# The Difference This Time:
## Last cycle's inflation drives this cycle's productivity

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Automotive Outlook Symposium
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# Macro Assumptions

Economy projected to move to a stronger footing

- GDP from 1.9% in 2013 to 2.5% in 2014, 3.2% in 2015

- Broader base of support
  - Healthier consumer balance sheets
  - Pent-up residential investment
  - Rising domestic energy production
  - Strong corporate profits
  - Continued low inflation
  - Accommodative Fed policy

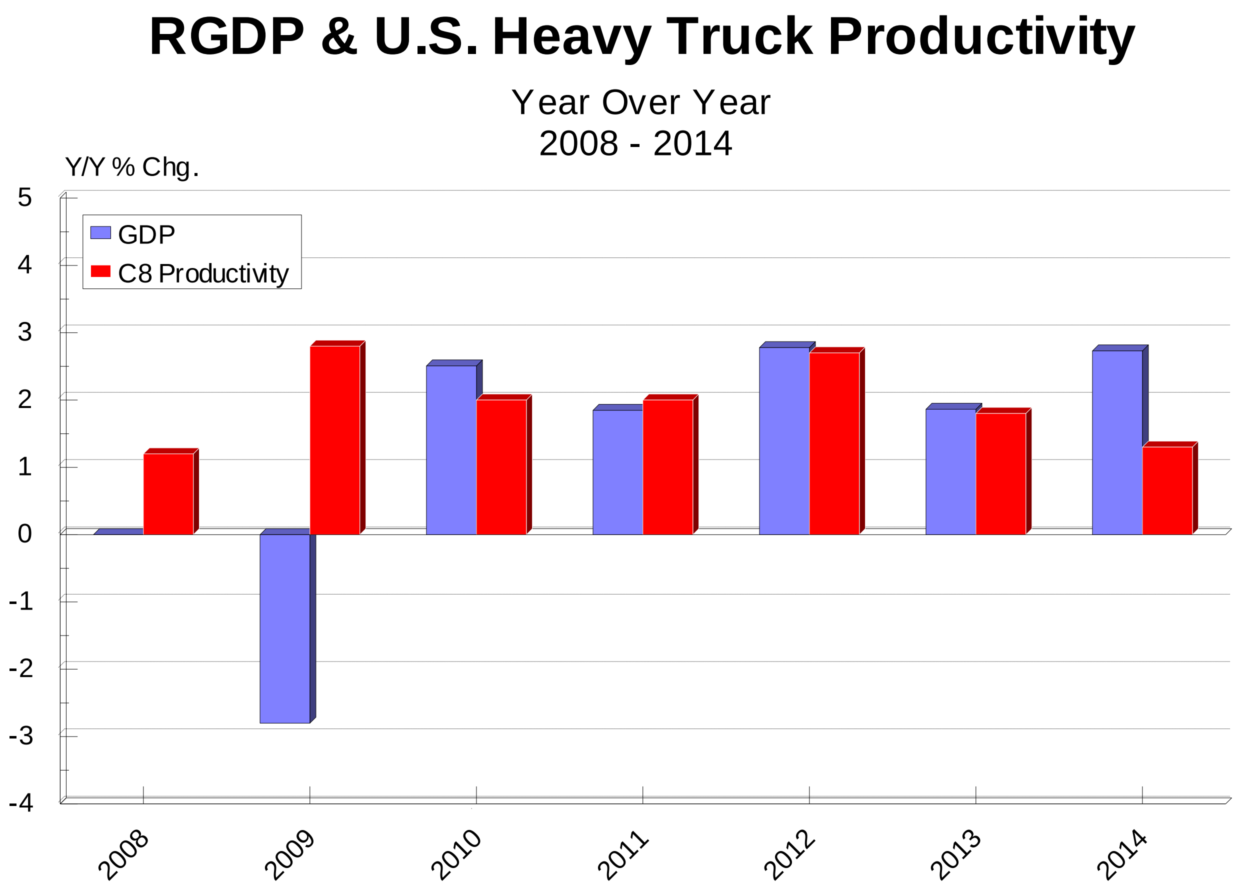
Last October, ACT became one of the 50 forecasters in the ***Blue Chip Economic Indicators***!

