The Alaska Economy: How Does It Work?

by
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We The People Alaska
Institute of the North
Anchorage School District
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The Alaska Economy: How Does It Work?

Primary Financial Support from

Northrim Bank
Customer First Service

University of Alaska Foundation
State of Alaska
The Alaska Economy Runs on $$$ From Outside
Support Activities Depend on Dollars Coming Into Alaska
Some $$$ Pack a Bigger Punch

- Links into Economy
- Employment
- Stability
- Tax Base
The Alaska Economic Structure: The Myth
The Reality

Oil and the Alaska Economy
The Alaska Economy Stands on 3 Legs

- Federal Govt
- Petroleum
- Other Resources
Federal Spending: Barely Visible

$10 Billion = $15,000 per capita
Federal Employment

FEDERAL EMPLOYMENT THOUSANDS


FEDERAL CIVILIAN

MILITARY
Federal Spending Composition

- $2.8 Grants
- $2.1 Transfers
- $3.5 Defense
  - $1.5 Wages
  - $2.1 Procurement
- $1.3 Civilian Agencies
  - $.8 Wages
  - $.5 Procurement
<table>
<thead>
<tr>
<th>Transfers</th>
<th>Grants--Formula</th>
<th>Grants--Project</th>
<th>Civilian Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>$1,840</td>
<td>$1,660</td>
<td>$1,470</td>
<td>$1,230</td>
</tr>
<tr>
<td><strong>6 Largest</strong></td>
<td><strong>6 Largest</strong></td>
<td><strong>6 Largest</strong></td>
<td><strong>6 Largest</strong></td>
</tr>
<tr>
<td>$1,566</td>
<td>$1,419</td>
<td>$644</td>
<td>$996</td>
</tr>
<tr>
<td>Social Security</td>
<td>Medicaid</td>
<td>Indian Health Service</td>
<td>Interior</td>
</tr>
<tr>
<td>$667</td>
<td>$681</td>
<td>$354</td>
<td>$244</td>
</tr>
<tr>
<td>Federal Retirement (Civilian and Military)</td>
<td>Highway Construction</td>
<td>Airport Improvement Program</td>
<td>Homeland Security</td>
</tr>
<tr>
<td>$325</td>
<td>$415</td>
<td>$101</td>
<td>$223</td>
</tr>
<tr>
<td>Medicare</td>
<td>Indian Housing Block Grants (NAHASDA)</td>
<td>EPA Special Purpose Grants</td>
<td>Post Office</td>
</tr>
<tr>
<td>$260</td>
<td>$129</td>
<td>$60</td>
<td>$182</td>
</tr>
<tr>
<td>Unemployment Insurance</td>
<td>Impact Aid to Schools</td>
<td>Denali Commission</td>
<td>Transportation</td>
</tr>
<tr>
<td>$114</td>
<td>$95</td>
<td>$58</td>
<td>$158</td>
</tr>
<tr>
<td>Veterans' Compensation</td>
<td>TANF (Temporary Assistance for Needy Families)</td>
<td>Section 8 Housing</td>
<td>Agriculture</td>
</tr>
<tr>
<td>$109</td>
<td>$67</td>
<td>$36</td>
<td>$96</td>
</tr>
<tr>
<td>Tribal Self Governance</td>
<td>Special Education</td>
<td>Alaska Native Education Programs</td>
<td>Commerce</td>
</tr>
<tr>
<td>$91</td>
<td>$32</td>
<td>$35</td>
<td>$93</td>
</tr>
</tbody>
</table>
Federal Spending: Cutting Back

TOTAL FEDERAL FUNDS TO ALASKA

Billion 2010 $:

- $0
- $2,000
- $4,000
- $6,000
- $8,000
- $10,000
- $12,000

Year:
- 1975
- 1980
- 1985
- 1990
- 1995
- 2000
- 2005
- 2010
Alaska Non-Petroleum Natural Resources:

2008 Market Value (Million $)

- Mining: $2,895
- Seafood: $1,261
- Timber: $146
- Agriculture: --
- Tourism: $1,495
- Retirees: $1,500
- Air Cargo: ???

Value determined at point of production except for mining.

