

U.S. Bureau of Labor Statistics

PPI Nonresidential Building Construction Initiative

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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

PPI Titles and Codes	Public Release
New Warehouse Building Construction (236221)	July 2005
New School Building Construction (236222)	July 2006
New Office Building Construction (236223)	January 2007
New Manufacturing and Industrial Building Construction (236211)	January 2008
Concrete Contractors (23811X)	July 2008
Plumbing, Heating, and Air-Conditioning Contractors (23822X)	July 2008
Roofing Contractors (23816X)	July 2008
Electrical Contractors (23821X)	July 2008

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

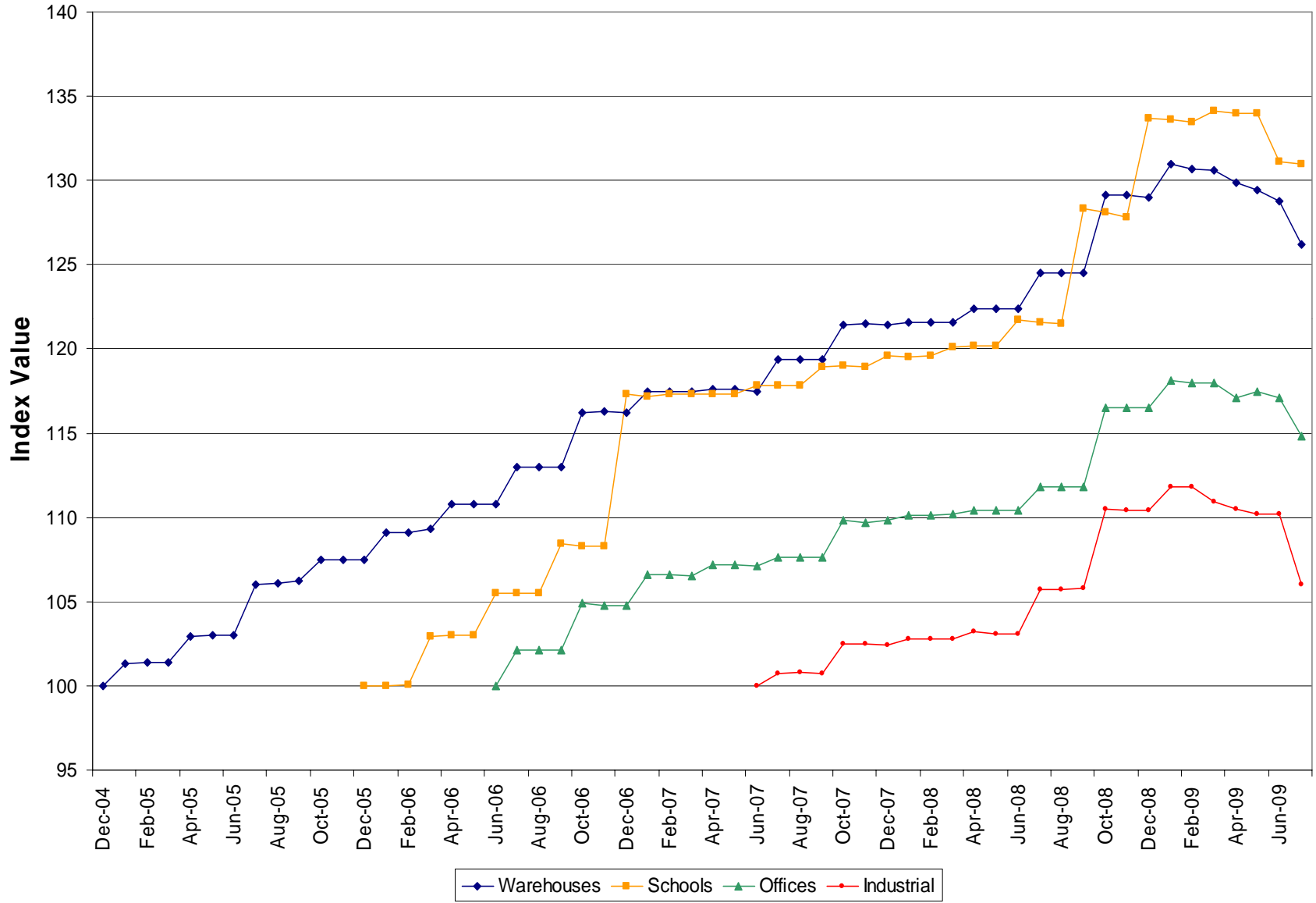
Building Index Methodology

- 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

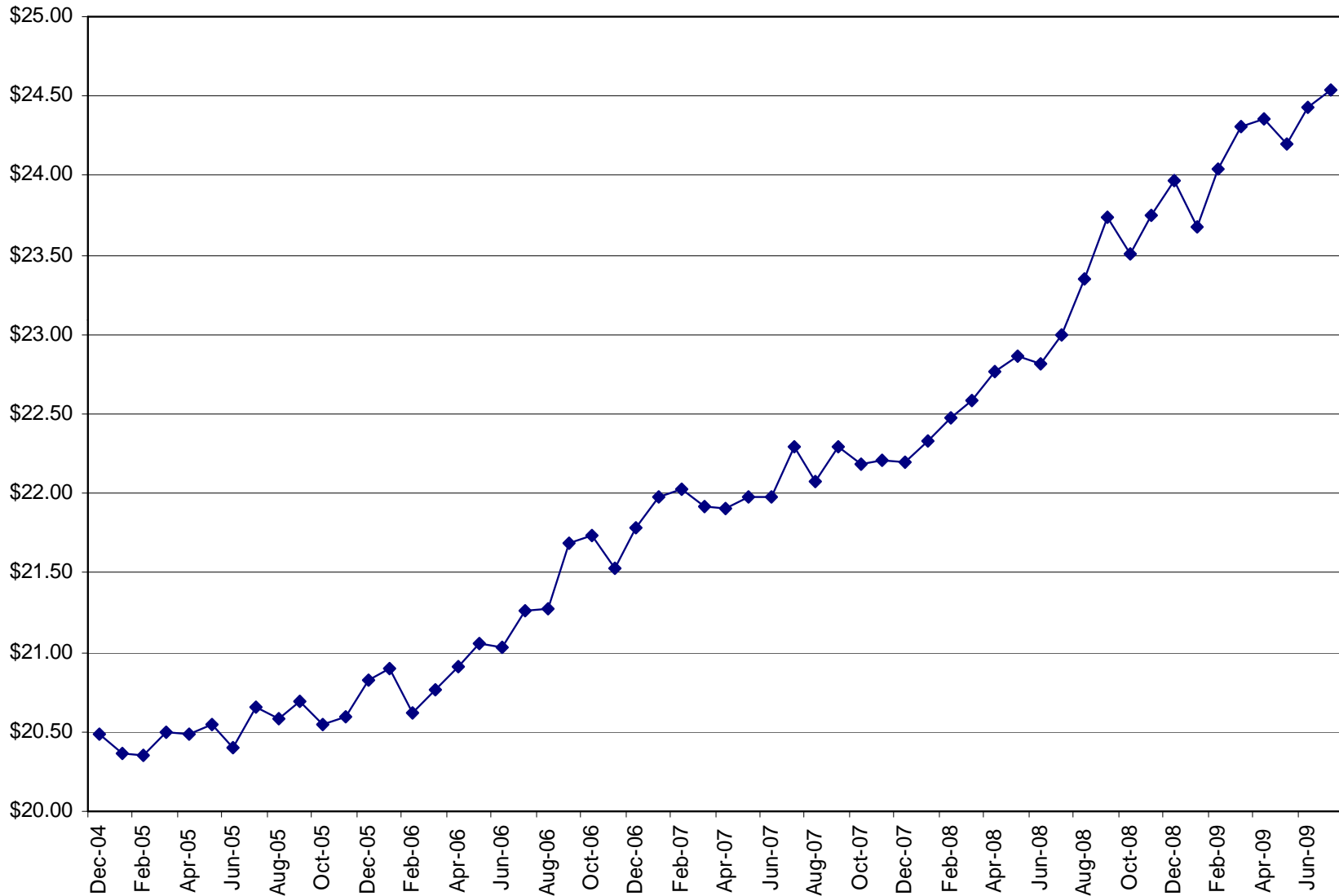
Building Index Methodology

- 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

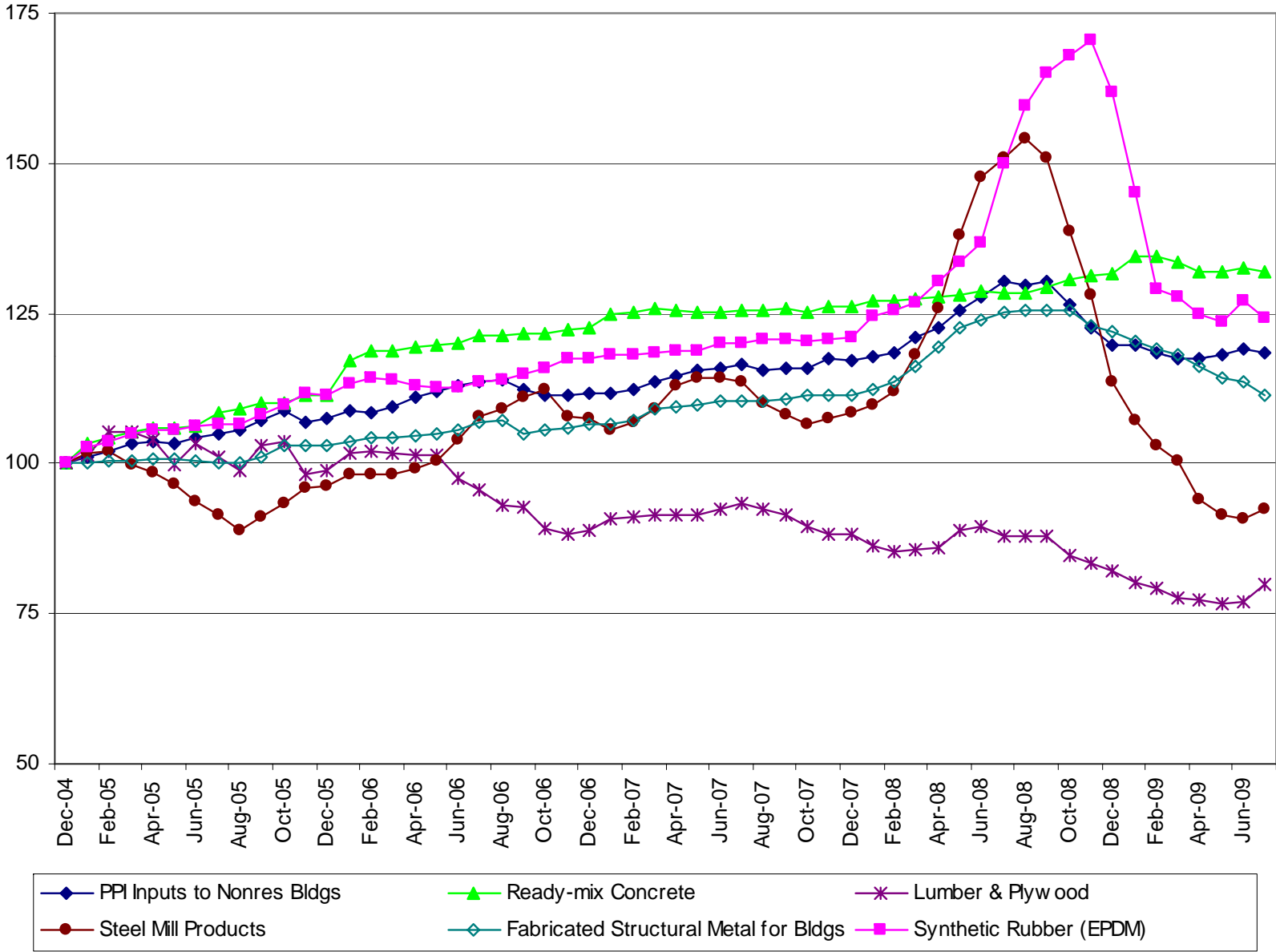
New Nonresidential Building Construction PPIs



