

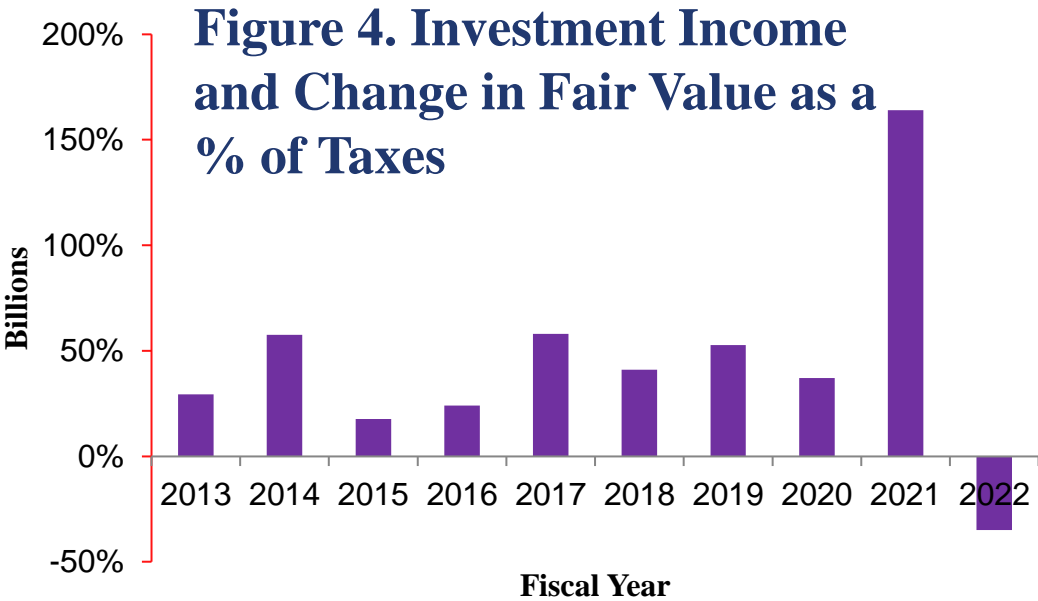
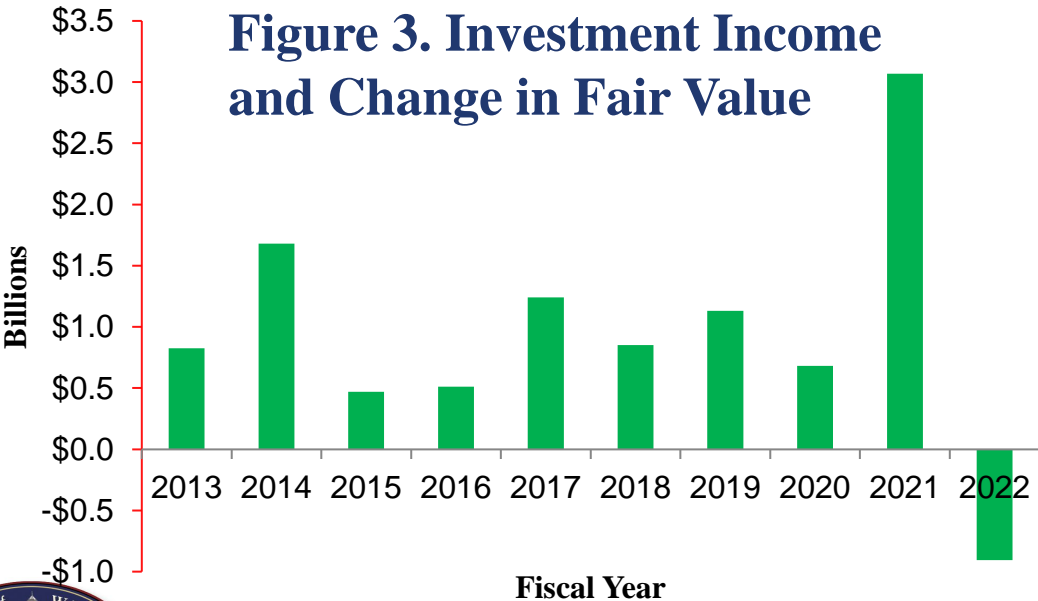
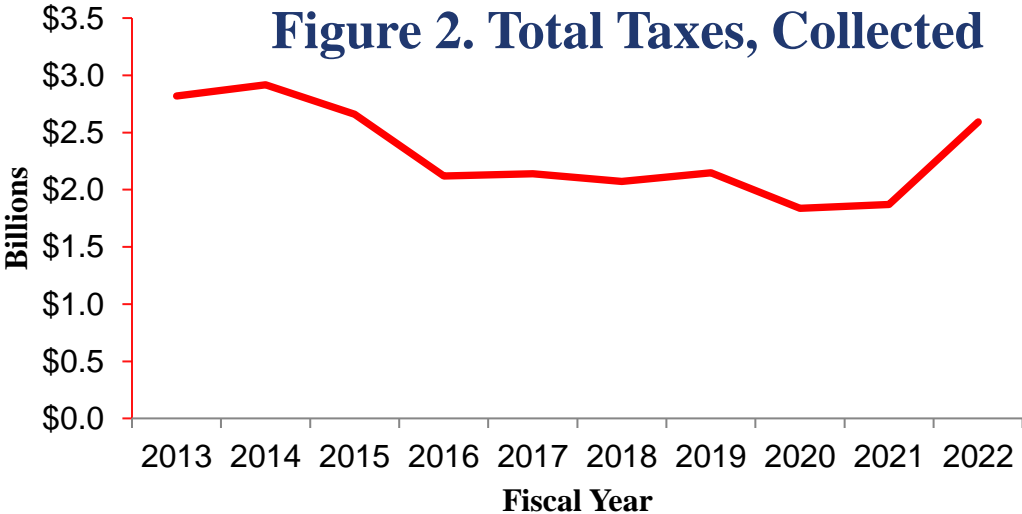
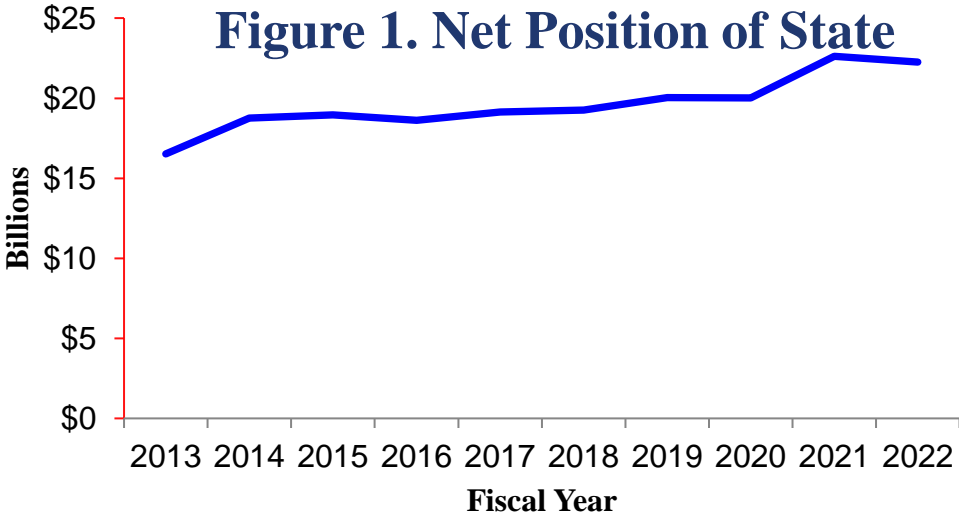
Wyoming's Reliance on Mineral Revenue and Associated Volatility