Values in 2007 $.
Non-Petroleum Natural Resource Employment

ALASKA NON PETROLEUM NATURAL RESOURCE EMPLOYMENT THOUSANDS

- Tourism
- Seafood
- Timber
- Air Cargo
- Mining
Zinc is used to galvanize steel. Price went thru the roof in 2006.
Traditional Natural Resources: Seafood

<table>
<thead>
<tr>
<th>SEAFOOD: 2005 LANDED VALUE (Million $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
</tr>
<tr>
<td>Salmon</td>
</tr>
<tr>
<td>Groundfish</td>
</tr>
<tr>
<td>Halibut</td>
</tr>
<tr>
<td>Shellfish</td>
</tr>
<tr>
<td>Herring</td>
</tr>
</tbody>
</table>

28 thousand harvesters, 39% non resident. ??? processors, 73% non resident.
New Natural Resources: Tourism

1.5 million tourists in 2006 bring $1.5 billion $$$ with them to Alaska.
New Natural Resources: Air Cargo

2006 CARGO TRAFFIC (Million Metric Tonnes)

<table>
<thead>
<tr>
<th>City</th>
<th>Traffic (Mio Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memphis</td>
<td>3.69</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>3.61</td>
</tr>
<tr>
<td>Anchorage</td>
<td>2.80</td>
</tr>
<tr>
<td>Seoul</td>
<td>2.34</td>
</tr>
<tr>
<td>Tokyo</td>
<td>2.28</td>
</tr>
</tbody>
</table>

China Air alone averages 10 flights per day thru Anchorage.
New Natural Resources: Retirees

52 thousand retirees ages 60+ in 2004.
$1.5 billion of retirement and health care $$$$.
Oil and Gas

$22 Billion

Estimate wellhead value in 2011
Petroleum Employment

ALASKA PETROLEUM EMPLOYMENT THOUSANDS

0 10 20 30 40 50 60

400 Thousand Jobs

What Generates Jobs for Alaskans^a?

- Petroleum sector: 31%
- Federal government: 35%
- All other basic sectors^b: 34%

^aExcludes jobs held by non-residents. ^bSeafood, tourism, mining, timber, international air cargo, and personal assets from outside Alaska (primarily federal retirement benefits).
A Look Back: The Alaska Economy in 1960

• SMALL: 90 thousand jobs
• PUBLIC: ½ jobs are fed
• SEASONAL: summer private job 2 times winter
• THIN: limited support businesses
• POOR: HH income 10-20% below US avg
• UNDERDEVELOPED INFRASTRUCTURE
• LIMITED REVENUE CAPACITY
Growth of Petroleum: Oil Patch

PETROLEUM vs TOURISM

• Jobs
  - $147K
  - $12K

• Complexity
Growth of Petroleum: State Revenues

Lighter Tax Burden

$50 Billion

Greater Public Spending

SPEND

$120 Billion

SAVE

$37 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 Tax Burden on Resource Industries

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual (avg 05-07)</td>
<td>$200 mil</td>
</tr>
<tr>
<td>If Oil $ Disappeared</td>
<td>$900</td>
</tr>
<tr>
<td>Incremental Burden, no Oil $</td>
<td>$700</td>
</tr>
<tr>
<td>Increase in Tax Rate</td>
<td>4 X</td>
</tr>
</tbody>
</table>
Petroleum Spinoff: Public Spending Double US Average

- CAPITAL SPENDING
  - Targeted Development
  - General Infrastructure
  - Household Infrastructure
- OPERATIONS SPENDING
- CAPITALIZING SPECIAL FUNDS
Petroleum Spinoff: Stability

FISHING
Bristol Bay

TOURISM
Denali Borough

Oil and the Alaska Economy
The Alaska Economy Without Petroleum?

Oil and the Alaska Economy
Petroleum Has Transformed the Alaska Economy

Actual 2007

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

Oil and the Alaska Economy
What Would Alaska Look Like Today Without Petroleum?

Gedankenexperiment

ANCHORAGE DAILY NEWS
Vol. 10 No. 4  Member United Press  Anchorage, Alaska  April 1, 1968

ANOTHER DRY HOLE AT PRUDHOE BAY
Companies Say “We Give Up”

Oil and the Alaska Economy
Candidates for Comparison?

- Oklahoma
- New Mexico
- South Dakota

- Wyoming
- Montana
- Idaho

- Florida
- Nevada
- Hawaii
Maine Is Not Like Alaska

- Physically attached to Lower 48
- Federal land ownership 1%
- Native American population 1%
- Lobsters instead of crabs
- Unusual accent
- Presidential hangout
Maine is Like Alaska

- Many moose
- Few humans
- Cold
- Remote
- Independent streak
Maine and Alaska

- Fish / Tourism / Timber / Mining / Agriculture
- Limits on sustainable harvests
- Challenged by globalization
- Small and declining manufacturing
- Dependence on federal $$$s

- Conflicting visions about use of resources
- “Zero Sum Game” development mentality
“Throughout the second half of the twentieth century, Maine has STRUGGLED to find a proper balance between resource-based industrial development and environmental protection.

