



Coal Severance Tax Forecasting

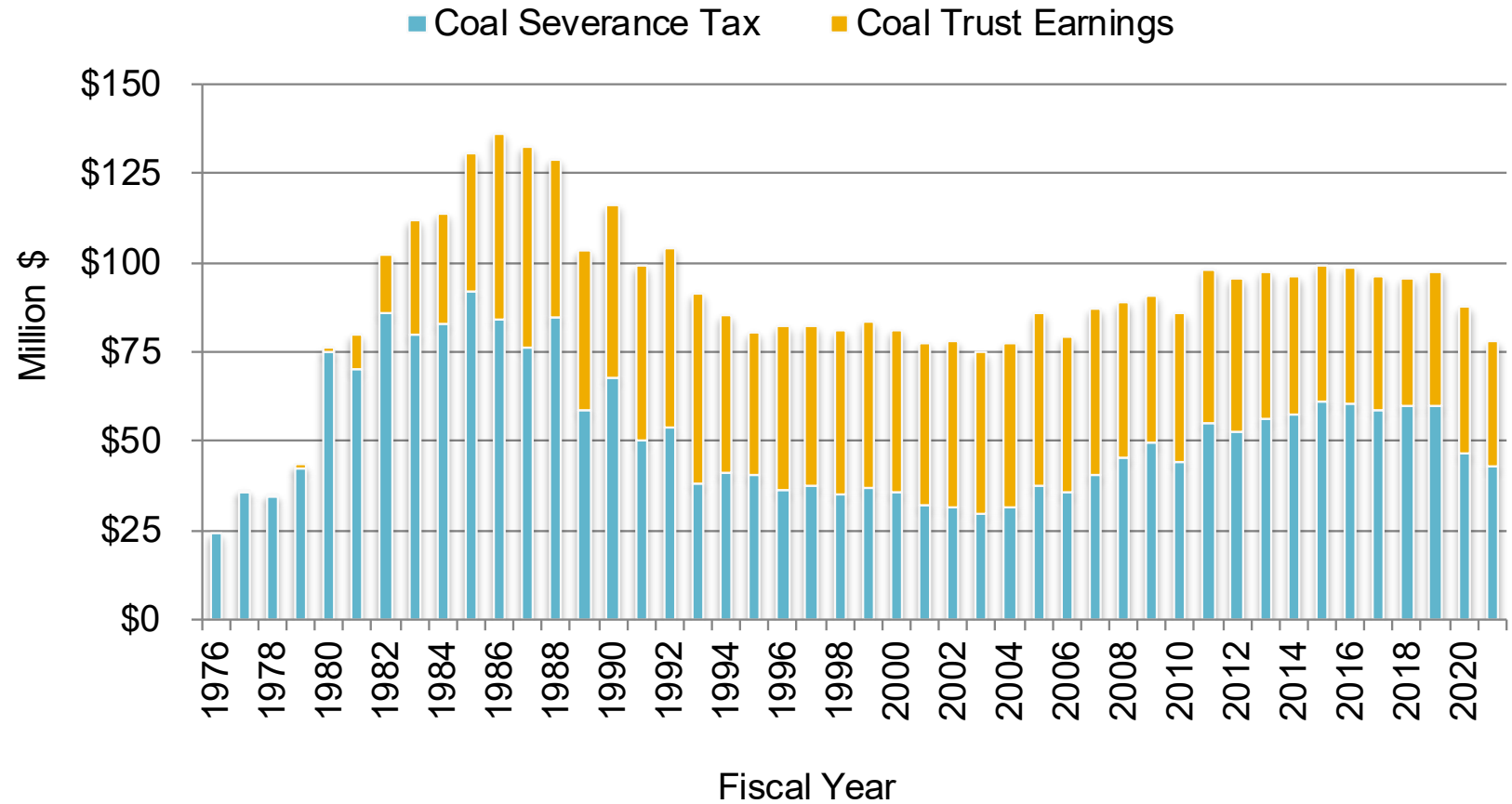
Revenue Interim Committee

September 23, 2021

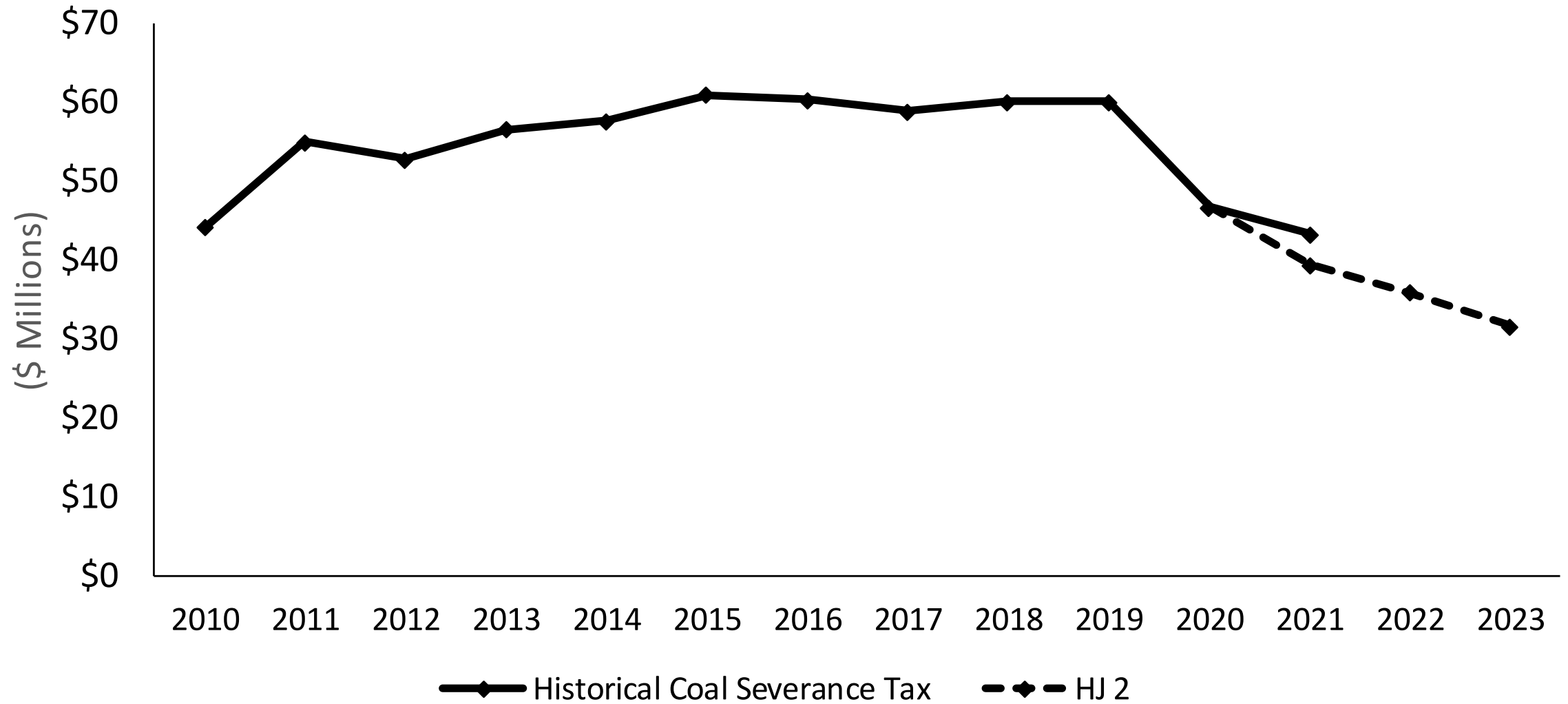
Historical Revenues

- Coal severance tax collections peaked at \$92 million in FY 1985.
- Trust interest earnings peaked at \$56 million in FY 1987.

