Alaska's Petroleum Industry: Transformative, But is it Sustainable?

by

Scott Goldsmith Institute of Social and Economic Research University of Alaska Anchorage

Alaska House Finance Committee Invited Presentation March 17, 2011 Juneau, Alaska

> Institute of Social and Economic Research University of Alaska Anchorage

Alaska at Statehood

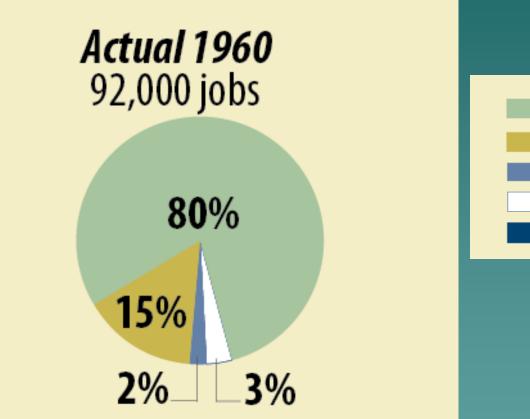


- SMALL: 90 thousand jobs
- THIN: limited support businesses
- SEASONAL: summer private jobs 2x winter
- TRANSIENT: seasonal and temporary
- •FEDERAL DOMINATION: 1/2 jobs with fed
- INFRASTRUCTURE UNDERDEVELOPED
- LIMITED TAX BASE
- POOR: Income 10-20% below US average





1960 Economic Structure



Federal government Seafood, mining, timber Tourism, air cargo Other Oil





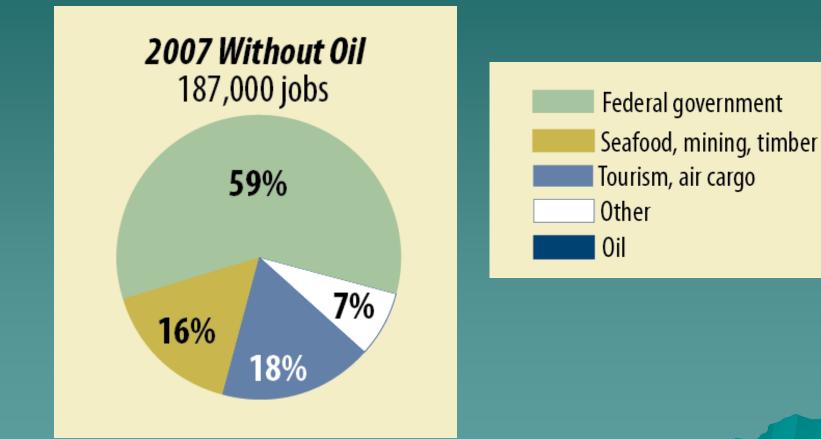
Alaska Today: No Oil

- SMALL: 187 thousand jobs
- THIN
- SEASONAL
- TRANSIENT
- FEDERAL DOMINATION
- INFRASTRUCTURE UNDERDEVELOPED
- LIMITED TAX BASE
- POOR: Income 10-20% below US average





2007 Economic Structure without Petroleum







Alaska: An Island Economy

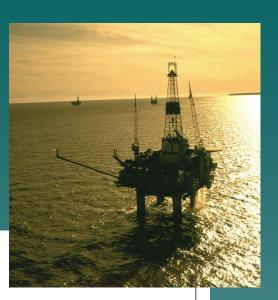




Oil and the Alaska Economy



Petroleum Jobs: Oil Patch Related



The Role of the Oil and Gas Industry in Alaska's Economy Anchorage Chamber of Commerce June 30, 2008

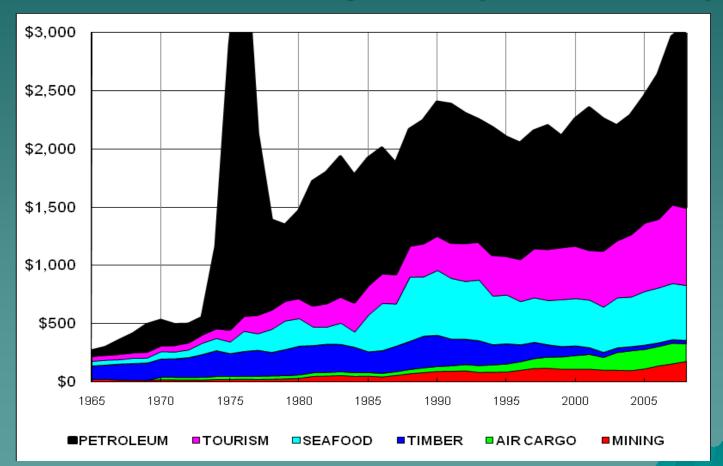
Job creation

- 41,744 jobs direct, indirect, induced
 - 4,497 Direct primary companies
 - 8,410 Indirect support industry companies providing goods and services
 - 28,837 Induced jobs created when direct and indirect employees spend their income locally





