

Appendix

Tables

Table A1-1: Summary Statistics

	Port Sample (1990-2000)	Population Sample (1990-2000)	Quota Sample (1990-2000)
Observations	462	1030	653
Halibut Owners	53.21 (71.52)	36.21 (60.74)	36.21 (60.74)
Proportion Fresh Product	0.23 (0.32)	0.10 (0.25)	0.16 (0.30)
Population (AK DCED)	9,329 (39,810)	4,394 (25,072)	6,565 (31,275)
Census Population	9,033 (39,420)	4,559 (25,927)	6,868 (32,351)
Revenue (AK DCED, 000s)	60,280 (97,520)	36,480 (74,710)	49,590 (85,000)
Remote Designation	0.79 (0.41)	0.80 (0.40)	0.76 (0.43)
SRFC Designation	0.64 (0.48)	0.40 (0.49)	0.60 (0.49)
CDQ Designation	0.24 (0.43)	0.30 (0.46)	0.21 (0.41)

Notes: Summary statistics 1990-2000 for three panel datasets: mean and (standard deviation).

Table A1-2: Pre-Period (1990-1994) Summary Statistics

	Port Sample (1990-1994)	Population Sample (1990-1994)	Quota Sample (1990-1994)
Observations	210	469	298
Halibut Owners	71.23 (89.61)	49.20 (76.89)	49.20 (76.89)
Proportion Fresh Product	0.16 (0.26)	0.08 (0.21)	0.12 (0.26)
Population (AK DCED)	8,286 (36,366)	4,012 (23,003)	5,930 (28,667)
Census Population	8,827 (38,216)	4,421 (25,107)	6,650 (31,294)
Revenue (AK DCED, 000s)	56,290 (95,490)	31,260 (69,760)	43,900 (81,020)
Remote Designation	0.79 (0.41)	0.80 (0.40)	0.75 (0.43)
SRFC Designation	0.64 (0.48)	0.41 (0.49)	0.61 (0.49)
CDQ Designation	0.24 (0.43)	0.30 (0.46)	0.17 (0.38)

Notes: Pre-treatment summary statistics (1990-1994) for three panel datasets: mean and (standard deviation).

Table A1-3: Conditional Means in Pre-Period (1990-1994)

	Port Sample		Population Sample		Quota Sample		Quota Sample	
	Non-Remote	Remote	Non-SRFC	SRFC	<50% Type C	>50% Type C	<50% Type D	>50% Type D
Observations	45	165	279	190	116	182	234	64
Halibut Owners	128.69 (101.12)	52.89 (77.43)	55.97 (86.82)	44.94 (69.85)	19.66 (36.86)	68.02 (89.01)	60.20 (83.25)	8.95 (12.01)
Proportion Fresh Product	0.32 (0.24)	0.11 (0.25)	0.06 (0.19)	0.10 (0.25)	0.11 (0.28)	0.13 (0.24)	0.13 (0.24)	0.12 (0.31)
Population (AK DCED)	31,255 (72,163)	1,511 (1,726)	5,973 (29,636)	1,133 (2,069)	9,719 (44,958)	3,515 (7,016)	7,247 (32,231)	1,116 (1,445)
Census Population	33,472 (74,985)	1,434 (1,636)	6,769 (32,347)	974 (1,316)	11,549 (49,143)	3,527 (6,880)	8,186 (35,168)	1,034 (1,329)
Revenue (AK DCED, 000s)	129,500 (150,400)	32,140 (49,810)	38,220 (86,470)	23,570,000 (43,600)	34,220 (57,770)	48,520 (89,860)	48,940 (89,070)	23,500 (23,380)
Remote Designation	0.00 -	1.00 -	0.71 (0.46)	0.94 (0.23)	0.93 (0.25)	0.64 (0.48)	0.69 (0.46)	0.98 (0.13)
SRFC Designation	0.22 (0.42)	0.76 (0.43)	0.00 -	1.00 -	0.48 (0.50)	0.70 (0.46)	0.63 (0.48)	0.56 (0.50)
CDQ Designation	0.00 -	0.30 (0.46)	0.36 (0.48)	0.20 (0.40)	0.45 (0.50)	0.00 -	0.06 (0.23)	0.61 (0.49)

Notes: Summary statistics (1990-1994) for three panel datasets: mean and (standard deviations). The port sample is bifurcated by a measure of remote: commercial airfare to Seattle or within five hour drive of such an airport. The population sample is bifurcated by designation as SRFC. Columns 5 and 6 bifurcate the quota sample by cities allocated greater than 50% of share as type-C, and columns 7 and 8 show the quota sample bifurcated by type-D.