Coal Trusts Earnings and Severance Tax Revenue



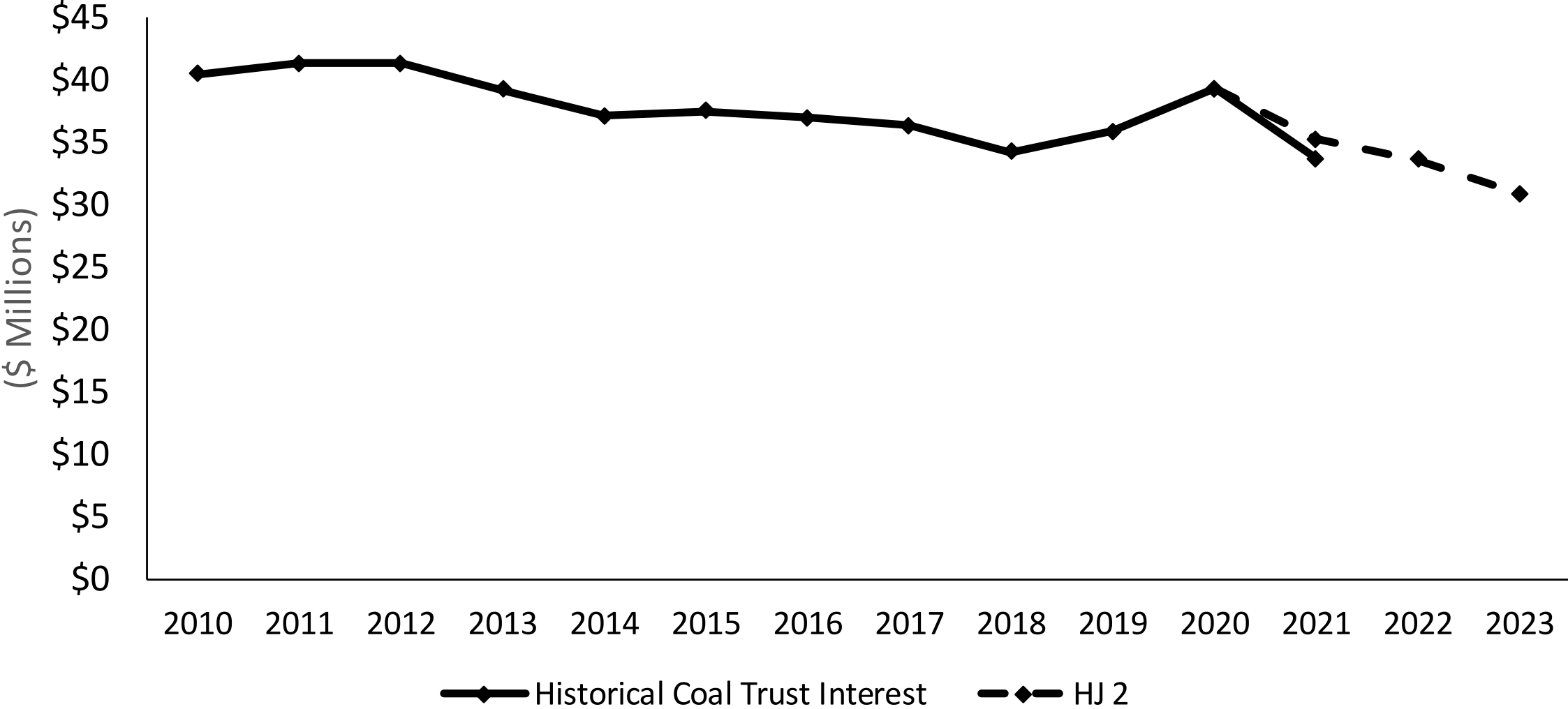
Historical Coal Severance Tax Collections & HJ 2



Forecasting Methodology: Severance Taxes

- Analyze recent production trends to forecast future production
 - Involves analyzing production trends for each mine individually
 - Individual mine's production forecasted based on recent trends as well as available reports on mine/coal plant closures
 - For example, the closure of Colstrip Units 1 & 2 decreased demand for the Rosebud mine by approximately 30%. Without a new consumer, production is expected to decline at the Rosebud mine.
 - Recent price trends are applied to forecasted production and applicable tax rates are applied to generate a tax estimate.

