



Construction & Materials Outlook: Sinking Demand, Higher Costs

Presentation to U.S. Department of State

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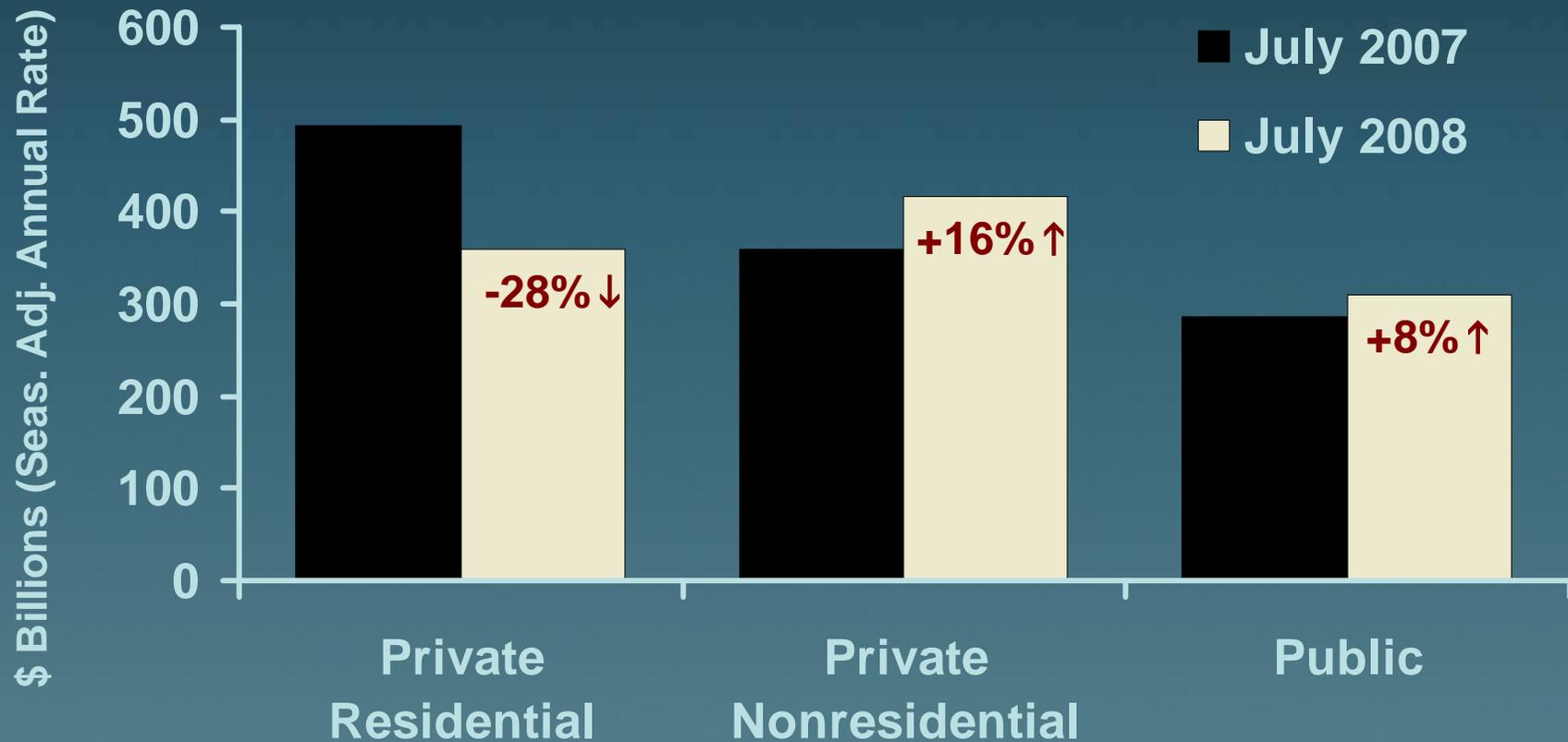
Current economic influences

- **Weak but positive GDP growth (0.6-2%)**
- **Excessive inflation (CPI change 3-5%)**
- **No job growth, rising unemployment**
- **Wages, personal income < CPI change**
- **Worries about housing, credit market spillovers**



