

# Evaluation of ACES with HB 110 Proposal

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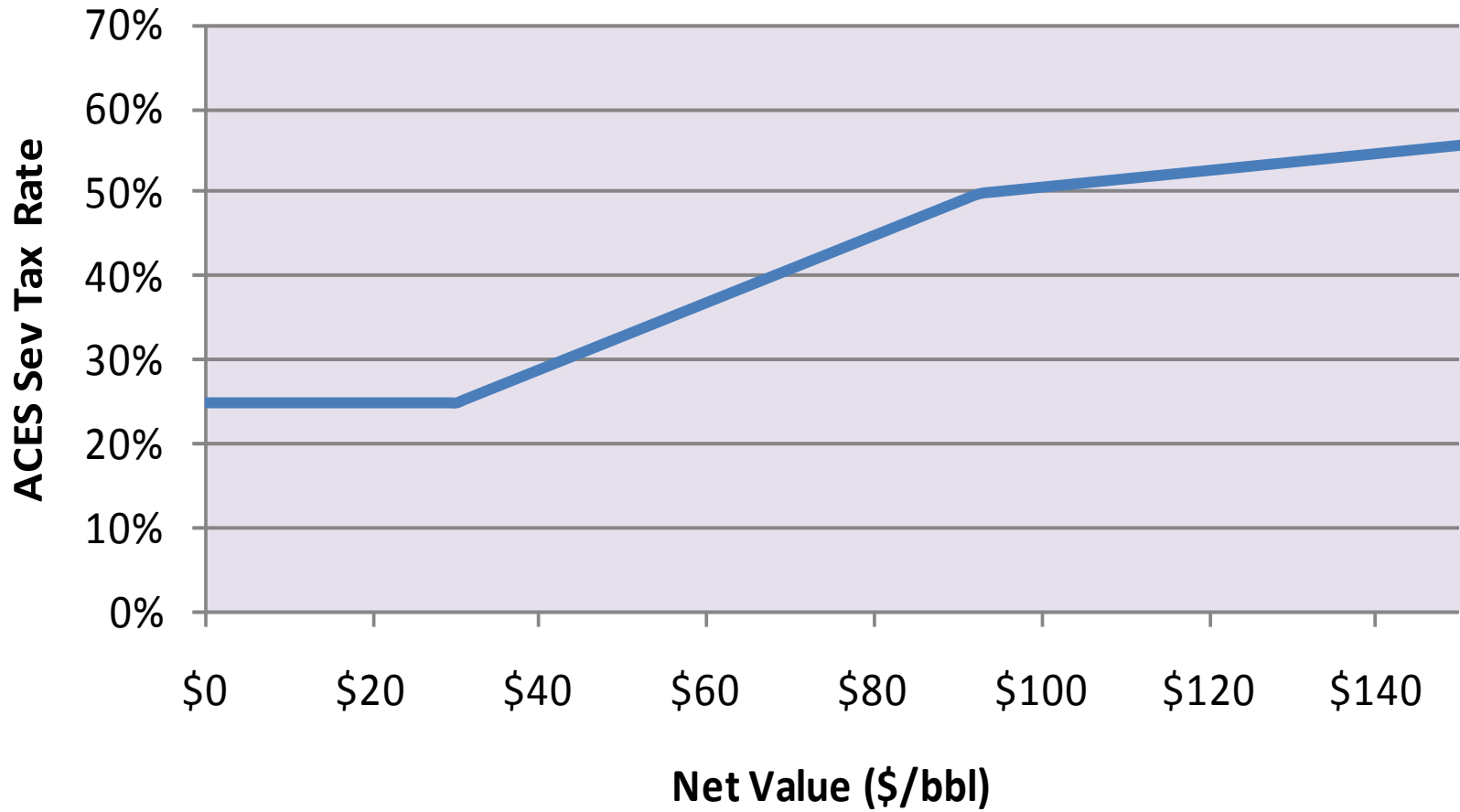
# Overview

- I. How ACES Operates / Problems it Creates
- II. International Competitiveness
- III. Current Evidence of Problems from ACES
- IV. Proposal to Fix ACES

# Tax Rate under ACES

- Base rate of 25% of net value (after deducting all costs)
- Progressivity element when net value per barrel exceeds \$30/bbl:
  - $(\text{Net value per barrel value} - \$30) \times .004$
- If oil market price is \$90/bbl:
  - Net value per barrel is \$58/bbl
  - $\text{Progressivity} = (\$58 - \$30) \times .004 = 11.2\%$
  - $\text{Total tax rate} = 25\% + 11.2 = 36.2\%$
  - $36.2\% \times \$58 \times 0.875 \text{ (non-royalty)} = \$18.37/\text{bbl}$
  - **APPLIES TO ENTIRE NET VALUE**

# ACES Severance Tax Rate

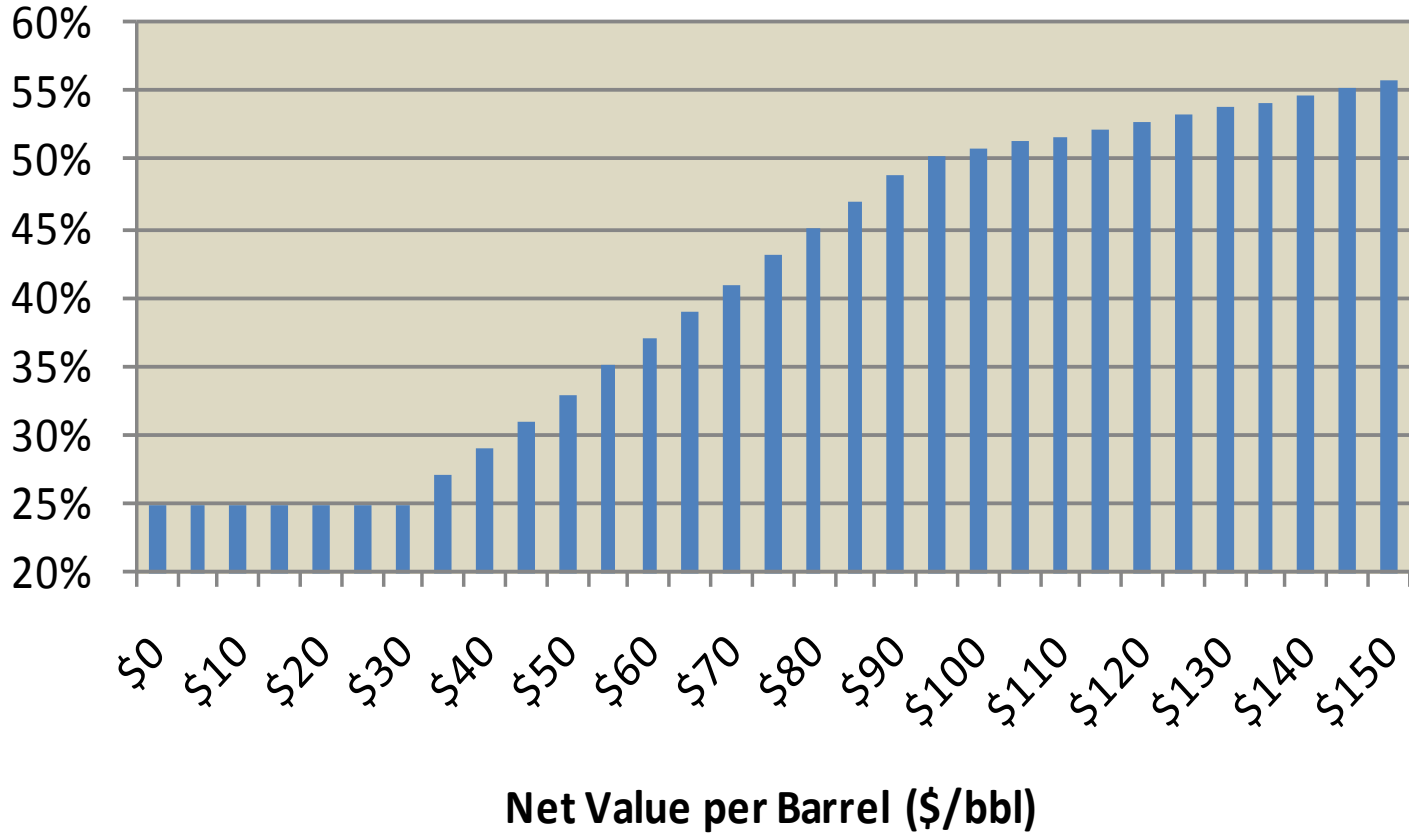


# 2010 U.S. Tax Rate for Single Taxpayer

- First \$8,375 10%
- Next \$25,625 15%
- Next \$48,400 25%
- Next \$89,450 28%
- Next \$201,800 33%
- Anything over \$373,650 35%