Table A2-1: Port Regression Outcomes

VARIABLES	(1) Population	(2) Population	(3) Population	(4) Population	(5) Revenue	(6) Revenue	(7) Revenue	(8) Revenue
HALIBUT PORT	-0.0375 (0.0327)	-0.0257 (0.0317)	0.0226 (0.0977)	0.0530 (0.0911)	-0.142 (0.138)	-0.141 (0.127)	-0.153 (0.0936)	-0.138* (0.0820)
Observations	1,388	1,432	1,571	1,662	642	674	782	847
R-squared	0.988	0.990	0.892	0.922	0.928	0.940	0.965	0.972
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Population	<1500	<2500	<5000	All	<1500	<2500	<5000	All

Notes: Regressions of DECD population (log) and DECD revenue (log) on HALIBUT PORT designation for different population levels in treatment and control groups. Robust standard errors clustered at city are in parentheses (***) p<0.01, ** p<0.05, * p<0.1)

Table A2-2: Remote Population Regressions without Logs

VARIABLES	(1) Population (AK DECD)	(2) Population (AK DECD)	(3) Population (AK DECD)	(4) Population (AK DECD)	(5) Population (Census)	(6) Population (Census)	(7) Population (Census)	(8) Population (Census)
HALIBUT PORT	-9.526 (14.24)	-329.6** (127.7)			8.445 (14.93)	-233.1 (136.4)		
SRFC			-16.49 (10.66)	-108.7 (130.7)			-14.48 (10.15)	-107.5 (131.4)
Observations	1,388	178	1,388	178	1,366	177	1,366	177
R-squared	0.982	0.960	0.982	0.954	0.987	0.966	0.987	0.964
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Population	<1500	1500-5000	<1500	1500-5000	<1500	1500-5000	<1500	1500-5000

Notes: Regressions of DECD population and census population on SRFC and HALIBUT PORT designation for different population levels in treatment and control groups. Robust standard errors clustered at city are in parentheses (***) p<0.01, ** p<0.05, * p<0.1).

Table A2-3: Population and Revenue Regressions using Spatial HAC Standard Errors

VARIABLES	(1) Population	(2) Population	(3) Population	(4) Population	(5) Revenue	(6) Revenue	(7) Revenue	(8) Revenue
SRFC	-0.0486** (0.0228)	-0.0377* (0.0213)	-0.109** (0.0481)	-0.129*** (0.0488)	-0.171* (0.0979)	-0.164* (0.0901)	-0.208*** (0.0788)	-0.199*** (0.0755)
Observations	1,316	1,359	1,495	1,585	591	623	728	793
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Population	<1500	<2500	<5000	All	<1500	<2500	<5000	All

Notes: Regressions of DECD population (log) and DECD revenue (log) on SRFC designation for different population levels in treatment and control groups using Conley HAC spatial standard errors with a 200km radius and serial correlation across all years (11) (Fetzer 2014; Hsiang 2010; Conley 1999). Sample is restricted to cities for which we have population (revenue) data and latitude/longitude (***) $p < 0.01$, ** $p < 0.05$, * $p < 0.1$)

Table A3-1: Census Population and Revenue Regressions

VARIABLES	(1) Census	(2) Census	(3) Census	(4) Census	(5) Census	(6) Revenue	(7) Revenue	(8) Revenue	(9) Revenue	(10) Revenue
CDQ	0.0377 (0.0256)					-0.202 (0.256)				
CLASS D >50%		0.0472* (0.0264)					-0.130 (0.201)			
CLASS C >50%			-0.0328 (0.0432)					0.177 (0.121)		
CLASS B >50%				0.0550 (0.0691)					-0.177 (0.121)	
BLOCK >50%					0.0140 (0.0338)					-0.0700 (0.0776)
Observations	642	642	456	456	456	424	424	318	318	318
R-squared	0.997	0.997	0.997	0.997	0.997	0.974	0.974	0.979	0.979	0.979
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Protected Included	Yes	Yes	No	No	No	Yes	Yes	No	No	No

Notes: Regressions of DECD revenue (log) on five types of restricted quota. Each treatment group is bifurcated by >50% of quota falling into a particular category except CDQ, which is a discrete designation. Robust standard errors clustered at city are in parentheses (** p<0.01, * p<0.05, * p<0.1).