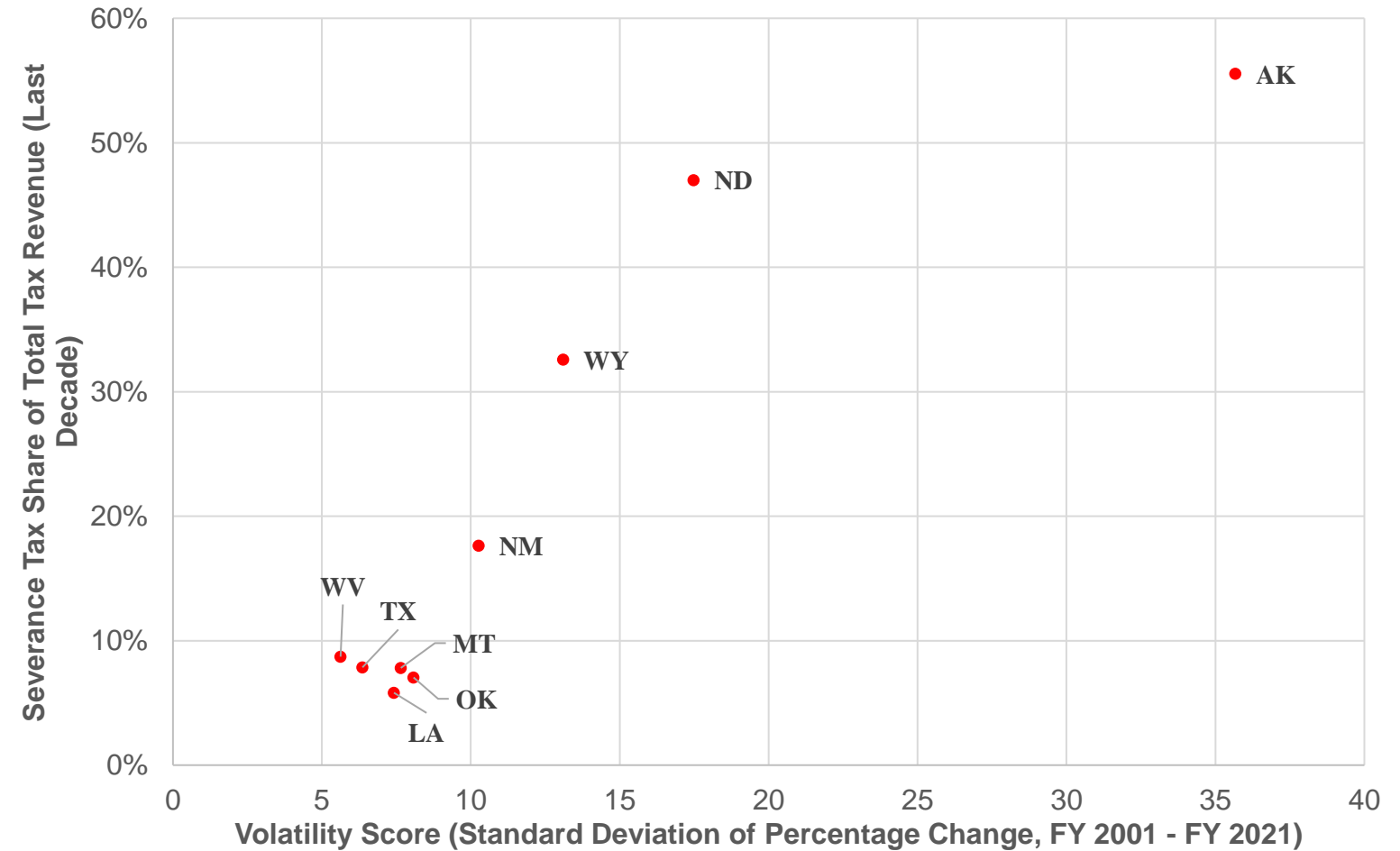
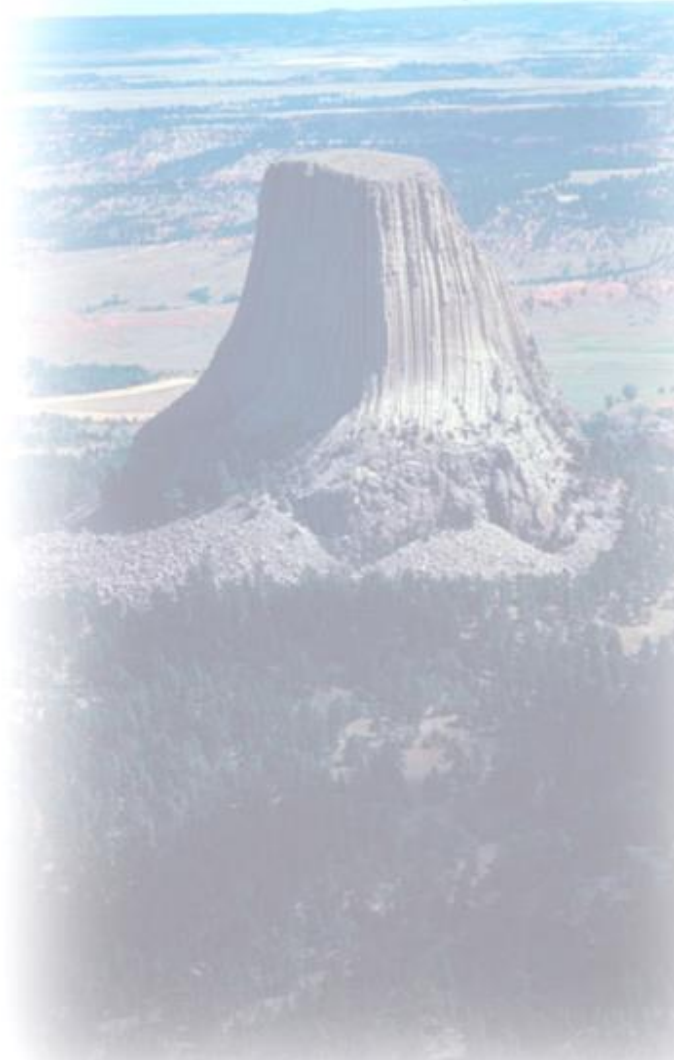
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An Enviably Balance Sheet with Volatile Revenue



Revenue Volatility



Source: LSO analysis of “Tax Revenue Volatility” prepared by Pew Charitable Trusts, data published January 19, 2023.



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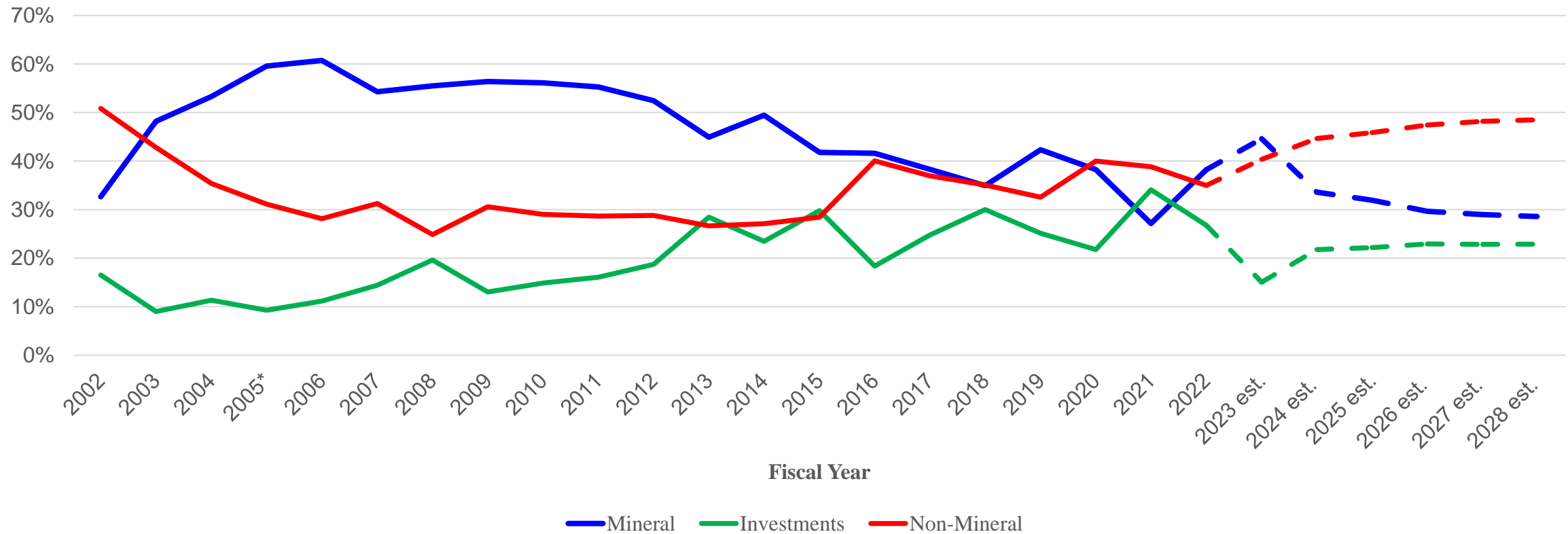
Slide 3

Mineral Contributions to Wyoming's Tax Base

- **Severance Taxes:** 2-6.5% of production value, depending upon mineral
- **Ad Valorem Taxes:** approximately 5.5-6% of production value, location dependent
- **Federal Royalties:** state share of 12.5-16.67% of production
- **State Royalties:** typically 16.66% of production
- **Lease Bonus Payments:** e.g., between 1990 and 2018, coal lease bonus payments provided nearly \$2.4 billion for K-12 schools, and \$0.3 billion to highways, community colleges, and local governments.
- **Sales and Use Taxes on Purchases:** 5-6%, location dependent
- **Fuel Used on Roads:** \$0.24/gal



Historical Mineral Contribution General Operating Budgets



Source: LSO analysis of historical CREG and DOR data.

