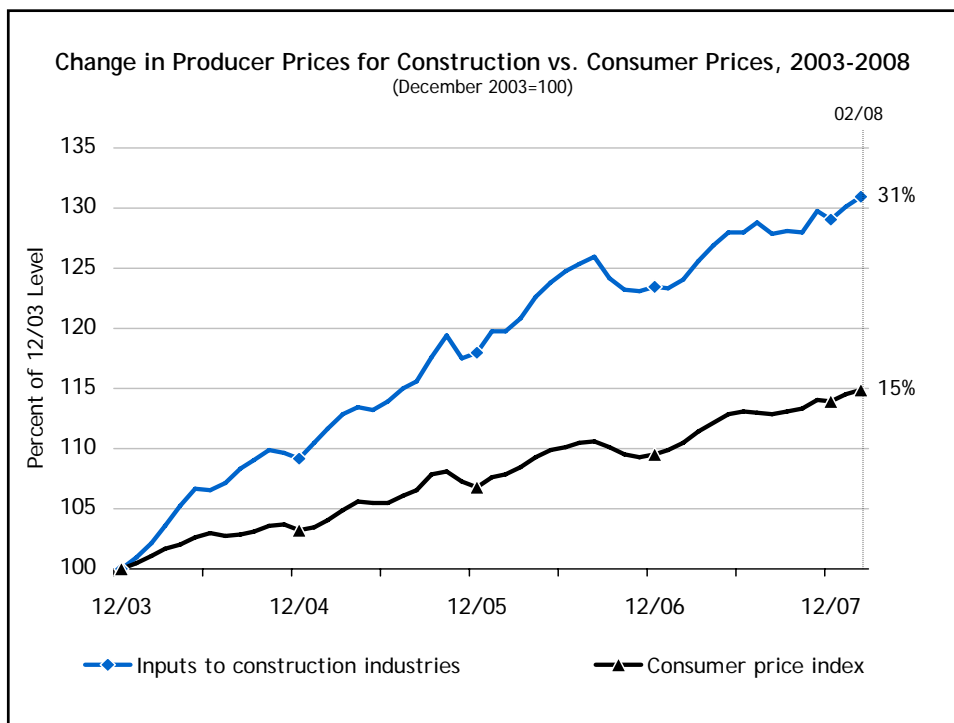


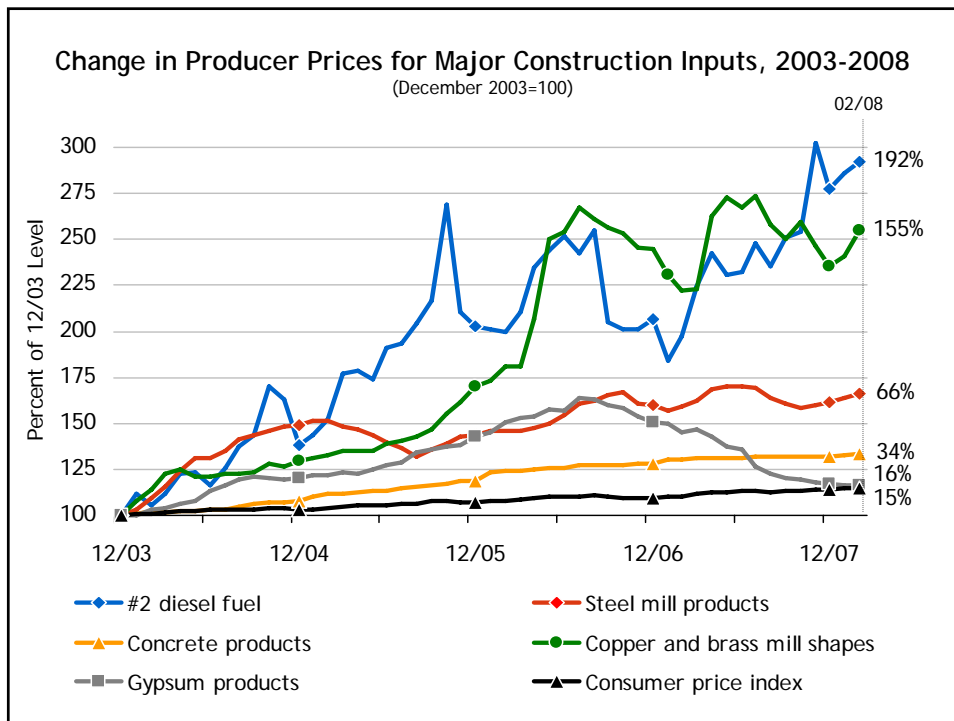
