

Alaska's Post COVID-19 Longer-Term Economic Future

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Alaska's Post COVID-19 Economic Future
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*After the pandemic is “over”
and life is back to something
like “normal” as a result of
vaccines and therapeutics*



Alaska's Post COVID-19 Longer-Term Economic Future



*Over the next
10-25 years*

What was Alaska's long-term economic future
before Covid-19?

How has Covid-19 *changed*
Alaska's long-term economic future?

Conclusions

- Even before the pandemic, Alaska faced an uncertain economic future:
 - Oil industry decline
 - Fiscal challenge leading to:
 - Cuts in state & local government services
 - Increased taxes on businesses and residents
 - Dividend cuts
- The pandemic has worsened Alaska's economic outlook:
 - Oil industry outlook worse
 - Changes in how we work, shop, live and study
 - Hard-to-reverse effects of business closures and bankruptcies
- Our fiscal choices and other policy choices will affect our future

Surprises

Many of the most important events which have changed Alaska's economy have been almost completely unexpected. Examples include World War II, the 1964 earthquake, the discovery of the giant Prudhoe Bay oil field, the Exxon Valdez oil spill, and dramatic fluctuations in oil prices.

There are probably more surprises in Alaska's future, which may have similarly unanticipated and dramatic effects.



Earthquakes? Volcanoes? Wars? Industrial accidents? Epidemics? New technologies?



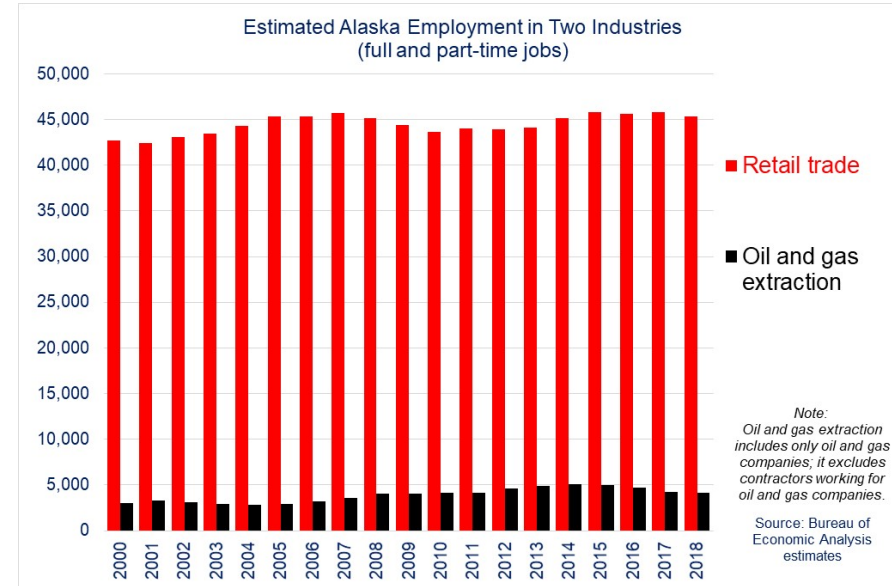
How should we measure “Alaska’s economy”?

- There is no single or best measure
- Four useful measures:
 - Population
 - Gross State Product (GSP)
 - Employment
 - Personal income
- Other important characteristics:
 - Income distribution
 - Regional differences
 - Labor force participation
 - Unemployment

EMPLOYMENT

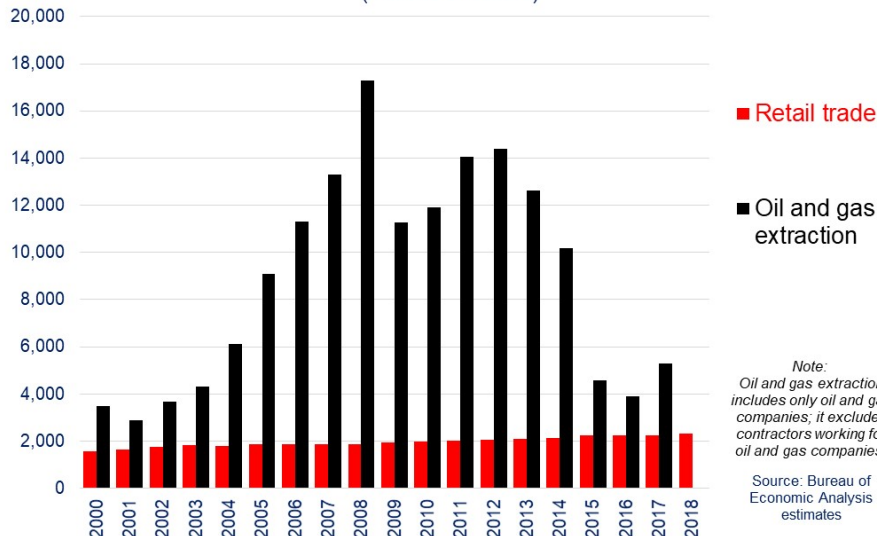
Which industry is more important?
Retail trade or oil and gas extraction?

Different measures give very different
 pictures of the relative scale and
 importance of different industries!



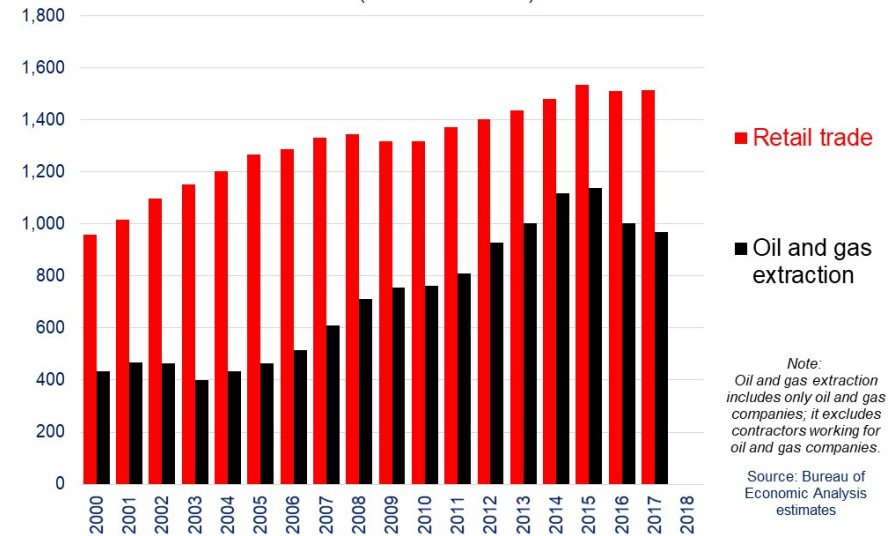
GROSS STATE PRODUCT

Estimated Gross State Product in Two Industries
 (millions of dollars)



EARNINGS

Estimated Alaska Employee Compensation in Two Industries
 (millions of dollars)



Everything happens for a reason.

To make informed guesses about the future,
we need a model or theory of
what drives the Alaska economy,
and how these drivers may change in the future.

Alaska's economy may be divided into basic industries and support industries.

They are driven by different factors and grow or decline for different reasons.

Basic industries sell to markets outside Alaska and/or bring money into Alaska.

- Oil, mining, seafood and air cargo sell resources, goods and services to markets outside Alaska.
- Tourism sells recreation to tourists from outside Alaska.
- The federal government brings money into Alaska.
- Alaskans' investment and retirement incomes bring money into Alaska.
- Factors driving basic industries:
 - Alaska resource abundance
 - World market conditions
 - Alaska's competitiveness with other regions
 - Federal and state resource management policies
 - Federal spending

Support industries sell to markets inside Alaska
and/or depend on spending of Alaska residents,
businesses and governments

- Trade, services, transportation (for Alaskans), state government, local government
- Factors driving support industries:
 - Total basic sector spending and income
 - The Alaska share of spending of Alaska residents, businesses and governments
- Historically, as the Alaska economy has grown
 - the scale and diversity of support industries has grown
 - . . . causing the Alaska share of spending to increase
 - . . . causing further growth

Simple “Economic Base Model” of the Alaska economy

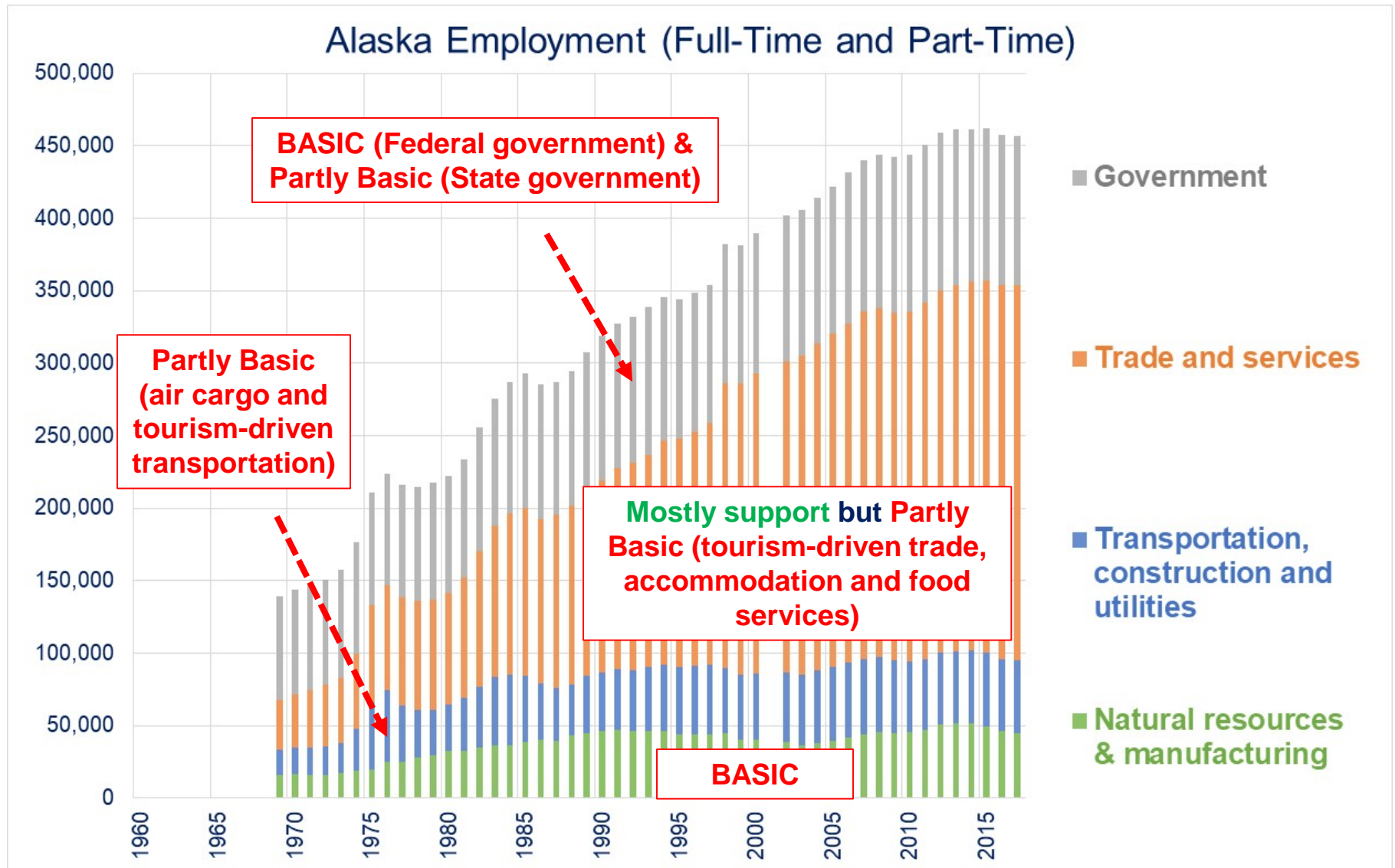
$$\begin{aligned}\text{Total income} &= \text{Basic income} + \text{Support income} \\ &= \text{Basic income} + (\text{Basic income} \times \text{multiplier}) \\ &= \text{Basic income} + (1 + \text{multiplier})\end{aligned}$$