The shifting construction market

(total change July 2007 – July 2008: -5%)





Nonres '07 totals, change; '08 YTD change

| | <u>'07 Total</u> | <u>Share</u> | <u>Change</u> | <u>'08 YTD</u> |
|---|----------------------|--------------|---------------|----------------|
| <u>Nonresidential total</u> | <u>\$638 billion</u> | <u>100%</u> | <u>+16%</u> | <u>+14%</u> |
| Educational | 96 | 15 | +13 | + 10 |
| Commercial | 88 | 13 | +16 | + 3 |
| Highway & street | 76 | 11 | + 6 | + 3 |
| Office | 65 | 11 | +19 | +16 |
| Power | 53 | 10 | +34 | +33 |
| Healthcare | 43 | 6 | +11 | + 8 |
| Manufacturing | 43 | 8 | +20 | +46 |
| Transportation | 32 | 5 | +16 | +14 |
| Lodging | 29 | 5 | +58 | +38 |
| Communication | 27 | 4 | +22 | + 4 |
| Sewage & waste disposal | 25 | 4 | + 6 | + 5 |
| Other (amusement; water; safety; relig.; conservation): 9% of total | | | | |



Leading segments in 2008 - 2009

| <u>Segment</u> | <u>2007</u> | | <u>2008</u> | <u>Forecast</u> | |
|----------------|----------------|---------------|-------------|-----------------|-------------|
| | <u>Bil. \$</u> | <u>Change</u> | <u>YTD</u> | <u>2008</u> | <u>2009</u> |
| Power | 53 | +34% | +33% | +20 to +30% | ↗ |
| Energy | 17 | +55 | +31 | +20 to +30 | ↗ |
| Communic. | 27 | +22 | + 4 | +5 to +10 | ↘ |
| Hospitals | 31 | +14 | + 4 | +5 to +10 | ↗ |
| Higher ed. | 30 | +13 | +18 | +10 to +15 | ↗ |

BRAC-related (part of several segments)



Weaker segments in 2008 - 2009

| <u>Segment</u> | <u>2007</u> | | <u>2008</u> | <u>Forecast</u> | |
|-----------------------|----------------|---------------|-------------|-----------------|-------------|
| | <u>Bil. \$</u> | <u>Change</u> | <u>YTD</u> | <u>2008</u> | <u>2009</u> |
| Lodging | 29 | +58% | +38% | -5 to 5% | ↘ |
| Office | 65 | +19 | +16 | 0 to +5 | ↘ |
| Commercial | 88 | +16 | + 3 | +1 to +4 | ↘ |
| Primary/ Secondary | 59 | +15 | + 5 | +3 to +6 | ↘ |
| Highway | 76 | + 6 | + 3 | +3 to +7 | 0 |



Spending outlook for 2008 - 2009

| | <u>Actual</u> | <u>Forecast</u> | |
|----------------|---------------|-----------------|-------------|
| | <u>2007</u> | <u>2008</u> | <u>2009</u> |
| Residential | -19% | -25 to -20% | +1 to +5% |
| Nonresidential | +16% | +4 to +8% | -5 to -1% |
| Total | -2.6% | -9 to -5% | -2 to +2% |

But...materials, labor costs will rise



Materials and components

- Higher increases for construction inputs than for overall economy:

| <u>12 mo. to:</u> | <u>12/04</u> | <u>12/05</u> | <u>12/06</u> | <u>12/07</u> | <u>8/08</u> |
|-------------------|--------------|--------------|--------------|--------------|-------------|
| Const PPI | 9.1% | 8.2% | 4.6% | 4.5% | 12.7% |
| CPI-U | 3.3% | 3.4% | 2.5% | 4.1% | 5.4% |