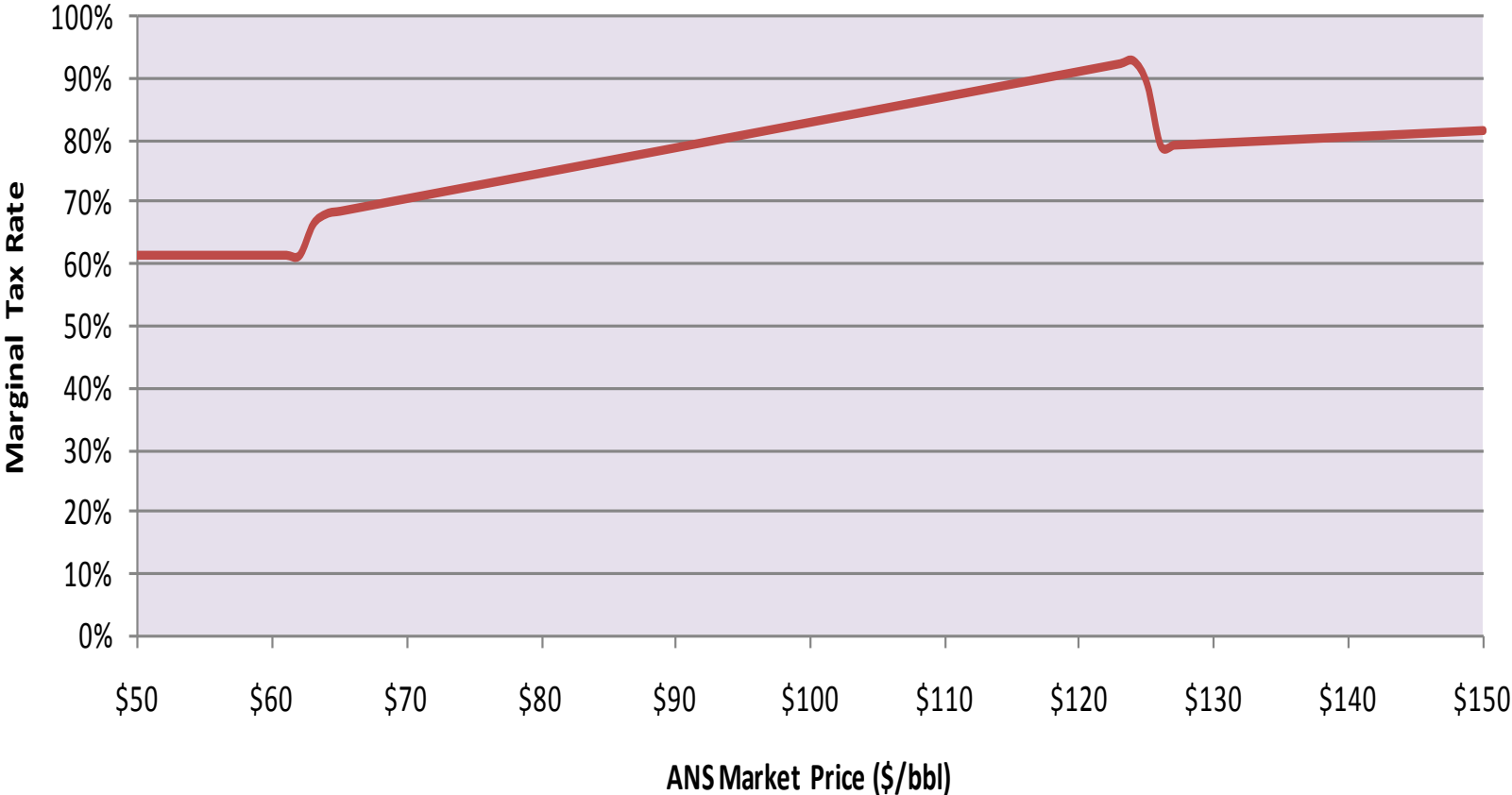
# What Happens to the First Dollar of Value under ACES

