

# MINERALS: AMERICA'S STRENGTH

Minerals provide the raw materials required for nearly every industry and consumer product, feeding our manufacturing, defense, medical and energy supply chains. They inspire the innovation of new technologies, and are vital to our national security. They propel our economy and enable America to compete globally.

## Mineral Facts

**Minerals** – The technologies that define innovation today all depend on a growing number of minerals. The World Bank estimates that mineral demands could grow 500 to 1,000 percent by the year 2050 to meet the demands from wind, solar and geothermal power, and energy storage technologies.

- **Jobs** – 1.4 million American jobs are supported by minerals mining. 498,000 people are directly employed, and 881,000 are indirectly employed.
- **Wages** – A job in U.S. metals mineral mining is one of the highest paying in the private sector with an average salary of over \$95,000 a year (68 percent higher than the combined average for all industrial jobs) and often climbing well above \$100,000 for experienced workers.
- **Value** – \$710 billion worth of processed mineral materials were used by sectors including construction, manufacturing and agriculture to add nearly \$3.0 trillion to the U.S. economy.

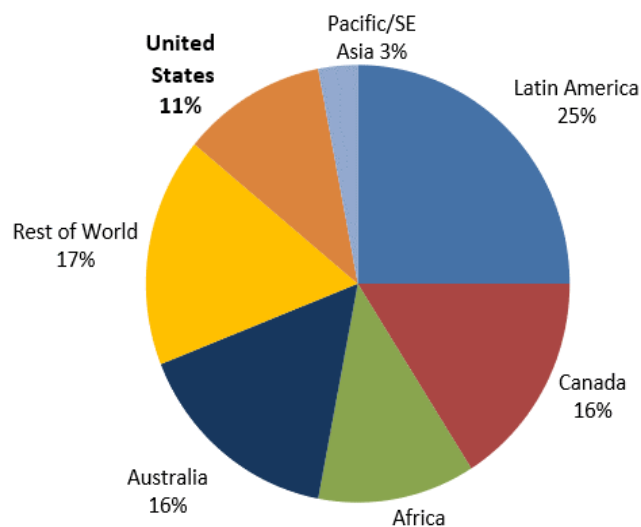
Despite the benefits provided by domestic minerals mining, the U.S. is not performing to its minerals potential. American manufacturers currently rely on foreign suppliers for more than half the minerals they use. Our ability to put our minerals to work is hindered by a costly and inefficient regulatory structure that thwarts investment and expansion.

## Consider:

- The percentage of worldwide exploration spending commanded by the U.S. for metals mining has dropped from 20 percent of total investments in 1993 to only 11 percent today.
- The U.S. is 100 percent dependent on imports for 17 different minerals and more than 50 percent import dependent for an additional 29 mineral commodities.

These trends are unsustainable in a highly competitive world economy where the growing demand for minerals and the need for supply stability is a growing concern. We need to address the length, complexity and uncertainty of the permitting process that is driving investment from U.S. shores. A duplicative permitting process that takes five to ten years to navigate puts the U.S. last among top mining countries when ranked on mining permitting delays.

## Declining U.S. Share of Worldwide Exploration Spending, 2020



Source: S&P Global, September 2020

## Selected Major Metals and Minerals Used in Electric Vehicles

Metal	Amount (lbs.)	Import Dependence
Iron & Steel	2,000	12%
Bauxite	400	75%
Copper	200	37%
Nickel	60	50%
Silicon	40	38%
Cobalt	30	76%
Zinc	22	83%



Sources: USGS; USGS Mineral Commodity Summaries 2021; Copper Development Association; Tesla; NMA research

## Permitting Solutions Under Consideration in Congress:

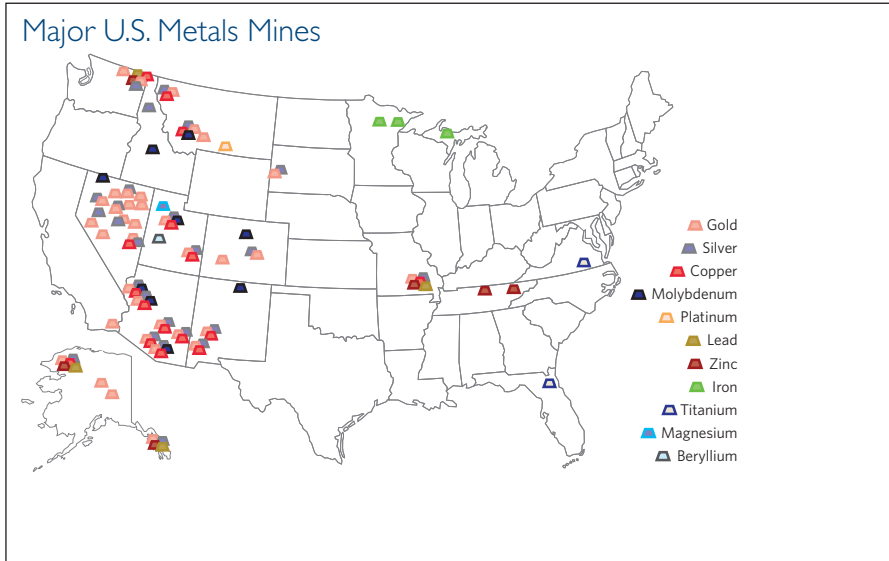
The Bipartisan American Minerals Security Act (S. 1317), the National Strategic and Critical Minerals Production Act (H.R. 2531), the Bipartisan Securing Energy Critical Minerals and American Jobs (H.R. 4481) and the American Critical Mineral Exploration