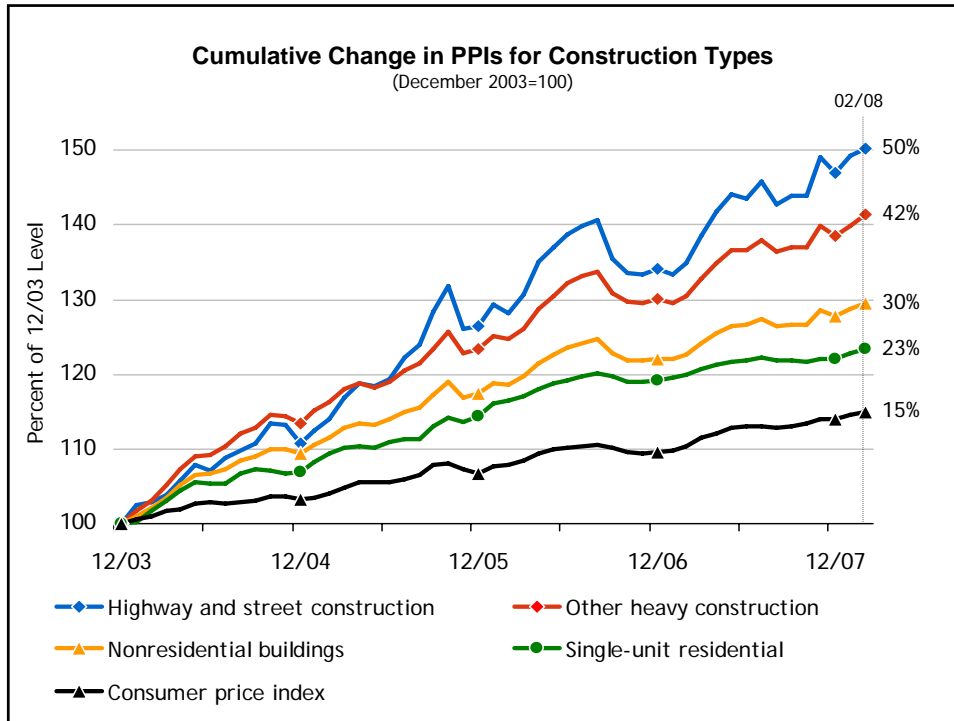
Sorting Out the Outlook for Construction and Materials