*The multiplier depends
on the share of total
spending of Alaska
residents, businesses
and governments which
gets spent in Alaska*

In the simple economic base model,
there are two main drivers of Alaska economic growth:

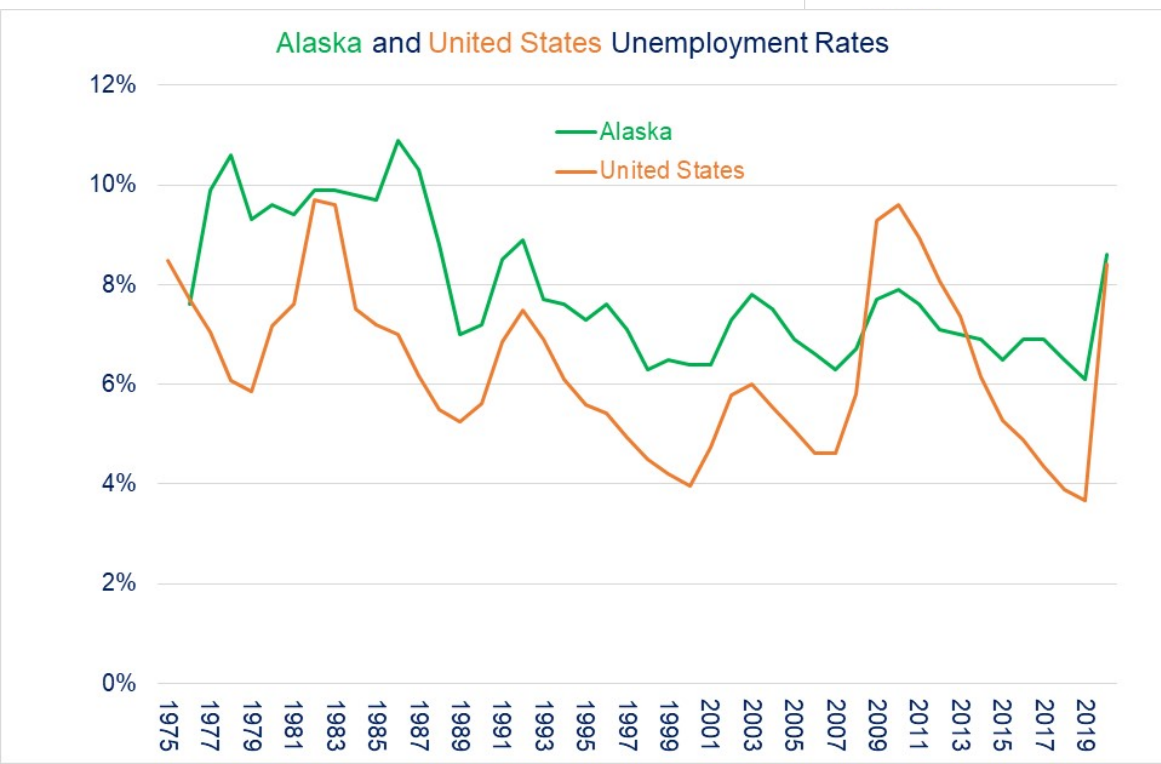
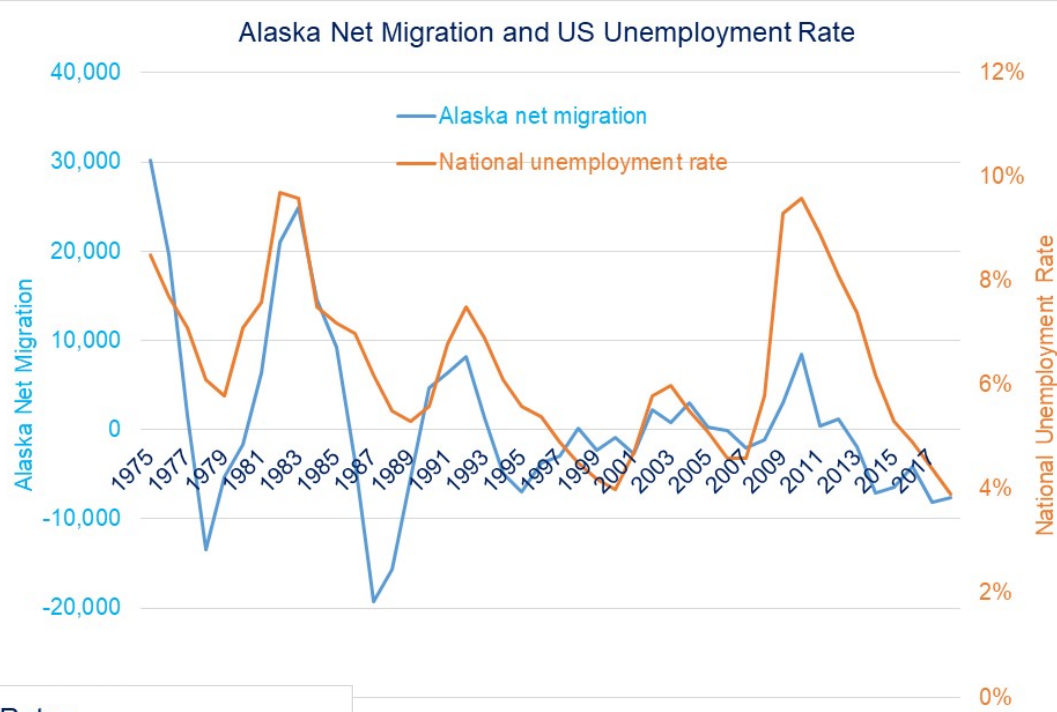
- Growth of **basic industries**
- Growth of **support industries** due to:
 - Growth of **basic industries**
 - Growth in the *multiplier*

Alaska economic growth over the past 50 years was driven both by growth in **basic industries** and by growth in the “*multiplier*”.

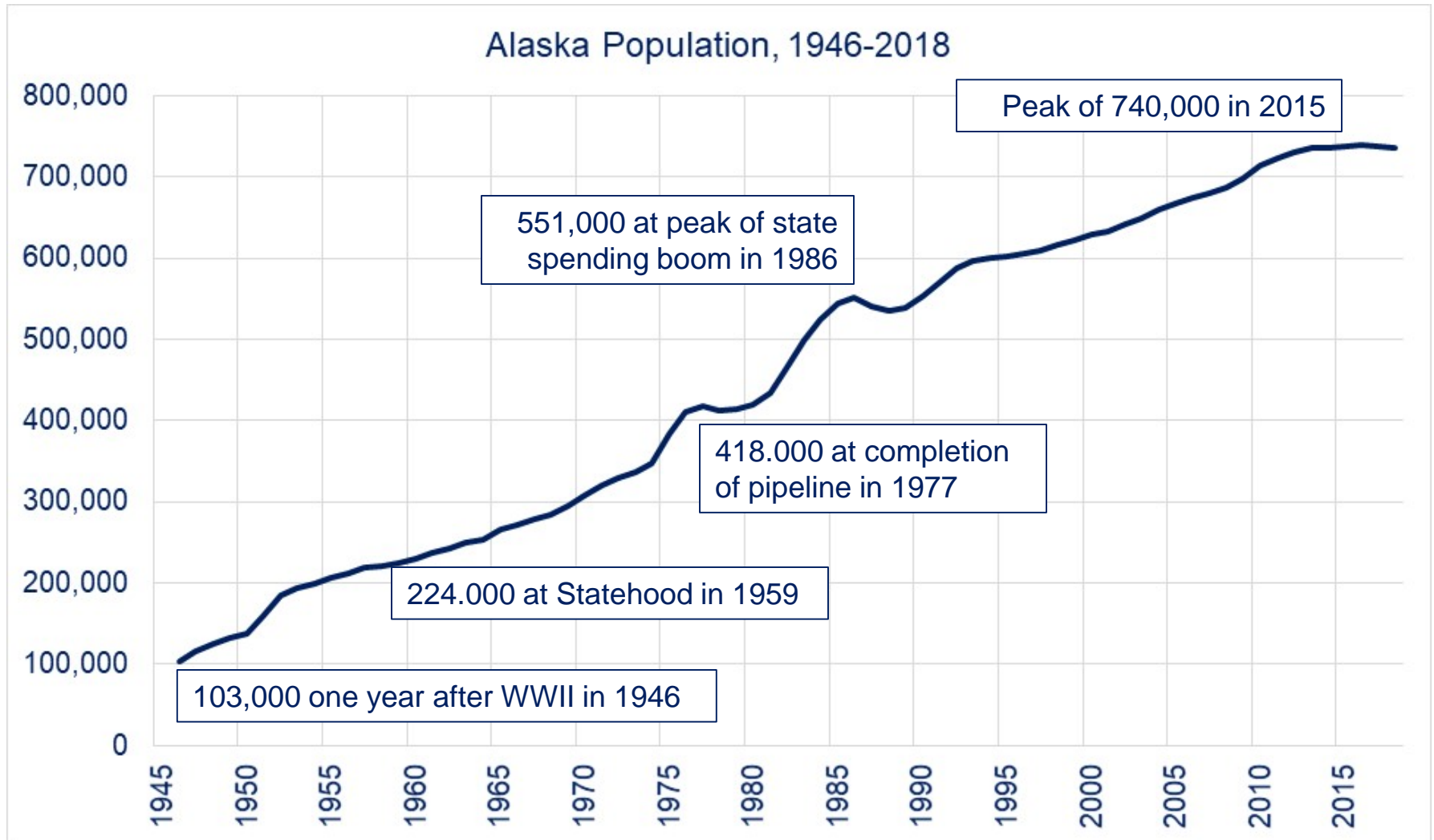


Alaska's standard of living is closely linked to the US standard of living

- Because:
 - there is free migration between Alaska and other states
 - most Alaska have personal connections to other states
- Net in-migration increases if:
 - Alaska unemployment rates fall relative to other states
 - Alaska living standards rise relative to other states
- Net out-migration increases if:
 - Alaska unemployment rates rise relative to other states
 - Alaska living standards fall relative to other states



What will drive Alaska's future population?