- Caveat(s):
  - **Reemergence of unproductive domestic politics**
  - Rising potential for geopolitical disruptions
  - Still slow job and income growth
    - *How long will this act as a drag on business investment?*
  - Modest drag from slower emerging market growth

# Productivity: Defining the Cycle

- Rapid rise in transportation inflation last decade drove sharp focus on cost control by shippers
  - Equipment, drivers, diesel (commodities)
- Simultaneously,
  - Technology advances made for real-time communications between shippers and under-utilized capacity
  - RRs spent $ billions on expanding IM offerings and improving service

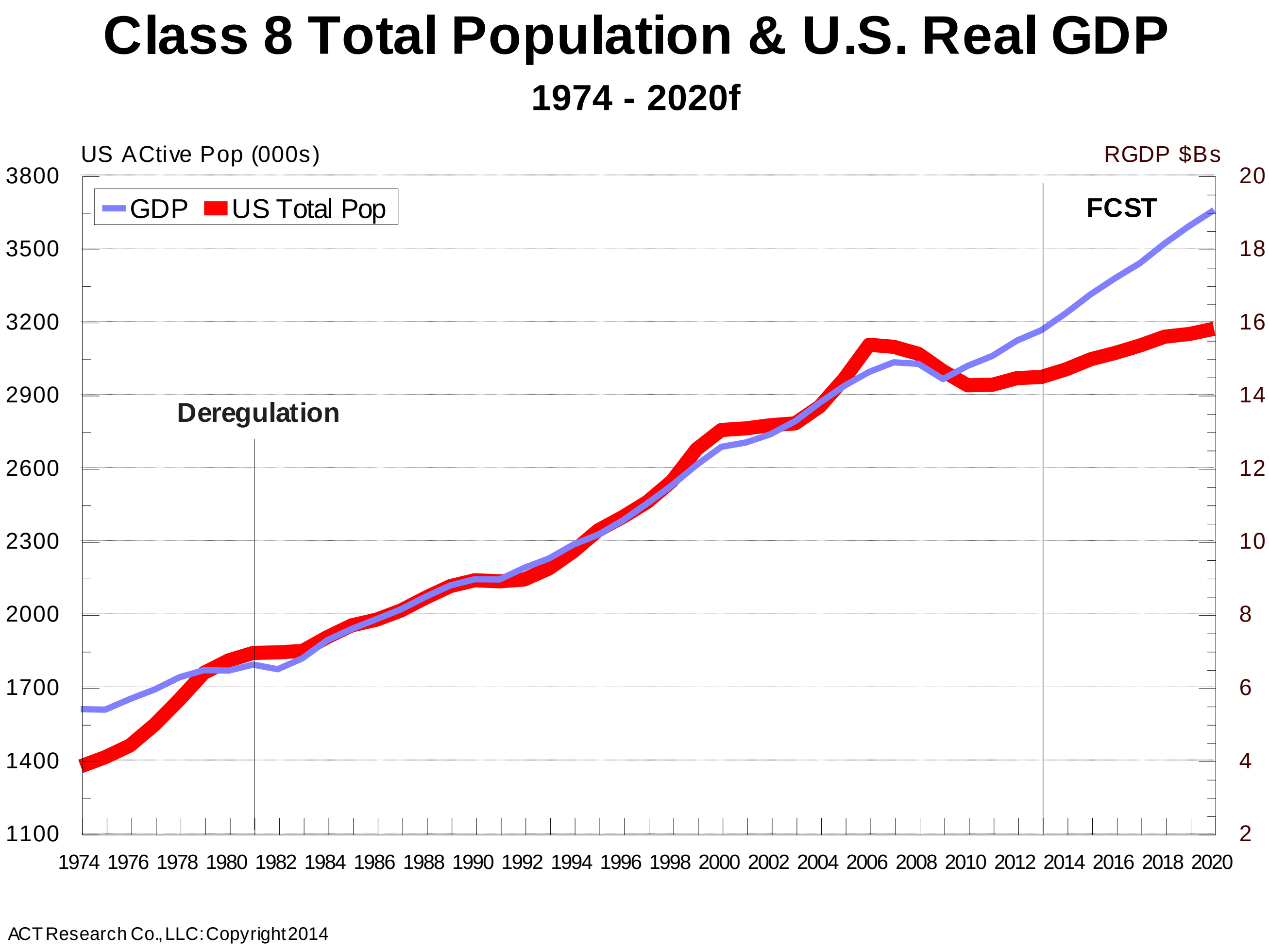
# The Problem in a Nutshell



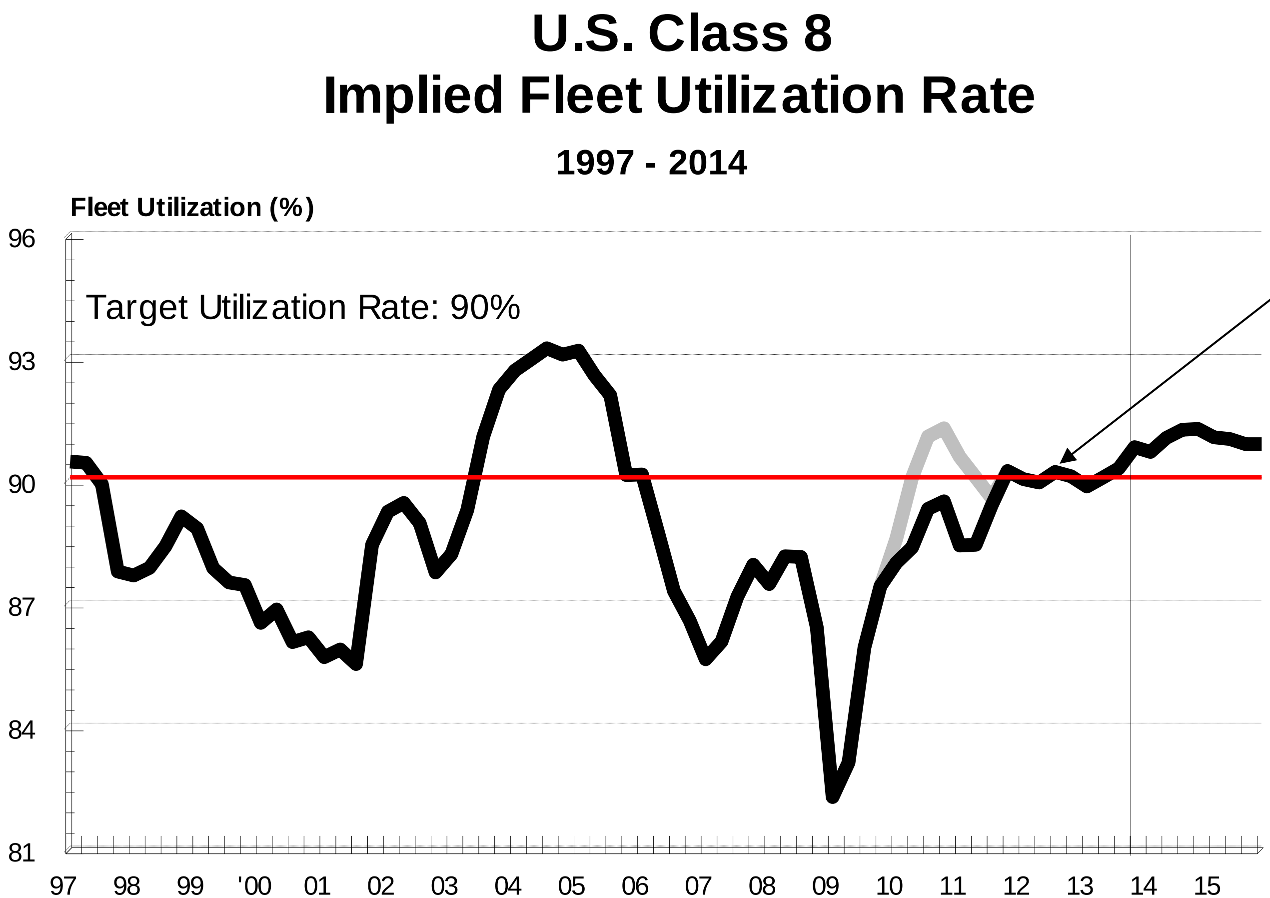

Source: ACT Research Co., LLC: Copyright 2014

If freight and productivity are growing at the same rate, you don't need more trucks