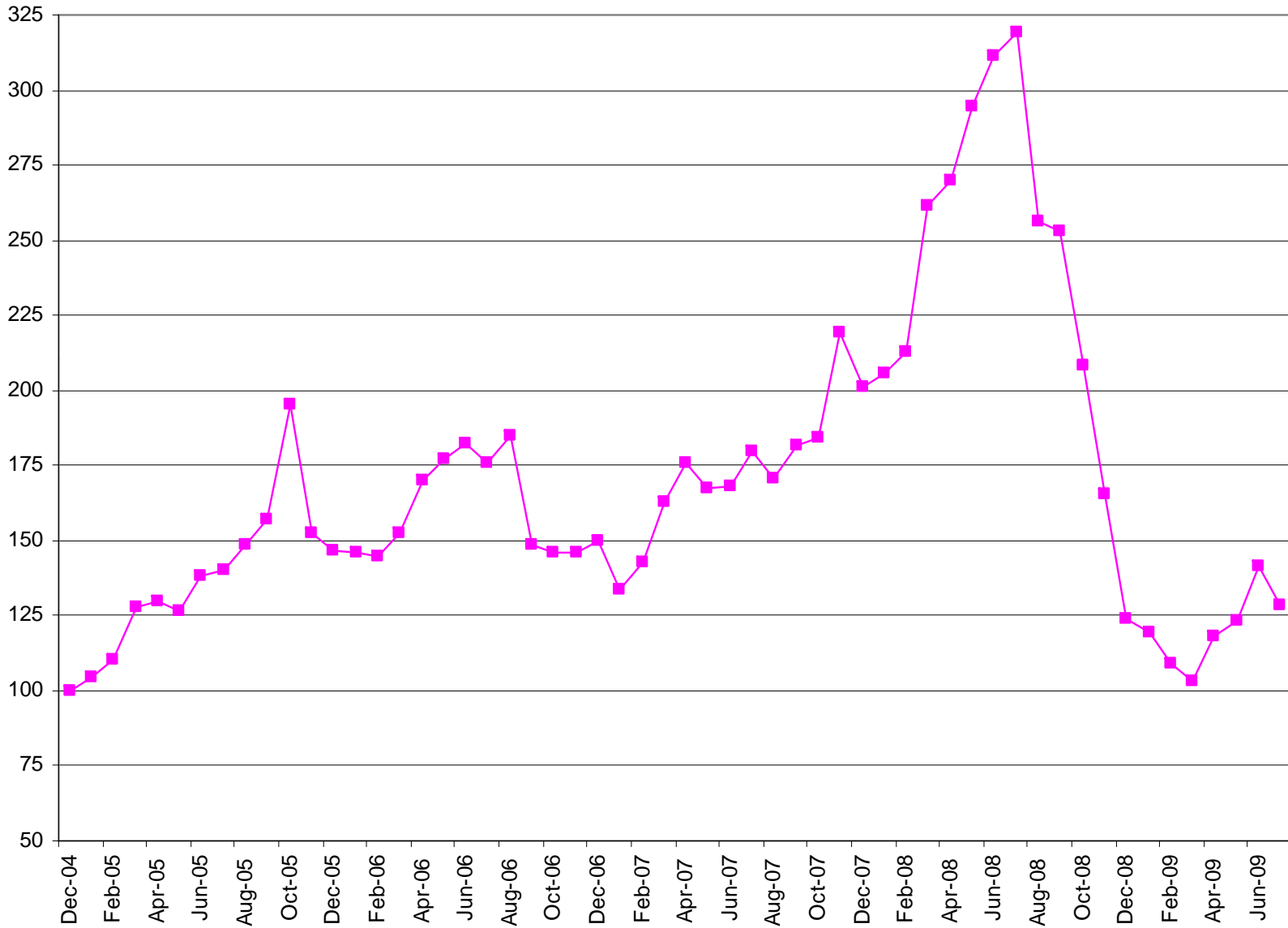
Average Hourly Earnings of Production Workers-Nonresidential Building Construction
Source: Bureau of Labor Statistics/Current Employment Statistics