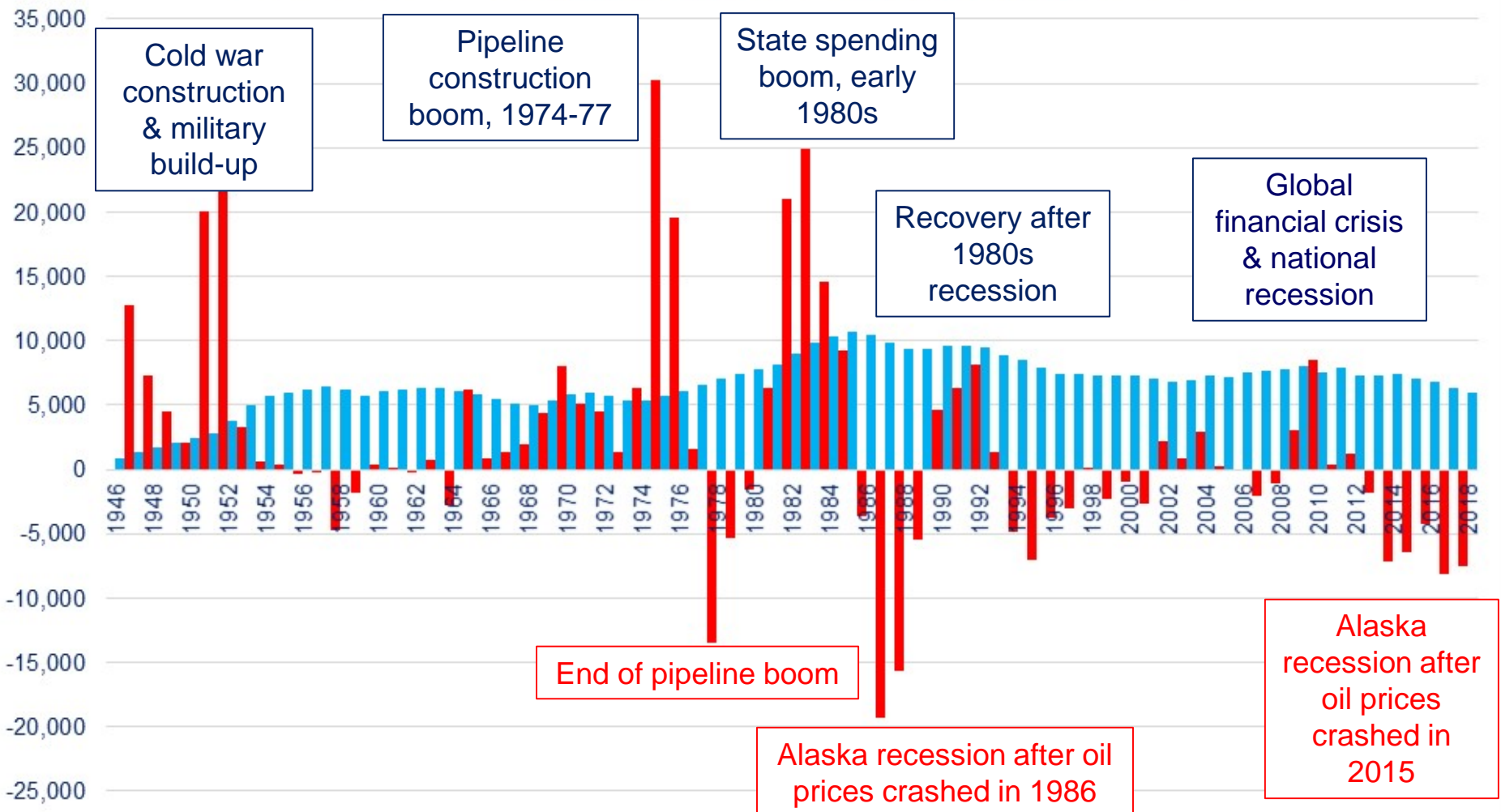


How will **natural increase** and **net migration** change in the future?

Natural increase = births minus deaths

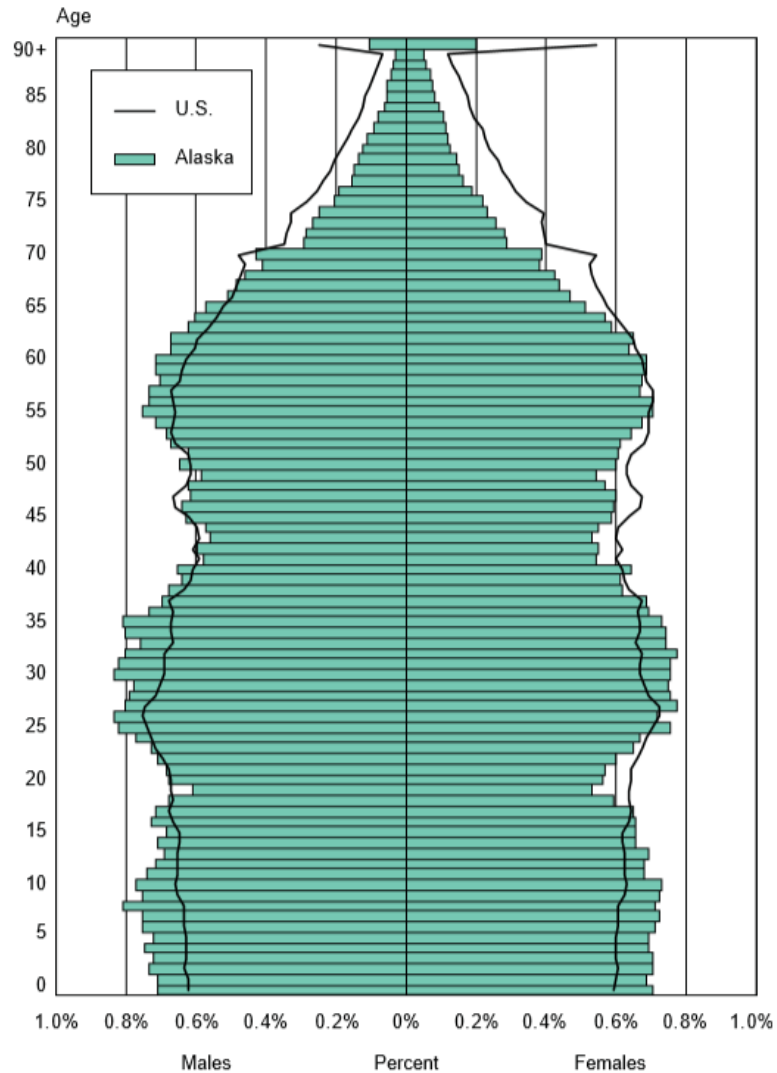
Net migration = people moving in minus people moving out

Alaska Population **Natural Growth** and **Net Migration**, 1946-2018



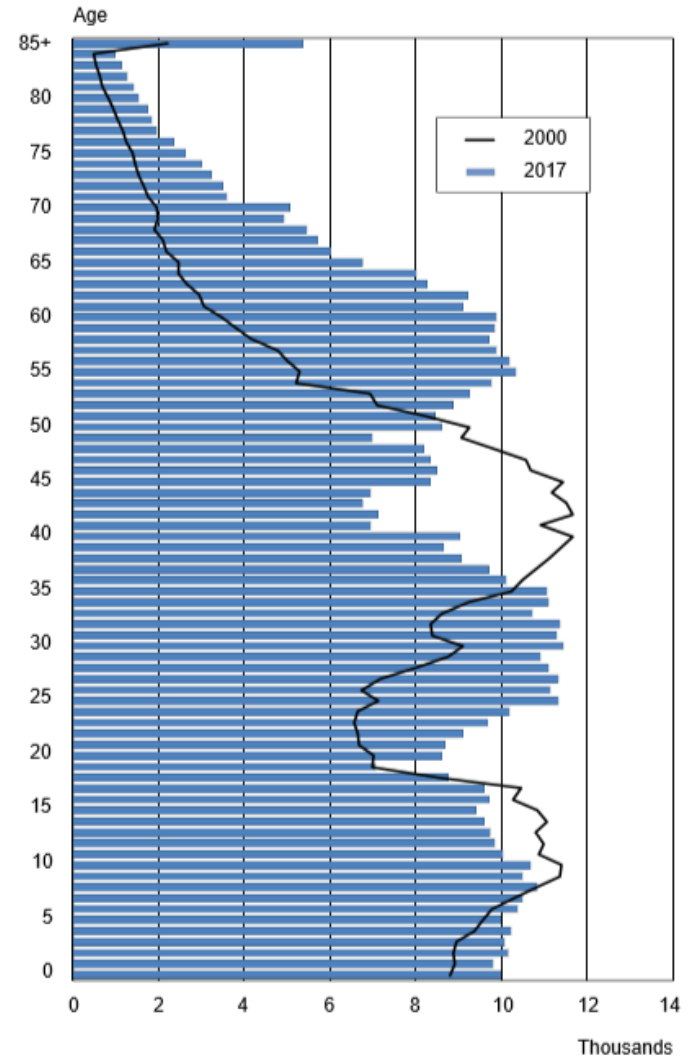
How will the age distribution of Alaska's population change?

Alaska and U.S. Population by Age and Sex, 2017
(Percent Distribution)



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Census Bureau

Alaska Population by Age, 2000 and 2017



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Census Bureau

Many of the drivers of Alaska's future economy
are mostly or fully beyond our control.

Economic drivers	Industries they affect			
	Federal government	Resource industries	State & local government	Support industries
Alaska resource endowments		X		
Nature & climate change		X		
World market conditions for Alaska resources		X		
Resource industry technology		X		
International politics (military, trade, etc.)	X	X		
Federal resource management & regulation	X	X		
Federal infrastructure development	X	X		X
Federal military spending	X			X
Federal civilian spending and policies	X		X	X
Rates of return on financial investments			X	X

We can affect some of the drivers of Alaska's future economy.

Factors/policies	Important ways in which they affect the economy	Industries they affect		
		Resource industries	State & local government	Support industries
State & local agency spending for services	<ul style="list-style-type: none"> - creates government jobs - provides services which affect what kind of place Alaska is to do business, work & live 		X	x
State spending for Permanent Fund Dividends	<ul style="list-style-type: none"> - Increases Alaskans' incomes - Increases support industry sales 		X	X
State spending for infrastructure	<ul style="list-style-type: none"> - supports construction industry - access to resources - costs of resource development 	X		X
State & local broad-based tax policies	<ul style="list-style-type: none"> - state revenues - Alaskans' income and spending - cost of living relative to other states 		X	X
State resource tax policies	<ul style="list-style-type: none"> - state revenues - competitiveness of Alaska resource industries relative to other states & countries 	X	X	
State resource management policies	<ul style="list-style-type: none"> - what kinds of resource industries are allowed - where resource development is allowed - resource industry costs - who benefits from resource development 	X		

Alaska's economic future is uncertain.

There are positives, negatives and unknowns.

Positives . . .

