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

by
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Alaska House Finance Committee
Invited Presentation
March 17, 2011
Juneau, Alaska
Alaska at Statehood

- SMALL: 90 thousand jobs
- THIN: limited support businesses
- SEASONAL: summer private jobs 2x winter
- TRANSIENT: seasonal and temporary
- FEDERAL DOMINATION: ½ jobs with fed
- INFRASTRUCTURE UNDERDEVELOPED
- LIMITED TAX BASE
- POOR: Income 10-20% below US average

Oil and the Alaska Economy
1960 Economic Structure

Actual 1960
92,000 jobs

- 80% Federal government
- 15% Seafood, mining, timber
- 2% Tourism, air cargo
- 3% Other
- 3% 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

2007 Without Oil
187,000 jobs

59%

16%

18%

7%

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

Oil and the Alaska Economy
Alaska: An Island 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

Oil and the Alaska Economy
Petroleum Jobs: Oil Patch Payroll (Million $)

Oil and the Alaska Economy
Petroleum Jobs: Oil Patch Support
General Fund Oil Revenues

Oil and the Alaska Economy
Petroleum Jobs: Funded by Petroleum Revenues

Assumption: All Spent Petroleum Revenues Pay for Operations.

TOTAL JOBS = 49 THOUSAND.
Spinoffs from Petroleum

Population twice as big

Public spending per resident double the U.S. average

Economy twice the size, richer, more stable

No personal state income or sales tax
Light state tax burden for most businesses

Spinoffs from oil wealth

Oil and the Alaska Economy
Alaska Petroleum Revenues

Lighter Tax Burden

$50 Billion

SPEND

$120 Billion

SAVE

$37 Billion

Greater Public Spending

$70 Billion

59-10 in 2010 $
Petroleum Spinoff: Lite Tax Burden on Households

$2,300 per capita*

* Based on national average state income and sales tax rates in 2008.
**Petroleum Spinoff: Lite Resource Industry Tax Burden**

<table>
<thead>
<tr>
<th>State &amp; Local Revenues from Seafood, Tourism, Mining, Timber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual (avg 05-07)</td>
</tr>
<tr>
<td>If Oil $ Disappeared</td>
</tr>
<tr>
<td>Incremental Burden, no Oil $</td>
</tr>
<tr>
<td>Increase in Tax Rate</td>
</tr>
</tbody>
</table>
Petroleum Spinoff: Enhanced Public Spending
Petroleum Spinoff: Stability

Bristol Bay

Denali Borough

Oil and the Alaska Economy
Petroleum Transforms Alaska Economy

Actual 2007

- 187,000 jobs
  - 34% 127,000 jobs from oil production and state oil revenues
  - 16% 60,000 jobs from oil wealth

374,000 jobs

- 34%
- 11%
- 13%
- 7%

Categories:
- Federal government
- Seafood, mining, timber
- Tourism, air cargo
- Other
- Oil

Oil and the Alaska Economy
A Troubling Indicator: Oil Barrels per Capita

Oil and the Alaska Economy
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

$13  $1  Oil market value: $14

$2  $4  Gas market value: $6

*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

SEAFOOD 0K $20 / Salmon

* $3 Billion

Oil and the Alaska Economy
Strategies Moving Forward #3: Traditional Economic Development

Alaska Economic Development Strategic Plans

About 374,000 results
Strategies Moving Forward #4: Speculatively Invest in Infrastructure
Strategies Moving Forward #5:
Develop Renewable Energy
What Is the Economic Future of Alaska?

- We Are the Chosen Ones
- The Big Crash
- The Slow Squeeze
# Undiscovered Potential North Slope Resources: Technically Recoverable

<table>
<thead>
<tr>
<th></th>
<th>OIL (Billion Barrels)</th>
<th>GAS (TCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colville/Canning</td>
<td>4.5</td>
<td>37.5</td>
</tr>
<tr>
<td>ANWR 1002</td>
<td>10.3</td>
<td>3.8</td>
</tr>
<tr>
<td>OCS-Beaufort</td>
<td>6.9</td>
<td>32.1</td>
</tr>
<tr>
<td>OCS-Chukchi</td>
<td>15.5</td>
<td>60.1</td>
</tr>
<tr>
<td>NPRA</td>
<td>.9</td>
<td>52.8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>38.1</strong></td>
<td><strong>186.3</strong></td>
</tr>
</tbody>
</table>
Alaska’s North Slope

Map of Alaska's North Slope showing the North Slope Oil Region (NPRA) and the Arctic National Wildlife Refuge (ANWR). Key locations include Pt. Barrow, Prudhoe Bay, and the 1002 Area. The map also highlights Native lands and the northern margin of Brooks Range.
Daily Oil Production per Worker (Barrels)