Tax Rate on the First Dollar of Value

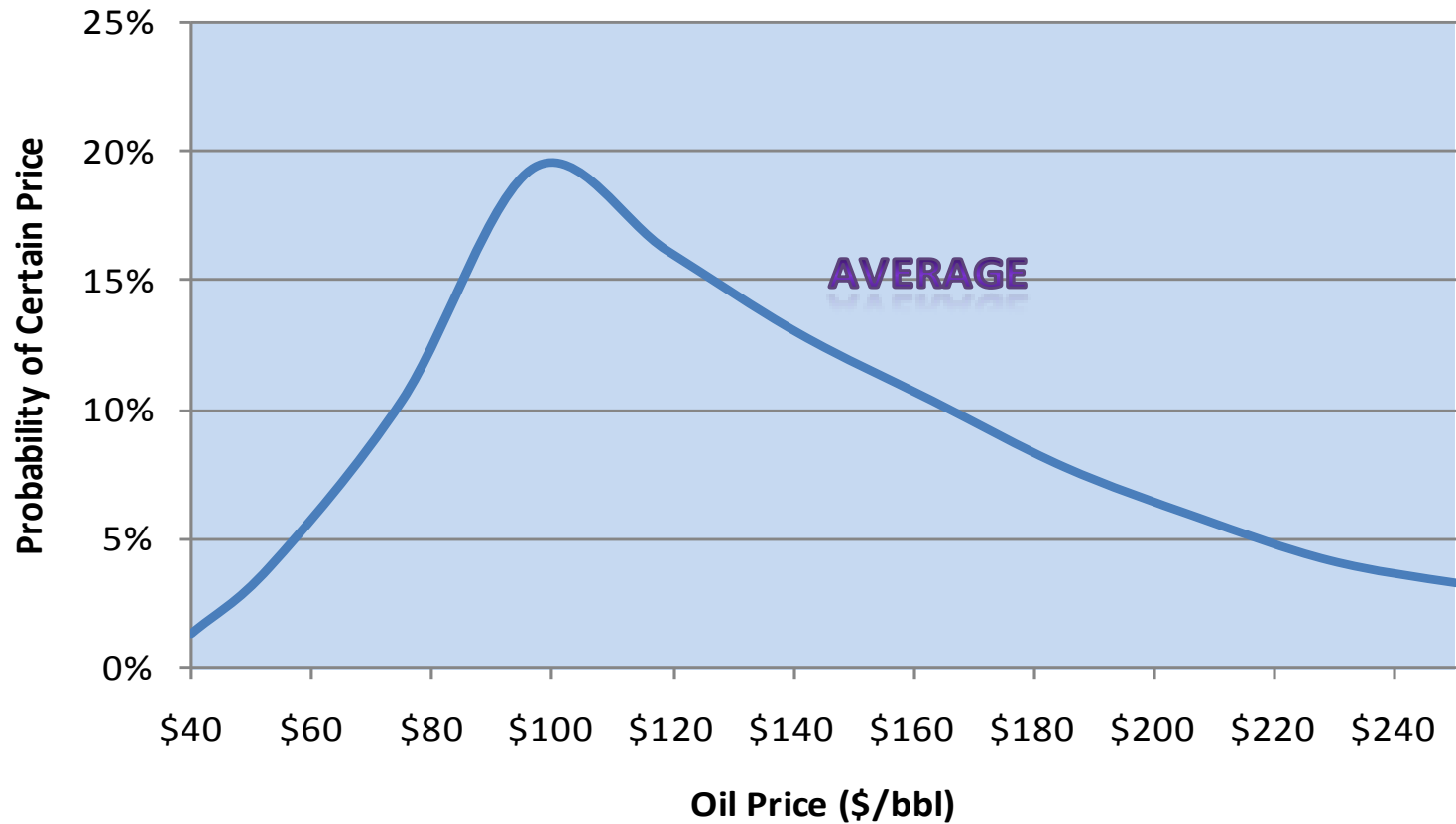


# Marginal Tax Rate under ACES (All State & Federal Taxes & Royalties)

## How Much Gov't Gets When Price Goes Up \$1



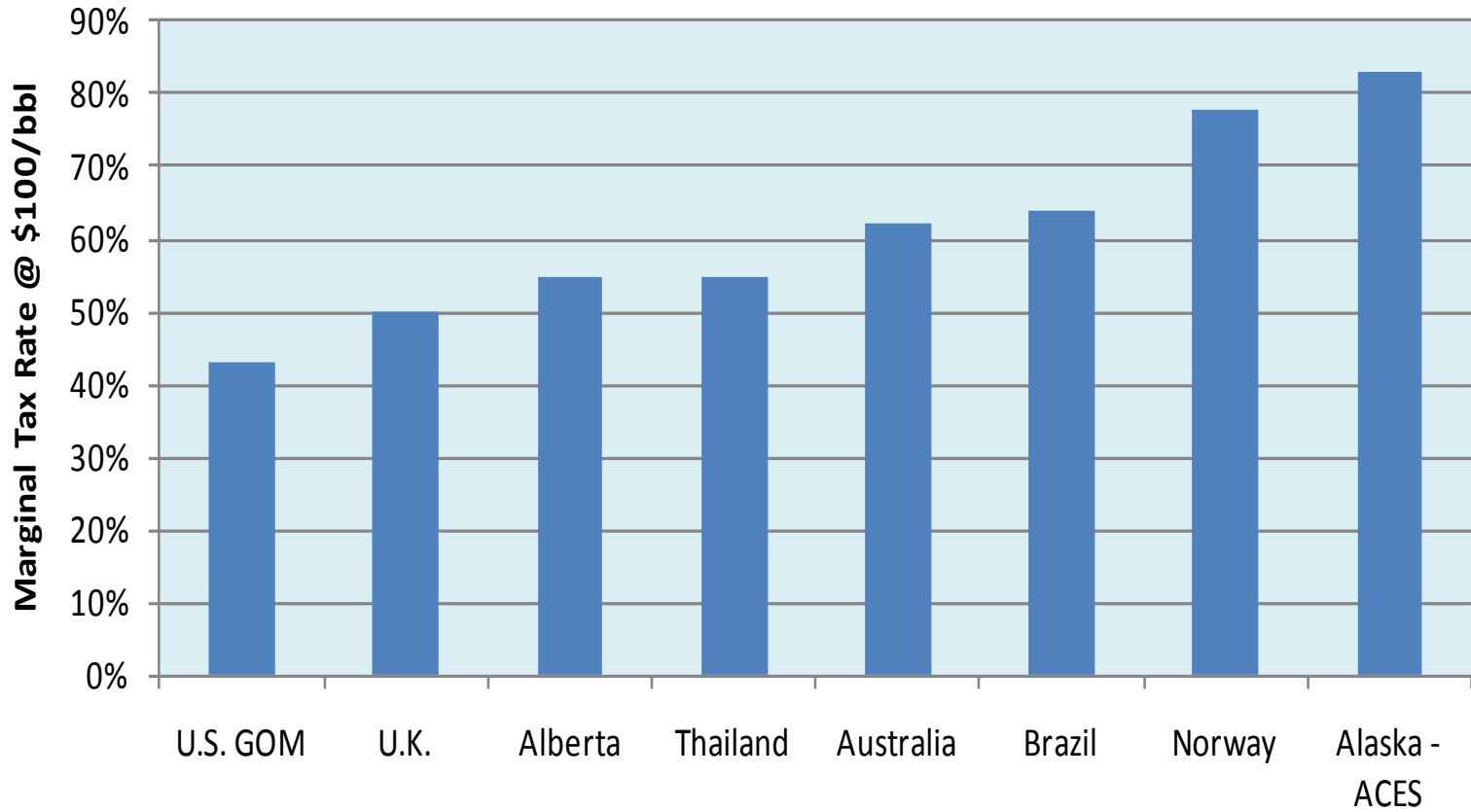
# Hypothetical Expected Price Outlook



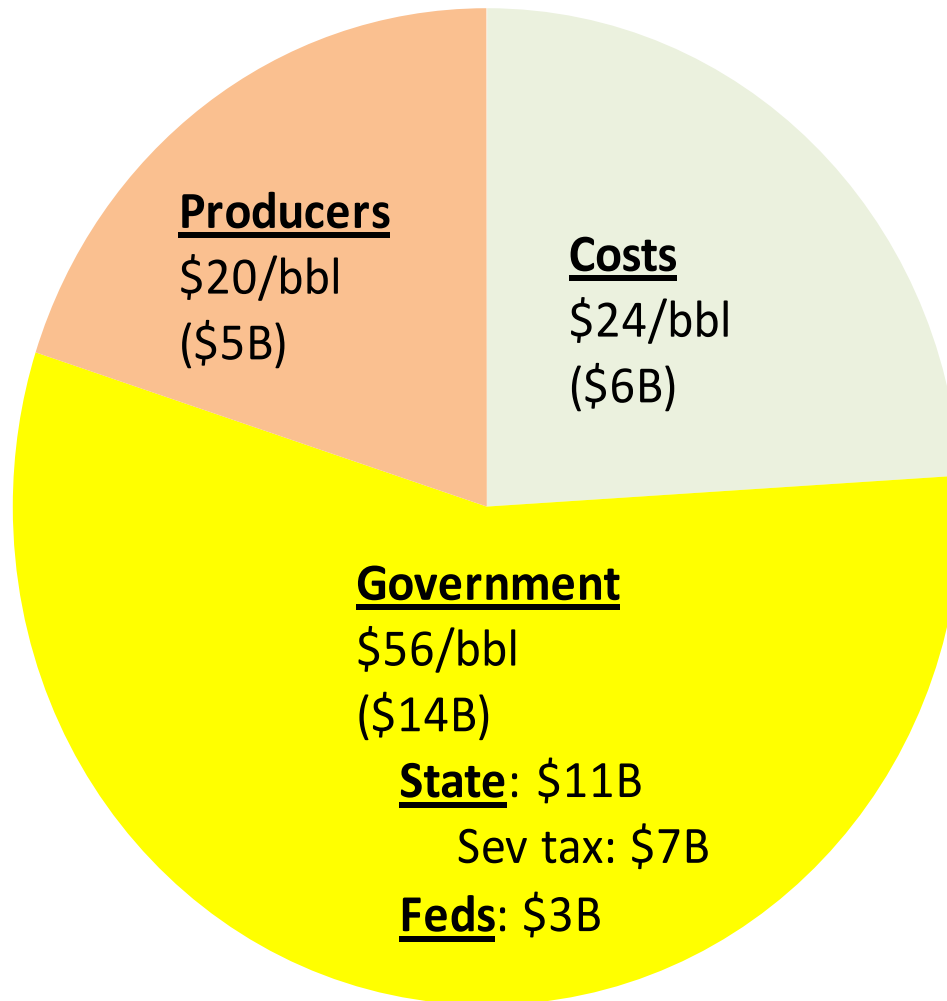


# International Competitiveness

## International Marginal Tax Rates @ \$100/bbl Market Price Tax & Royalty Regimes



## Where \$100/bbl (\$25B) Went in 2008



**After-Tax Income that Would Have Been Earned in Alaska in 2008  
With Rates from Other Tax & Royalty Regimes  
(\$billions)**

Gulf of Mexico	\$10.3
U.K.	\$9.0
Alberta	\$8.2
Thailand	\$8.2
Australia	\$6.9
Brazil	\$6.6
<b>Alaska</b>	<b>\$5.0</b>
Norway	\$4.1

**ConocoPhillips Financial Performance: Alaska vs. Rest of World (\$millions)  
2008 (\$100/bbl) vs. 2009 (\$60/bbl)**

	<u>Alaska</u>	<u>Rest of World</u>
<b>Additional pre-tax income 2009 over 2008</b>	<b>\$3,673</b>	<b>\$14,707</b>
<b>Additional taxes 2009 over 2008*</b>	<b><u>\$2,898</u></b>	<b><u>\$7,163</u></b>
<b>Additional after-tax income 2009 over 2008</b>	<b>\$775</b>	<b>\$7,544</b>
<b>Percentage of additional pre-tax income retained after-tax</b>	<b>21%</b>	<b>51%</b>

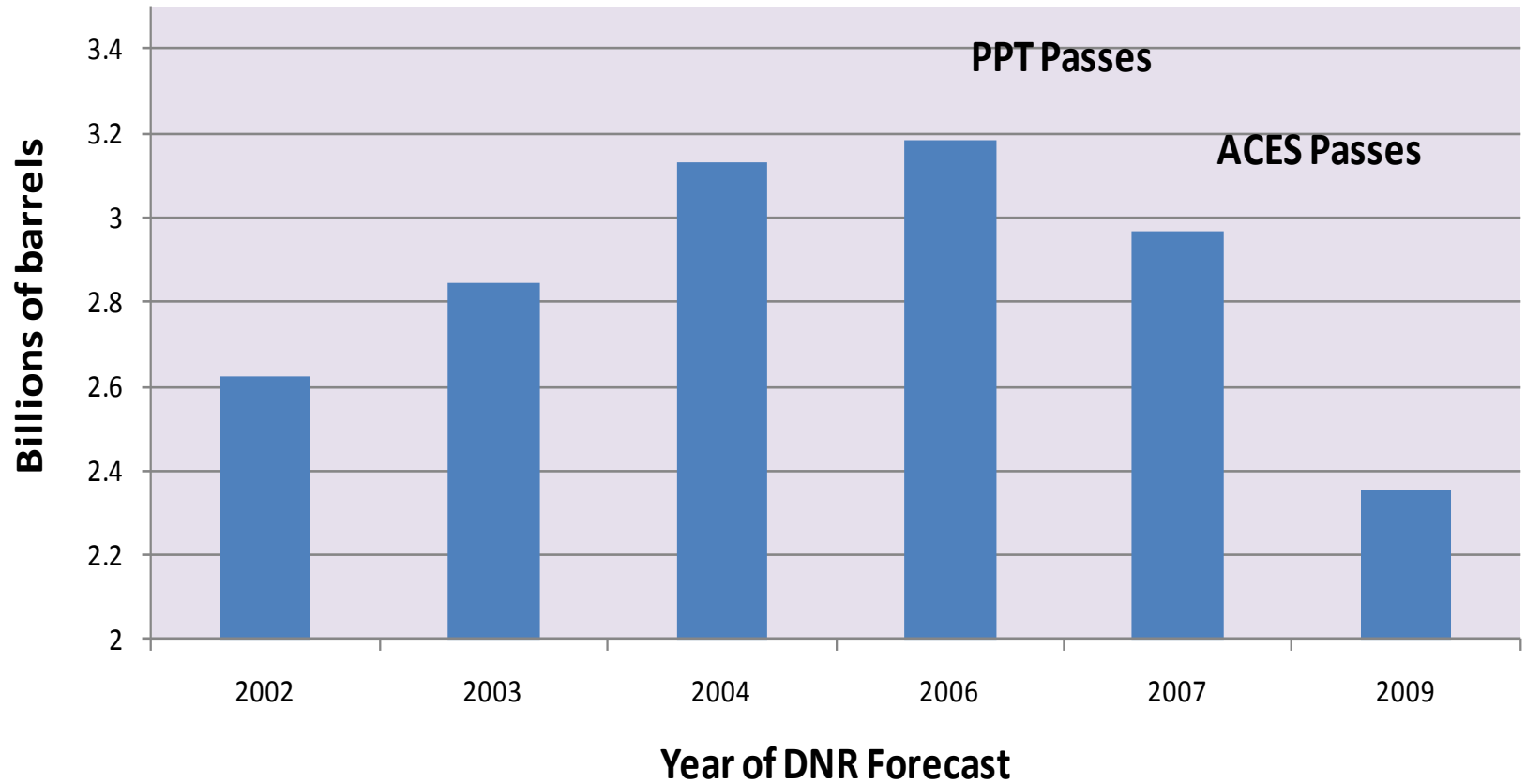
\* Alaska: 80% severance tax / 20% income tax; Rest of World: 10% severance tax / 90% income tax