Table A3-2: Owner Poisson Regressions on Protected Quota Type Dummies

VARIABLES	(1) Owners	(2) Owners	(3) Owners	(4) Owners	(5) Owners	(6) Owners
PROTECTED	0.893*** (0.287)		0.846*** (0.271)		0.777*** (0.271)	
CLASS C >50%		-0.877*** (0.280)		-0.831*** (0.264)		-0.355 (0.241)
Observations	401	401	441	441	552	552
Log-Likelihood	-1074	-1076	-1189	-1191	-1579	-1649
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Sample	<1500	<1500	<2500	<2500	<5000	<5000

Notes: Poisson regressions of number of halibut vessel owners on designation protected quota (>50% type D or CDQ) or >50% of quota in class C. Each treatment group is bifurcated by >50% of quota falling into a particular category except CDQ, which is a discrete designation. Robust standard errors clustered at city are in parentheses (***) p<0.01, ** p<0.05, * p<0.1).

Table A3-3: Population Regressions on Protected Quota Type Dummies

VARIABLES	(1) Population	(2) Population	(3) Population	(4) Population	(5) Population	(6) Population
PROTECTED	0.0645 (0.0441)		0.0517 (0.0409)		-0.172 (0.125)	
CLASS C >50%		-0.0495 (0.0424)		-0.0377 (0.0398)		0.216 (0.144)
Observations	401	401	441	441	552	552
R-squared	0.989	0.989	0.991	0.991	0.794	0.795
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Sample	<1500	<1500	<2500	<2500	<5000	<5000

Notes: Regressions of DECD population (log) on designation protected quota (>50% type D or CDQ) or >50% of quota in class C. Each treatment group is bifurcated by >50% of quota falling into a particular category except CDQ, which is a discrete designation. Robust standard errors clustered at city are in parentheses (** p<0.01, * p<0.05, * p<0.1).

Table A3-4: Census Population Regressions on Protected Quota Type Dummies

VARIABLES	(1) Census	(2) Census	(3) Census	(4) Census	(5) Census	(6) Census
PROTECTED	0.107*** (0.0365)		0.0934** (0.0358)		0.0575* (0.0298)	
CLASS C >50%		-0.0870** (0.0382)		-0.0745* (0.0374)		-0.0547* (0.0322)
Observations	401	401	441	441	551	551
R-squared	0.988	0.987	0.990	0.989	0.994	0.994
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Sample	<1500	<1500	<2500	<2500	<5000	<5000

Notes: Regressions of Census population (log) on designation protected quota (>50% type D or CDQ) or >50% of quota in class C. Each treatment group is bifurcated by >50% of quota falling into a particular category except CDQ, which is a discrete designation. Robust standard errors clustered at city are in parentheses (** p<0.01, * p<0.05, * p<0.1).

Table A3-5: Revenue Regressions on Protected Quota Type Dummies

VARIABLES	(1) Revenue	(2) Revenue	(3) Revenue	(4) Revenue	(5) Revenue	(6) Revenue
PROTECTED	-0.132 (0.298)		-0.0635 (0.237)		-0.0444 (0.211)	
CLASS C >50%		0.0975 (0.279)		0.0381 (0.225)		0.0976 (0.169)
Observations	241	241	269	269	359	359
R-squared	0.948	0.948	0.955	0.955	0.969	0.969
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Sample	<1500	<1500	<2500	<2500	<5000	<5000

Notes: Regressions of DECD revenue (log) on designation protected quota (>50% type D or CDQ) or >50% of quota in class C. Each treatment group is bifurcated by >50% of quota falling into a particular category except CDQ, which is a discrete designation. Robust standard errors clustered at city are in parentheses (** p<0.01, * p<0.05, * p<0.1).