- Potential for further development of Alaska's natural resources:
 - New resources discoveries
 - New technologies
 - New infrastructure
- Potential for further growth of tourism
- Growing contributions of Permanent Fund earnings to state revenues
- Positive impacts of information technology
 - Growing potential for Alaska businesses and residents to do business anywhere in the world
- Potential positive impacts of climate change
 - Lower heating costs
 - More ice-free days
 - Growing potential for agriculture

Negatives . . .

- Oil industry challenges:
 - Continued decline in Prudhoe Bay & Kuparuk production
 - Aging of pipeline and other infrastructure
 - Growing competition from other producers
 - Declining oil demand with shift to other energy sources
 - Increasing regulation of greenhouse gas producers
- Other resource industry challenges
 - Competition for North Slope natural gas
 - Competition for Alaska fisheries from fish farming
- Negative impacts of information technology
 - Growing competition for Alaska support industries from non-Alaska companies
- Potential negative impacts of climate change
 - Impacts of melting permafrost on roads and businesses
 - Lower winter quality of life for skiers, dog mushers, etc.

Unknowns . . .

- Future resource discoveries
- Market prices
- Federal spending
- Military
- Uncertain effects of climate change:
 - Changes in fishery resources
 - Arctic shipping
- National political choices
- Alaska political choices
- Surprises . . .
 - Earthquakes? Volcanoes? Wars? Industrial accidents?
Epidemics? New technologies?



We can affect Alaska's future economy.

BUT

We don't agree about what kind of economy we want.

AND

As our oil revenues decline, we face increasing financial constraints to and tradeoffs between our options.

Critical Alaska policy choices affecting Alaska's economic future:

Fiscal policy choices

- What choices will we make over time between:
 - State and local government spending
 - Dividend spending
 - State and local broad-based taxes
 - Resource industry taxes
 - Adding to or drawing down savings
- These choices will affect:
 - The quality of state and local government services
 - Alaska's infrastructure
 - The tax burdens on residents and business
 - Alaska's competitiveness for investment
 - What kind of place Alaska is to do business, work & live

Critical Alaska policy choices affecting Alaska's economic future:

Resource policy choices

- What kinds of resource development?
- In what parts of Alaska?
- Supported by what kinds of infrastructure?
- Receiving what kinds of subsidies?
- Paying what kinds of taxes to whom?
- Managed for what social benefits?

Pebble mine

Ambler road

Forest products industry

Cruise ships

Cook Inlet salmon management

Fish farming

Critical Alaska policy choices affecting Alaska's economic future:

Rural policy choices

- How much and in what ways will we support high-cost rural areas of Alaska?
 - Education funding and policy
 - Social services (health care, public safety)
 - Subsidies (power cost equalization, airports)
 - Infrastructure policy
 - Resource management policy
 - Resource revenue allocation
- These choices will affect:
 - Growth or decline of rural communities
 - Subsistence
 - Alaska Native culture
 - Other state fiscal choices

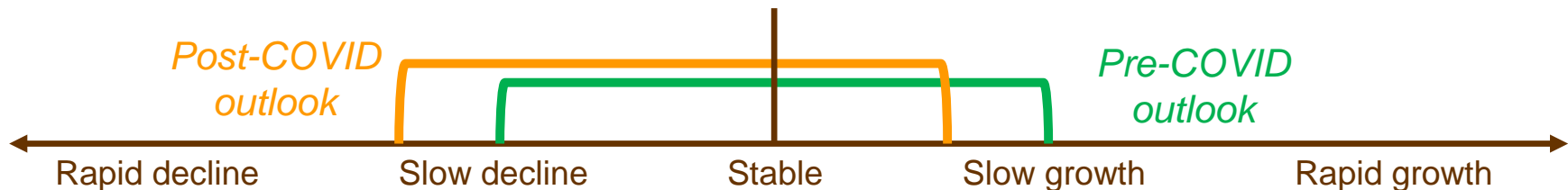
“The future ain’t what it used to be.”

(attributed to Yogi Berra)

How has Covid-19 *changed*
Alaska’s long-term economic future?

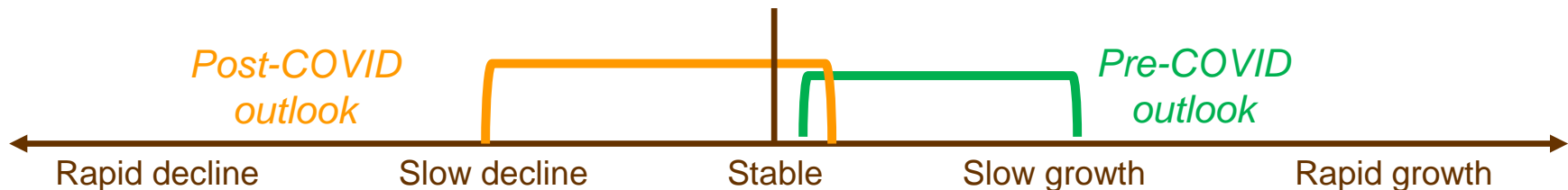
Oil industry

Major drivers of past change	<p>New resource discoveries and development</p> <p>Enhanced recovery techniques</p> <p>Federal and state leasing policies</p> <p>Fluctuating oil prices</p> <p>Alaska oil tax & oil credit policies</p> <p>Depletion of producing fields</p>
Major drivers of future change?	<p>New resource discoveries and development</p> <p>Alaska oil tax & oil credit policies</p> <p>Lower oil prices</p> <p>Depletion of producing fields</p>
Long-term pandemic effects?	<p>Reduced global oil demand & lower prices</p> <p>More automation?</p> <p>Smaller share of work force based in Alaska?</p>



Trade and services industries

Major drivers of past change	<ul style="list-style-type: none"> - Growth in scale of Alaska economy leading to demand for and viability of a growing range of support industries - More retirees staying in state and aging of population leading to increased demand for health care - Growth in tourism
Major drivers of future change?	<ul style="list-style-type: none"> - Slowing of growth as support industries approach scale of other states - Growth in online shopping and out-of-state purchases
Long-term pandemic effects?	<ul style="list-style-type: none"> - Acceleration of online shopping - Decline in scale of Alaska economy reducing viability of support industries? - More automation? - Smaller share of work force based in Alaska?

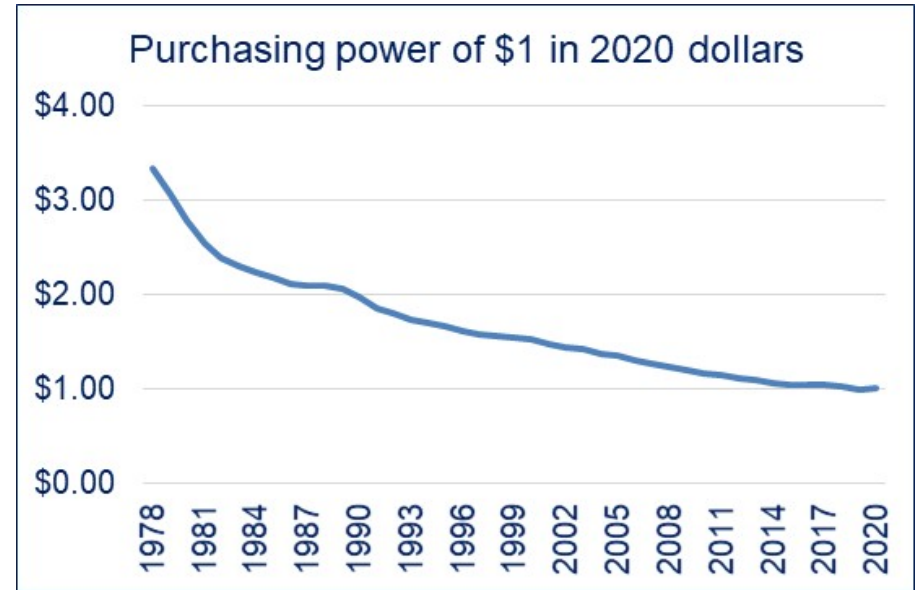
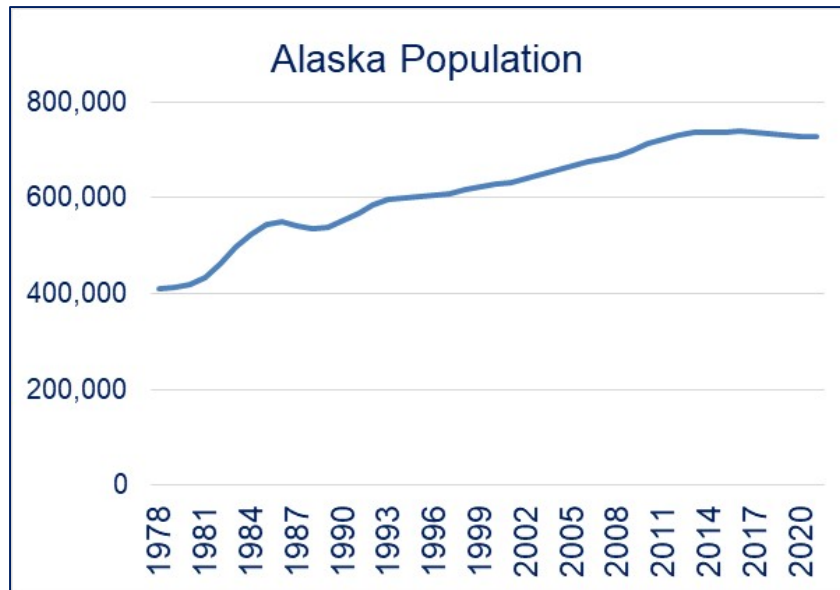


The pandemic has aggravated Alaska's fiscal challenge and the importance of fiscal choices this legislative session which will significantly affect Alaska's economic future.