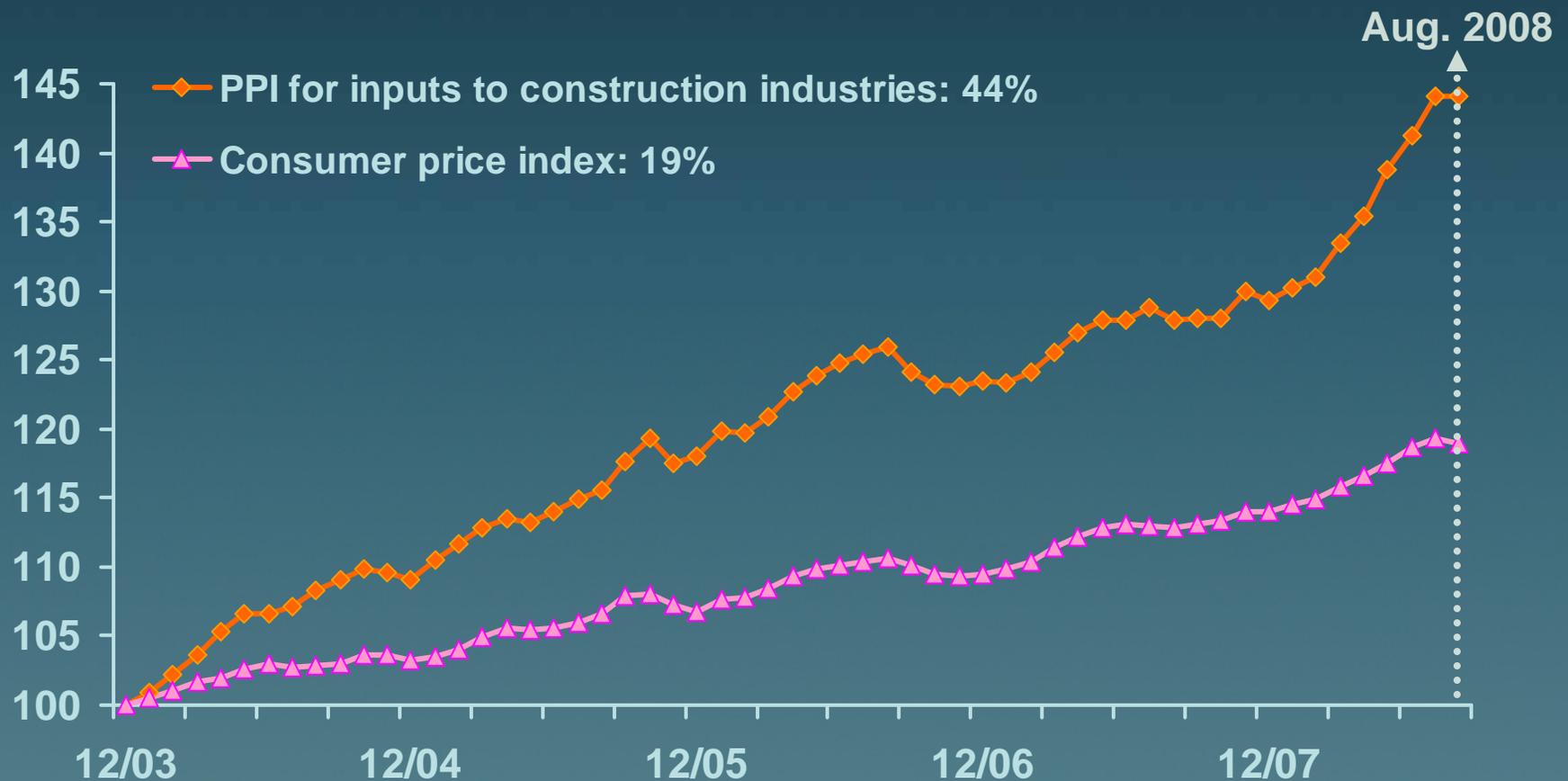
- Cumulative change double the CPI since 12/03:

| | |
|-----------|-----|
| Const PPI | 44% |
| CPI-U | 19% |

- Producer price index drivers: steel, gypsum, diesel, asphalt, concrete, copper, plastics, aluminum, wood



Change in Producer Prices for Construction vs. Consumer Prices, 2003 - 2008 (December 2003 = 100)



Source: BLS (CPI, PPI)