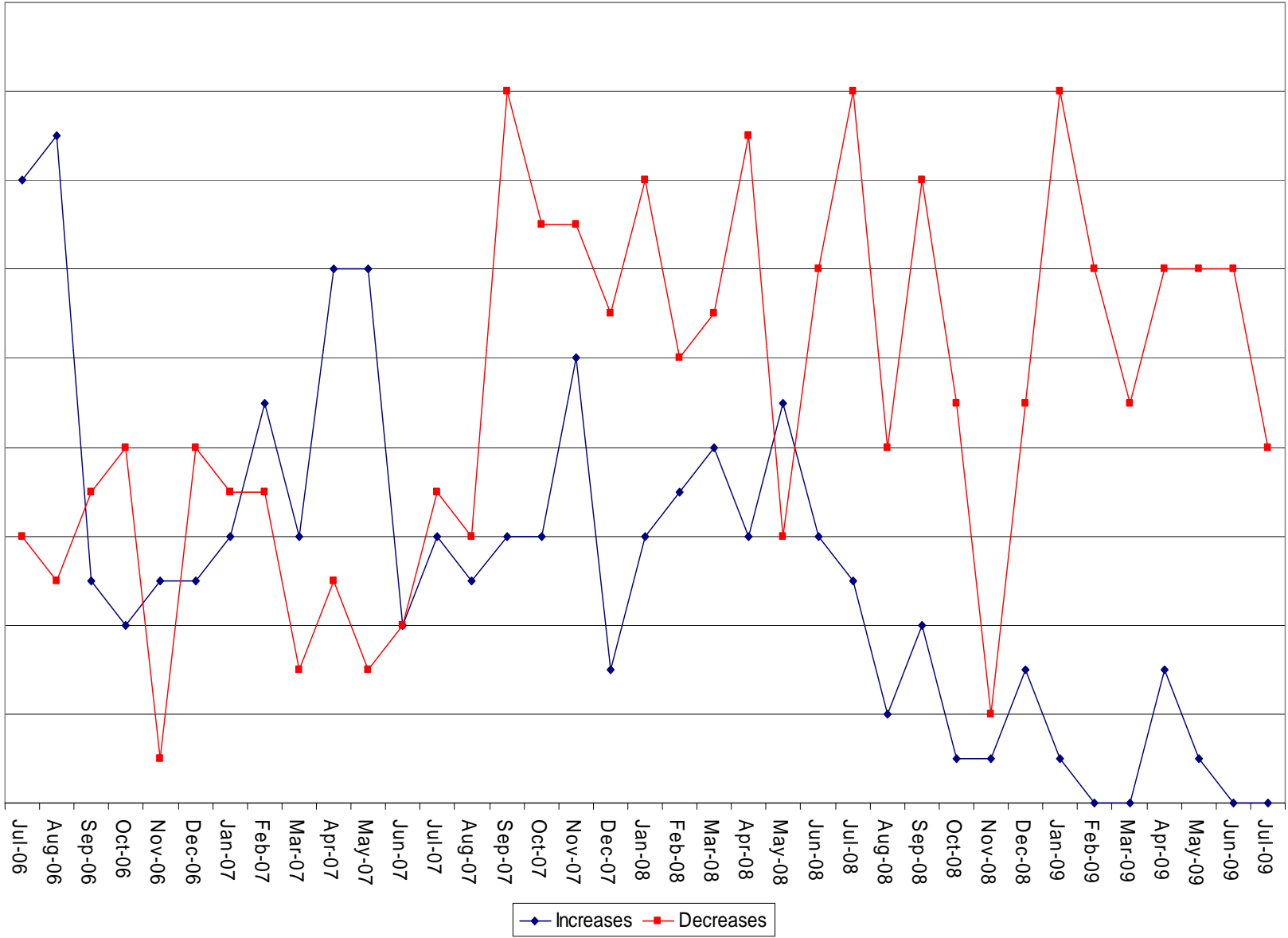
Normalized PPI Values for Selected Construction Related Materials