*Note: 2005 industry level sales and use tax data not available; therefore, estimate is applied.



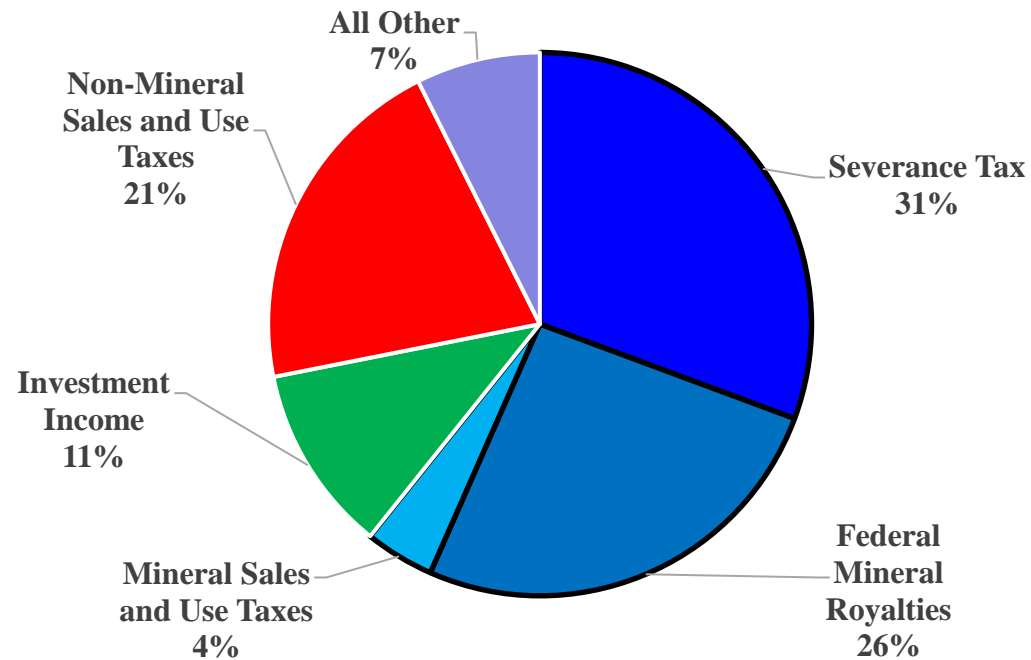
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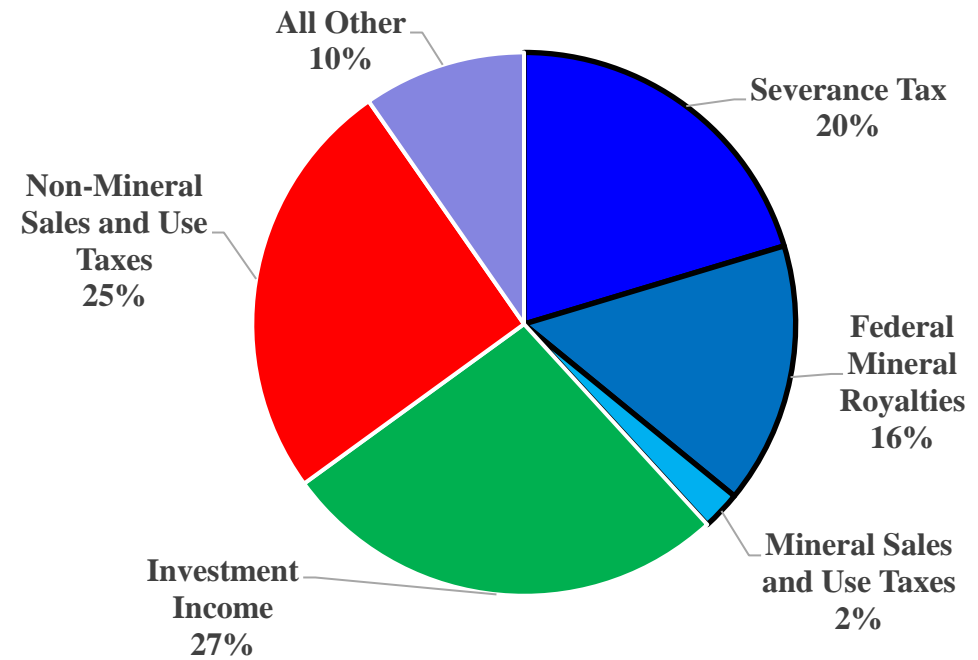
Slide 5

Direct Contributions of Minerals to Wyoming General Revenues

2006 Mineral Contribution to General Operating Revenues

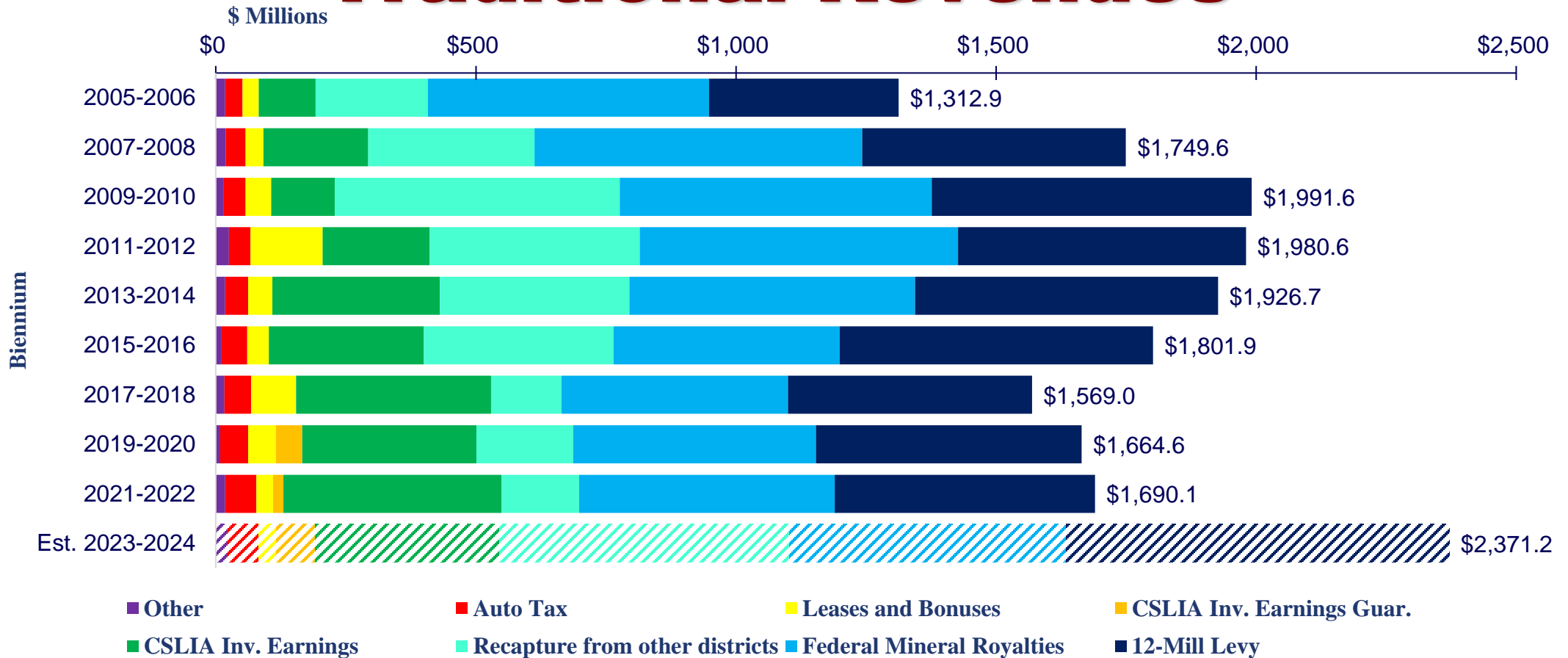


2022 Mineral Contribution to General Operating Revenues



School Foundation Program (SFP)