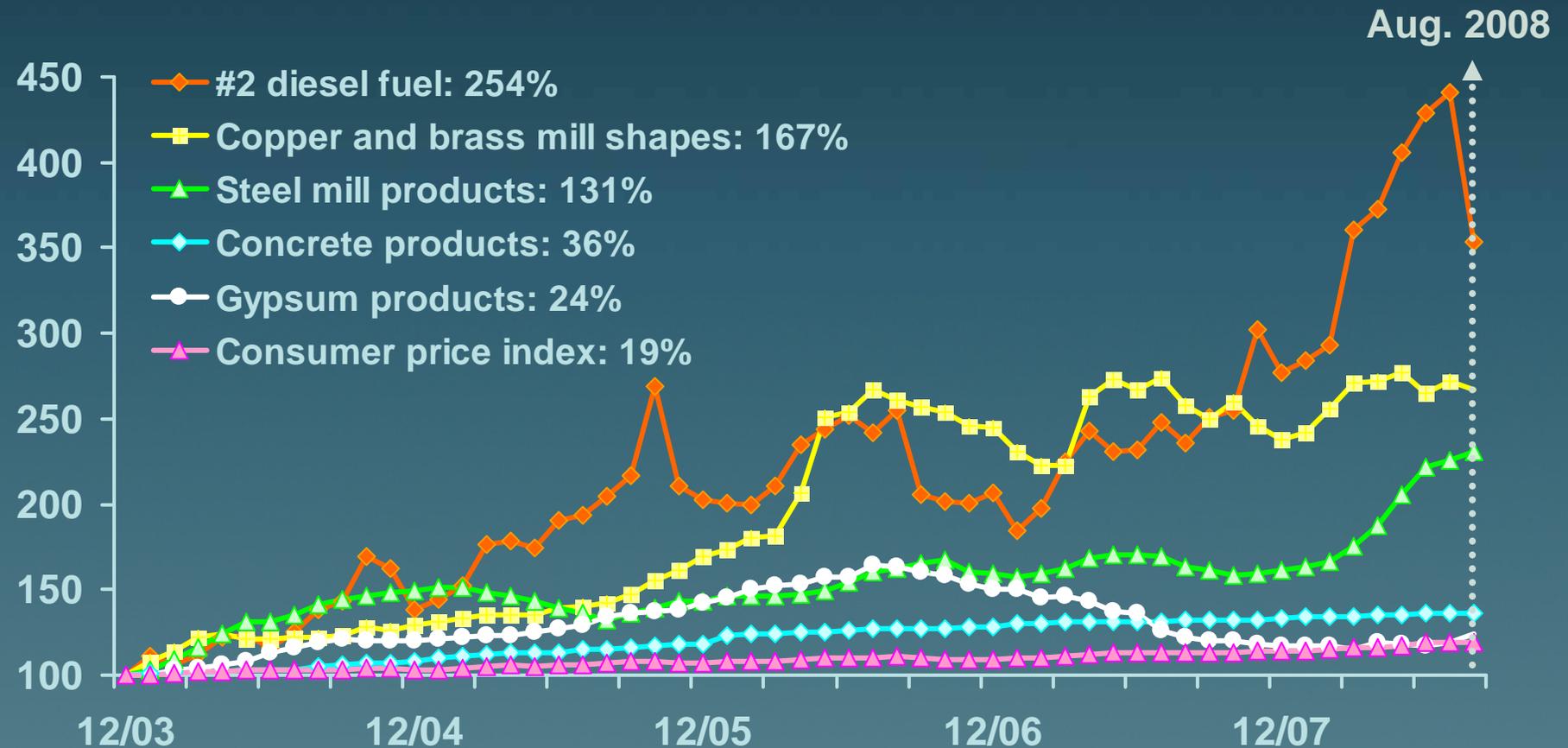
Change in Producer Prices for Construction Segments, 2003 - 2008 (December 2003 = 100)



Source: BLS (CPI, PPI)



Change in Producer Prices for Major Construction Inputs, 2003 - 2008 (December 2003 = 100)



Source: BLS (CPI, PPI)