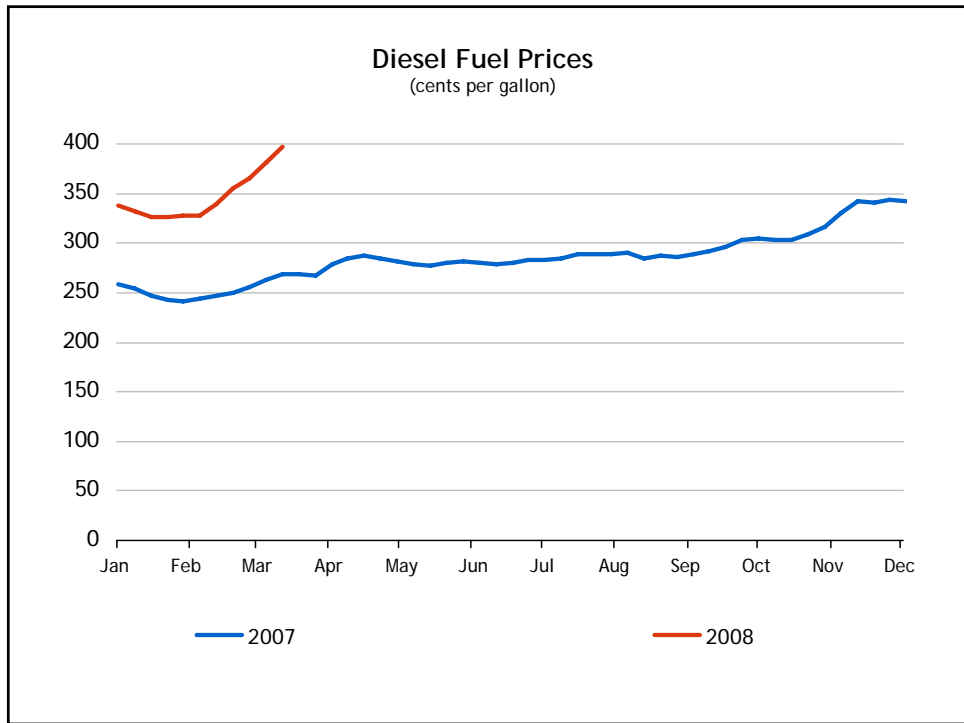
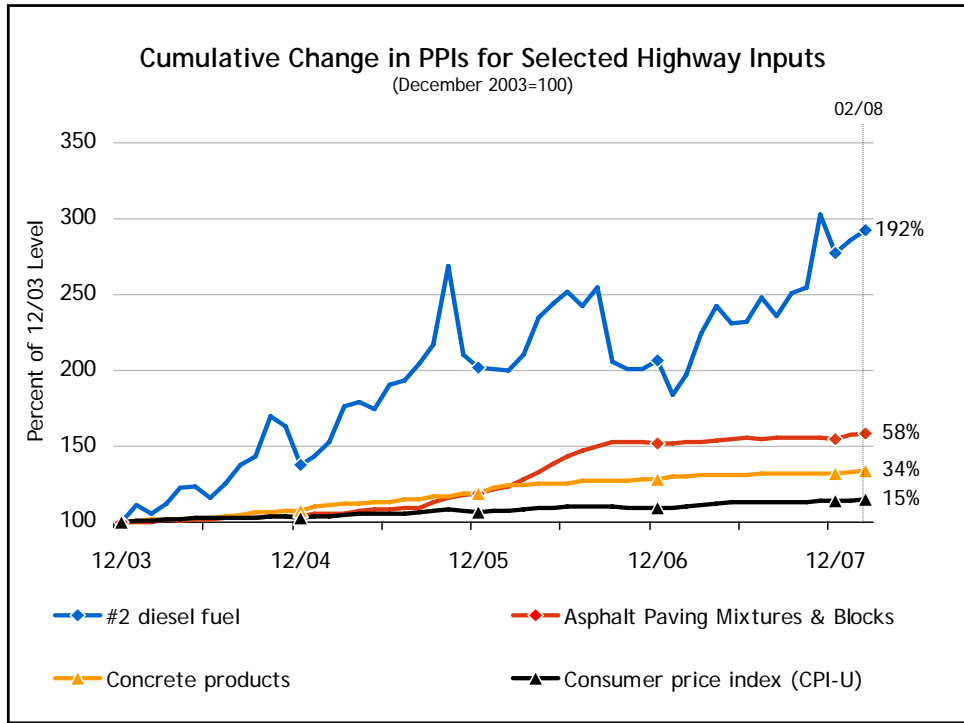


