Alaska’s Economy: The Challenge Ahead

by
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University of Alaska Anchorage

Bankruptcy Court Lawyers
Anchorage, Alaska
September 24, 2013
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
Alaska Today

• NOT SO SMALL: 450 thousand jobs
• MATURE: broad range of support businesses
• ANNUAL: slight summer bulge in jobs
• STABLE: fewer transient workers
• FEDERAL “PRESENCE”: fed jobs don’t dominate
• INFRASTRUCTURE MORE DEVELOPED
• LIMITED TAX BASE
• PROSPEROUS: Low Taxes, PFD, Incomes 10% above US average, Generous Public Services
The Alaska Economic Structure: The Myth
Sources of Prosperity: The 3-Legged Stool
Non-Petroleum Natural Resources: $8.5 Billion (2011 Market Value)

- Mining $3,588
- Seafood $1,328
- Timber about $150
- Agriculture --
- Furs --
- Tourism $1,483
- Retirees about $1,500
- Air Cargo ???

Value determined at point of production except for mining.
Federal Spending: $10.9 Billion in 2010

- GRANTS: $3.5
- PAYMENTS TO PERSONS: $2.6
- DEFENSE: $3.3
  - Wages: $1.5
  - Procurement: $1.8
- FEDERAL AGENCIES: $1.5
  - Wages: $0.8
  - Procurement: $0.7

Excluding ARRA Funds
Petroleum: Oil Patch
$24.5 Billion @ wellhead in 2011

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: State Revenues
$9.9 Billion in FY 2012

Lighter Tax Burden
$58 Billion

Greater Public Spending
SPEND
$144 Billion

SAVE
$47 Billion

Oil and the Alaska Economy

59-13 in 2012
Petroleum: Financial Savings

$60 Billion
Petroleum: Spinoffs

- Population twice as big
- Public spending per resident double the U.S. average
- Economy twice the size, richer, more stable
- Spinoffs from oil wealth
- No personal state income or sales tax
- Light state tax burden for most businesses
New Jobs since 1960

Graph showing the increase in jobs from 1960 to 2007, with a significant rise in new jobs from petroleum.
Petroleum = Half of Alaska Jobs

Actual 2007

- 187,000 jobs
- 127,000 jobs (34%)
- 60,000 jobs (16%)

Jobs from oil production and state oil revenues
Spinoff jobs from oil wealth

Oil and the Alaska Economy
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
But the Oil Barrel is Running Dry

<table>
<thead>
<tr>
<th>Year</th>
<th>Remaining Oil</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1960</td>
<td>22.8 billion barrels</td>
<td>100%</td>
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<tr>
<td>1977</td>
<td>20 billion barrels</td>
<td>87%</td>
</tr>
<tr>
<td>2000</td>
<td>10.5 billion barrels</td>
<td>46%</td>
</tr>
<tr>
<td>2010</td>
<td>4.8 billion barrels</td>
<td>21%</td>
</tr>
<tr>
<td>2020</td>
<td>2.9 billion barrels</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Alaska Department of Natural Resources, historical production and projected future production.
The Economic Landscape: It Seems Rosy

Employment Forecast for 2013
Alaska’s modest employment growth to continue this year

Oil and the Alaska Economy
Explaining The Paradox

- Federal $$ (Ted Stevens)
- Military Expansion
- Tourism, Mining
- Retirees
- Air Cargo

- Support Sector Catching Up
- Wealth Accumulation

- Anticipation of Gas Line, OCS, etc.
- Petroleum Revenues
- Increased Labor Intensity of Petroleum
Trend in Oil Patch Employment

Barrels Per Day Per Worker

Oil and the Alaska Economy
Strategies for the Future?

1. Natural Resource Development
2. Value Added Processing
3. Federal Spending
4. Infrastructure Investments
5. Renewable Energy
6. Footloose Industry
7. Other Economic Development Ideas
8. PETROLEUM
Strategies Moving Forward #1: Natural Resource Production Jobs (000)
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
Strategies Moving Forward #2: Value Added Processing Jobs (000)
Strategies Moving Forward #3: Federal Relations

FEDERAL SPENDING IN ALASKA (2011 $)

Million 2011 $

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</thead>
<tbody>
<tr>
<td>Value</td>
<td>$0</td>
<td>$2,000</td>
<td>$4,000</td>
<td>$6,000</td>
<td>$8,000</td>
<td>$10,000</td>
<td>$12,000</td>
</tr>
</tbody>
</table>

Institute of Social and Economic Research
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Understanding Alaska: Special Economic Studies
Strategies Moving Forward #4: Speculative Investment in Infrastructure
Strategies Moving Forward #5: Renewable Energy
Strategies Moving Forward #6: Footloose Industry

Oil and the Alaska Economy
Strategies Moving Forward #7:
Other Economic Development Ideas

Alaska Economic Development Strategic Plans

About 374,000 results
Alaska: An Island Economy

Oil and the Alaska Economy
Why A Gas Pipeline is NOT Our Salvation: Oil and Gas Values Compared

