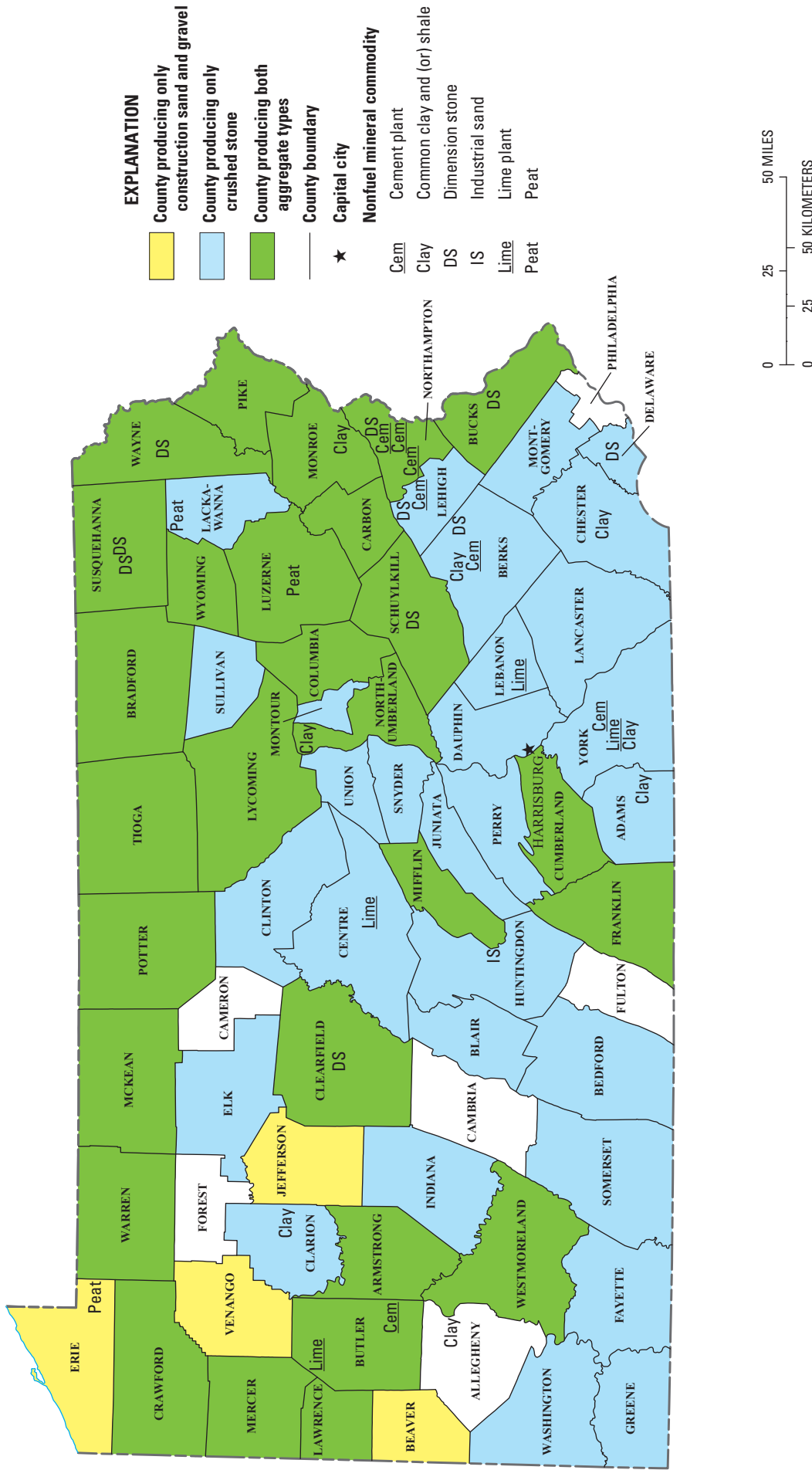




2014 Minerals Yearbook

PENNSYLVANIA [ADVANCE RELEASE]



Base from U.S. Geological Survey digital data
 Albers Equal-Area Conic projection

Figure 1. Map showing major nonfuel-mineral-producing areas in Pennsylvania in 2014. Sources: Pennsylvania Bureau of Topographic and Geological Survey and U.S. Geological Survey.