The state has come to rely heavily on tourism, small manufacturing enterprises and defense-related activities and installations for much of its economic base.”
Maine Economic Performance: Some Evidence

- Gross State Product per capita: 43rd (Ak 7th)
- Job Growth: 66% (Ak 144%)
- Population Growth: 46th (Ak 5th)
- Median Age: 1st (Ak 49th)
- Housing Built Before 1939: 31% (Ak 2%)

- Median Paycheck: 77% as high as Alaska

- Projected Population Growth = 1/3 US average (Ak 30% above)
Typical Family Comparison

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages</td>
<td>$72,750</td>
</tr>
<tr>
<td>State Taxes</td>
<td>$0</td>
</tr>
<tr>
<td>Dividend</td>
<td>$6,800</td>
</tr>
<tr>
<td>Public Spending</td>
<td>$49,064</td>
</tr>
<tr>
<td>Total</td>
<td>$128,614</td>
</tr>
<tr>
<td>ALASKA “BONUS”</td>
<td>+$50,054</td>
</tr>
</tbody>
</table>

* Adjusted for lower cost of living in Maine.

Oil and the Alaska Economy
The Economic Landscape:
It Seems Rosy

By DAN ROBINSON, NEAL FRIED, ALYSSA SHANKS, and MALI ABRAHAMSON, Economists

Employment Forecast for 2012

A third straight year of growth expected for Alaska

Alaska gained jobs for the second consecutive year in 2011 after ripple effects from the national and global recession ended the state’s 21-year growth streak in 2009. (See Exhibits 1 and 2.) More growth is forecasted for Alaska in 2012 — a modest increase of 1.2 percent, or 3,900 jobs — but neither the global nor U.S. economies are on clear recovery paths yet, and that will dampen the Alaska outlook in the coming year.

Statewide

the state’s economic drivers remain guardedly healthy.

Alaska skirts Great Recession
Actual Performance Since 1990: Jobs vs. Oil Production
(Index: 1990 = 1)

- 104 thousand jobs added
- Production down 2/3
Explaining The Paradox

- Federal $$
- Military Expansion
- Tourism, Mining
- Petroleum Revenues
- Retirees
- Air Cargo

- National Economic Boom
- Increased Labor Intensity of Petroleum Production
- Anticipation of Gas Line, OCS, etc.
- Support Sector Catching Up
- Wealth Accumulation
But the Oil Barrel is Running Dry

How Much Conventional Oil Remains on State-Owned Land?

- Estimated oil as of 1960: 22.8 billion barrels (100%)
- 1977: 20 billion barrels (87%)
- 2000: 10.5 billion barrels (46%)
- 2010: 4.8 billion barrels (21%)
- 2020: 2.9 billion barrels (13%)

Source: Alaska Department of Natural Resources, historical production and projected future production
Over Reliance on Oil Revenues

Oil Share of Resource Revenues

Oil Share of All Revenues

Oil and the Alaska Economy
Non-Petroleum Strategies for the Future

- Natural Resource Development
- Value Added Processing
- Economic Diversification
- Infrastructure Investments in Power and Transportation
- Footloose Industry
- Renewable Energy
Rare Earth Metal Price

Falling Prices
Prices for neodymium and other rare earth metals have tumbled this autumn as supply has caught up with demand.

NEODYMIUM PRICE, OUTSIDE CHINA
World prices for 99 percent purity
$500 a kilogram (2.2 pounds)

Source: Asian Metal
Alaska: An Island Economy
Replace $7.5 Billion in Petroleum Revenue with Taxes on Other Resources

$10,000 / OZ. GOLD

$50 / SALMON

$5,000 / TOURIST

*Estimate for FY 2011
"Please God, give us another oil boom, we promise not to piss it away this time"
Our Prayers Are Answered!
## Recoverable Petroleum in the Ground (???) = Jobs

<table>
<thead>
<tr>
<th></th>
<th>OIL (Billion Barrels)</th>
<th>GAS (TCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANWR/OCS/NPRA</td>
<td>33.6</td>
<td>148.8</td>
</tr>
<tr>
<td>GAS ON STATE LAND</td>
<td>-</td>
<td>37.5</td>
</tr>
<tr>
<td>UNCONVENTIONAL</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>OIL ON STATE LAND</td>
<td>4.5</td>
<td>-</td>
</tr>
</tbody>
</table>
Our Petroleum Nest Egg (Billion $)

- $55
- $86
- $141

Earnings $5 / Year

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