Petroleum Jobs: Oil Patch Payroll (Million \$)







Petroleum Jobs: Oil Patch Support

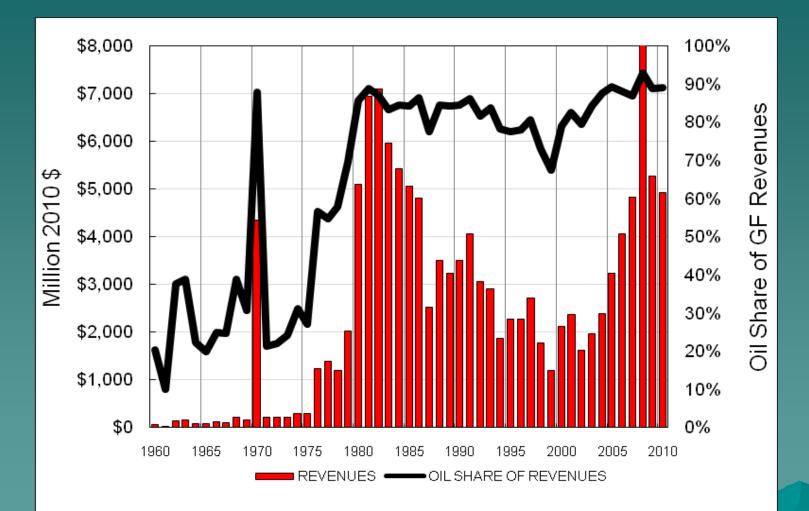


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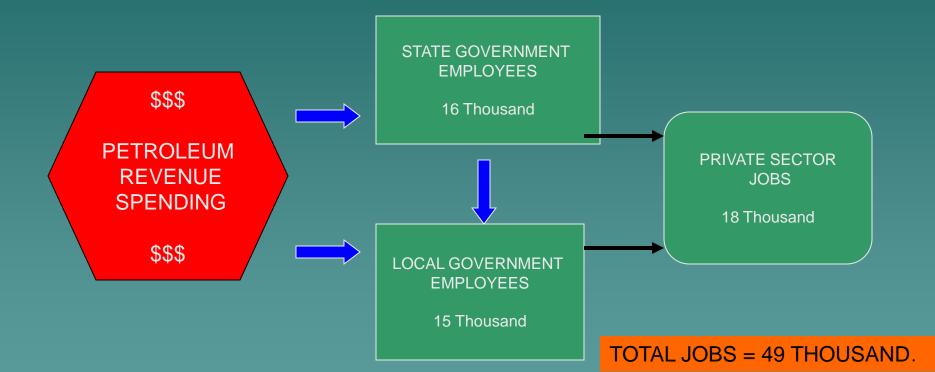
General Fund Oil Revenues







Petroleum Jobs: Funded by Petroleum Revenues

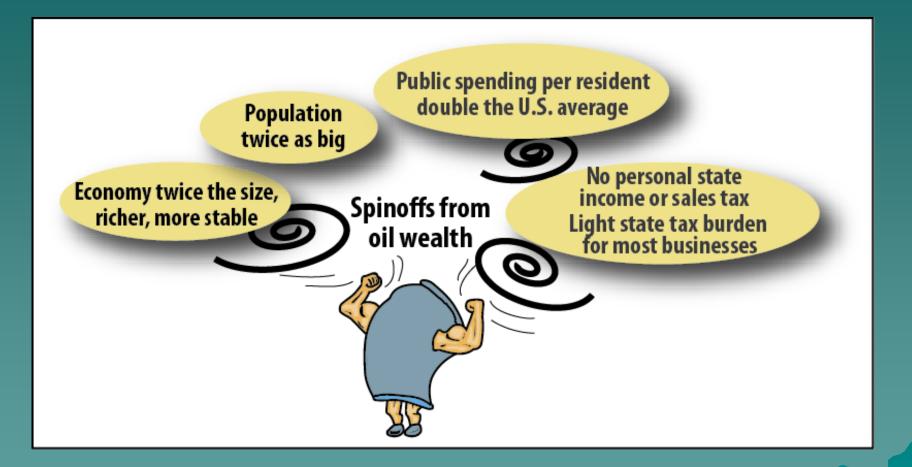


Assumption: All Spent Petroleum Revenues Pay for Operations.