Figures

Figure A1: Map of Alaskan Cities by Type

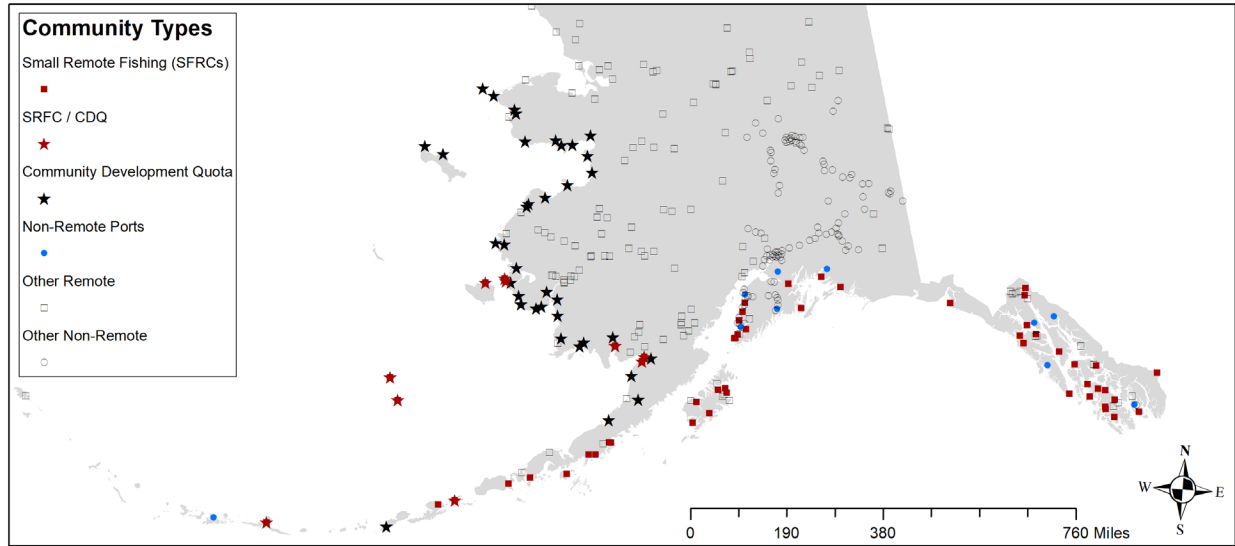


Figure A2: Community Outcome Event Studies for Halibut Port Treatment

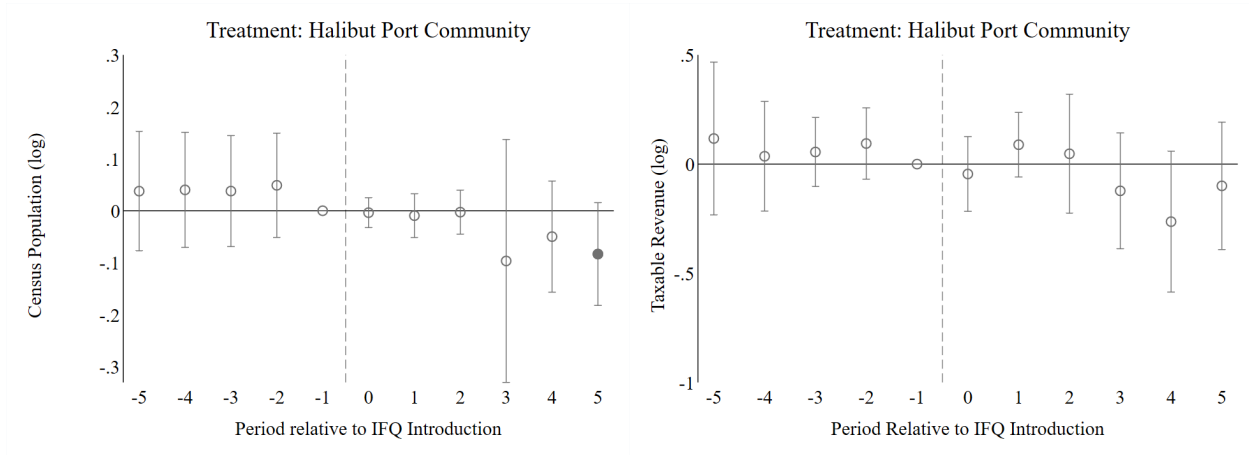