THE MINERAL INDUSTRY OF PENNSYLVANIA

By Robert M. Callaghan

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Pennsylvania Bureau of Topographic and Geologic Survey for collecting information on all nonfuel minerals.

In 2014, the partial value of nonfuel mineral production¹ in the Commonwealth of Pennsylvania (fig. 1) increased to \$1.57 billion,² and accounted for approximately 2% of the Nation's total value. Crushed stone, portland cement, lime, and construction sand and gravel were leading mineral commodities in the State, in decreasing order of value (table 1). On the basis of quantity produced, the State ranked second in crushed stone in the Nation, fifth in masonry cement, and seventh in portland cement. About 60% of the crushed stone quantity consisted of limestone, 11% was sandstone and quartzite, and the remainder was divided among dolomite, granite, marble, slate, and miscellaneous stone. Pennsylvania was ranked fourth in dimension sandstone and third in dimension slate among the States. A variety of other mineral commodities were produced by companies operating in the State, including common clay, industrial sand, lime, and peat (table 3). In 2014, the total number of mines, mills, and plants decreased, as did the number of people employed in them, although mining wages increased more than the average for all industries. The per capita value of nonfuel mineral production increased to \$123, and in total nonfuel mineral value for all the nonfuel mineral commodities, Pennsylvania ranked 17th (table 2).

Events, Trends, and Issues

Of Pennsylvania's mines that required an industrial mining permit, 697 were active in 2014, an increase from 685 in 2013, with a total of 69,667 acres covered under industrial mining permits in 2014 (Pennsylvania Department of Environmental Protection, 2014, 2015). The State's nonfuel mineral production value began to increase in 2012 but in 2014 both production value and production quantity of the State's major bulk commodities were still below the levels prior to the recession of 2008–09 (fig. 2). Construction was an important end use for crushed stone and cement. Pennsylvania's oil and gas industry was expanding because of production from the State's Marcellus Shale, and in addition to increased use of industrial sand as a proppant in hydraulic fracturing, used increasing amounts of aggregates in site work. The housing industry continued to recover; housing unit completions reached 25,059 in 2014 after the recent low of 14,967 in 2011 (U.S. Census Bureau, undated).

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All USGS mineral production data published in this chapter are those available as of June 2017. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the internet at <http://minerals.usgs.gov/minerals>.

²Partial total; excludes values that must be withheld to avoid disclosing company proprietary data.

American Investment and Recovery Act funds used for Department of Transportation construction projects beginning in 2009 were depleted, but a new Comprehensive Transportation Funding Plan (Act 89) took effect in 2014. This plan allowed for \$2.3 billion over 5 years, including \$1.3 billion for State roads and bridges, \$237 million for local roads and bridges, and \$86 million for turnpike expansion (Pennsylvania Department of Transportation, undated).

Pennsylvania's Act 137 of 2014 established an Aggregate Advisory Board, created to advise Pennsylvania's Secretary of Environmental Protection on the spending of funds held in the Noncoal Mining Conservation and Reclamation Fund. The funds could be used for studies of experimental practices, alternate methods of backfilling, and obligations for preexisting pollution liability. The Board would also provide input on alteration of reclamation plans, reclamation fees, and bonding rates and methods (Pennsylvania Department of Environmental Protection, undated).

Aggregates by State and End Use

A companion dataset, "Aggregates by State and End Use," replaces the discrete aggregate tables that were included in the individual State chapters prior to 2014 and is available on the State Minerals Statistics and Information web page at <https://minerals.usgs.gov/minerals/pubs/state/>. This dataset is updated annually.