Traditional Revenues



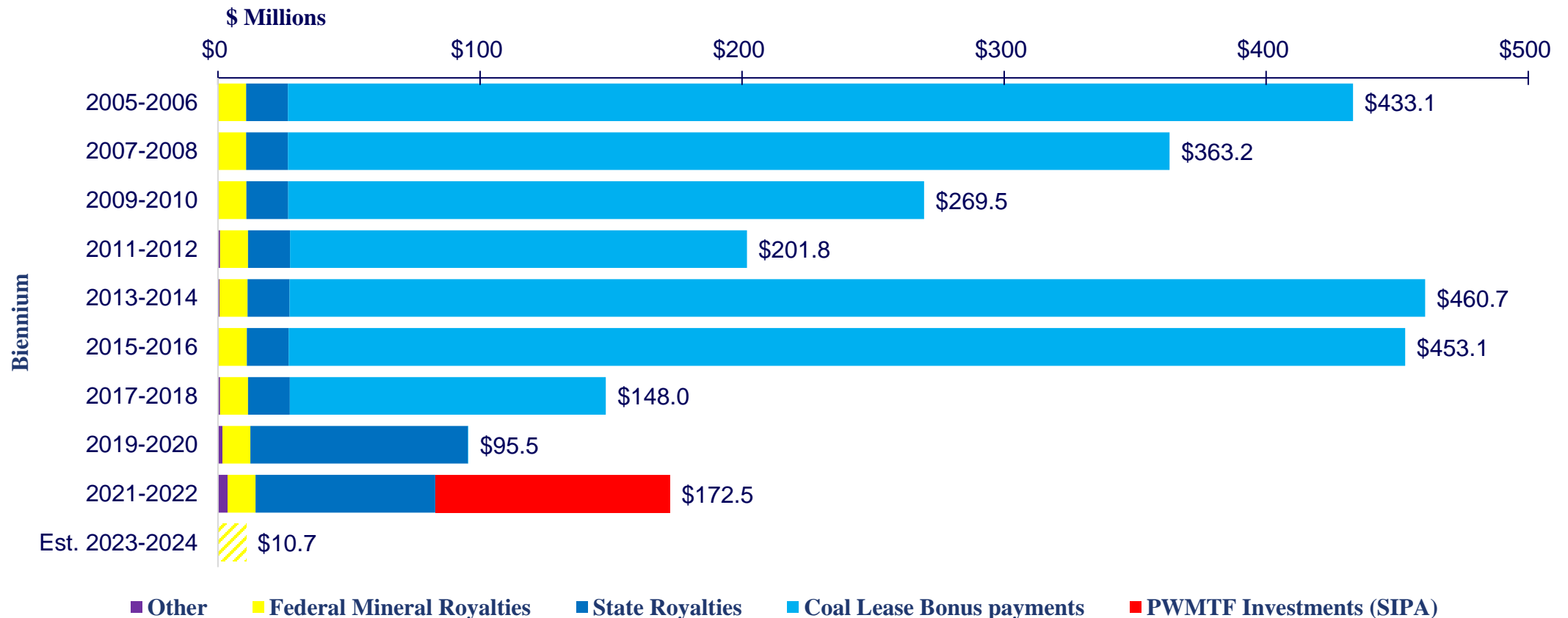
Source: LSO analysis of historical data and January 2023 CREG data.

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School Capital Construction Account (SCCA) Traditional Revenues



Source: LSO analysis of historical data and January 2023 CREG data.

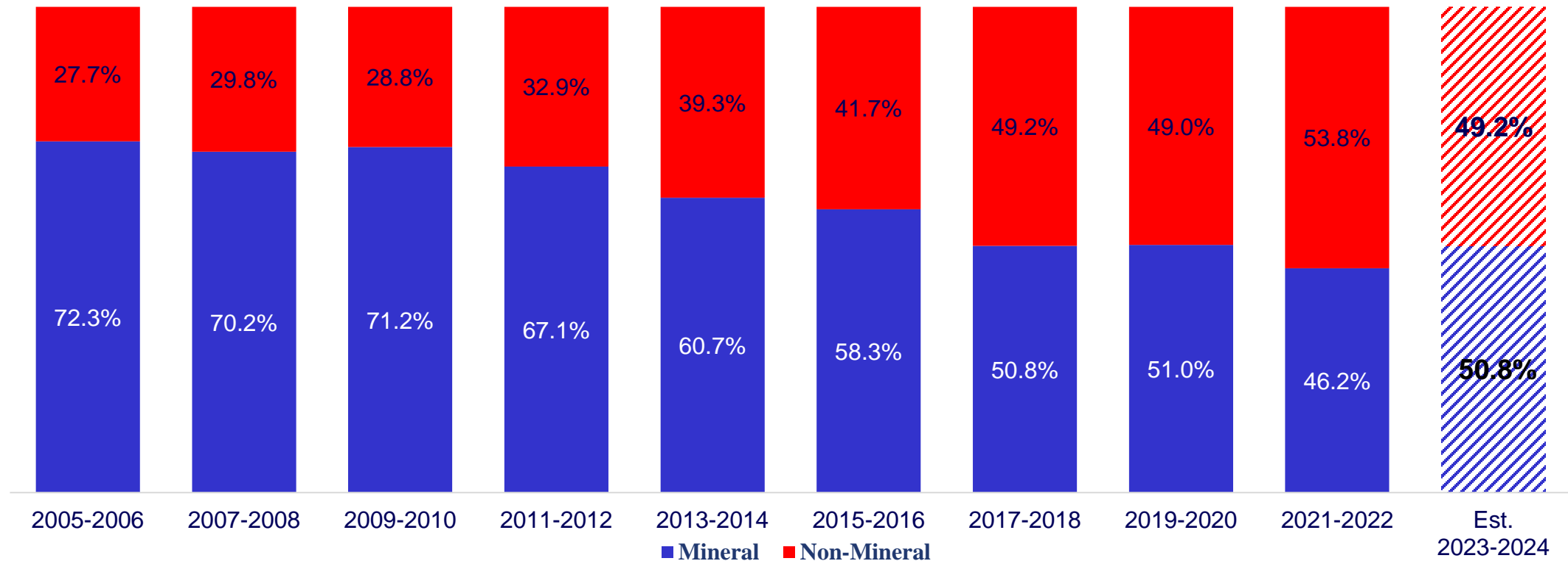


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Slide 8

History of SFP Revenues from Minerals and Non-Minerals



Source: LSO estimate, analysis and calculations. Minerals include: FMRs, CLIA state leases and bonuses related to minerals, and proportional share of assessed valuation for state 12-mill and school district recapture revenue