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Spinoffs from Petroleum





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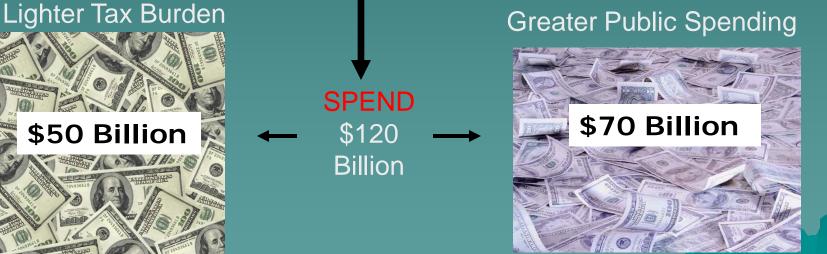
Alaska Petroleum Revenues



\$37 **Billion**



Greater Public Spending



59-10 in 2010 \$



Understanding Alaska: **Special Economic Studies**



Petroleum Spinoff: Lite Tax Burden on Households



* Based on national average state Income and sales tax rates in 2008



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Petroleum Spinoff: Lite Resource Industry Tax Burden



State & Local Revenues from Seafood, Tourism, Mining, Timber

Actual (avg 05-07)	\$200 mill
If Oil \$ Disappeared	\$900
Incremental Burden, no Oil \$	\$700
Increase in Tax Rate	4 X

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Petroleum Spinoff: Enhanced Public Spending



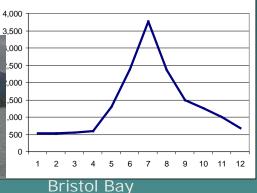
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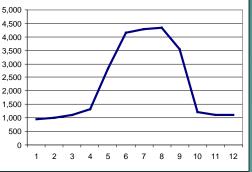