References Cited

- Pennsylvania Department of Environmental Protection, [2014], Industrial minerals mining reports - 2013: Pennsylvania Department of Environmental Protection. (Accessed August 4, 2017, at <http://www.dep.pa.gov/Business/Land/Mining/BureauofMiningPrograms/Reports/Pages/2013-Coal-and-Industrial-Minerals.aspx>.)
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TABLE 1
NONFUEL MINERAL PRODUCTION IN PENNSYLVANIA^{1,2,3}

(Thousand metric tons and thousand dollars)

Mineral	2012		2013		2014	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	147	7,010 ^e	143	7,500 ^e	217	31,400 ^e
Portland	3,360	308,000 ^e	3,620	353,000 ^e	3,830	352,000 ^e
Clays, common clay	W	W	236	2,150 ^r	229	2,070
Gemstones, natural ^e	NA	1	NA	1	NA	1
Lime	1,090	151,000	1,090	151,000	1,080	148,000
Peat	W	W	W	W	W	W
Sand and gravel:						
Construction	11,500 ^r	102,000 ^r	10,500 ^r	94,800 ^r	9,700	94,400
Industrial	W	W	W	W	W	W
Stone:						
Crushed	82,300 ^r	894,000 ^r	78,800 ^r	888,000 ^r	81,100	937,000
Dimension	25	6,540	25	5,890	51	5,720
Total	XX	1,470,000	XX	1,500,000 ^r	XX	1,570,000

^eEstimated. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.

¹Includes data available through June 2017.

²Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

³Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
MINING ACTIVITY IN PENNSYLVANIA

Mining activity	2012	2013	2014
State rank ¹	14	16	17
Employment, number: ²			
Nonfuel mineral mines	3,248	3,097	3,043
Mills and plants	2,100	2,079	2,002
Number of nonfuel mineral mines ²	863	850	824
Number of mills and plants ²	239	240	231
Average annual wage, all mining ³	dollars per year	66,703	67,158
Average annual wage, all industries ³	do.	48,140	48,785
Per capita value ⁴	dollars per person	115	118
National per capita value ¹	do.	241	236

do. Ditto.

¹Based on unadjusted State total value.

²Source: U.S. Mine Safety and Health Administration.

³Source: National Mining Association.

⁴Based on partial State total value to avoid disclosing company proprietary data.

TABLE 3
STRUCTURE OF THE NONFUEL MINERAL INDUSTRY IN PENNSYLVANIA

(Nonfuel-mineral-producing companies, not including aggregate producers)

Commodity	Company	County
Cement	Armstrong Cement & Supply Corp.	Butler
Do.	Buzzi Unicem USA, Inc.	Northampton
Do.	Essroc Cement Corp.	Do.
Do.	Giant-Keystone Cement Co.	Do.
Do.	Lafarge North America Inc.	Lehigh
Do.	Lehigh Cement Co.	Berks and York
Clays, common clay and (or) shale	Glen Gery Corp.	Adams, Berks, Clarion, York
Do.	Lehigh Cement Co.	Monroe
Do.	McAvoy Brick Co.	Chester
Do.	Redland Brick, Inc.	Allegheny
Do.	Watsonstown Brick Co.	Northumberland
Gemstones ¹	Various	Various
Lime	Carmeuse Lime & Stone	Lebanon
Do.	Graymont (PA) Inc.	Centre
Do.	Magnesita Refractories Co.	York
Do.	Mercer Lime Co.	Butler
Peat	Corry Peat Products Co.	Erie
Do.	Lake Benton Soil Products, Inc.	Lackawanna
Do.	Lukashewski Peat Moss	Luzerne
Sand and gravel, industrial	US Silica Co.	Huntingdon
Stone, dimension	Delaware Quarries, Inc.	Bucks
Do.	J & E Flagstone Co.	Susquehanna
Do.	MBK Associates LLC	Wayne
Do.	Media Quarry Co.	Delaware
Do.	Penn Big Bed Slate Co., Inc.	Lehigh and Northampton
Do.	Rock Ridge Stone Co.	Susquehanna
Do.	Rolling Rock Building Stone, Inc.	Berks, Clearfield, Schuylkill

Do. Ditto.

¹Most natural gemstone producers in the United States are small businesses that are widely dispersed and operate independently.