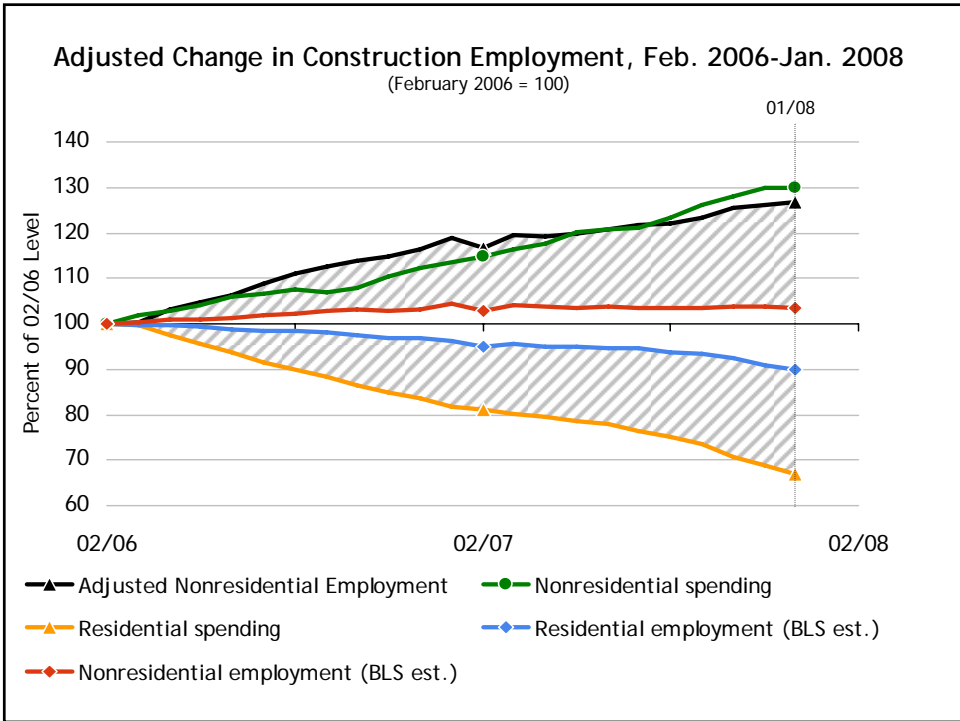
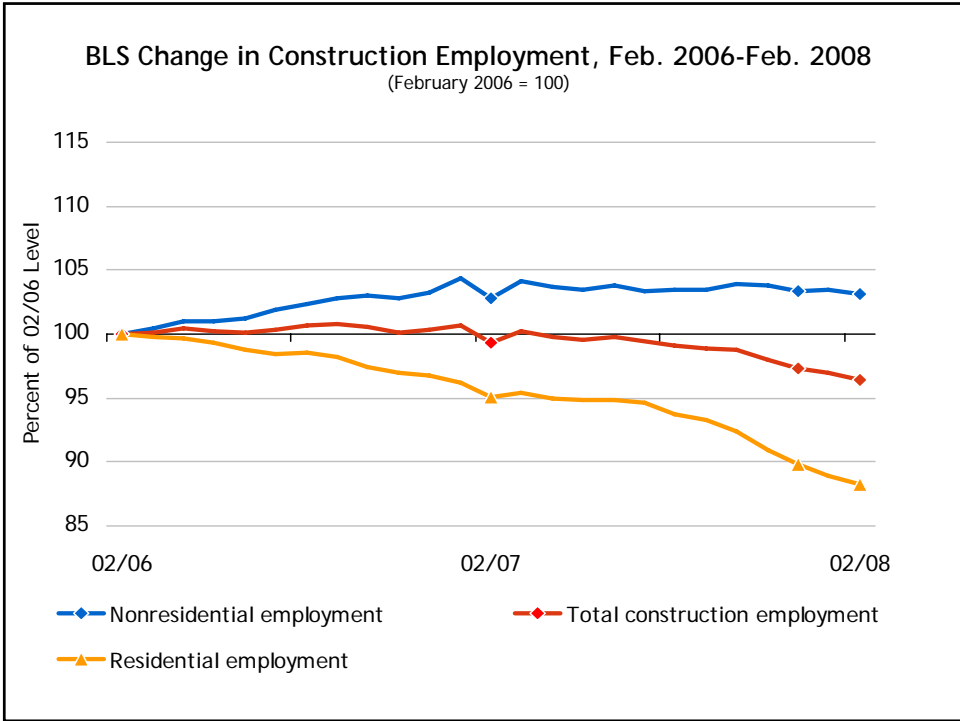
Prepared for Purdue Road School
West Lafayette, IN, March 26, 2008

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AGC Economic Resources

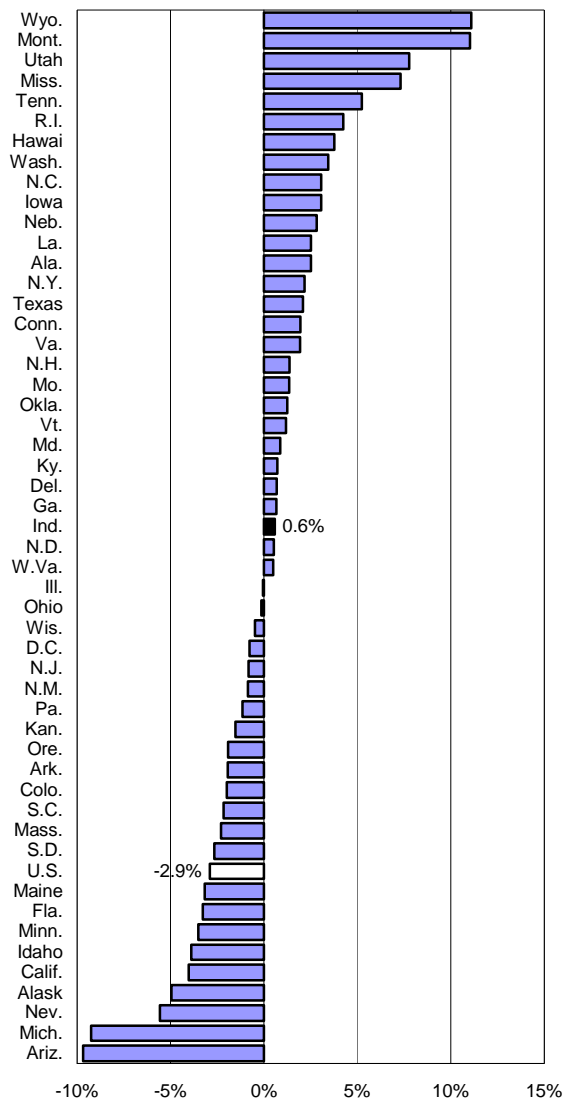
(sign up by email to simonsonk@agc.org)