## OIL SEVERANCE TAX RATES BY STATE

<u>State</u>	<u>Rate (% of gross)</u>	:	<u>State</u>	<u>Rate (% of gross)</u>
Iowa	NONE	:	Illinois	5.00%
New York	NONE	:	Colorado	5.00%
Pennsylvania	NONE	:	West Virginia	5.00%
Ohio	10 cents/bbl	:	Utah	5.00%
California	0.10%	:	Mississippi	6.00%
Indiana	1.00%	:	Wyoming	6.00%
Nebraska	3.00%	:	Michigan	6.60%
New Mexico	3.75%	:	Oklahoma	7.00%
Alabama	4.00%	:	Florida	8.00%
Kansas	4.30%	:	North Dakota	11.50%
Kentucky	4.50%	:	Louisiana	12.50%
South Dakota	4.50%	:	Montana	12.50%
Texas	4.60%	:	<u>ALASKA @ \$90 market</u> (25 % of gross equivalent)	
Arkansas	5.00%			

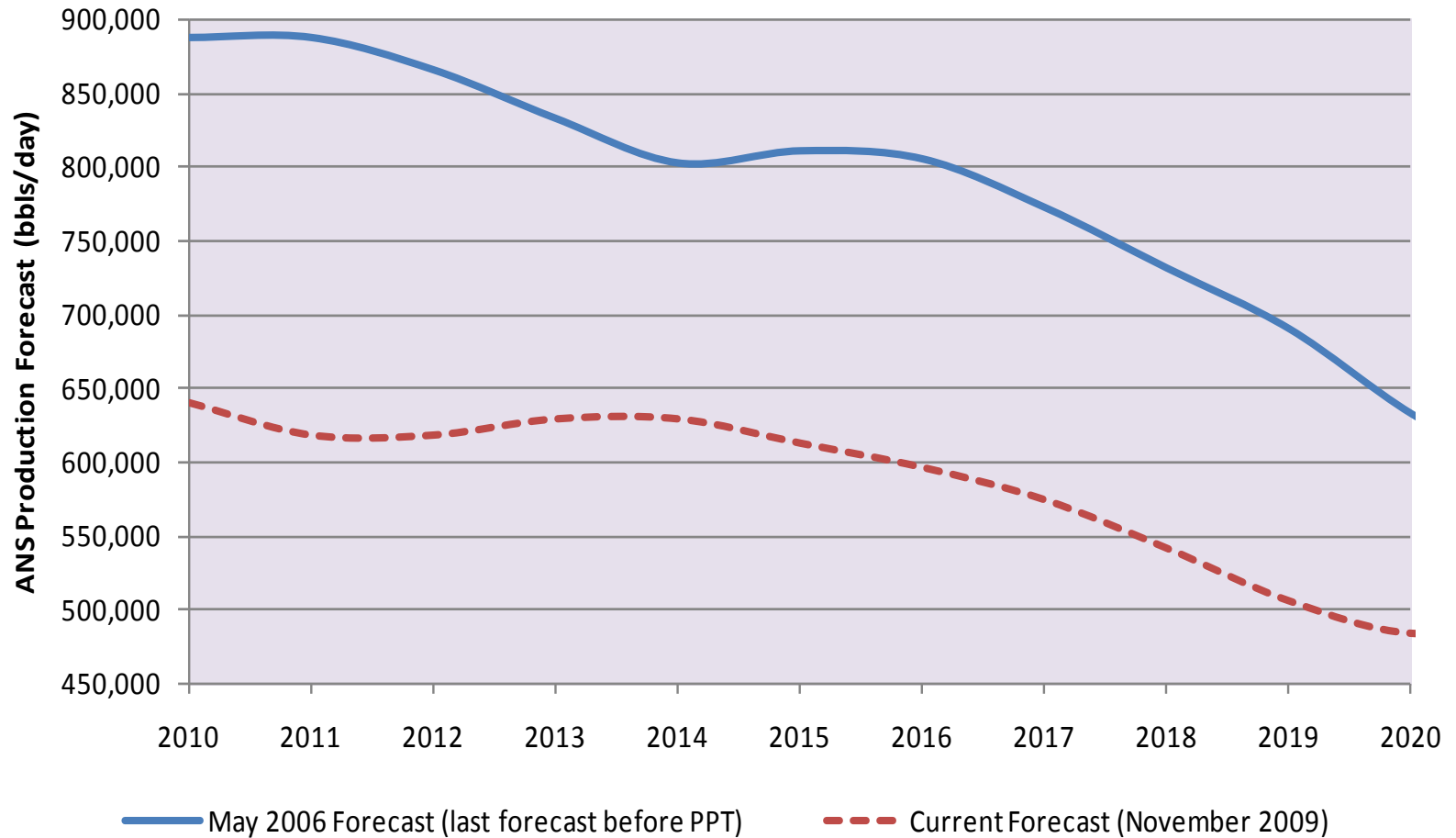
The State is Making  
Lots of Money Now:  
What is the Problem?