Oil and the Alaska Economy
One Petroleum Employment Projection

![Graph showing petroleum employment projection from 2008 to 2056 with categories for Direct, Infrastructure, Support, and State-Local employment.](Image)
How to Get Those Petroleum Jobs

Get Access Federal Lands

Find the Petroleum Tax “Sweet Spot”
## Fiscal Terms

<table>
<thead>
<tr>
<th></th>
<th>North Slope</th>
<th>Cook Inlet</th>
<th>NPRA*</th>
<th>ANWR*</th>
<th>3-6 Miles</th>
<th>More Than 6 Miles</th>
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<tbody>
<tr>
<td>ACES Production Tax</td>
<td>Yes</td>
<td>Yes</td>
<td>ELF</td>
<td>ELF</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Corporate Income Tax</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Property Tax</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>State Royalty: Negotiated</td>
<td>Typical 12.5% of value</td>
<td>Typical 12.5% of value</td>
<td>Typical 12.5% of value</td>
<td>Typical 12.5% of value</td>
<td>Typical 12.5% of value</td>
<td>Typical 12.5% of value</td>
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<tr>
<td>Federal Royalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Share of Federal Royalty</td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
<td>27%</td>
<td>0%</td>
</tr>
<tr>
<td>Royalty—PF Share</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Royalty—GF Share</td>
<td>75%</td>
<td>50%</td>
<td>75%</td>
<td>50%</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>
### State Revenues (million $ / year): Hypothetical Field

<table>
<thead>
<tr>
<th></th>
<th>ONSHORE TO 3 MILES OFFSHORE</th>
<th></th>
<th>OFFSHORE</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>STATE</td>
<td>FEDERAL</td>
<td>PRIVATE*</td>
<td>FEDERAL</td>
</tr>
<tr>
<td></td>
<td>North Slope</td>
<td>Cook Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lease &lt;1980</td>
<td>Lease &gt;1980</td>
<td>Lease &lt;1980</td>
<td>Lease &gt;1980</td>
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<tr>
<td>ACES Production Tax</td>
<td>$ 400</td>
<td>$ 400</td>
<td>$ 400</td>
<td>$ 400</td>
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<tr>
<td>Property Tax</td>
<td>$ 20</td>
<td>$ 20</td>
<td>$ 20</td>
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<tr>
<td>State Royalty: Negotiated</td>
<td>$ 319</td>
<td>$ 319</td>
<td>$ 319</td>
<td>$ 319</td>
</tr>
<tr>
<td>Federal Royalty &amp; State Share of Federal Royalty</td>
<td>$ 319</td>
<td>$ 319</td>
<td>$ 319</td>
<td>$ 319</td>
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<tr>
<td></td>
<td>$ 838</td>
<td>$ 838</td>
<td>$ 438</td>
<td>$ 438</td>
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<tr>
<td>—PF Share</td>
<td>$ 80</td>
<td>$ 160</td>
<td>$ 80</td>
<td>$ 160</td>
</tr>
<tr>
<td>—GF Share</td>
<td>$ 758</td>
<td>$ 678</td>
<td>$ 358</td>
<td>$ 278</td>
</tr>
</tbody>
</table>

Oil and the Alaska Economy
## Petroleum Wealth (Billion $)

**FINANCIAL ASSETS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value ($B)</th>
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</thead>
<tbody>
<tr>
<td>Permanent Fund</td>
<td>$33.3</td>
</tr>
<tr>
<td>Constitutional Budget Reserve</td>
<td>$8.7</td>
</tr>
<tr>
<td>Statutory Budget Reserve</td>
<td>$1</td>
</tr>
<tr>
<td>General Fund</td>
<td>$2</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
</tr>
</tbody>
</table>

**PETROLEUM IN THE GROUND:** $81

**NET PRESENT VALUE OF REVENUES**

- **Oil:** $74
  - State Land—North Slope 2011-2020: $45
  - State Land—North Slope 2021+: $27
- **State Land—Other Locations:** -
- **State Land—Heavy Oil:** $1
- **Federal NPRA:** -
- **Federal OCS:** $1
- **Federal ANWR:** -
- **Gas:** $7

Oil and the Alaska Economy
What is My Annual Share?

$7,200
Wealth Preservation Strategy: Implementation = Spending Cap

<table>
<thead>
<tr>
<th>Annual Share</th>
<th>$7,200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>700,000</td>
</tr>
</tbody>
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= Petroleum Wealth Spending Cap $5.0 Billion
Wealth Preservation Strategy: The Long View

Oil and the Alaska Economy
Can We Do It?
Alaska’s Petroleum Industry: Sustainable—If We Take Action.

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