- *The Data DIGest*: weekly one-page email
- Audioconferences: twice yearly
- PPI tables: emailed monthly
- *Construction Inflation Alert*: Oct. & March
- State-specific emails (timing varies) and fact sheets: [www.agc.org /factsheets](http://www.agc.org/factsheets)

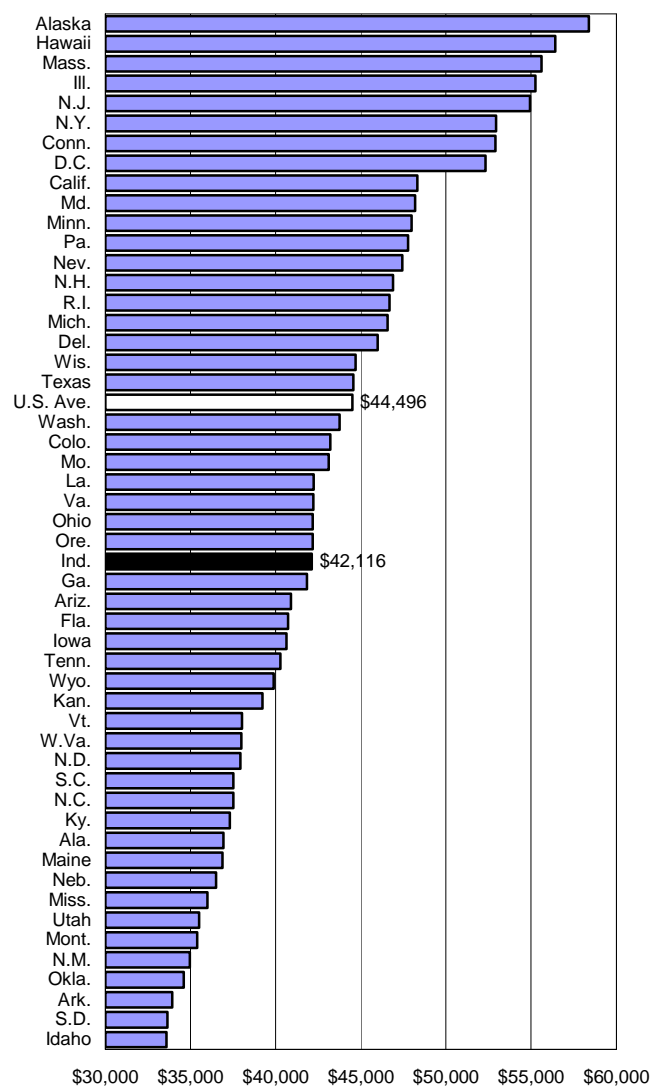
The Key Role of Construction in Indiana's Economy

- The industry **employed 152,600 workers** in December 2007, 5% of the state's nonfarm employment of 2,986,400 and an increase of 1% from one year before. Nationally, construction accounted for 5% of nonfarm employment but fell 2.9% over the year as homebuilding shrank.
- Construction **contributed \$11 billion to state GDP** of \$249 billion in 2006.
- **Annual pay** in 2006 in construction averaged \$42,116, 15% more than the private sector average of \$36,612. Nationally, construction pay averaged \$44,496, 5% more than the national private sector average of \$42,414.
- **Small business** is big in construction. Indiana had 16,303 construction firms in 2005, of which 92% employed fewer than 20 workers. In addition, Indiana had 50,046 construction firms without employees, mainly sole proprietorships, in 2005.
- Indiana's **population** grew 0.7% from July 2006 to July 2007, 31st fastest of all states; the national growth rate was 1%. Population growth affects the demand for many types of construction.

