Background

- Initiative begun in 2001 & completed in 2008

- Goal: Develop output price indexes for the nonresidential building construction sector

- Catalysts: Expanding PPI coverage of the U.S. Economy & Need for improved GDP deflators
PPIs for Nonresidential Construction

- BLS has developed and publishes eight PPIs measuring national-average changes in output prices for nonresidential building construction
  - Four PPIs measuring changes in new construction output prices for specific structure types
  - Four PPIs measuring changes in output prices for work performed by specific specialty trades
## PPIs and Release Dates

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<th>PPI Titles and Codes</th>
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<tr>
<td>New Warehouse Building Construction (236221)</td>
<td>July 2005</td>
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Building Index Methodology

- BLS uses building cost model-based pricing approach (See handout for example model.)

- BLS uses professional construction cost estimating firms to develop building cost models

- BLS uses multiple building models for distinct geographic regions (NE, S, W, and MW) to produce each building index

- BLS uses models based on actual buildings selected to represent ‘typical’ construction for each structure type within each region
Building Index Methodology

- Each model consists of a series of building ‘assemblies’ which represent a single job that would be the responsibility of a specific type of trade contractor.

- Each assembly is further broken down into component lines which provide additional detail about the material, labor, and equipment inputs included in the assembly.
Building Index Methodology

- BLS regional models use regional average material and installation costs from the cost estimating firm.

- BLS directly collects Overhead & Profit data from building contractors.

- BLS combines secondary-source data with directly collected data to compute assembly output prices.

- BLS models do not include costs for land acquisition, permitting, architectural or engineering services, pre- or post-construction site preparation.
Building Index Methodology

- Building contractor respondents provide updated OH&P percentage for installing selected assemblies each month
- Material and installation costs for all models are updated every three months
- Model specifications are updated as market practices dictate with quality-adjustments
- Models are re-selected every five years
Average Hourly Earnings of Production Workers-Nonresidential Building Construction
Normalized PPI Values for Selected Construction Related Materials

- PPI Inputs to Nonres Bldgs
- Ready-mix Concrete
- Lumber & Plywood
- Steel Mill Products
- Fabricated Structural Metal for Bldgs
- Synthetic Rubber (EPDM)
 Specialty Trade Index Methodology

- BLS collects price data on maintenance and repair work directly from building contractor respondents in four specialty trades: concrete, roofing, electrical, and plumbing/HVAC.

- Maintenance and repair jobs priced are actual jobs performed by respondents—including service contracts.

- Each of the four trade contractor PPIs is created by aggregating trade contractor-specific data previously gathered for the new building construction PPIs with the data separately collected for maintenance and repair work performed by the contractor trades.
Additional Information

➢ For an overview of the PPI NRBC Initiative and descriptions of methodologies:

• www.bls.gov/ppi/ppinrbc.htm

• www.bls.gov/ppi/naics23811x-2x.htm
Homeownership Prices in the CPI

- The CPI does not use an asset or acquisition approach to measure homeownership prices.

- The CPI uses a rental equivalence approach to measure homeownership (shelter) prices.

- In the CPI, *Owners’ equivalent rent of primary residence (OER)* is based on the estimated market rents for owner-occupied housing.

- For more information: [www.bls.gov/cpi/cpifacnewrent.pdf](http://www.bls.gov/cpi/cpifacnewrent.pdf)
Service Sector PPIs

- PPI for Rail Transportation, the first Service Sector PPI, was introduced in January 1985

- Expansion continued through the mid-1990s with focus on the Transportation sector

- Mid-1990s to present continued expansion added PPIs for health care, real estate, professional services, administrative services, finance, insurance and wholesale & retail trade sectors

- PPI currently publishes measures for over 150 Service Sector industries, covering 77% of Service Sector GDP