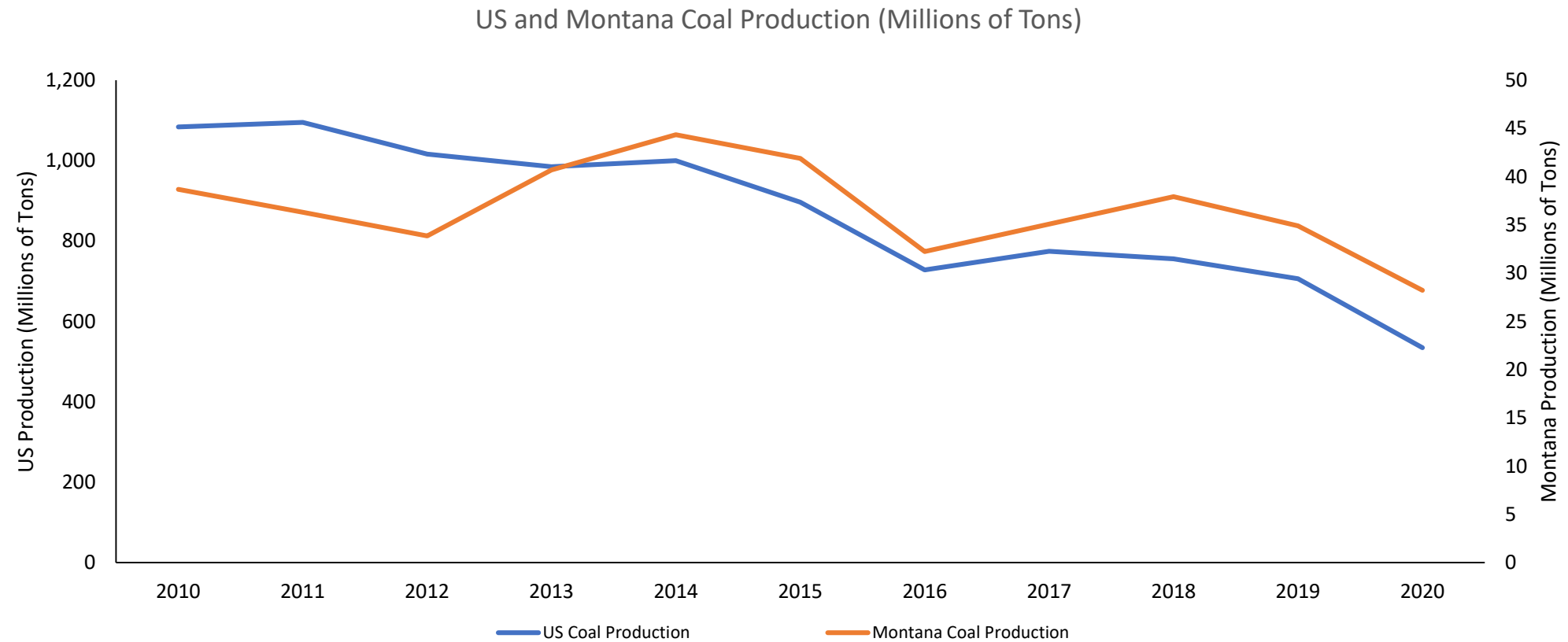
Historical Coal Trust Interest Earnings & HJ 2



Forecasting Methodology: Trust Earnings

- Use severance tax distribution forecasts to estimate future trust balances.
- Use annual yield estimates from the Montana Board of Investments (BOI) to predict a return on the trusts' investments.
- Annual yield estimates are then applied to forecasted trust balances to produce an estimate for interest earnings.

