation to the local economy. The research team then collected data to help answer the communities' questions and conducted an initial economic analysis. In spring 2023, community meetings were held to

⁴ Disaggregation refers to the process of breaking down a larger dataset into smaller, more detailed components or subsets. In the context of data reporting, it involves providing information at a more granular level, such as by geographic area, industry sector, or demographic group. The data provided by the QCEW lacks detailed breakdowns for very small areas.

learn if the analysis made sense with what people knew about their communities, as well as to identify any other sources of local-level data.

Once the community members reviewed the data, it was determined that while the data seemed to be largely representative of the communities, there were areas where improved accuracy is needed to inform local decision making. One area of improvement is the need to clarify the type of question asked and the “answer” that the available data can provide. Additionally, it is important to consider how data gaps might be “bridged” by finding other sources of data as a form of cross-checking. Lastly, the local knowledge of community members is essential in providing local context and contacts that make it possible to bridge data gaps and identify the additional data sources that their community needs.

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