and Innovation Act (H.R.7061), were introduced in the 116th Congress. These important pieces of legislation address the pitfalls of our current outdated and underperforming system by supporting and promoting U.S. mineral independence and federal agency accountability by minimizing duplication and establishing firm time-frames for the permitting process and making investments in necessary research, development, demonstration and commercial

application for secure and sustainable supply of minerals for national security, economic well-being and industrial production. Prioritization of our nation's domestic minerals production and supply chain will position the U.S. to capitalize on our mineral wealth while never shortchanging environmental standards.

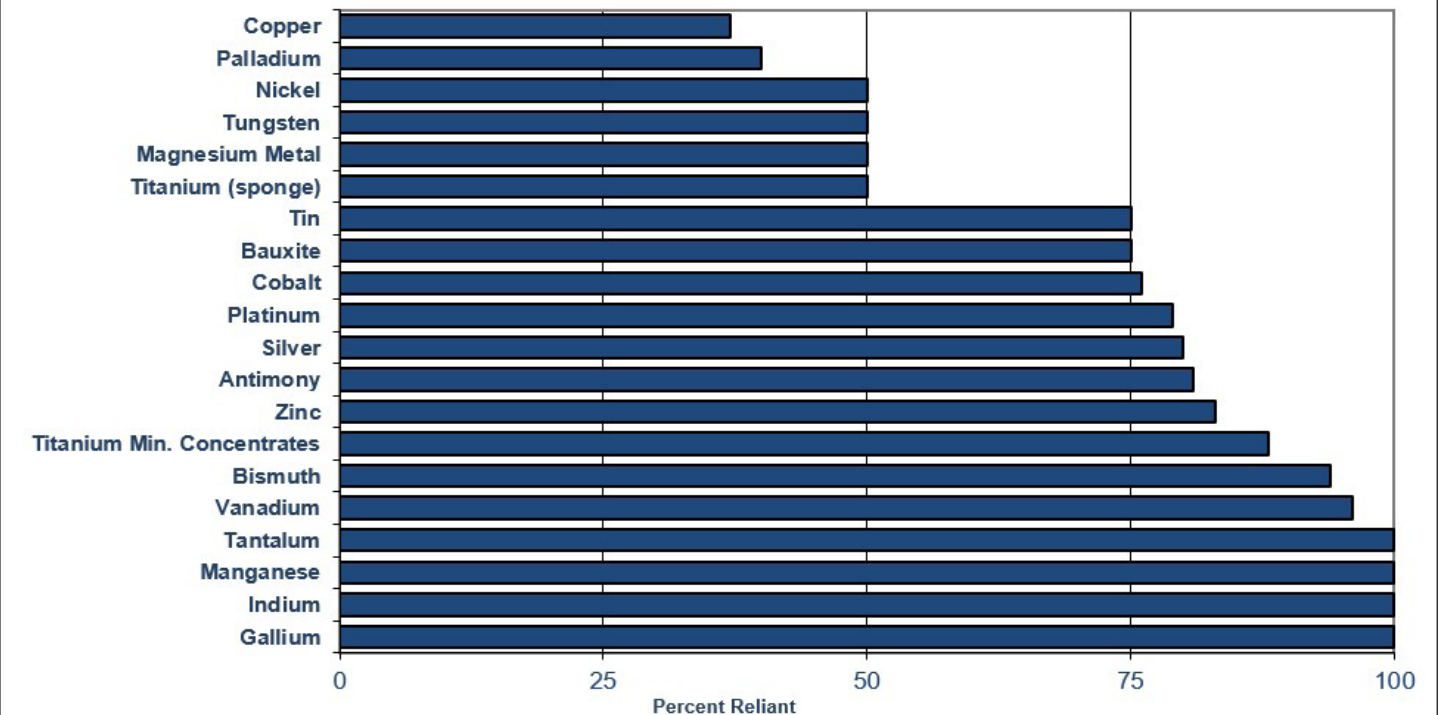
## Economic Recovery

To ensure our economic recovery, we must address our mineral import reliance and the vulnerabilities that exist in our mineral supply chains. Securing U.S. supply chains can boost the economy while creating high-paying jobs.



Source: U.S. Geological Survey (USGS)

## Selected Critical Minerals U.S. Net Import Reliance, 2020



Source: USGS Mineral Commodity Summaries 2021