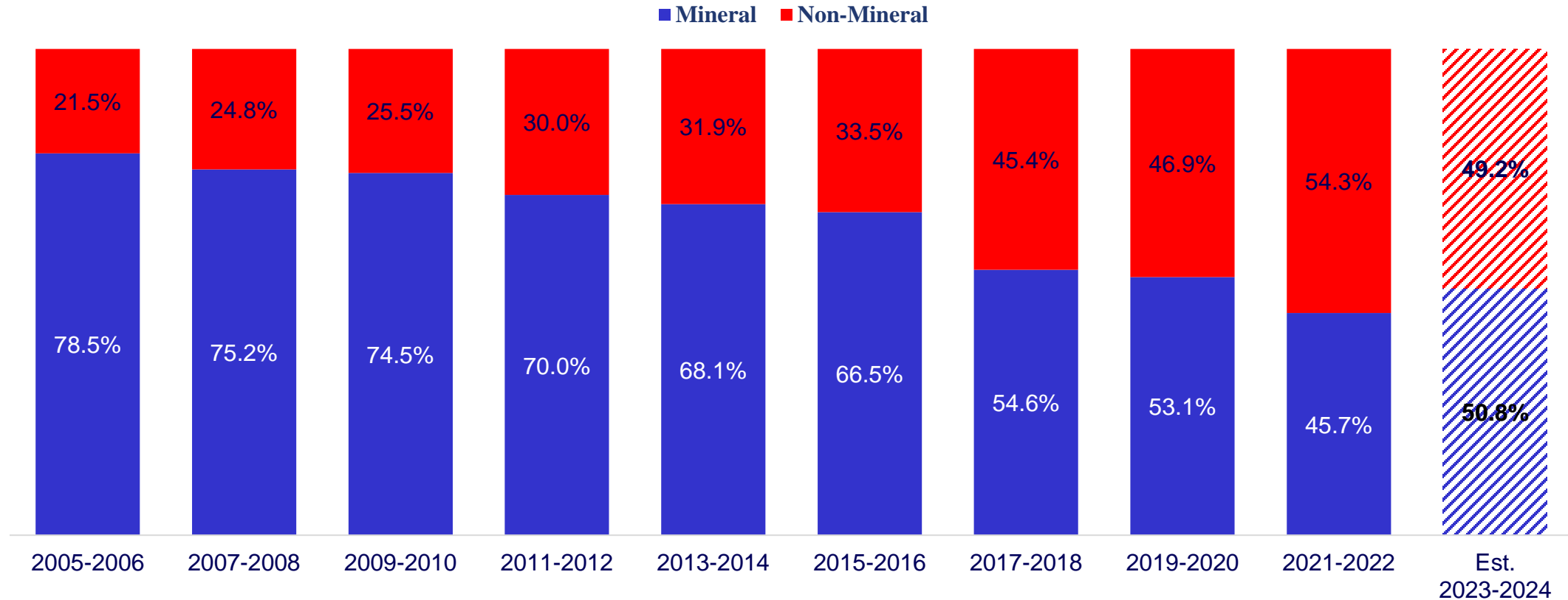


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History of SFP/SCCA Revenues from Minerals and Non-Minerals



Source: LSO estimate, analysis and calculations. Minerals include: FMRs, CLBs, state royalties, CLIA state leases and bonuses related to minerals, and proportional share of assessed valuation for state 12-mill and school district recapture revenue

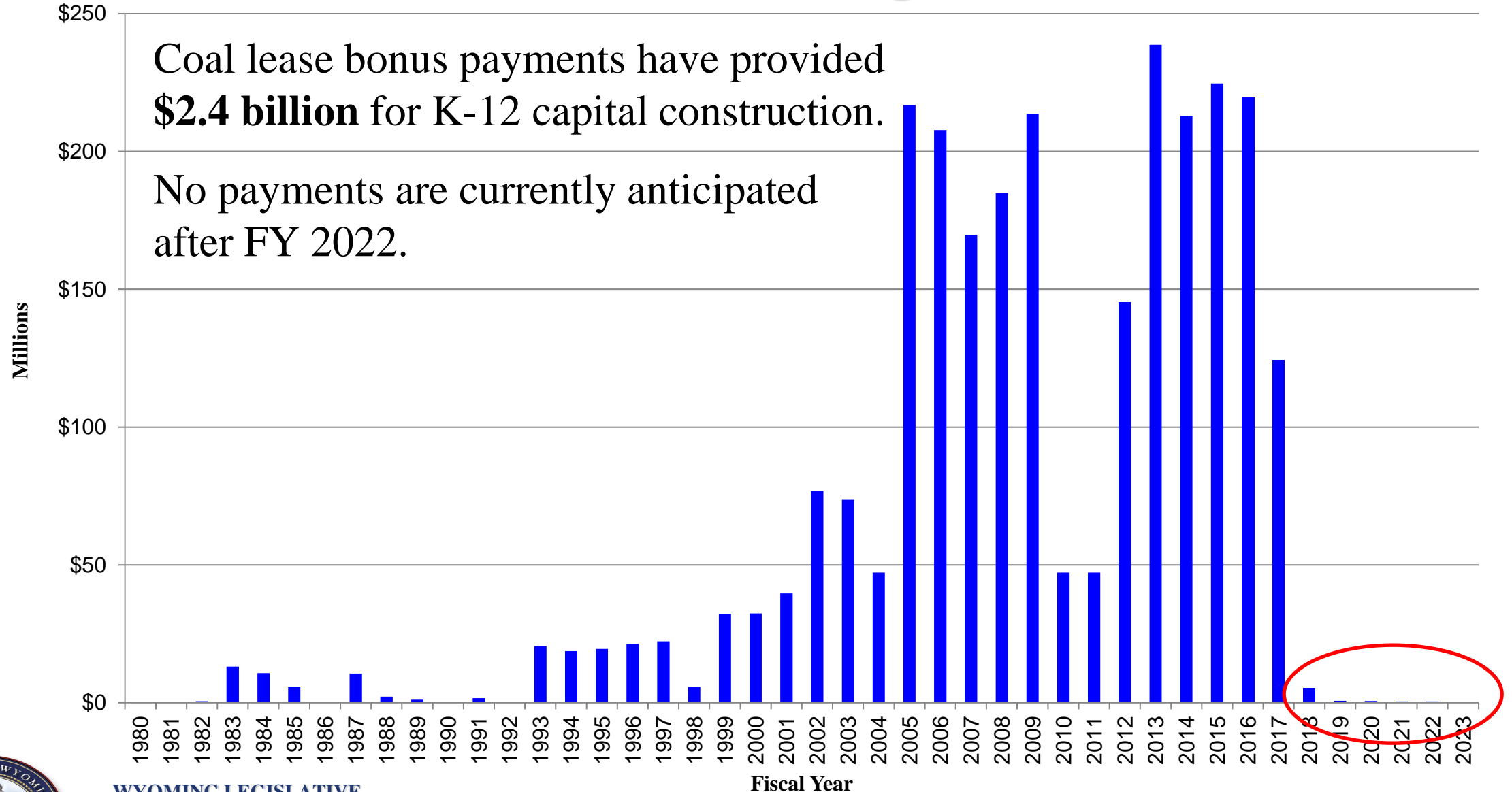


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Coal Lease Bonuses: “Canary in the Coal mine?”