Alaska's population
grew by 74% since 1980

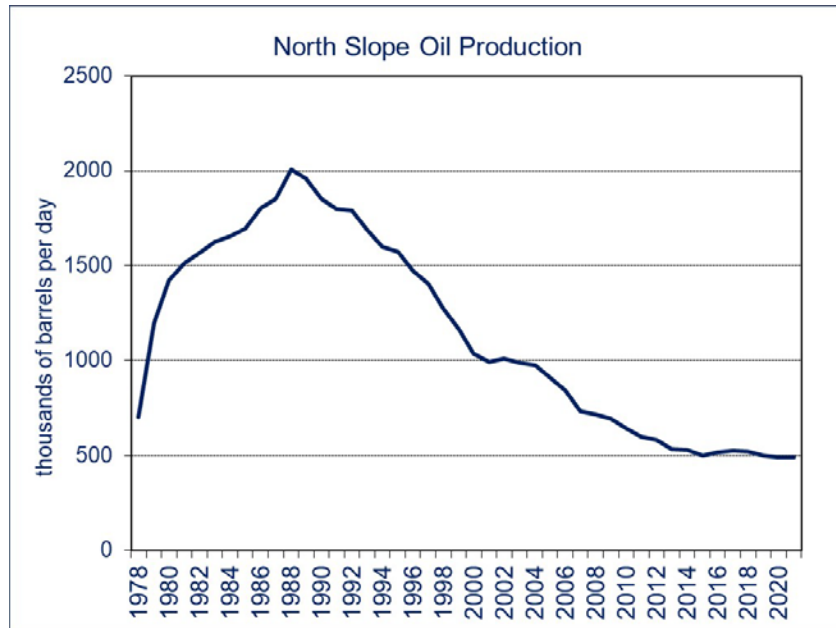
The value of a dollar has
fallen by 64% since 1980



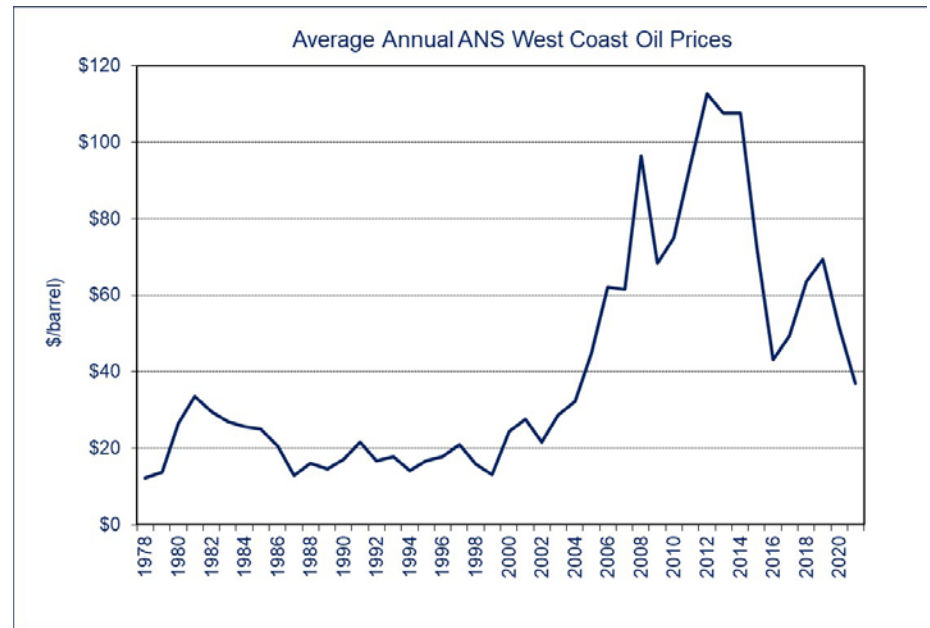
All data in the next set of historical graphs are converted to
inflation-adjusted dollars per Alaskan

Two key drivers of changes in Alaska oil value and revenues:

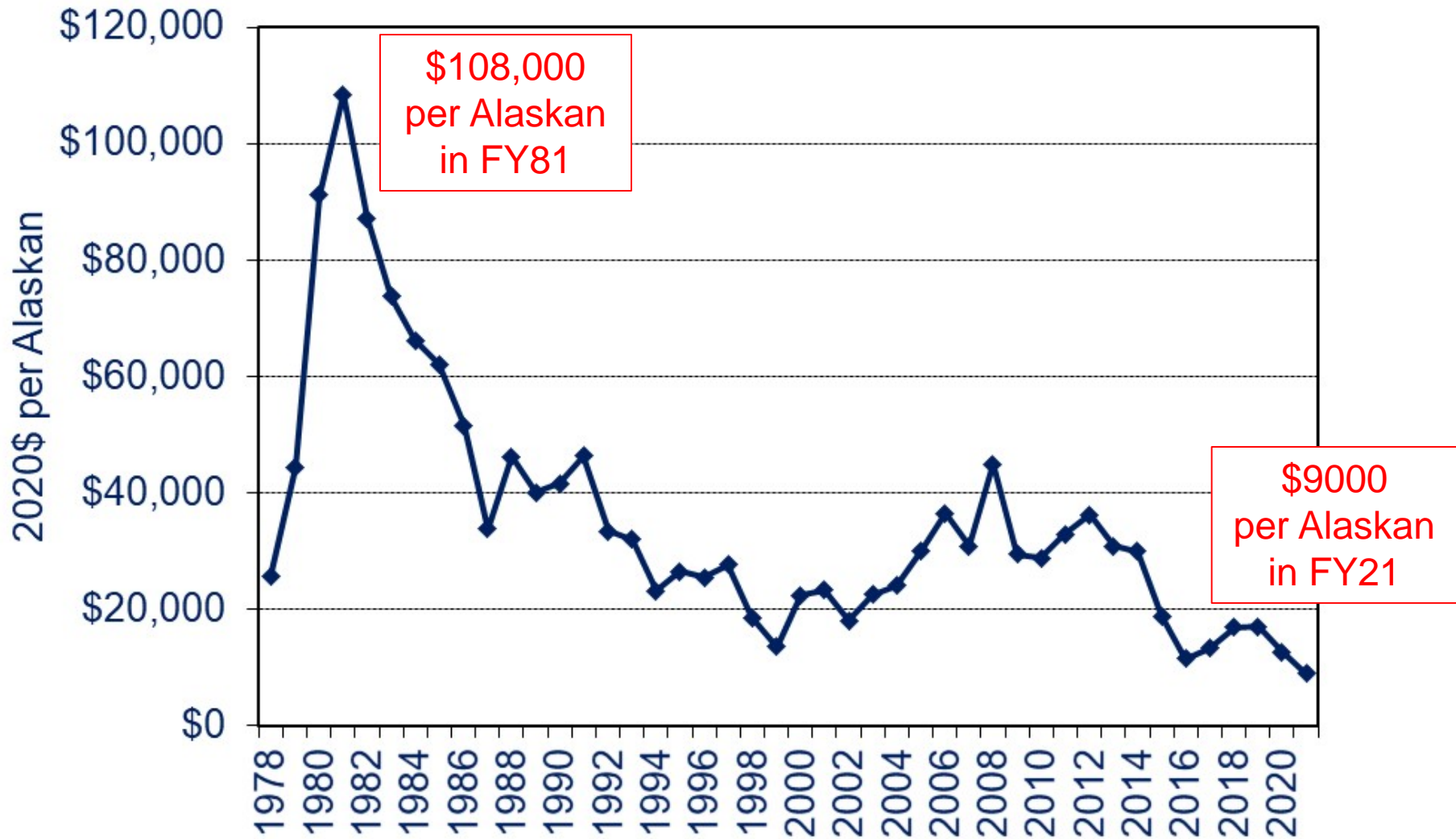
Oil production grew rapidly after 1978 but has fallen by 75% since 1988