Normalized PPI Values for #2 Diesel Fuel



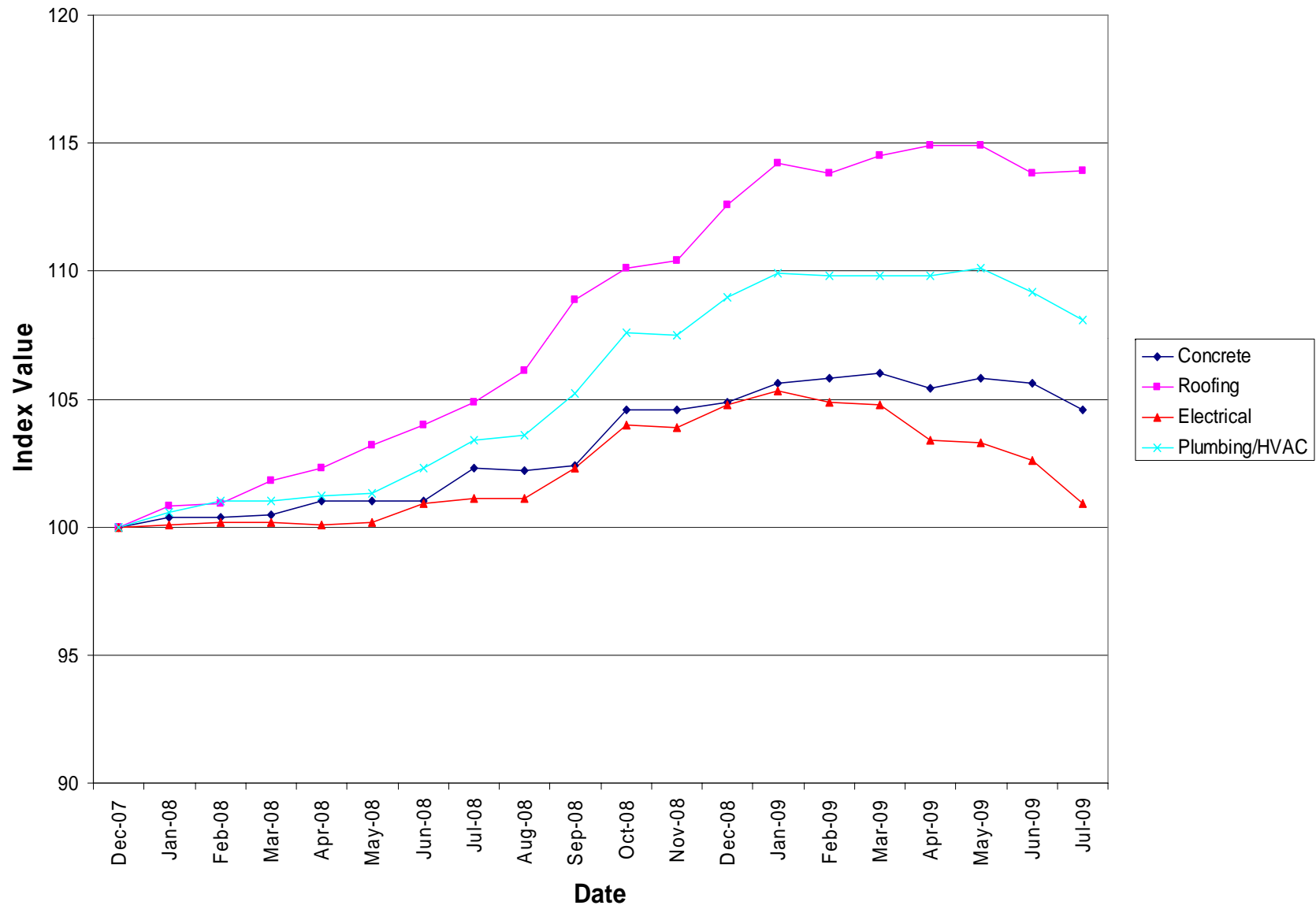
OH&P Changes for New Nonresidential Building Construction



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

Specialty Trade PPIs



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

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