Percent Change in Construction Employment
(December 2006 – December 2007)



2006 Average Annual Pay in Construction



Changes in Construction Materials Prices, 2001-2008 *(March 18, 2008 revisions are in italics)*

Since early 2004, the construction industry has been buffeted by a succession of steep price increases affecting a variety of materials. The attached tables document these increases, using the Bureau of Labor Statistics (BLS)'s overall consumer price index for all urban consumers (CPI-U), the producer price index (PPI) for finished goods, and PPIs for specific construction segments and inputs.

Background on PPIs

Each row shows the BLS series identifier and name for a PPI (or CPI), and two groups of percentage changes. The first group shows the 12-month percentage change for the years ending December 2001-08. The second group shows preliminary price changes to the latest month from 1, 3 and 12 months before, and from December 2003 (when construction costs first spiked). Percentages are downloaded for PPIs from the PPI website, www.bls.gov/ppi, at the page for "Create Customized Tables (one screen)"; most are commodity indexes, except for new industrial building, warehouse, school and office construction, *which measure the cost of "assemblies" or subcontractors' work plus a general contractor's overhead and profit*, and six construction types, which are industry indexes. The PPIs shown are available only at a national level.

To provide consistency, "not seasonally adjusted" indexes have been selected for all items. For many items, BLS does not post a seasonally adjusted index, either because the price does not vary consistently by season or there is not enough data available to calculate a seasonal adjustment. However, prices of items such as natural gas do show wide seasonal swings; for these PPIs, a large one- or three-month change may not be unusual.

As the name implies, the PPI for a commodity measures the price charged by a producer of that item or category. The index excludes any costs the buyer incurs beyond the producer's loading dock or other point of sale, such as insurance, freight, storage, fabrication, or installation. Such costs are considerable for many construction inputs and may change at rates different from the PPI, but these rates cannot be estimated from PPI data. There is no PPI for construction labor, and the PPIs for trucking and insurance are not specific enough to indicate the specialized services and products used in construction.

The PPIs chosen for these tables are believed to be the closest approximation to items actually used or bought for construction. Some PPIs cover a wider range of materials than items used specifically in construction. For instance, steel mill products include steel used in motor vehicles, appliances, equipment, etc., as well as construction. Other PPIs, like those for concrete products, reflect materials used solely in construction. An industry PPI measures the costs of all items used by an industry, including items like diesel fuel that are consumed during construction. Readers are encouraged to scroll through the indexes on the PPI website and suggest other indexes to include in these tables. But note that data is not currently available for some of the indexes listed on the website, probably because too few producers submit data to BLS.

Organization of PPI Tables

The first six rows compare the CPI-U with the PPIs for finished goods, materials and components for construction, and new industrial building, warehouse, school and office construction (currently, the only PPIs for completed structures). The construction materials PPI is a weighted average of the PPIs for all processed materials that go into structures but not unprocessed goods or inputs such as fuel or energy. Because the single-family market accounted for nearly half of all construction in recent years, materials used in that segment count heavily in the overall construction index.

The second set of indexes, "Changes in PPIs Weighted by Construction Types," shows PPIs for different construction segments, weighted by the value of items such as diesel fuel and electricity consumed during construction, as well as the materials and components used in all construction and separately in highway and street construction, other heavy construction, nonresidential buildings, and multi- and single-family new construction.

The third set includes "Changes in PPIs for Specific Construction Inputs." Items are grouped into petroleum-based products; concrete and brick products; miscellaneous materials; and metal products. Indented index names show that the item is a subset of the last unindented item above it; this relationship is also shown in BLS's numbering system, which assigns an extra digit or two to subcategories. For instance, "WPU1331 Concrete block and brick," is indented to show it is included in the index for "WPU133 Concrete products."

At the bottom are indexes covering "Changes in PPIs for Basic Inputs," divided into nonmetals, and metal ores and scrap. Recent changes in these indexes can foreshadow changes in materials made from these items.

Changes in Construction Costs

In general, through 2003 most construction materials show very modest increases and many decreases in price, similar to the CPI, which rose 1.6% in 2001, 2.4% in 2002, and 1.9% in 2003. Beginning in 2004, however, many construction materials had years with double-digit increases, whereas the CPI has continued to rise at a 2.5-4% annual rate.

In February, PPIs increased more than 1% for diesel fuel, copper and steel products for the second month in a row. PPIs continued falling for several building products: lumber and plywood, insulation, and gypsum products. These differences again widened the gap between highway and street construction, up 11.3% over 12 months, and buildings, up 2.8-5.6%. The cumulative change since December 2003 in construction PPIs, 30.9%, is more than double the CPI change of 14.9%.