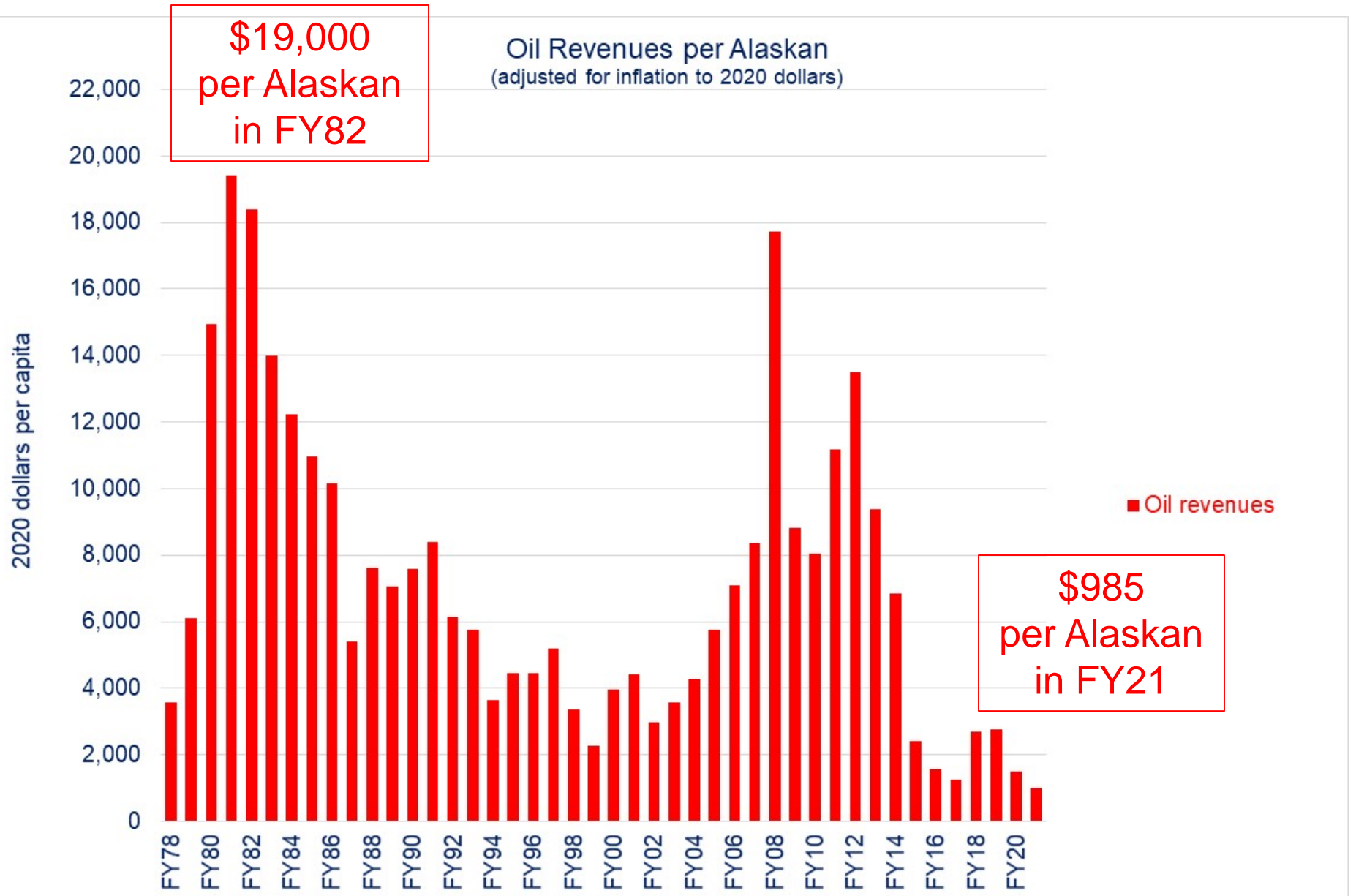
Oil prices have fluctuated dramatically



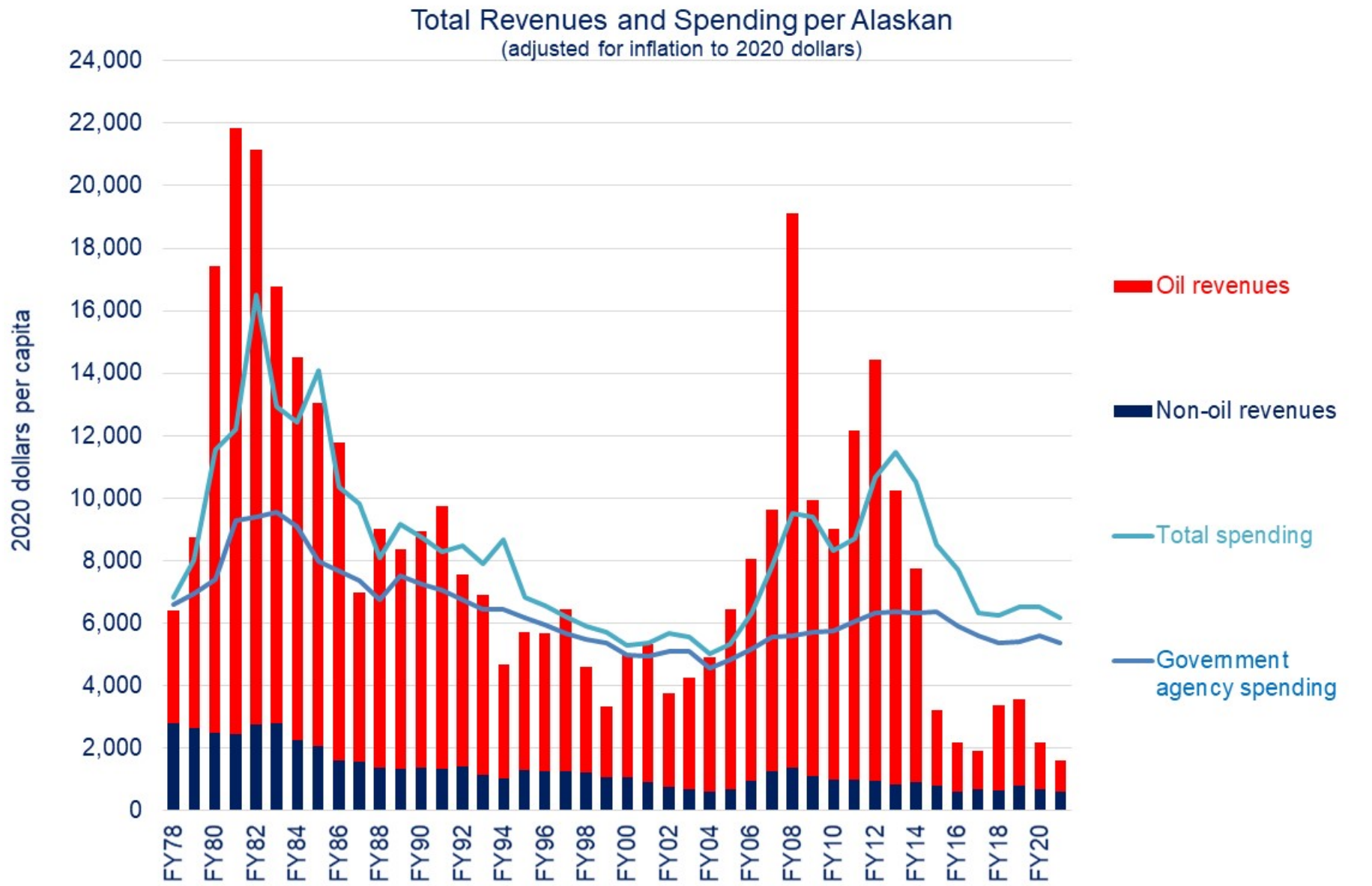
Value of Oil Production *per Alaskan*
(adjusted for inflation)



Oil Revenues per Alaskan . . .

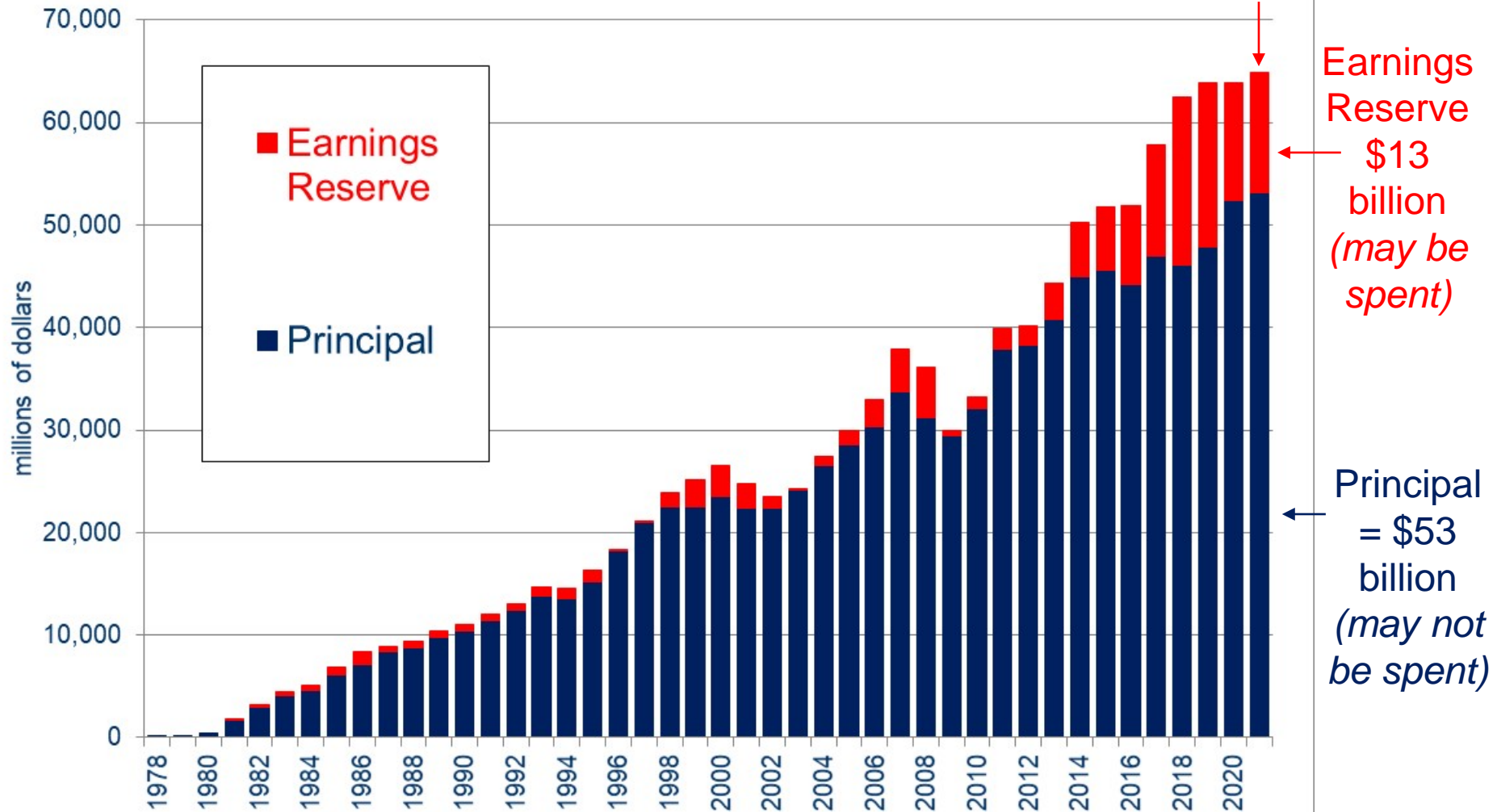


Total revenues and spending per Alaskan since oil began flowing through the pipeline . . .

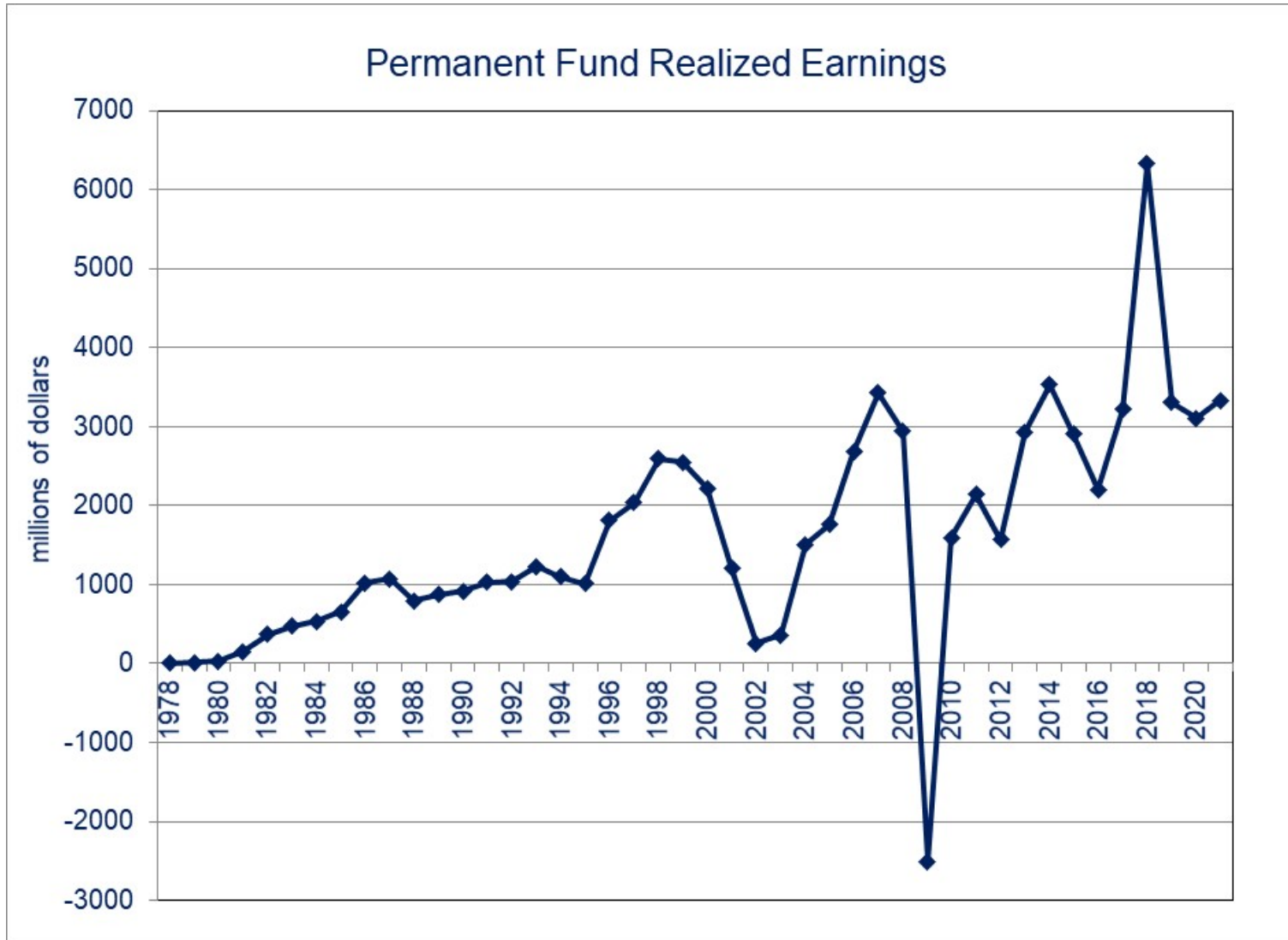


Permanent Fund Value

Year-End Value of the Permanent Fund



Permanent Fund earnings have grown as the fund has grown.