Petroleum Spinoff: Stability



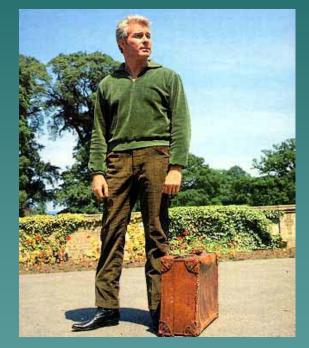








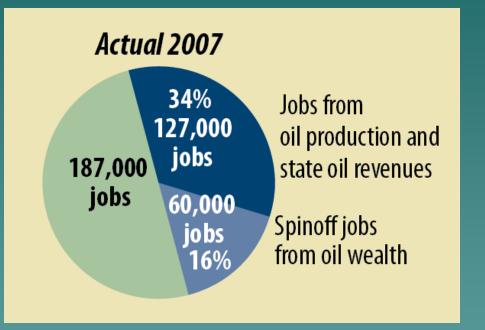


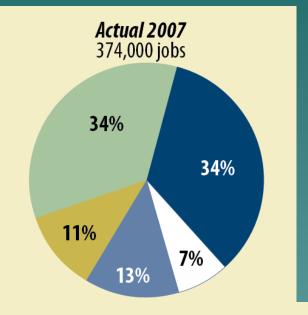


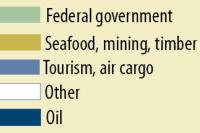




Petroleum Transforms Alaska Economy



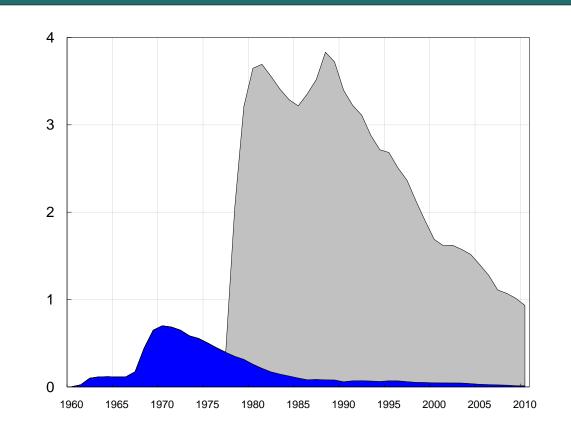








A Troubling Indicator: Oil Barrels per Capita

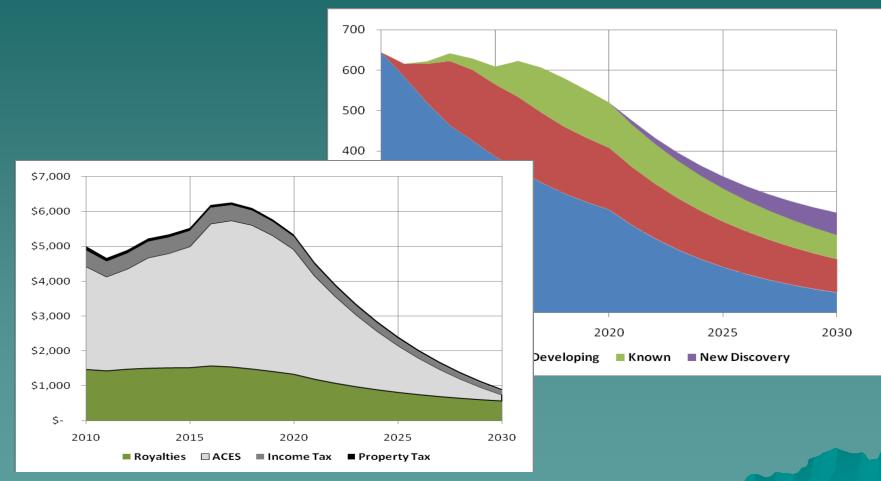




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Looking Ahead: The Official Story (Extended)



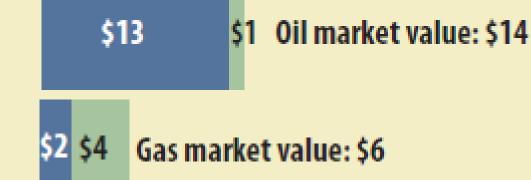




Strategies Moving Forward #1: Gasline

Figure 7. Value of Equivalent Energy from Oil and Natural Gas* (1 million BTUs, or about one-sixth of a barrel of oil)

North Slope wellhead value Transportation costs



*Assumes oil at \$80 per barrel and 5.6 million BTU per barrel; price per thousand cubic feet of gas





Strategies Moving Forward #2: Non Petroleum Natural Resources



MINING 1K \$4,000 / Oz.

> TOURISM 10K \$2,000 / Visitor



* \$3 Billion



Understanding Alaska: Special Economic Studies



SEAFOOD OK \$20 / Salmon

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Strategies Moving Forward #3: Traditional Economic Development



Alaska Economic Development Strategic Plans

About 374,000 results

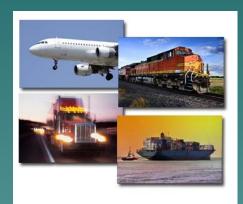


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Strategies Moving Forward #4: Speculatively Invest in Infrastructure





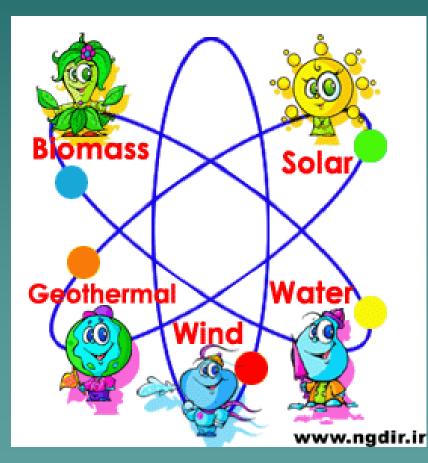


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Strategies Moving Forward #5: Develop Renewable Energy



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What Is the Economic Future of Alaska?