# A History of DNR Forecasts of Total Production between 2010 and 2020 (billions of barrels)

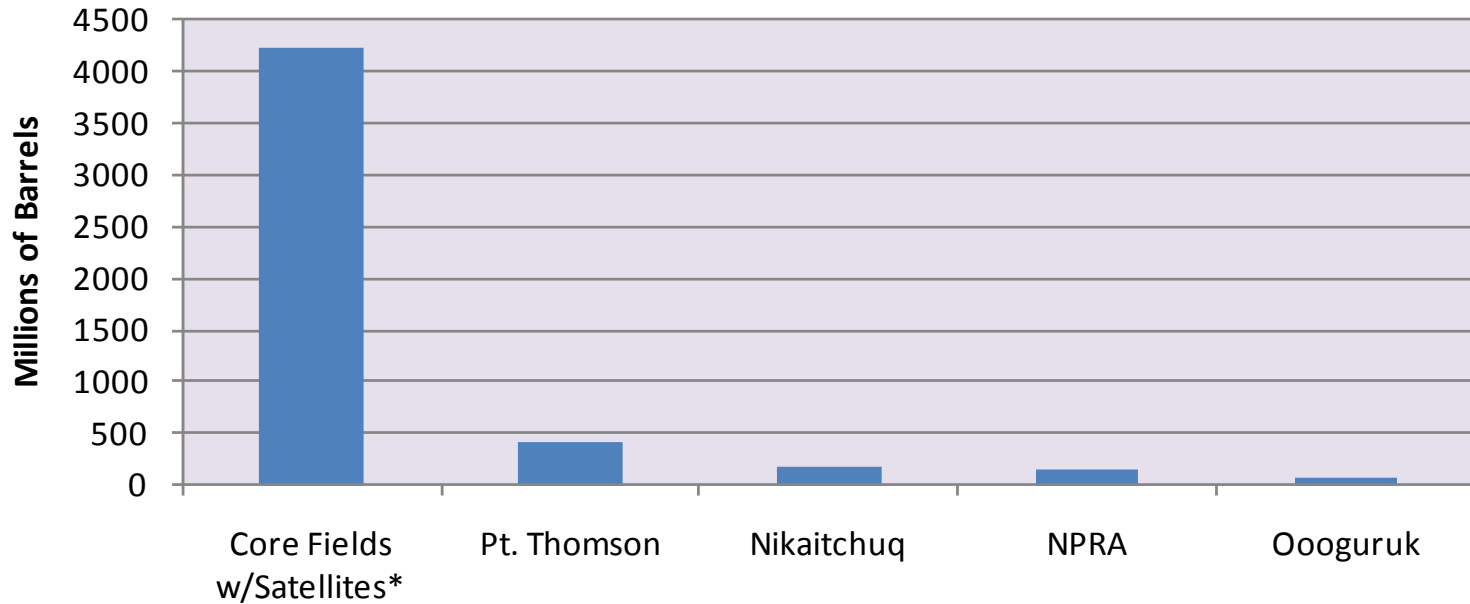




## Dept of Natural Resources ANS Production Forecast Before & After PPT (bbls/day)



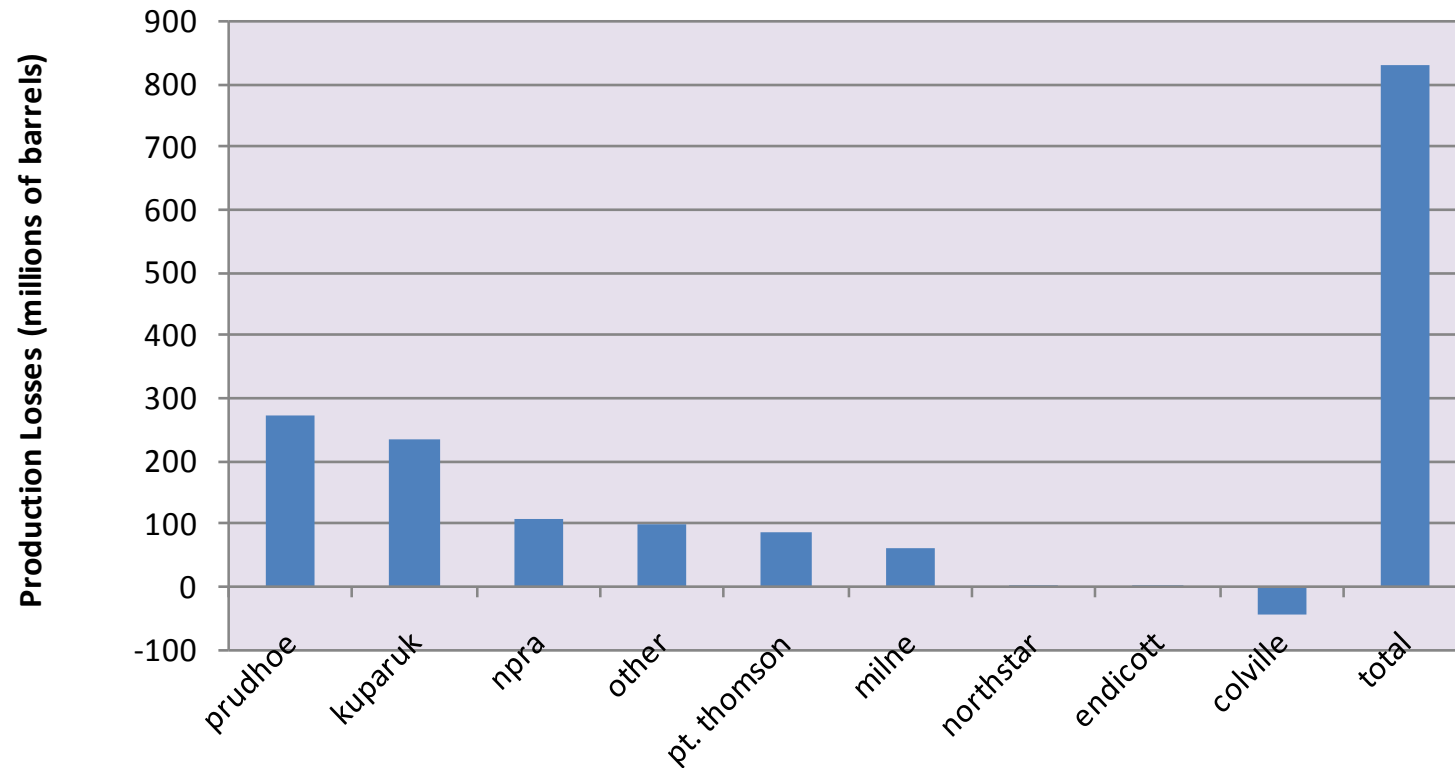
## Oil Production Forecast 2010-2050 (Millions of Barrels)



\*Core fields are Prudhoe, Kuparuk, Alpine, Endicott, Milne Pt., Northstar

Source: DNR Division of Oil & Gas 2009 Annual Report: p. 29

## Total Forecasted Production Losses 2010-2020 between 2006 and 2009 Forecasts (millions of barrels)



# Investment: The Big Picture

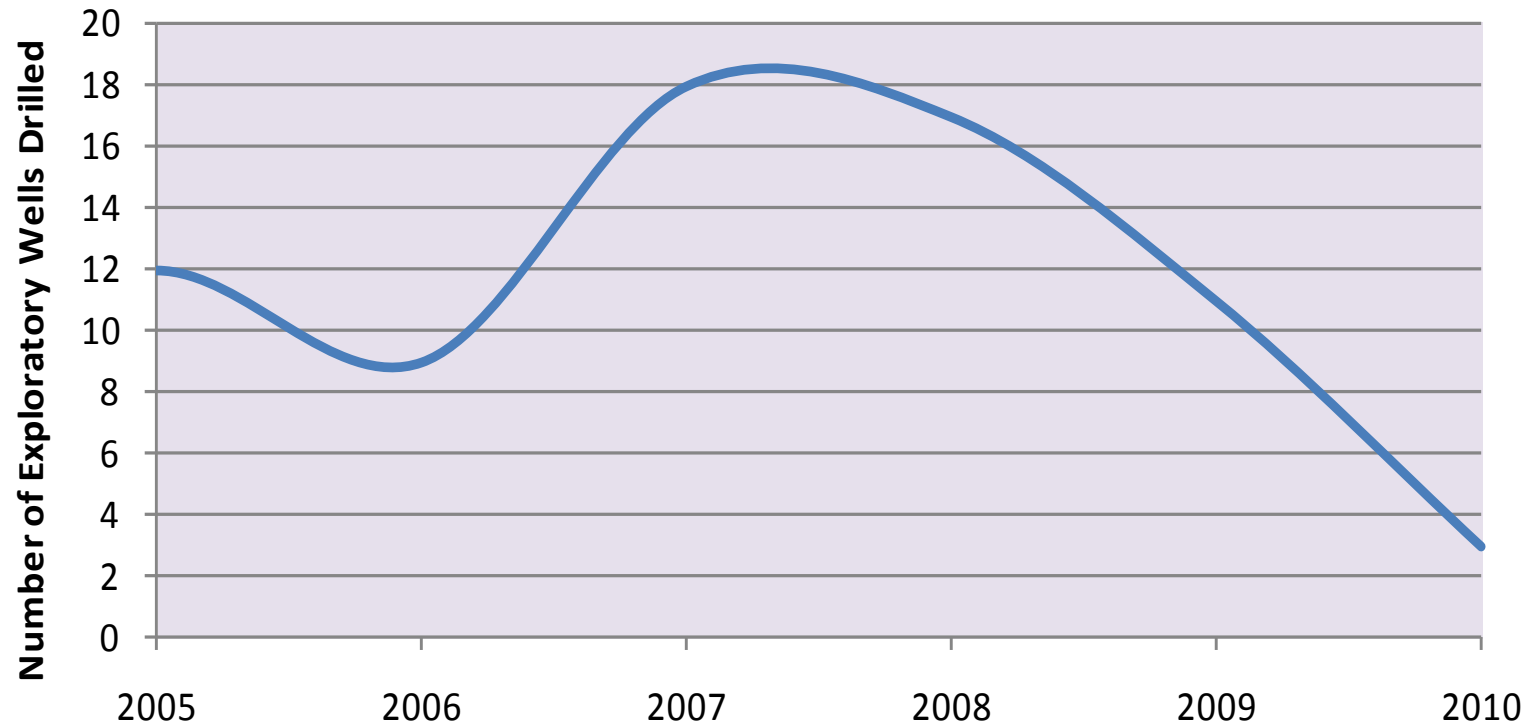
- Production requires capital investment
- At the corporate level Alaska competes for capital with other jurisdictions
  - Capital is finite
  - Capital is fluid
  - Capital will go to where it gets the best deal

# Resource Potential

- 2007 Department of Energy report: 10 billion barrels of additional economically recoverable oil on the North Slope **in current core producing area**.\*
- DNR's current production forecast is for 5 billion barrels between now and 2050.

\* Department of Energy, National Energy Technology Laboratory, "Alaska North Slope Oil & Gas: A Promising Future or an Area of Decline?," August 2007, pp. 2 - 152-153.

## North Slope Exploratory Wells Drilled: 2005-2010



# Context of Spending

- Core fields down\*
- Non-core fields up\* (Nikaitchuq and Pt. Thomson)
  - A small share of potential reserves
- No other new fields on the horizon
- Gold-plating

\* Department of Revenue “Oil and Gas Production Tax Status Report to the Legislature,” January 18, 2011, p. 8.