The earnings go into an “Earnings Reserve” which may be spent.

Alaska finances before FY19:

Oil and non-oil revenues paid for government
PF earnings paid for dividends

Revenue source	Uses before FY19
Oil revenues	Government
Non-oil revenues	
PF earnings	Dividends

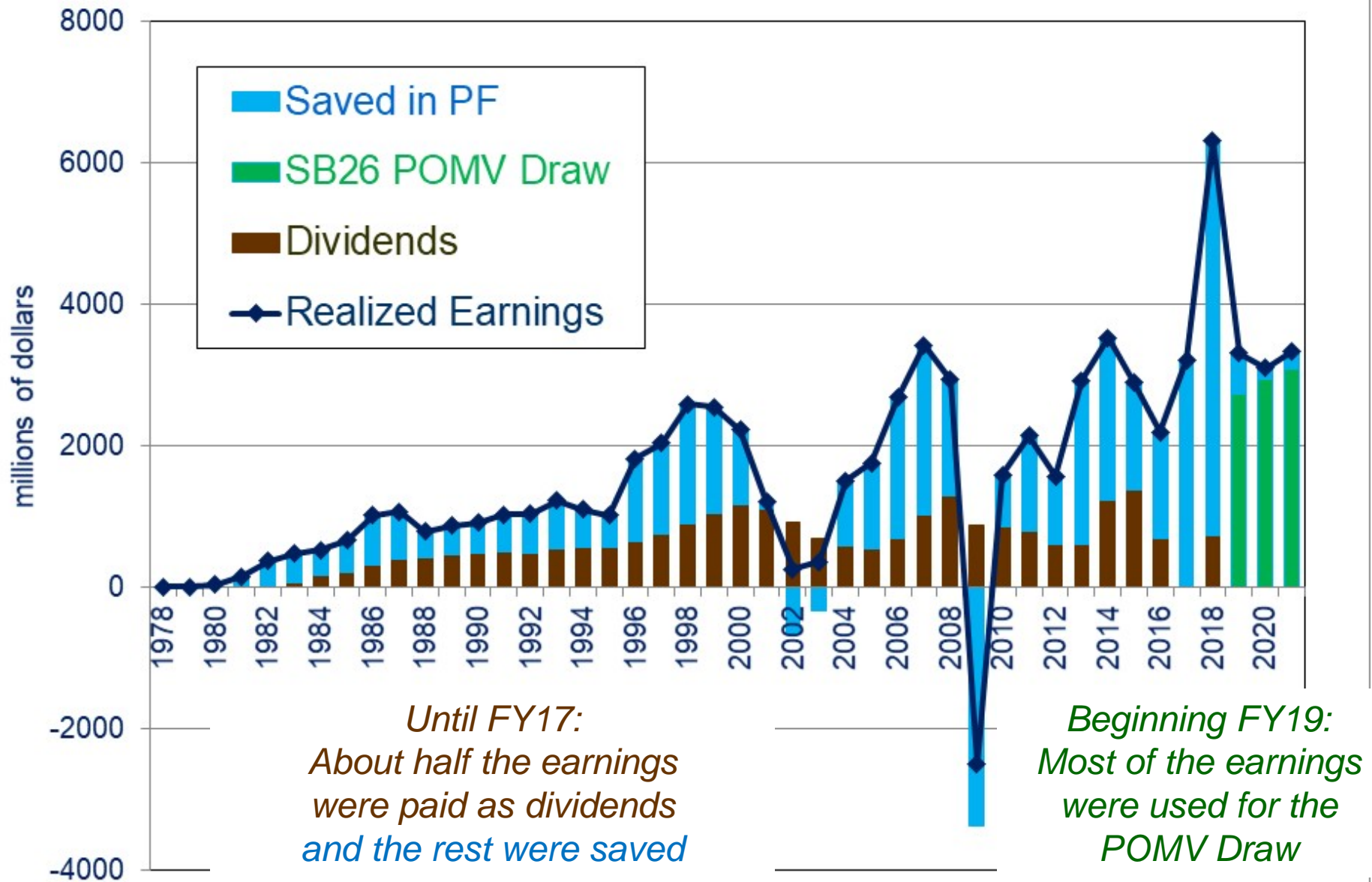
Dividend formula:
Dividends =
1/2 of average earnings
Over past 5 years

In 2018 the legislature passed a bill (SB26)
which significantly changed how PF earnings are used.

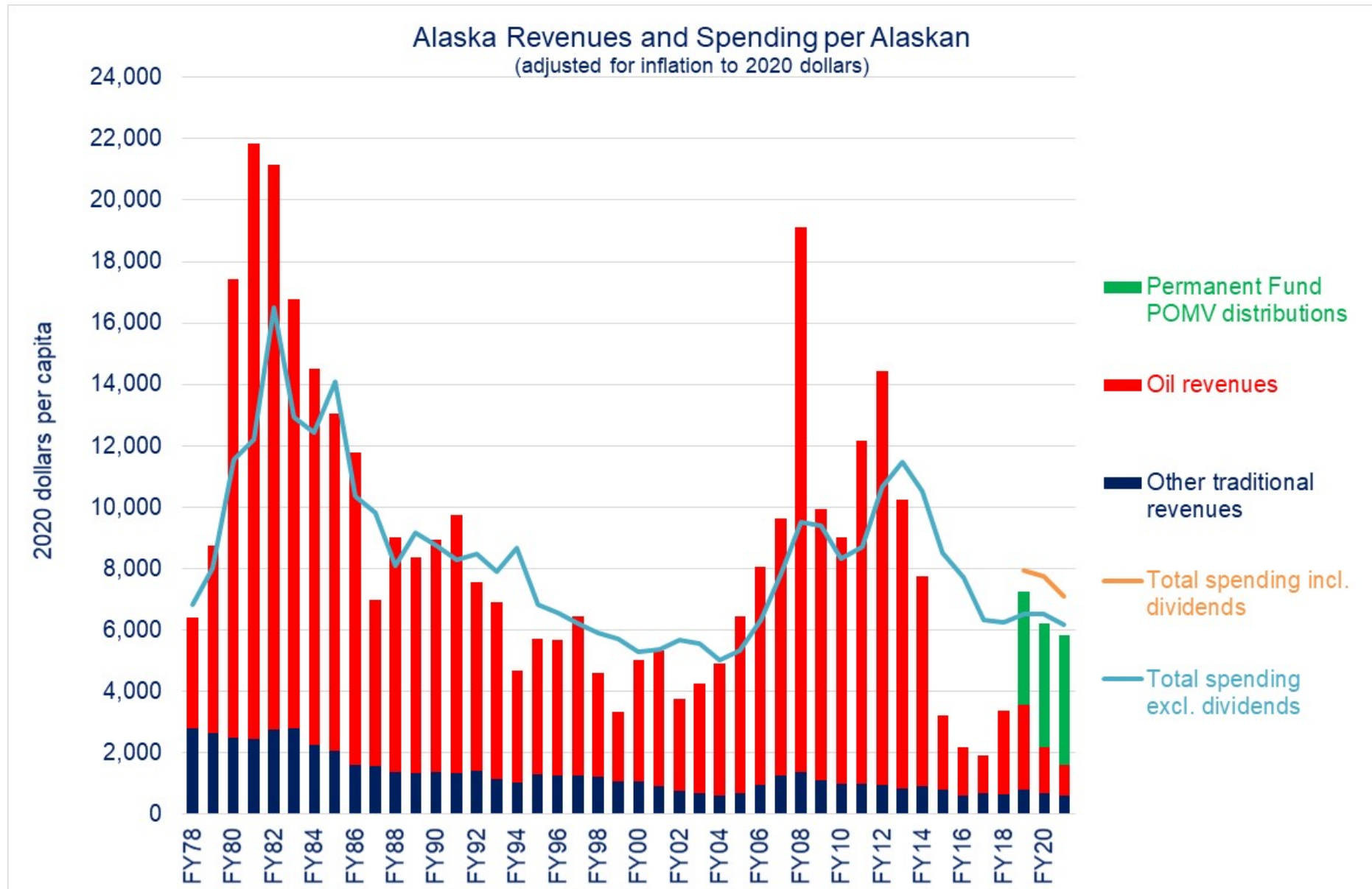
Under SB26, there is an annual
“Percent of Market Value” (POMV) distribution from PF earnings
which the legislature may spend for government or dividends.

Revenue source	Uses before FY19	Uses beginning FY19
Oil revenues	Government	Government & Dividends
Other traditional revenues		
PF earnings	Dividends	Total PF POMV draw = About 5% of average value over the past 5 years