Producer Price Indexes, 2007 vs. 2008

No. 2 Diesel Fuel
 Change from 8/07-8/08: 50%



Steel Mill Products
 Change from 8/07-8/08: 41%



Asphalt Paving Mixtures & Blocks
 Change from 8/07-8/08: 47%





Producer Price Indexes, 2007 vs. 2008

Gypsum Products

Change from 8/07-8/08: 1.7%



Lumber and Plywood

Change from 8/07-8/08: -4.6%



Copper & Brass Mill Shapes

Change from 8/07-8/08: 3.5%



Concrete Products

Change from 8/07-8/08: 3.6%





Outlook for materials in '08 compared to '07

- **Falling prices: wood, gypsum products**
- **Likely to rise: diesel, steel, asphalt, plastics; maybe copper, aluminum**
- **Longer lead times for some items; localized shortages of liquid asphalt or polymers**
- **Year-over-year PPI change: 6-8%; highest for highway/heavy; less for buildings**



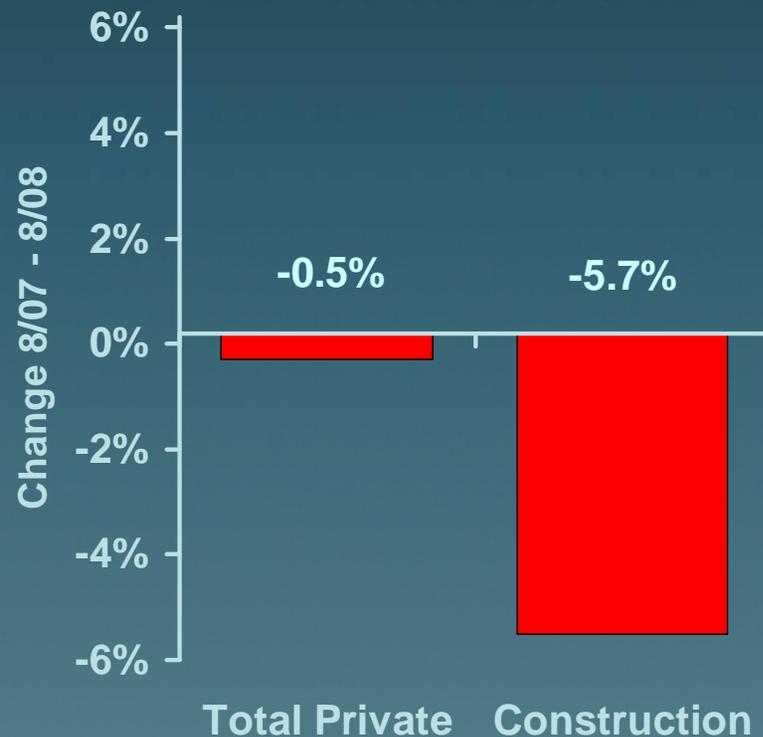
Outlook for materials (1-5 years)

- **Industry depends on specific materials that:**
 - are in demand worldwide
 - have erratic supply growth
 - are heavy, bulky or hard to transport
- **Construction requires physical delivery**
- **Thus, industry is subject to price spurts, transport bottlenecks, fuel price swings**
- **Expect 6-8% PPI increases, higher spikes**