•We Are the Chosen Ones

•The Big Crash

•The Slow Squeeze



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Undiscovered Potential North Slope Resources: Technically Recoverable



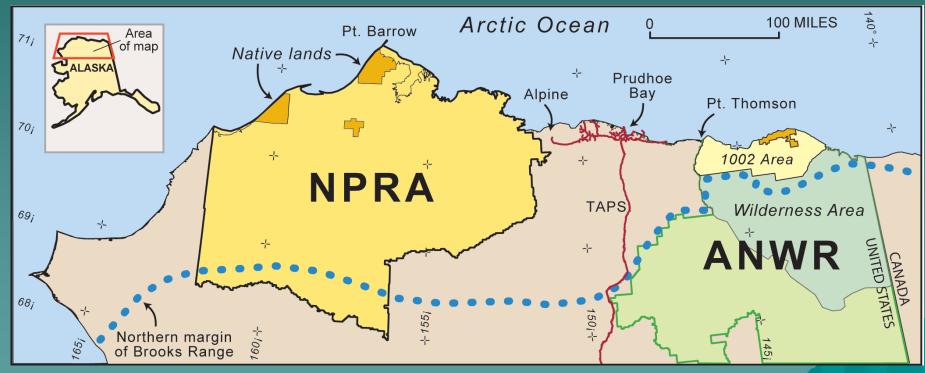
	OIL (Billion Barrels)	GAS (TCF)
Colville/Canning	4.5	37.5
ANWR 1002	10.3	3.8
OCS-Beaufort	6.9	32.1
OCS-Chukchi	15.5	60.1
NPRA	.9	52.8
TOTAL	38.1	186.3







Alaska's North Slope

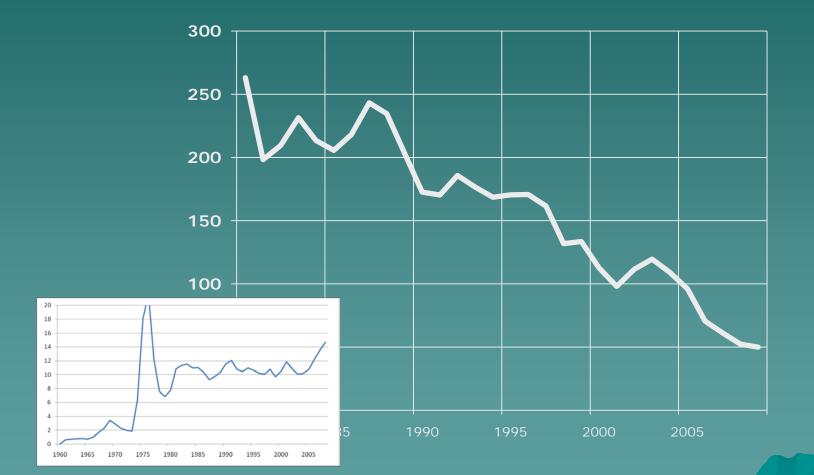




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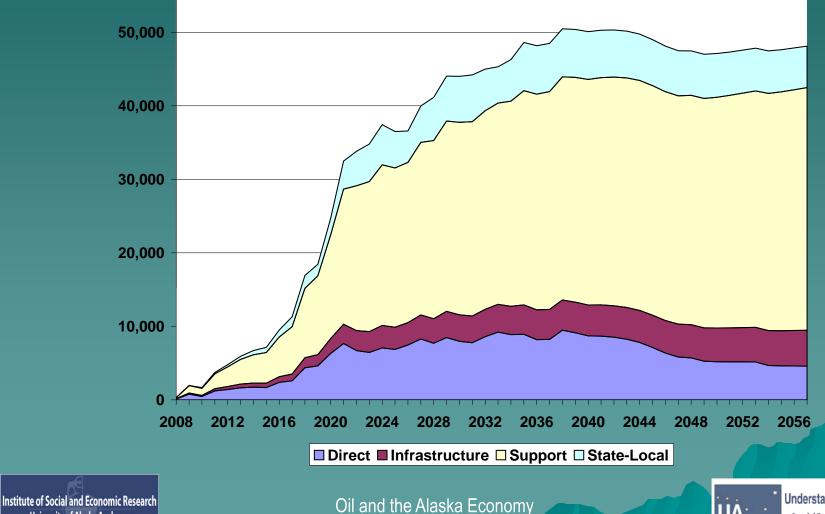
Daily Oil Production per Worker (Barrels)







One Petroleum Employment Projection



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How to Get Those Petroleum Jobs

Get Access Federal Lands

Find the Petroleum Tax "Sweet Spot"