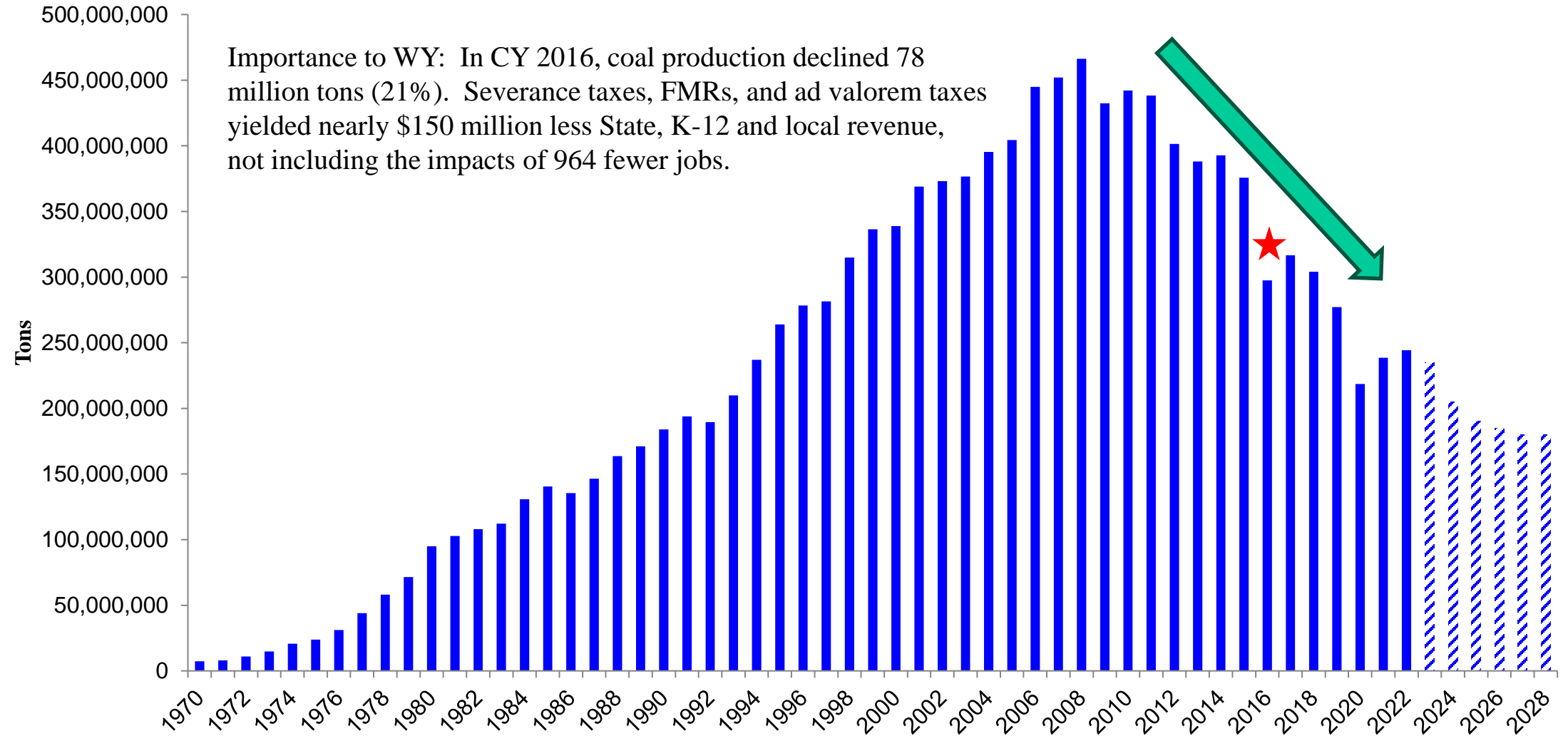
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Coal Production



Source: Wyoming State Inspector of Mines (1970-2022); CREG forecast (2023-2028).

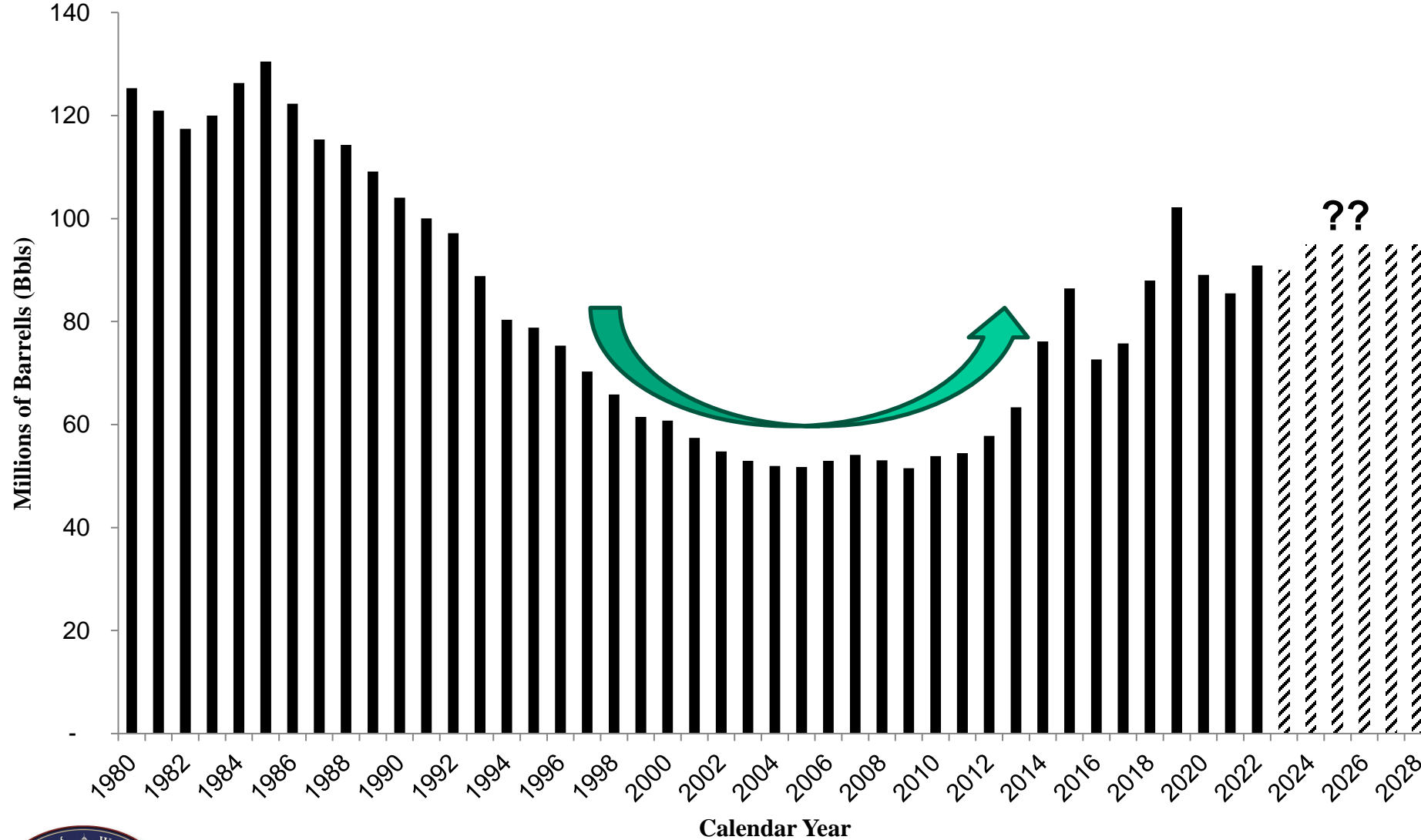
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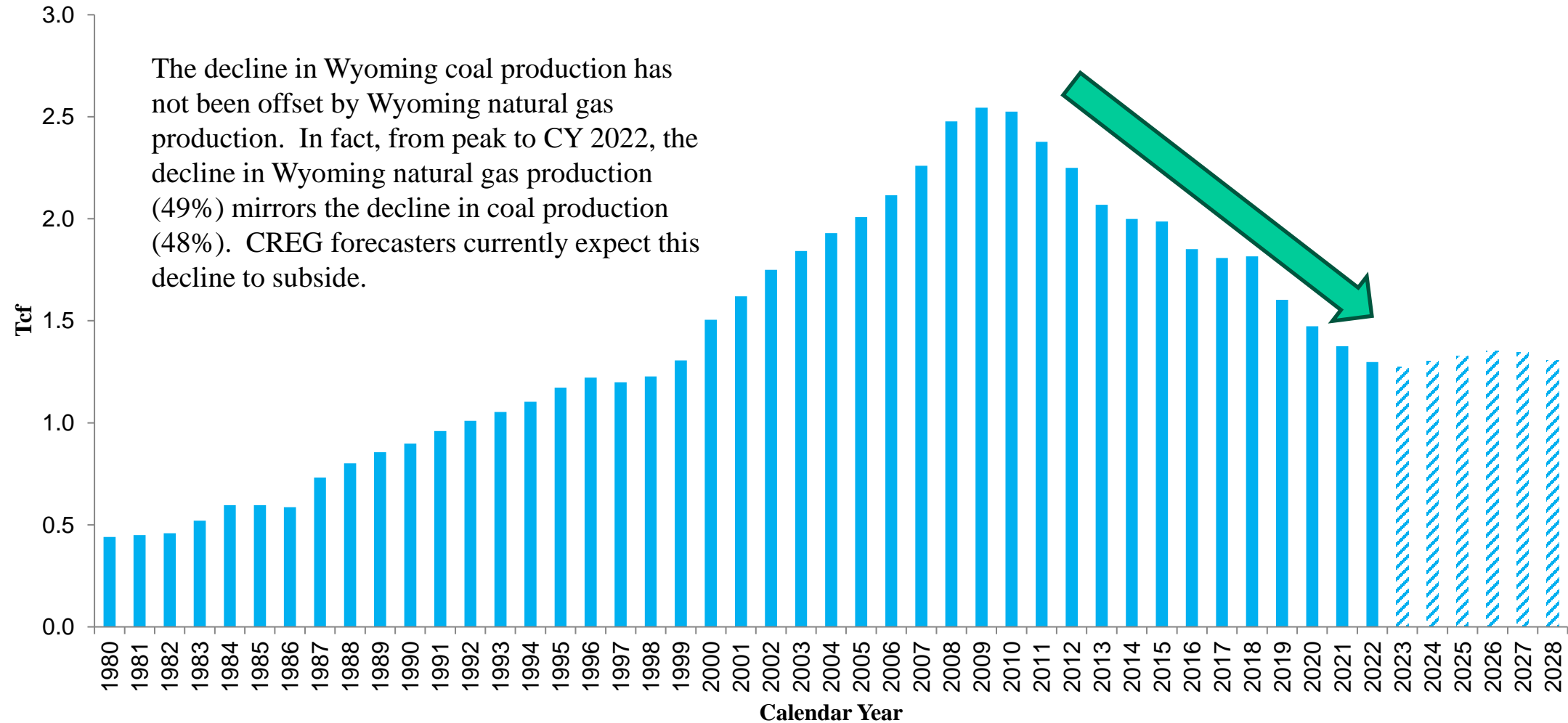
Slide 12