# GOLD-PLATING

**Spending more because someone else is picking up the tab**

	<u>Before</u>	<u>Spend \$1 in Capital</u>
<b>ANS Market Price</b>	<b>\$90.00</b>	<b>\$90.00</b>
<b>Less:</b>		
<b>Transportation Cost</b>	<b>\$6.00</b>	<b>\$6.00</b>
<b>Capital Cost</b>	<b>\$13.00</b>	<b>\$14.00</b>
<b>Operating Cost</b>	<b><u>\$13.00</u></b>	<b><u>\$13.00</u></b>
<b>Net value</b>	<b>\$58.00</b>	<b>\$57.00</b>
<b>Severance Tax</b>		
<b>Severance Tax Rate</b>	<b>36.20%</b>	<b>35.80%</b>
<b>Credit</b>	<b>\$2.60</b>	<b>\$2.80</b>
<b>Severance Tax</b>	<b>\$15.77</b>	<b>\$15.06</b>
<b>Pre-income tax income</b>		
<b>Combined state/federal income tax (41%)</b>	<b>\$17.31</b>	<b>\$17.20</b>
<b>After-income tax income</b>	<b>\$24.91</b>	<b>\$24.75</b>
<b>Reduction in income</b>		<b>\$0.17</b>

**Bottom Line:**

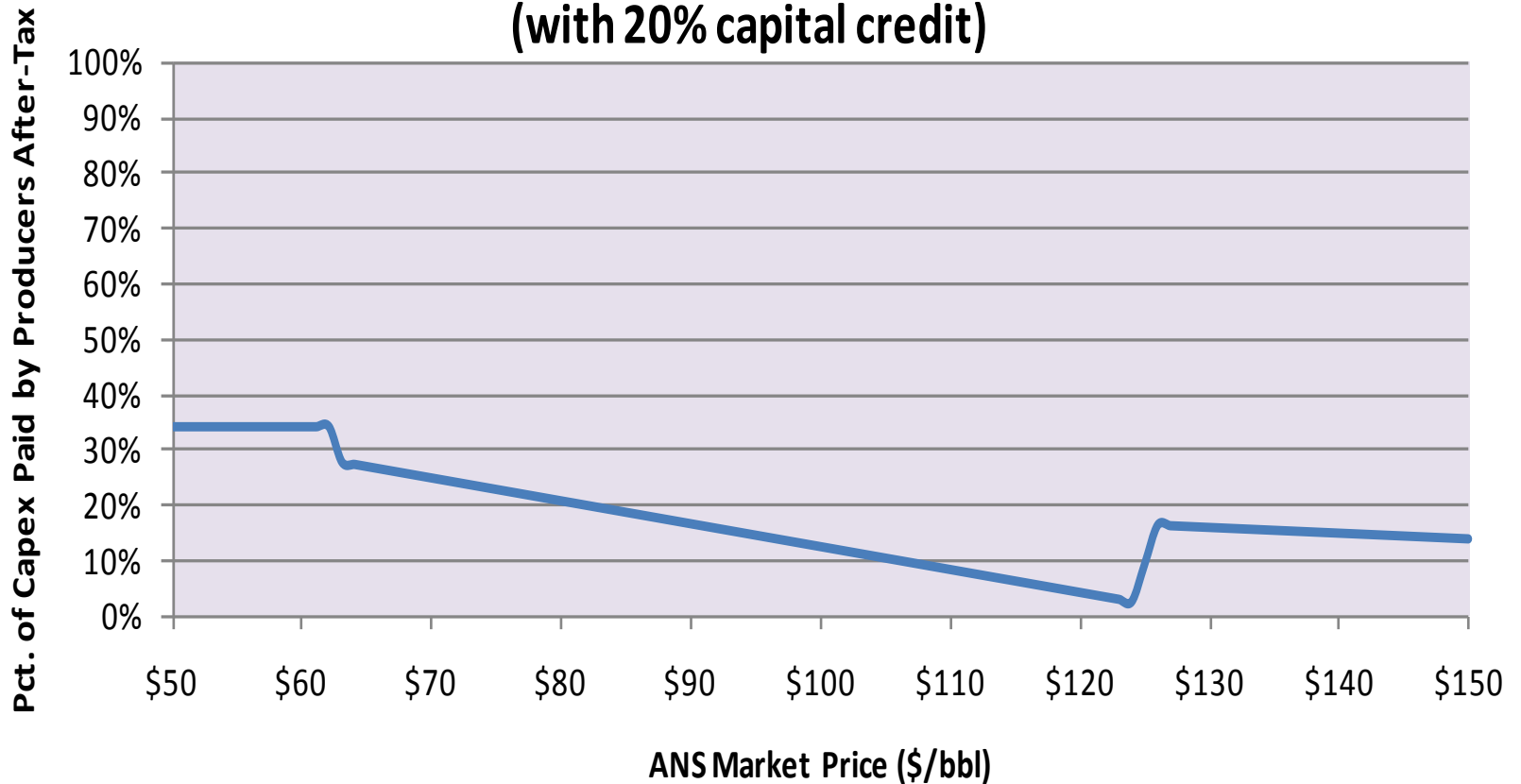
**Spent \$1 but reduced income by only 17 cents**

**The purchase only cost 17 cents after-tax**

**The other 83 cents picked up by the state/feds in reduced taxes**



# Gold-Plating: Percentage of Capital Cost Paid by Producers After-Tax under ACES (with 20% capital credit)



# Implications of Gold-Plating

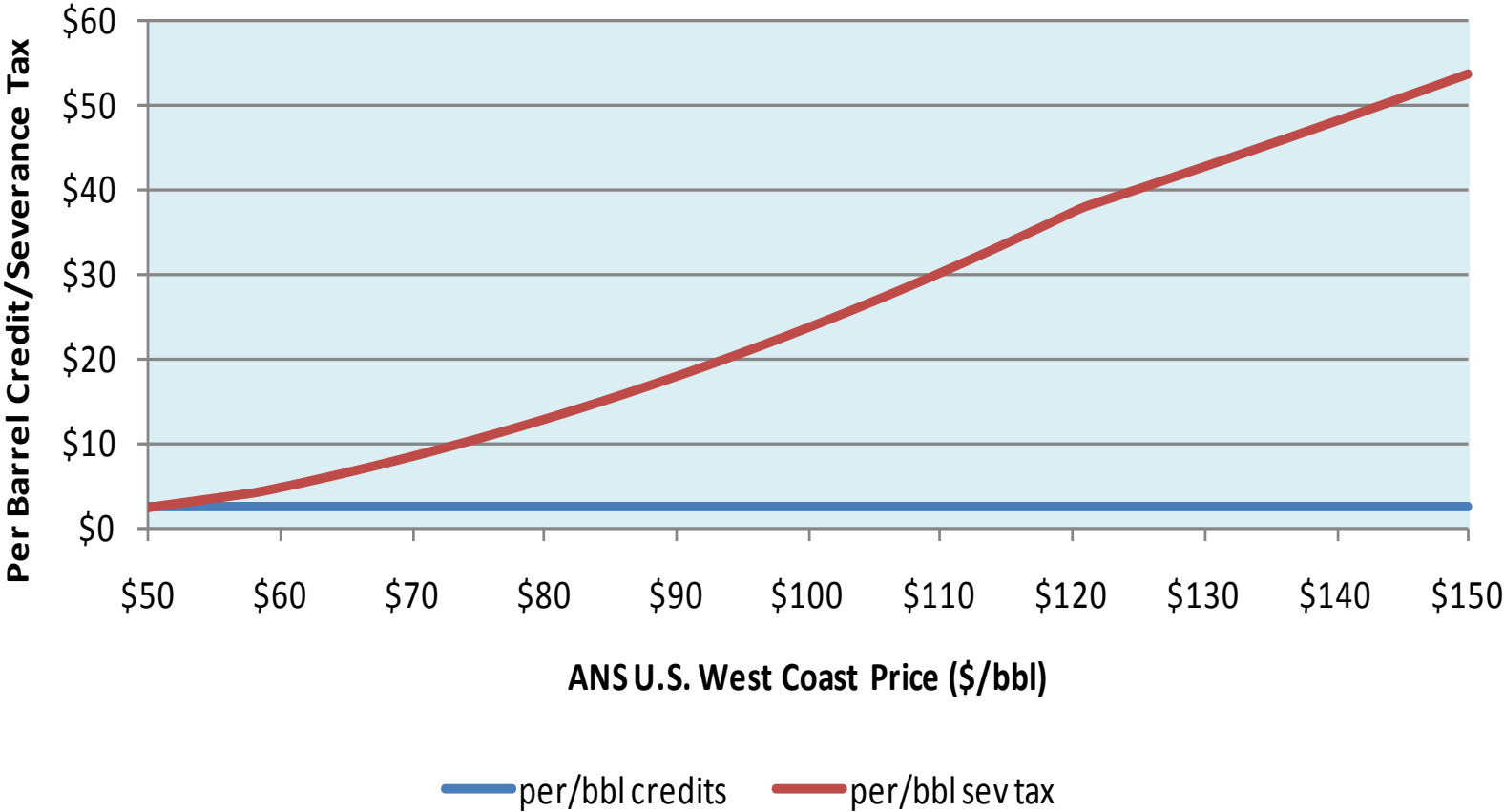
- Gold-plating is not efficient spending (spending to produce barrels)
- Gold-plating happens because of high marginal tax rates at high prices under ACES
- Gold-plating may explain a lot of spending without the commensurate increase in production