Figure A3: Community Outcome Event Studies for Remote Community Subsample

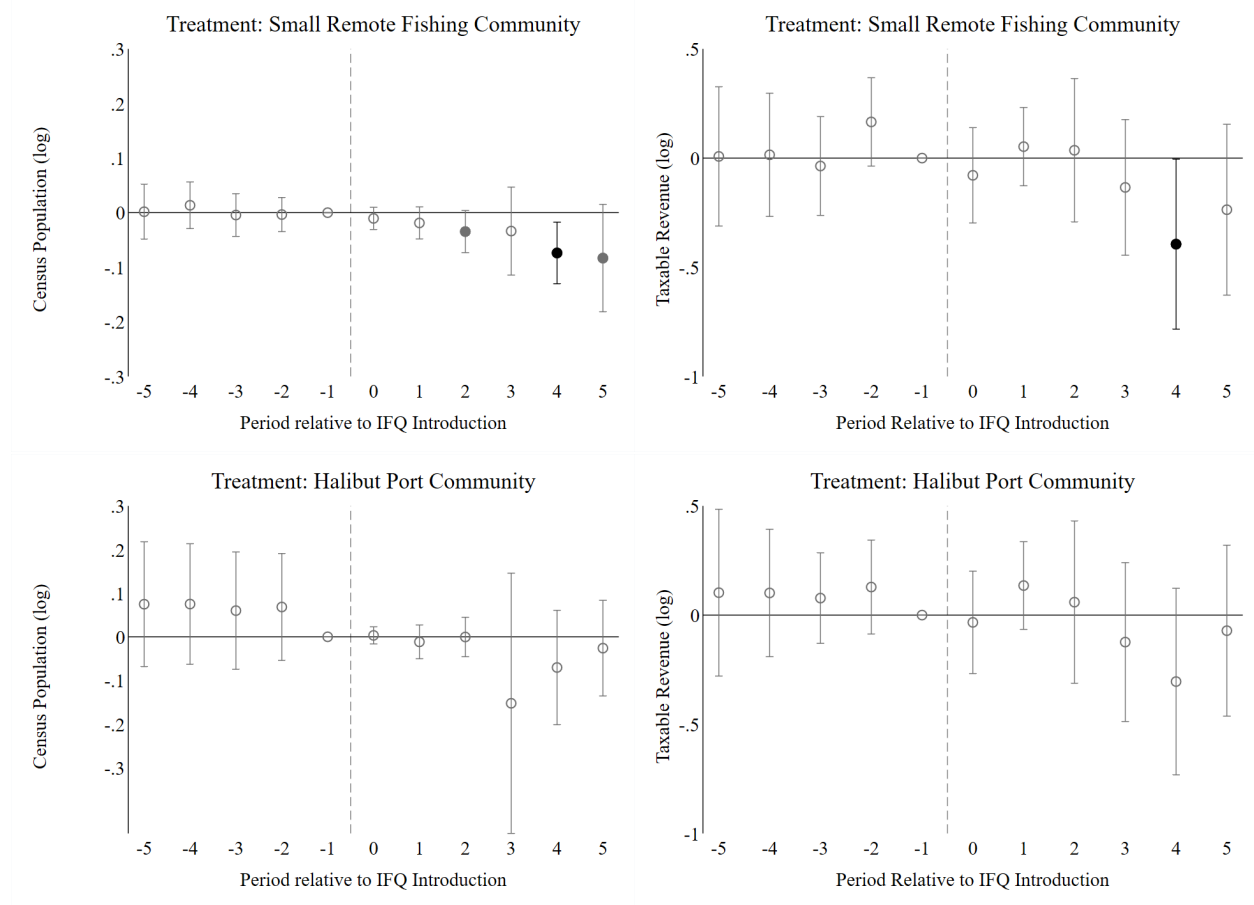


Figure A4: Vessel Owner Event Studies for Cities Receiving Restricted Quota