Recent production decline in Montana follows a decade-long decline domestically



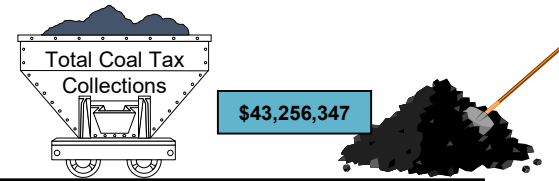
Source: US Coal production data is available at the US Energy Information Administration

Recent Trends

- US coal production data through 2020 declined 50% compared to 2010 levels.
- Declining production trend was accelerated in 2020 as the COVID-19 pandemic slowed global demand for coal.
- Already decreasing trend caused by the closure of coal plants domestically, coupled with competing electrical generating sources such as natural gas and renewables becoming cheaper.
- Montana coal production has declined 27% (3.1%/year) over the last decade.
- Decline likely to continue, though difficult to determine at what rate.

Effective July 1, 2021

Dollars are FY 2021 Actual Amounts*



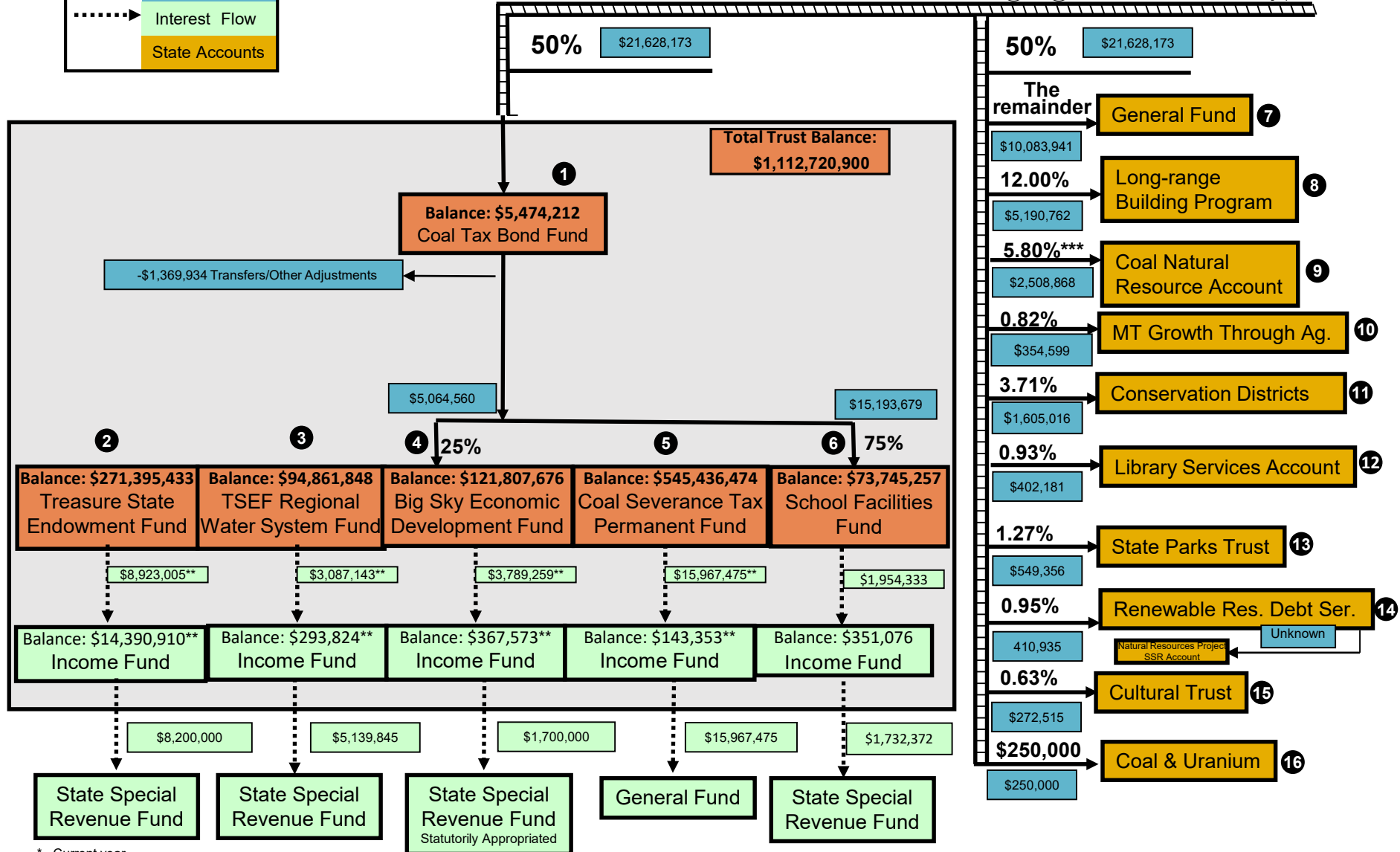
Coal Severance Tax Trust

See narrative

Coal Tax Flow

Interest Flow

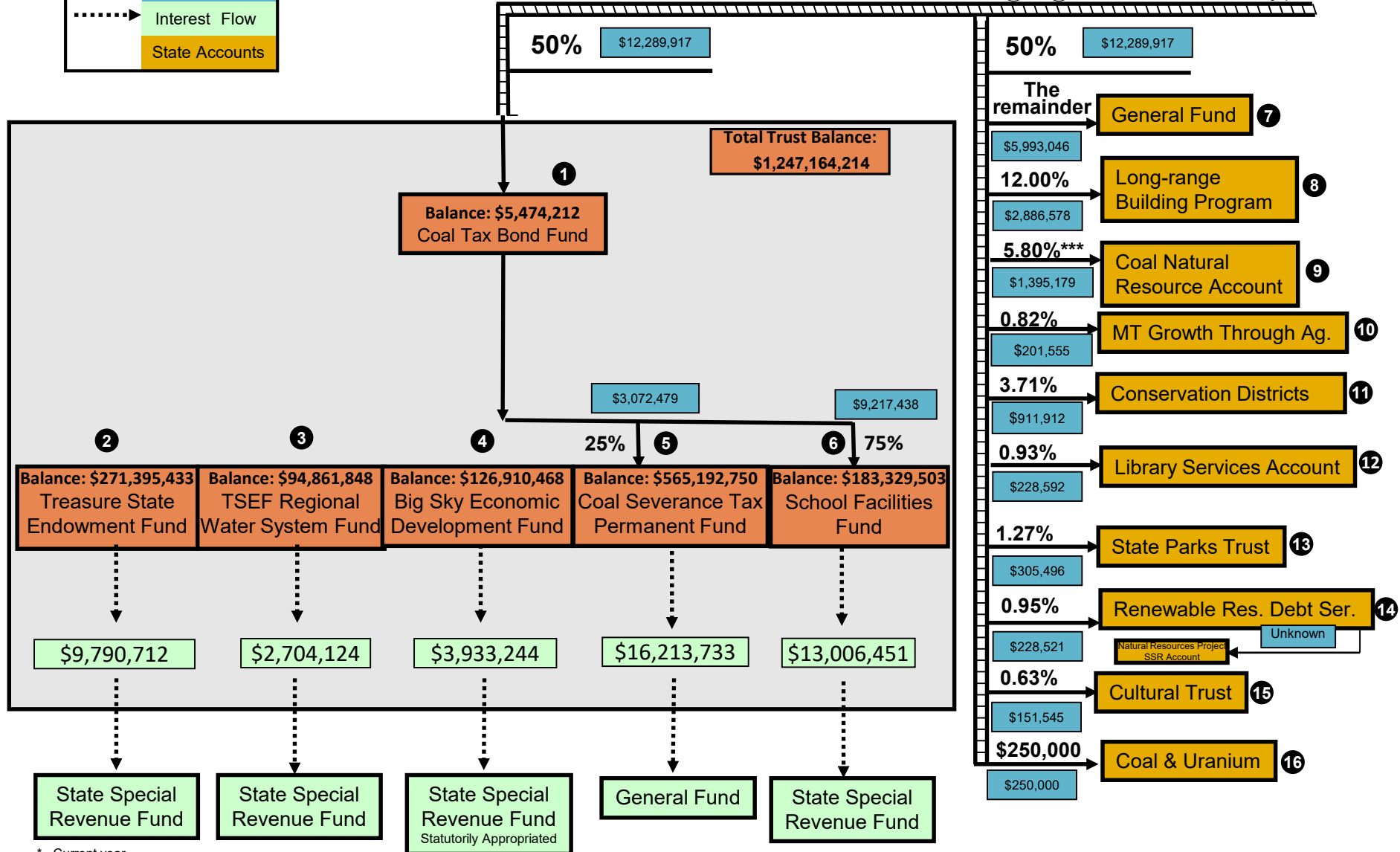
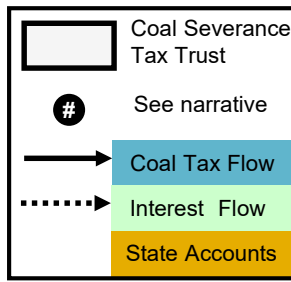
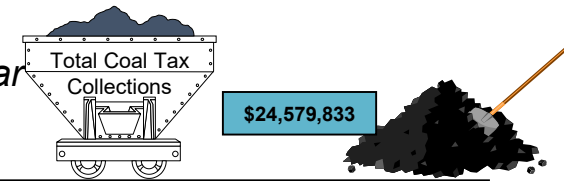
State Accounts