EXPLANATION

- Other
- Cement (masonry)
- Cement (portland)
- Clays (common clay)
- Lime
- Sand and gravel (industrial)
- Stone (dimension)
- Sand and gravel (construction)
- Stone (crushed)

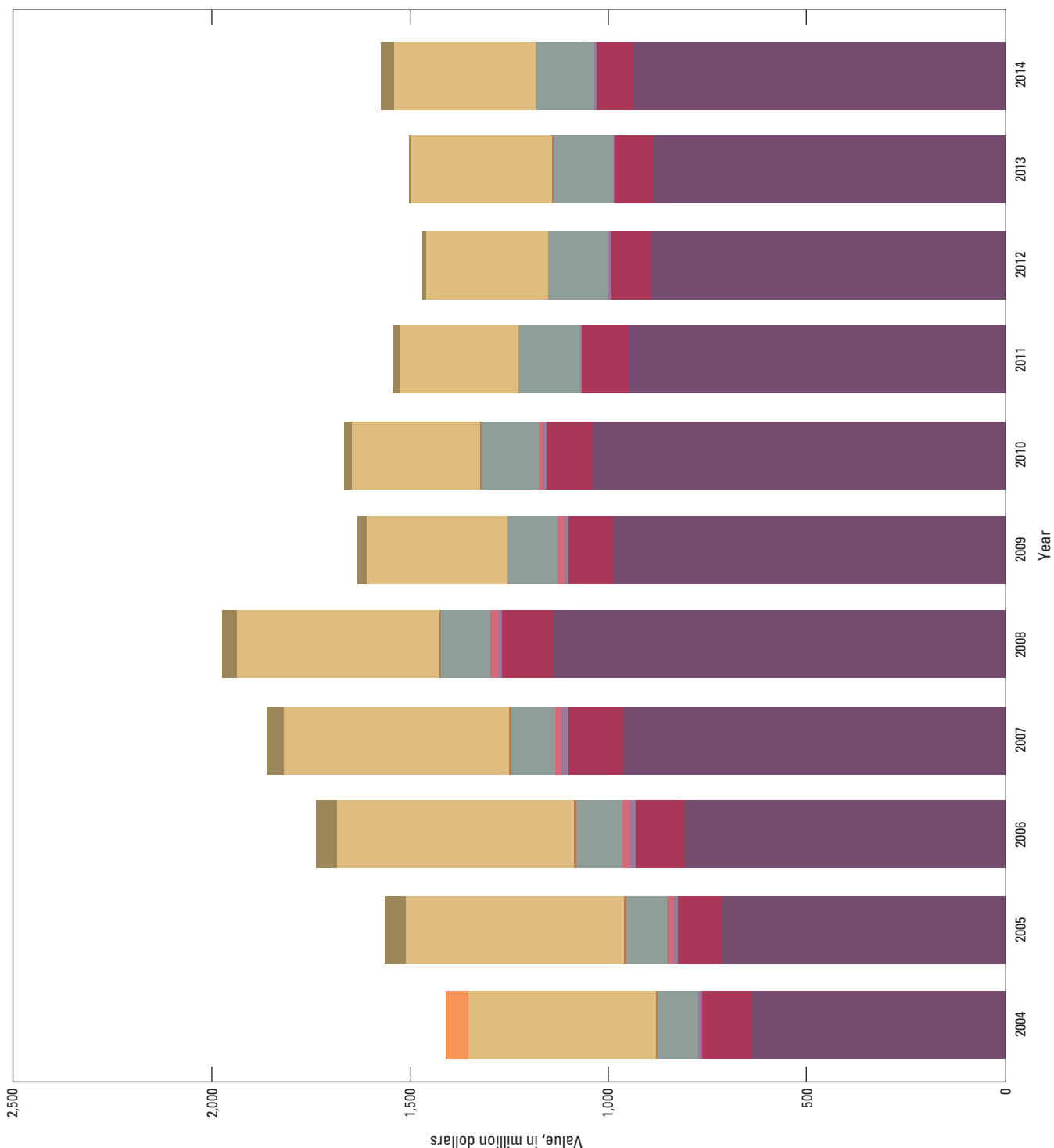


Figure 2. The production value of nonfuel mineral commodities from 2004 through 2014 in Pennsylvania. Values less than \$5 million are not shown. "Other" includes the "Combined values" data listed in table 1 in this and (or) previous years. For a complete list of nonfuel mineral commodities and production values for all States, please refer to the Statistical Summary chapter (tables 5, 6).