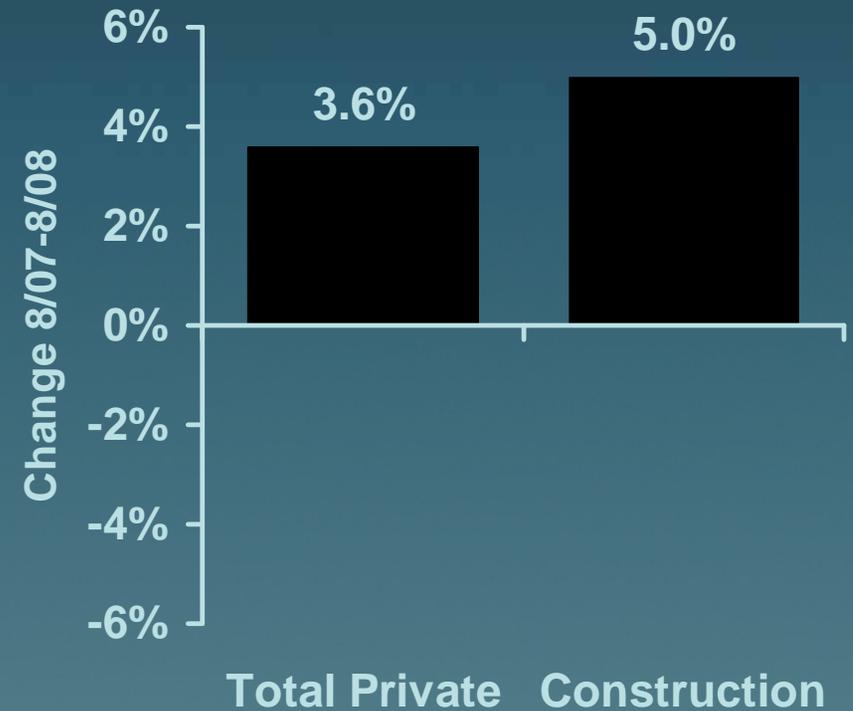


Construction jobs fall, but wages rise

Employment

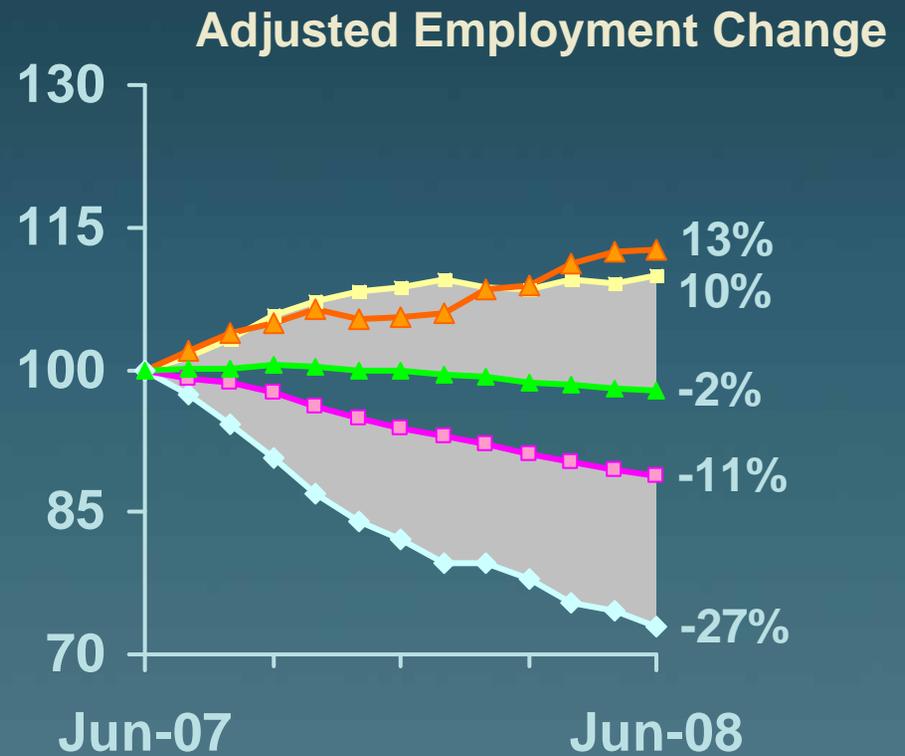


Average Hourly Earnings





Change in construction employment, July 2007 - July 2008



▲ Nonres employment (BLS est.)
■ Res employment (BLS est.)

▲ Nonres spending
■ Adjusted nonres employment
◆ Residential spending

Source: Author (from BLS, Census data)



Implications for 2008 wages

- **Nonres employment actually includes another 523,000 'res' specialty trades**
- **Thus, res change 7/07-7/08 was -27%, not -11%; nonres change was +10%, not -2%**
- **Biggest demand in '08 will be for crane operators, other scarce skills**
- **Nonres wages will rise +5 to +6% vs. +4.1% in '07**



Summary for 2008

- Nonres spending: +4 to +8% (led by energy, power, communications, hospitals, higher ed; weaker highway, retail, office, lodging)
- Res: -25 to -20% (no turnaround before '09)
- Total construction spending: -9 to -5%
- Materials costs: +6 to +8%
- Labor costs: +5 to +6%



Summary for 2009

- Nonres spending: -1 to -5%
- Res: +1 to +5% (SF up in 2d half, MF down all year)
- Total construction spending: -2% to +2%
- Materials costs: +6 to +8%
- Labor costs: +4 to +5%



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

- **The Data DIGest: weekly one-page email**
- **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)**
- **Audioconferences**



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