* Current year
 ** Excludes unrealized investment gains and losses
 *** Set to decrease from 5.80% to 2.90% FY 2024

Effective July 1, 2031

Assume MT coal production declines at ~4% per year



* Current year
 ** Excludes unrealized investment gains and losses
 *** Set to decrease from 5.80% to 2.90% FY 2024

	FY 2021	FY 2031 (Forecast)	FY 2031 (2021 Dollars)	Difference
Trust Earnings				
Treasure State Endowment Interest	\$8,923,005	\$9,790,712	\$7,756,891	(1,166,114)
Regional Water System Interest	3,087,143	2,704,124	2,142,397	(944,746)
Big Sky Economic Development Interest	3,789,259	3,933,244	3,116,193	(673,066)
Permanent Fund Interest (General Fund)	15,967,475	16,213,733	12,845,661	(3,121,814)
School Facilities Interest	1,954,333	13,006,451	10,304,626	8,350,293
Total Trust Earnings	<u>33,721,215</u>	<u>45,648,264</u>	<u>36,165,769</u>	<u>2,444,554</u>
Severance Tax Distributions				
General Fund	\$10,083,941	\$5,993,046	\$4,748,113	(5,335,828)
Long-Range Building	5,190,762	2,886,578	2,286,950	(2,903,812)
Coal Natural Resource Account	2,508,868	1,395,179	1,105,359	(1,403,509)
MT Growth through Agriculture	354,599	201,555	159,686	(194,913)
Conservation Districts	1,605,016	911,912	722,481	(882,535)
Library Services Account	402,181	228,592	181,107	(221,074)
State Parks Trust	549,356	305,496	242,035	(307,321)
Renewable Resources Debt Service	410,935	228,521	181,050	(229,885)
Cultural Trust	272,515	151,545	120,065	(152,450)
Coal & Uranium	250,000	250,000	198,068	(51,932)
Total Severance Taxes	<u>\$21,628,173</u>	<u>\$12,552,424</u>	<u>\$9,944,914</u>	<u>(11,683,259)</u>