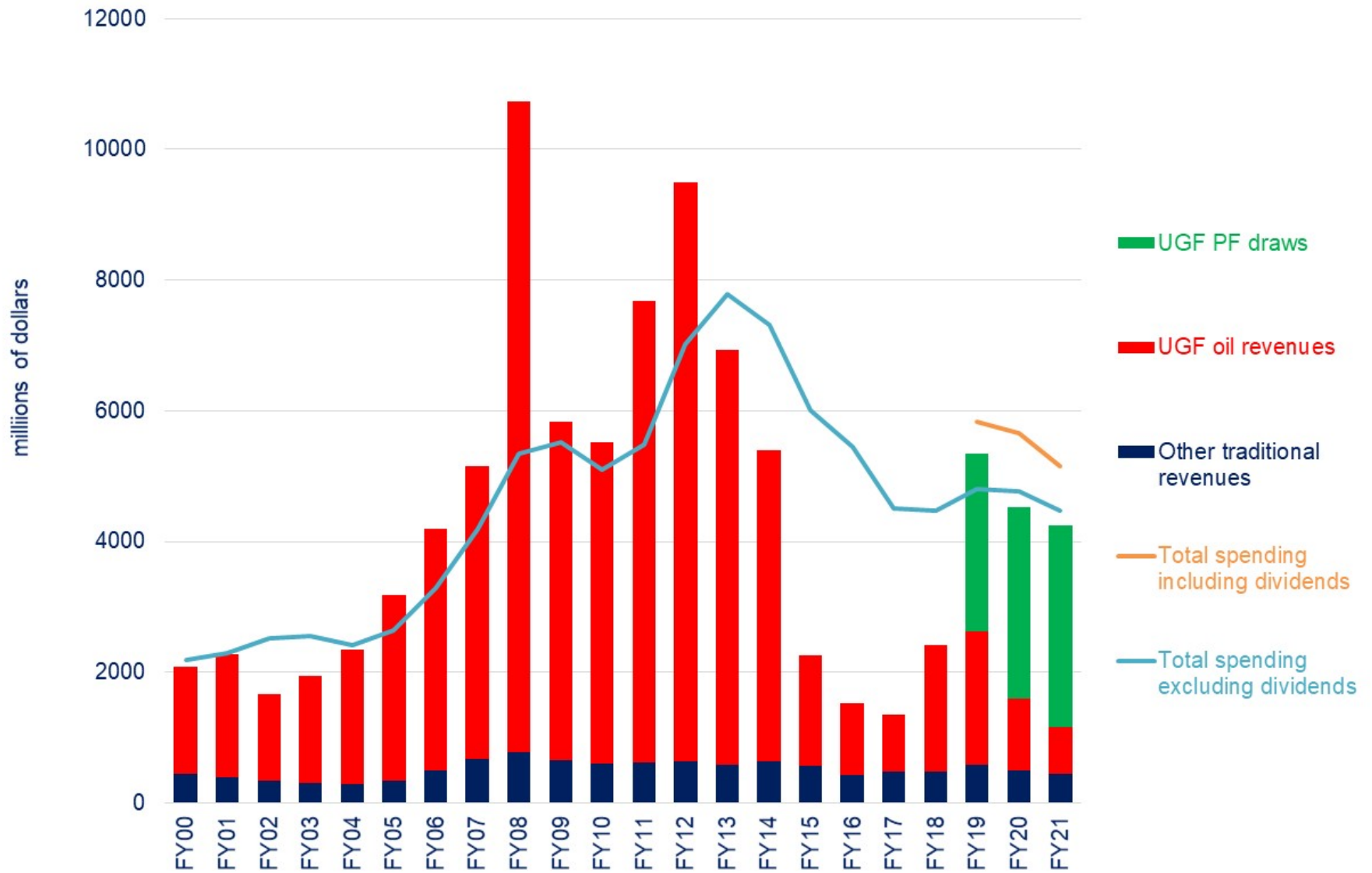
Uses of Permanent Fund Earnings



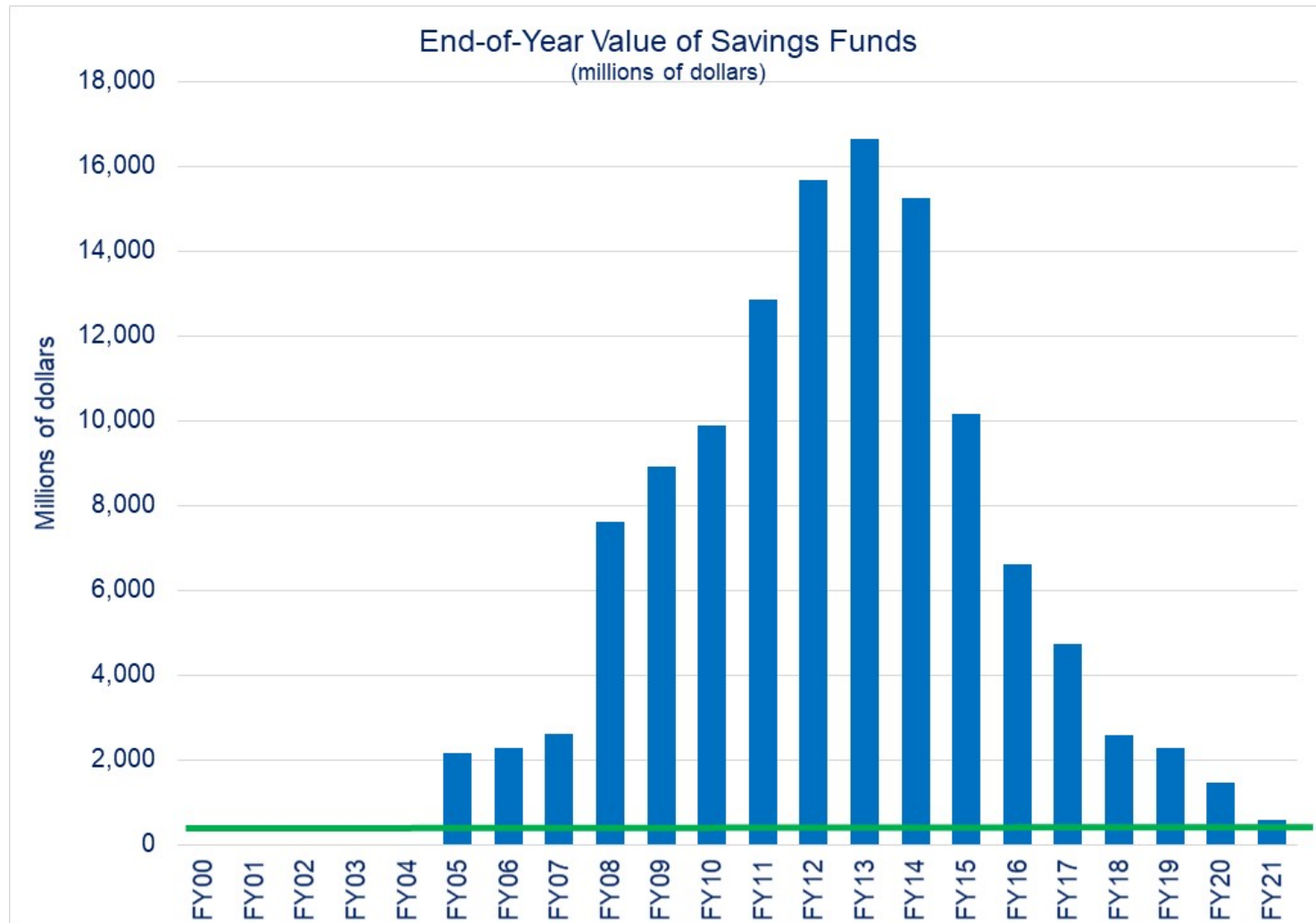
But the POMV distribution from PF earnings also has to pay for dividends.



Alaska Revenues and Spending Since FY 2000



This year (FY21) we will fully deplete our cash savings.



\$500 million =
balance needed
for cash flow
purposes

Alaska's FY21 budget (millions of \$)

Projected Revenues **4,244**

Oil	717
Other traditional	436
Permanent Fund POMV	3,092

Spending **5,160**

Dividends	680
Government	4,480

Deficit **-915**

We are
spending
\$900 million
more than
our revenues

End-of-Year

CBR Balance **587**

Needed for cash flow	500
Available for future draws	87

We are
draining the
last of our
savings

Alaska's Fiscal Challenge

With no more savings, we can no longer run deficits.

Beginning next year, we will have to eliminate this year's \$900 million deficit through some combination of three difficult options:

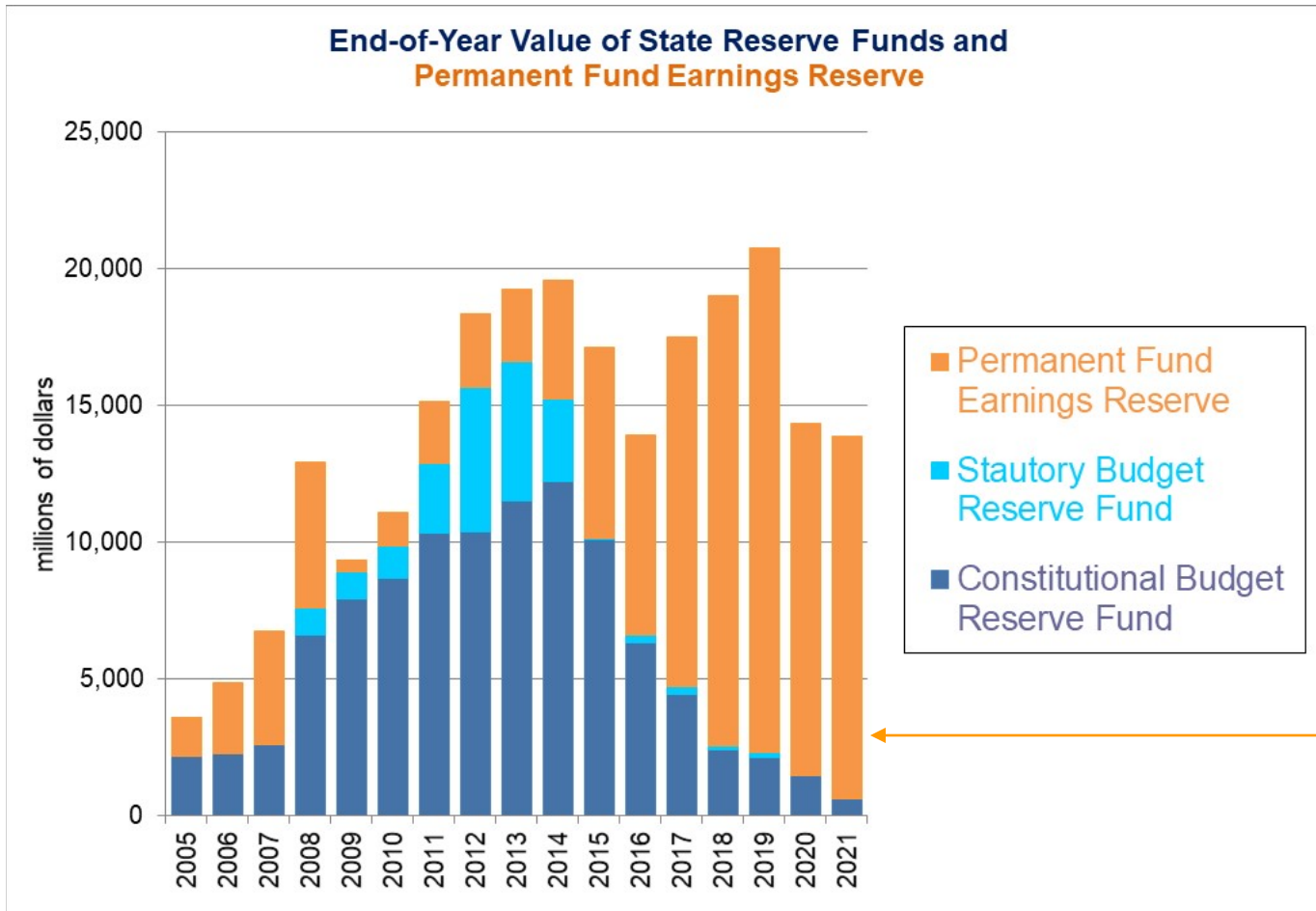
- Government spending cuts
- Dividend cuts
- New revenues
 - Taxing industries
 - Taxing Alaskans

. . . unless we draw an unsustainable amount from the Permanent Fund, which would only put off the hard choices for a few more years.

All of these choices would
negatively affect Alaska's future economy
—but in different ways.

- Government spending cuts
- Dividend cuts
- New revenues
 - Taxing industries
 - Taxing Alaskans

Even though we've drained our cash savings,
We haven't run out of money which the legislature *could* spend.
We could draw more than a sustainable 5% from the PF earnings reserve . . .



Next year's
5.5% PF draw
will be about
\$3.1 billion.

The Permanent
Fund Earnings
Reserve will
have about \$13
billion.

*Drawing an unsustainable amount from the Permanent Fund
would only put off the hard choices for a few more years.*

Conclusions

- Even before the pandemic, Alaska faced an uncertain economic future:
 - Oil industry decline
 - Fiscal challenge leading to:
 - Cuts in state & local government services
 - Increased taxes on businesses and residents
 - Dividend cuts
- The pandemic has worsened Alaska's economic outlook:
 - Oil industry outlook worse
 - Changes in how we work, shop, live and study
 - Hard-to-reverse effects of business closures and bankruptcies
- Our fiscal choices and other policy choices will affect our future