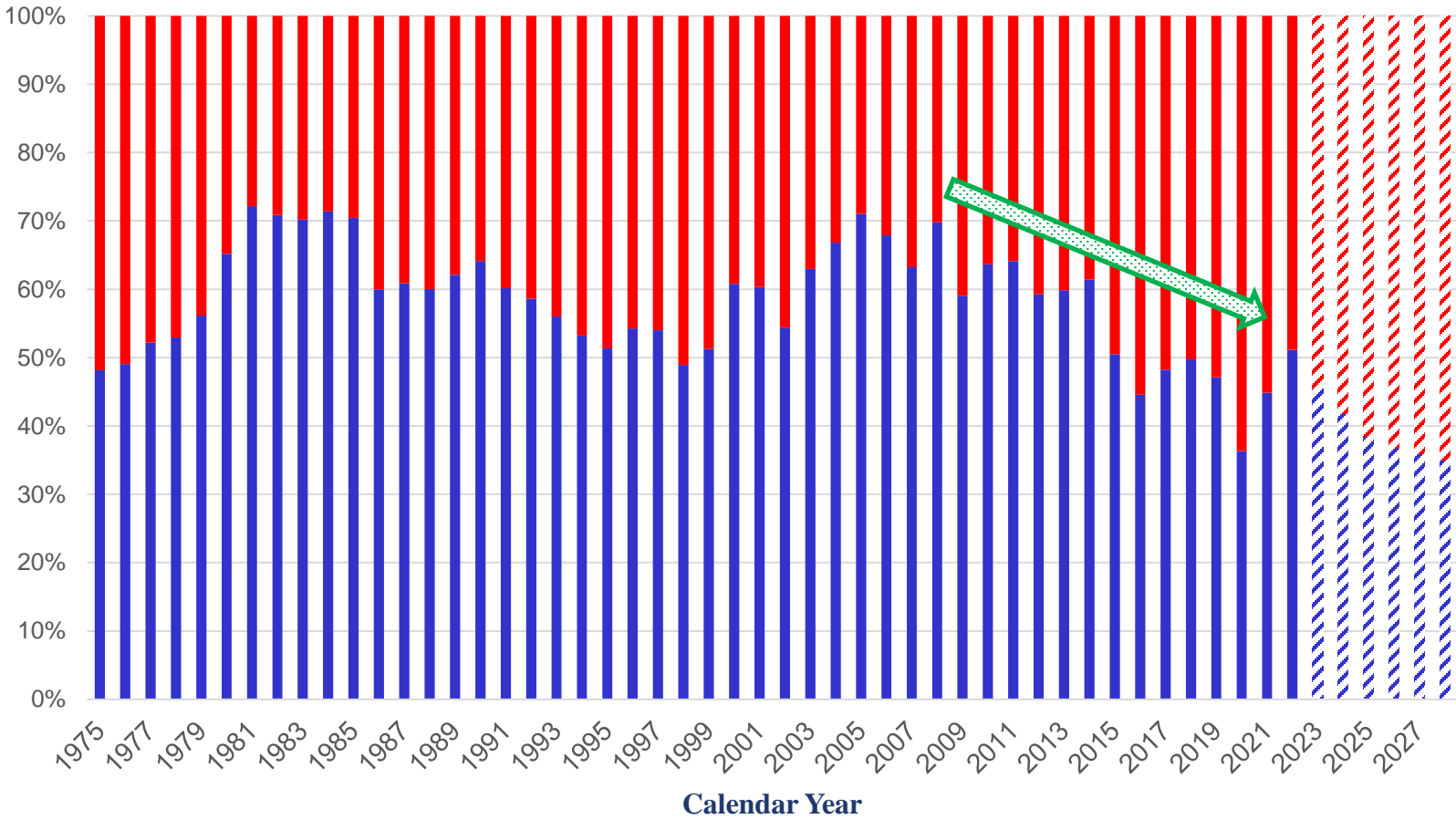
Oil Production



Natural Gas Production



Mineral vs. Non mineral Assessed Values



Source: January 2023 CREG historical data and CREG forecast (2023-2028).

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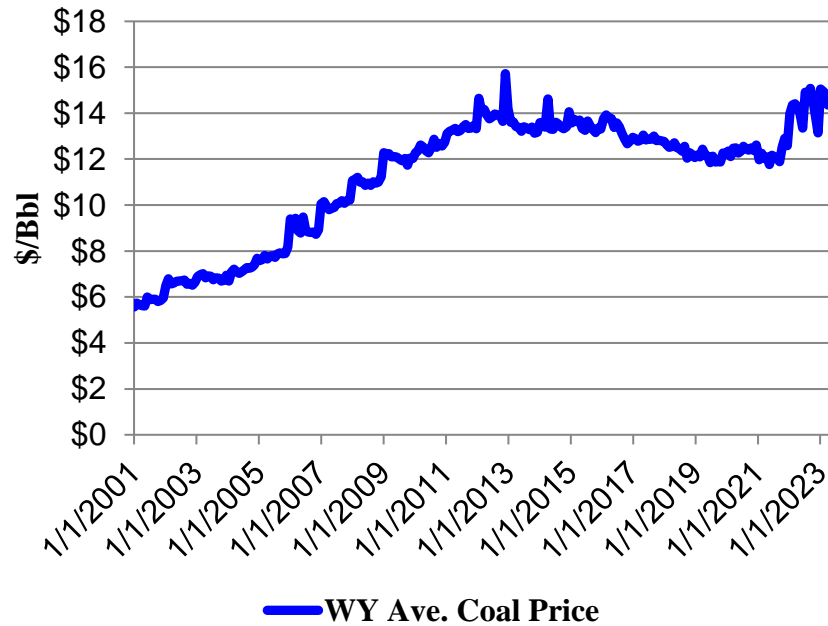
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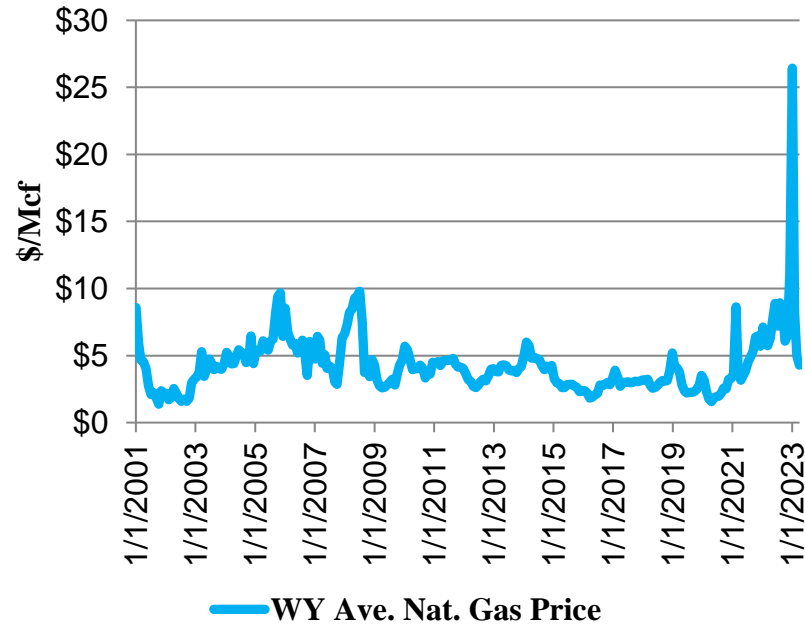