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	ONSHORE TO 3 MILES OFFSHORE							OFFSHORE	
	STATE			FEDERAL PRIVATE*			FEDERAL		
	North	Slope	Cook	. Inlet					
	Lease <1980	Lease >1980	Lease <1980	Lease >1980	NPRA*	ANWR*		3-6 Miles	More Than 6 Miles
ACES Production Tax	Yes	Yes	ELF	ELF	Yes	Yes	Yes	No	No
Corporate Income Tax	Yes	Yes	Yes	Yes	Yes	Yes	Yes	?	?
Property Tax	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
State Royalty: Negotiated	Typical 12.5% of value	Typical 12.5% of value	Typical 12.5% of value	Typical 12.5% of value					
Federal Royalty					Typical 12.5% of value	Typical 12.5% of value		Typical 12.5% of value	Typical 12.5% of value
State Share of Federal Royalty						50%		27%	0%
Royalty—PF Share	25%	50%	25%	50%		25%		25%	
Royalty—GF Share	75%	50%	75%	50%		75%	-	75%	-

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State Revenues (million \$ / year): Hypothetical Field

	ONSHORE TO 3 MILES OFFSHORE							OFFSHORE	
	STATE				FEDE	RAL	PRIVATE*	FEDERAL	
	North	Slope	Cook	Inlet					
	Lease <1980	Lease >1980	Lease <1980	Lease >1980	NPRA*	ANWR*		3-6 Miles	More Than 6 Miles
ACES Production Tax	\$ 400	\$ 400			\$ 400	\$ 400	\$400		
Corporate Income Tax	\$ 99	\$ 99	\$ 99	\$ 99	\$ 99	\$ 99	\$ 99		
Property Tax	\$ 20	\$ 20	\$ 20	\$ 20	\$ 20	\$ 20	\$ 20		
State Royalty: Negotiated	\$ 319	\$ 319	\$ 319	\$ 319					
Federal Royalty &					\$ 319	\$ 319		\$ 319	\$319
State Share of Federal Royalty						\$ 160		\$ 86	\$ -
TOTAL	\$ 838	\$ 838	\$ 438	\$ 438	\$ 518	\$ 678	\$ 519	\$ 86	\$ -
—PF Share	\$ 80	\$ 160	\$ 80	\$ 160		\$ 40	\$ -	\$ 22	\$ -
—GF Share	\$ 758	\$ 678	\$ 358	\$ 278	\$ 518	\$ 638	\$ 519	\$ 65	\$







FINANCIAL ASSETS	\$45
Permanent Fund	\$33.3
Constitutional Budget Reserve	\$8.7
Statutory Budget Reserve	\$1
General Fund	\$2
Other	-

Petroleum Wealth (Billion \$)

PETROLEUM IN THE GROUND:\$81NET PRESENT VALUE OF REVENUES

Oil State Land—North Slope 2011-2020

State Land—North Slope 2021+ State Land—Other Locations State Land—Heavy Oil Federal NPRA Federal OCS Federal ANWR Gas





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\$74

\$45

\$27

\$1

\$1

\$7

What is My Annual Share?

\$7,200



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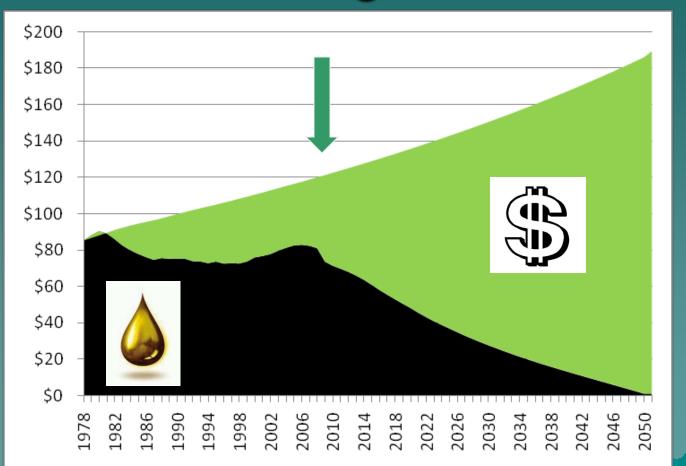
Wealth Preservation Strategy: Implementation = Spending Cap

	Annual Share	\$7,200
X	Population	700,000
=	Petroleum Wealth	\$5.0 Billion
	Spending Cap	





Wealth Preservation Strategy: The Long View





Oil and the Alaska Economy



Can We Do It?





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Alaska's Petroleum Industry: Sustainable— If We Take Action.

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