Market Value = $18 Billion

Market Value = $19 Billion

DAILY THRU PUT & MARKET PRICE

500K BARRELS / $100 OIL

3.5 BCF / $15 MCF

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH
UNIVERSITY OF ALASKA ANCHORAGE
Another Strategy

"Please God, give us another oil boom, we promise not to piss it away this time"
God Answers Our Prayers: The Second Oil Boom
<table>
<thead>
<tr>
<th>Category</th>
<th>(Billion Barrels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNOWN CONVENTIONAL ON STATE LAND</td>
<td>5</td>
</tr>
<tr>
<td>KNOWN UNCONVENTIONAL ON STATE LAND</td>
<td>4</td>
</tr>
<tr>
<td>YET TO BE DISCOVERED ON STATE LAND</td>
<td>3</td>
</tr>
<tr>
<td>FEDERAL LANDS</td>
<td>22</td>
</tr>
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</table>
One Petroleum Employment Projection

Oil and the Alaska Economy
DOR Projected Petroleum Revenues

Fall 2012 (before SB21) – 5% Real Decline Rate
### Spring 2013 Revenue Forecast and Projected Reserve Balances

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Oil Price and Production</strong></td>
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</tr>
<tr>
<td>Forecast ANS West Coast Price ($/barrel)</td>
<td>$109.21</td>
<td>$109.61</td>
<td>$111.67</td>
<td>$114.88</td>
<td>$116.22</td>
<td>$117.16</td>
<td>$118.29</td>
</tr>
<tr>
<td>Forecast Production (Million Barrels per Day)</td>
<td>0.539</td>
<td>0.527</td>
<td>0.513</td>
<td>0.500</td>
<td>0.477</td>
<td>0.443</td>
<td>0.422</td>
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<tr>
<td><strong>Revenue versus Spending</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>General Fund Revenues*</td>
<td>$7,585.5</td>
<td>$6,162.7</td>
<td>$5,993.5</td>
<td>$6,232.3</td>
<td>$6,206.5</td>
<td>$5,864.6</td>
<td>$5,775.0</td>
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<tr>
<td>General Fund Expenses</td>
<td>$7,969.9</td>
<td>$6,830.6</td>
<td>$6,775.0</td>
<td>$6,750.0</td>
<td>$6,725.0</td>
<td>$6,700.0</td>
<td>$6,700.0</td>
</tr>
<tr>
<td><strong>Budget Surplus / (Deficit)</strong></td>
<td>($384.4)</td>
<td>($667.9)</td>
<td>($781.5)</td>
<td>($517.7)</td>
<td>($518.5)</td>
<td>($835.4)</td>
<td>($925.0)</td>
</tr>
<tr>
<td><strong>Reserve Balances</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constitutional Budget Reserve</td>
<td>$11,604.5</td>
<td>$12,055.4</td>
<td>$12,560.9</td>
<td>$13,124.5</td>
<td>$13,751.4</td>
<td>$14,447.0</td>
<td>$15,216.6</td>
</tr>
<tr>
<td>Statutory Budget Reserve</td>
<td>$5,103.6</td>
<td>$4,435.7</td>
<td>$3,654.2</td>
<td>$3,316.5</td>
<td>$2,618.0</td>
<td>$1,782.6</td>
<td>$857.6</td>
</tr>
<tr>
<td><strong>Total Reserve Balances</strong></td>
<td>$16,708.1</td>
<td>$16,491.1</td>
<td>$16,215.1</td>
<td>$16,261.0</td>
<td>$16,369.4</td>
<td>$16,229.6</td>
<td>$16,074.2</td>
</tr>
</tbody>
</table>
How Can We Sustain a Healthy Level of Public Services in the Future?

MAXIMUM SUSTAINABLE YIELD
Management of our biggest asset—Petroleum.

1) How Big is Our Nest Egg?
2) How Should We Manage It?
3) How Should We Spend it?
# Petroleum Wealth

$149 Billion

<table>
<thead>
<tr>
<th><strong>$ IN THE BANK</strong></th>
<th><strong>$60</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Fund</td>
<td>$42</td>
</tr>
<tr>
<td>CBR (Constitutional Budget Reserve), SBR (Statutory Budget Reserve), GF (General Fund)</td>
<td>$18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>IN THE GROUND</strong></th>
<th><strong>$89</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional State Land</td>
<td>$67</td>
</tr>
<tr>
<td>Other Oil</td>
<td>$10</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>$12</td>
</tr>
</tbody>
</table>
## Maximum Sustainable Yield: Calculation

<table>
<thead>
<tr>
<th>Nest Egg</th>
<th>$149 Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Return (After Inflation)</td>
<td>5%</td>
</tr>
<tr>
<td>Population Growth</td>
<td>1%</td>
</tr>
<tr>
<td>MSY Draw Rate</td>
<td>4% = (5% - 1%)</td>
</tr>
<tr>
<td><strong>MSY Draw</strong></td>
<td>$6 Billion = ($149 * 4%)</td>
</tr>
</tbody>
</table>
Maximum Sustainable Yield: Nest Egg Growth
Is It Possible?
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More Information at
www.iser.uaa.alaska.edu/Projects/investak/

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