# Fixing ACES

# Fair Share: Economic Aspect

- Maximizing benefit to people
  - Long-term benefit
  - Linked to maximizing long-term production
  - Production maximized by continual investment
- In designing a tax need to be mindful of how Alaska stacks up internationally
- What is “fair” is what you can get in a competitive environment

# Cash Flow Impact: Credits vs. ACES Severance Tax



# Proposal for Fix: Bracketed Tax Structure

- The problem is not progressivity – but the progressivity structure
- Changing the progressivity structure
  - HB 110:
  - Bracketed progressivity structure
- Values within structure

# Proposed Bracket Structure: HB 110 (Existing Units)\*

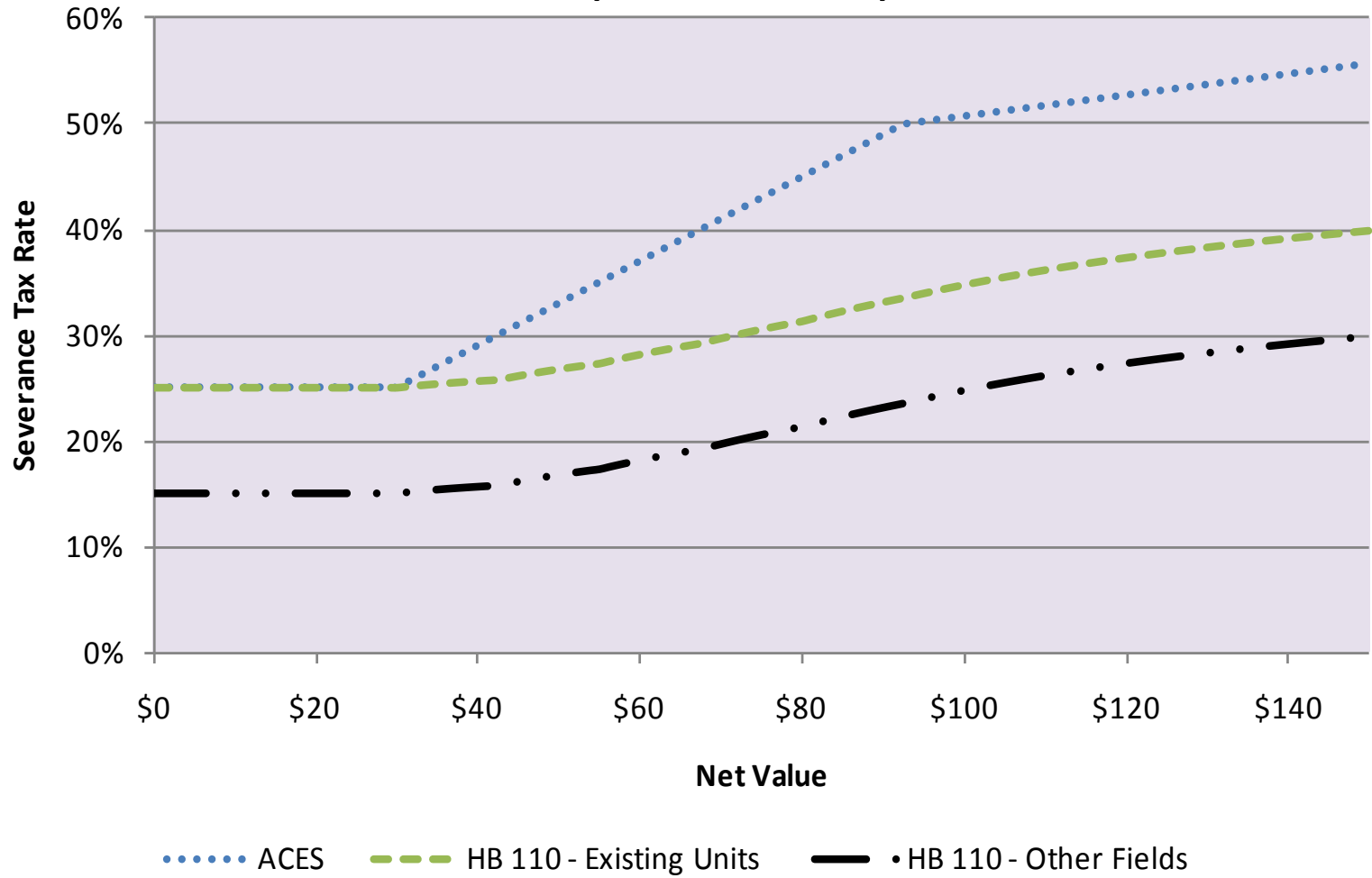
Based on Net Value p/bbl\*\*

• \$0/bbl - \$30.00/bbl	25.0%
• Next \$12.50/bbl (\$30.00 - \$42.50/bbl)	27.5%
• Next \$12.50/bbl (\$42.50 - \$55.00/bbl)	32.5%
• Next \$12.50/bbl (\$55.00 - \$67.50/bbl)	37.5%
• Next \$12.50/bbl (\$67.50 - \$80.00/bbl)	42.5%
• Next \$12.50/bbl (\$80.00 - \$92.50/bbl)	47.5%
• Anything over \$92.50/bbl	50.0%

\* For other fields outside existing units the tax rates are 10 percentage points less

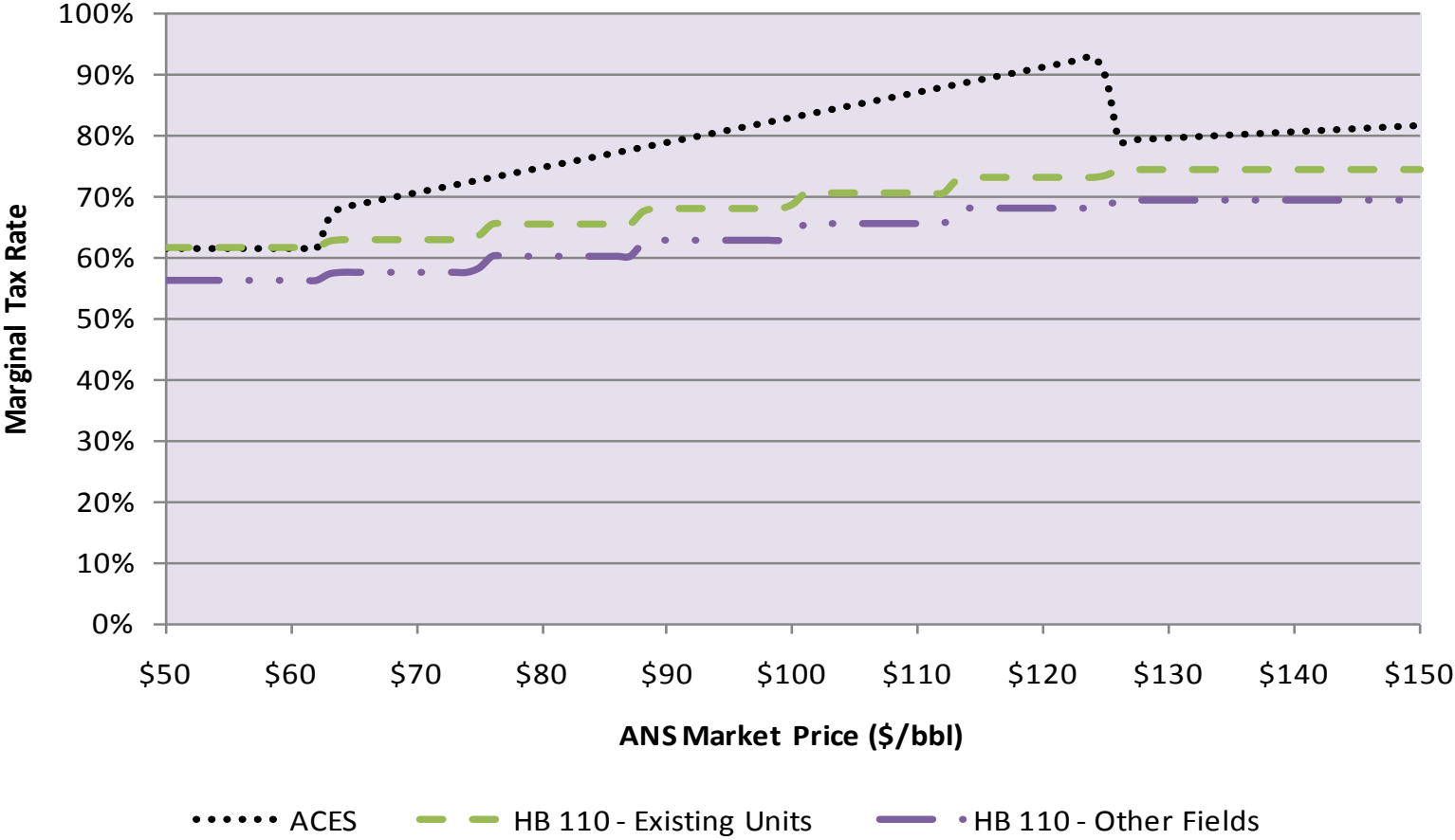
\*\* These net values are approximately \$30 less than market values (the ANS West Coast price).

