

Periodic graphics

A collaboration between C&EN and Andy Brunning, author of the popular graphics blog **Compound Interest**

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THE COMPOSITIONS OF U.S. COINS

There is a mixture of metals hiding in your pocket change. Here, we take a look at the compositions of the U.S. coins currently in circulation and how they've changed over the years.



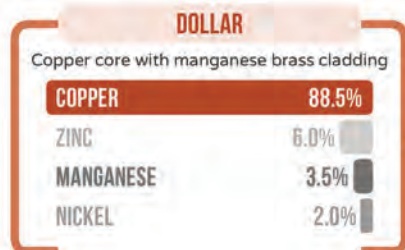
The penny has had its current composition since only 1984. Prior to this, it was mainly composed of copper. The modern composition is less expensive to manufacture, but it still costs an estimated 1.8 cents per penny.



A nickel costs an estimated 9.4 cents to mint. Its composition has remained constant over time, except during World War II. Nickel was an important war metal, so it was removed during the war in favor of a silver-manganese-copper alloy.



Until 1965, dimes, quarters, and half-dollars were made of silver (90%) and copper (10%). Then, the dime and quarter adopted today's composition, and the half-dollar dropped its silver content to 40%. In 1971, the half-dollar changed to its current composition.



The U.S. Mint cast early dollar coins in 90% silver and 10% copper. In 2013, one of the original dollars, minted in 1794, sold for \$10 million at auction. Dollar coins produced between 1849 and 1889 contained 90% gold, and bullion dollar coins are still struck in silver and gold.

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