Pricing Characteristics

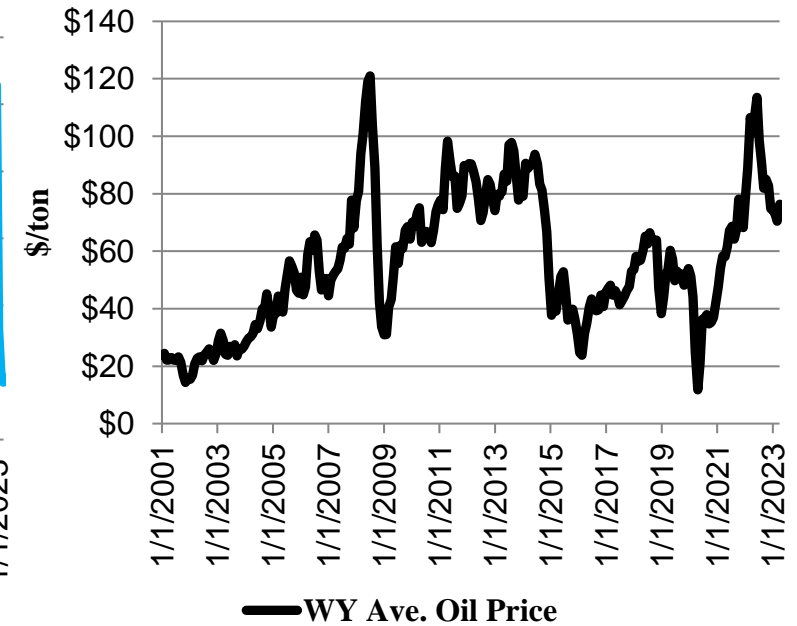
Monthly Ave. WY Coal Price



Monthly Ave. WY Nat Gas Price



Monthly Ave. WY Oil Price



Source: January 2023 CREG data.

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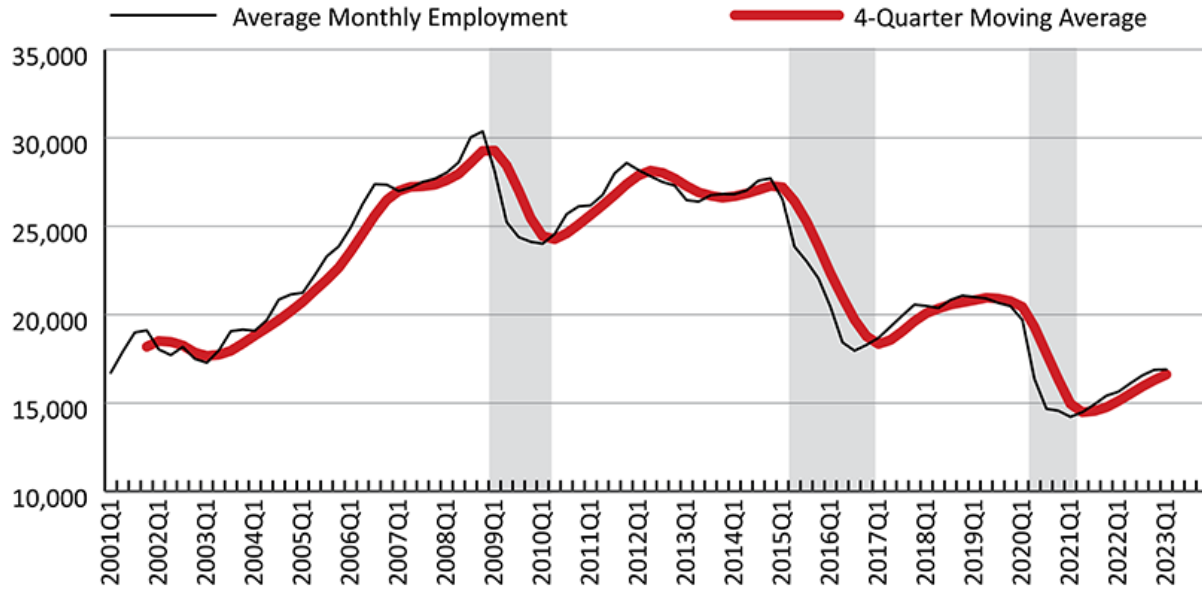
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Additional Contributions

Average Monthly Employment in Mining, including Oil & Gas



- Not included:
 - Directly related industries: railroad, power generation
 - Indirect impacts: mining firm expenditures in the state
 - Induced impacts: mining household expenditures in the state

Wyoming Labor Market Information, Department of Workforce Services

- Approximately \$1.7 billion in mining wages, ~11%
- Wyoming mining accounted for \$6.5 billion (16%) in 2021 Wyoming GDP; down from \$16.2 billion (38%) in 2008.



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Peabody

(Results for Quarter Ended June 30, 2023)

Powder River Basin	Quarter Ended						Six Months Ended			
	Jun.		Mar.		Jun.		Jun.		Jun.	
	2023		2023		2022		2023		2022	
Revenue per Ton	\$	13.71	\$	13.89	\$	12.44	\$	13.80	\$	12.30
Costs per Ton		12.33		12.26		12.55		12.28		12.16
Adjusted EBITDA Margin per Ton	\$	1.38	\$	1.63	\$	(0.11)	\$	1.52	\$	0.14



Top 15 Mineral Taxpayers - 2008

2008 Mineral Production Company	Example, New Major Operator(s)
1. Encana Oil & Gas	Jonah Energy
2. BP America	Williams / Crowheart
3. Ultra	PureWest Energy
4. Powder River Coal (Peabody)	
5. Thunder Basin Coal (Arch)	
6. Lance Oil & Gas Company	Vanguard Natural Resources
7. Royal Dutch Shell	Ultra -> PureWest Energy
8. Marathon Oil	Merit Energy
9. Devon Energy Production	Denbury, Kentex Worland, Devon Energy Production
10. Questar Exploration & Production (QEP)	Dominion Resources
11. Anadarko E&P	FDL, Oxy
12. Merit Energy	
13. Williams Production	
14. Chevron USA	Hilcorp
15. Foundation Coal West	Alpha Natural Resources -> Blackjewel -> NTEC



Top 15 Mineral Taxpayers - 2021

2021 Mineral Production Company

1. EOG Resources, Inc.
2. Ultra Resources, Inc.
3. Jonah Energy, LLC.
4. Thunder Basin Coal Company LLC (Arch)
5. Devon Energy Production
6. Peabody Powder River Mining, LLC
7. Chesapeake Operating, LLC
8. FDL Operating, LLC
9. Merit Energy Company
10. Anschutz Exploration Corporation
11. Navaho Transitional Energy Co. LLC ("NTEC")
12. Exxon Mobil Corp
13. Crowheart Energy, LLC
14. Anadarko E&P Onshore LLC
15. Hilcorp Energy Company

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Slide 20



Estimated Total Annual Revenue *for Spending* from Extractive Industries at *State Level*

- ~\$780 million for general operations of government (FY2022)
- ~\$465 million for K-12 (FY2022)
- **TOTAL: ~\$1.24 billion**
 - ~\$2,100 per capita
 - ~\$5,400 per household
 - ~\$25 billion @ 5% return



Legislative Responses to Declining and Volatile Mineral Taxes

- Second largest rainy day fund; approx. 1 year operations
- Spending policies for reliable investment income
- Budget reductions
- Increase fuel, license, and registration fees, removing both Dept of Transportation and Game and Fish from state General Fund
- Imposition of state lodging tax, removing Board of Tourism from state General Fund
- Redirection of investment income
- Trade-off savings vs. spending (state royalties and one-percent severance tax)



Takeaways / Problem Statement

- Wyoming tax structure, and thus, government and school district operations rely heavily on mineral extraction. (historical foundation of exporting tax base)
- Two of the three main mineral resource revenue have declined precipitously in the last 15 years. The third has among the most volatile pricing characteristics and just recently has arrested its decline.
- Transition of this magnitude will require time.