# Comparison of Effective Severance Tax Rates (Before Credits)

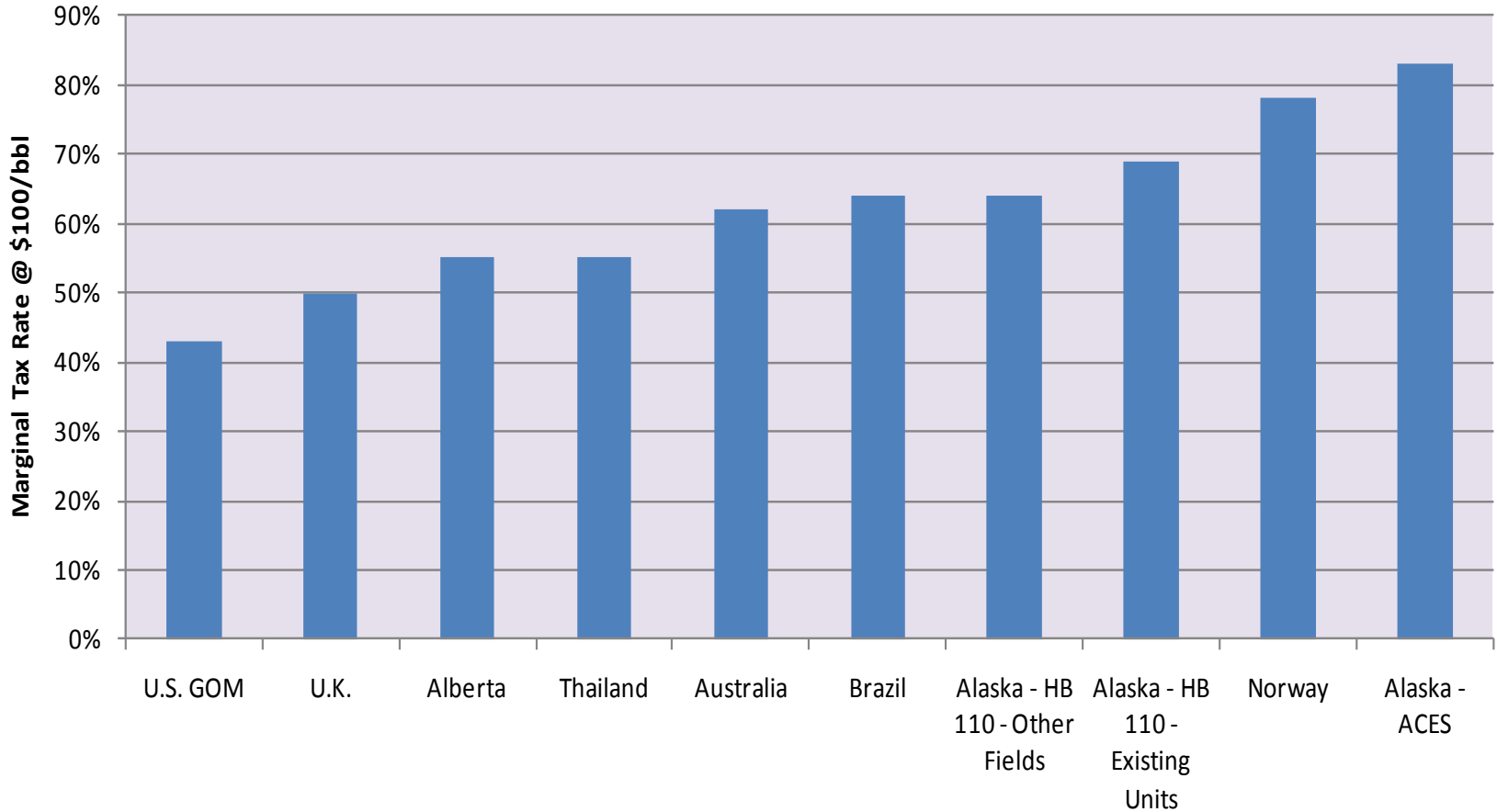




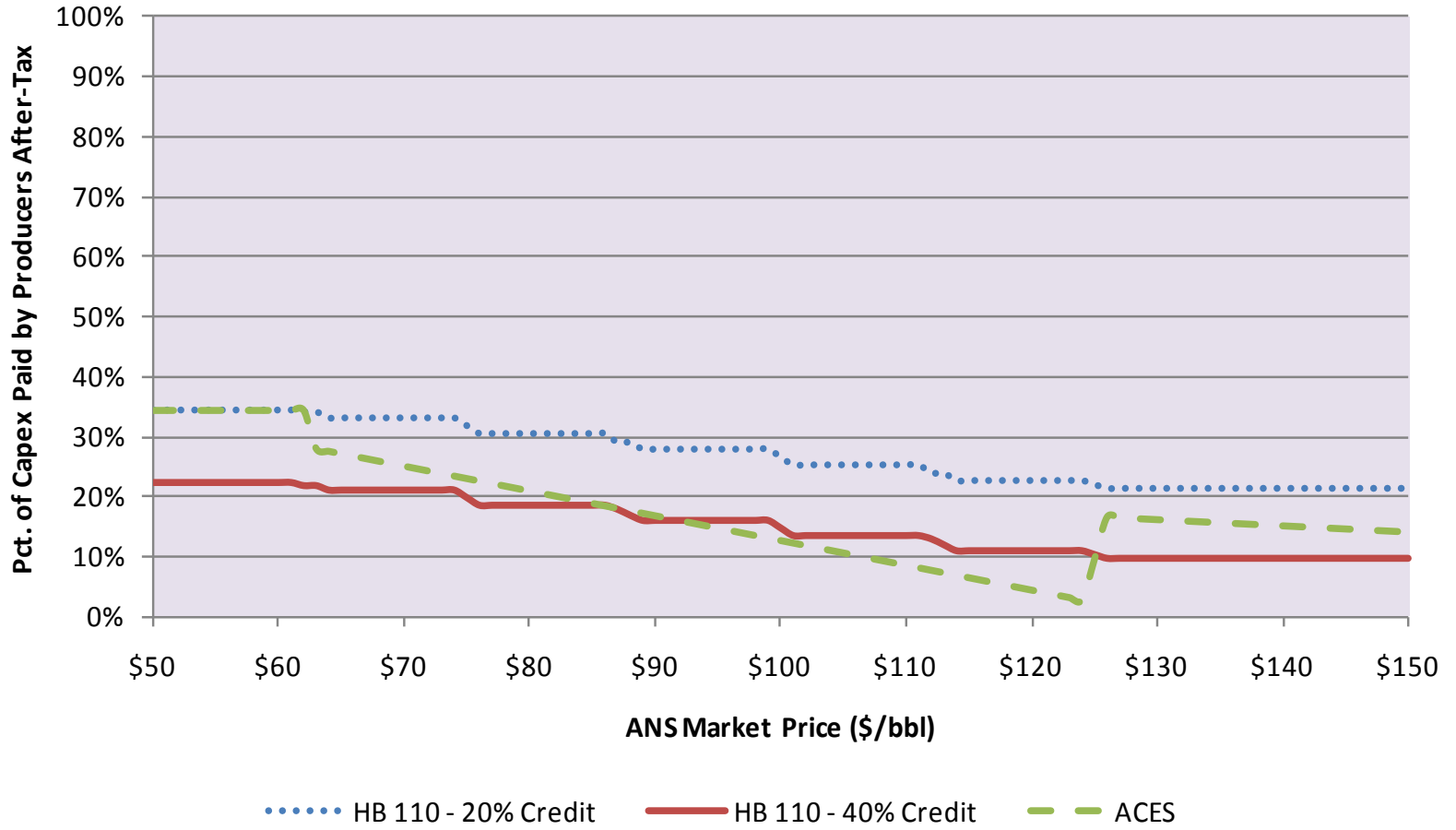
# Marginal Tax Rates (All state & federal taxes and royalties)



## International Marginal Tax Rates @ \$100/bbl Market Price Tax & Royalty Regimes



## Gold-Plating: HB 110 (Existing Units) vs. ACES (Pct. of Capex Paid by Producers After-Tax)



# Revenue Losses from Proposal?

- Initial revenue losses likely
- DOR's production forecast does not consider availability of capital
  - Very plausible that status quo production forecast is **too high**
- Very plausible that with lower taxes there will be greater investment and production
  - Very plausible that production forecast under HB 110 is **too low**
- Cannot compare revenues between taxes using the same number of barrels