# Illustrating the Impact



# Resulting In This

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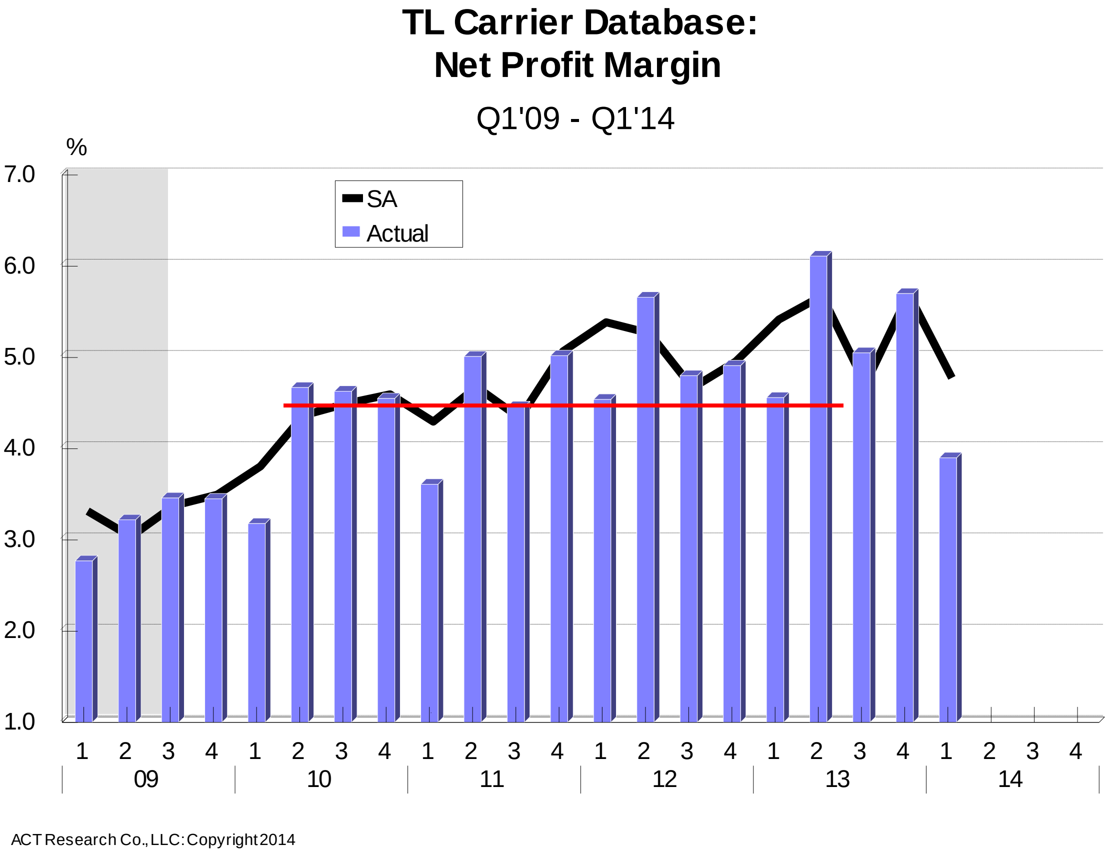
Despite economic growth and a stagnant Class 8 population, fleet utilization levels & profitability were basically unchanged from 2011 through mid 2013

# Slow to Materialize




- **1H'13: After ~3 years of stagnant results, profits break above trend**
- ***Q3'13: Costs related to new HoS regs rose faster than revenues***
- ***Q1'14: Weather pummels freight volumes, drives up operating costs***



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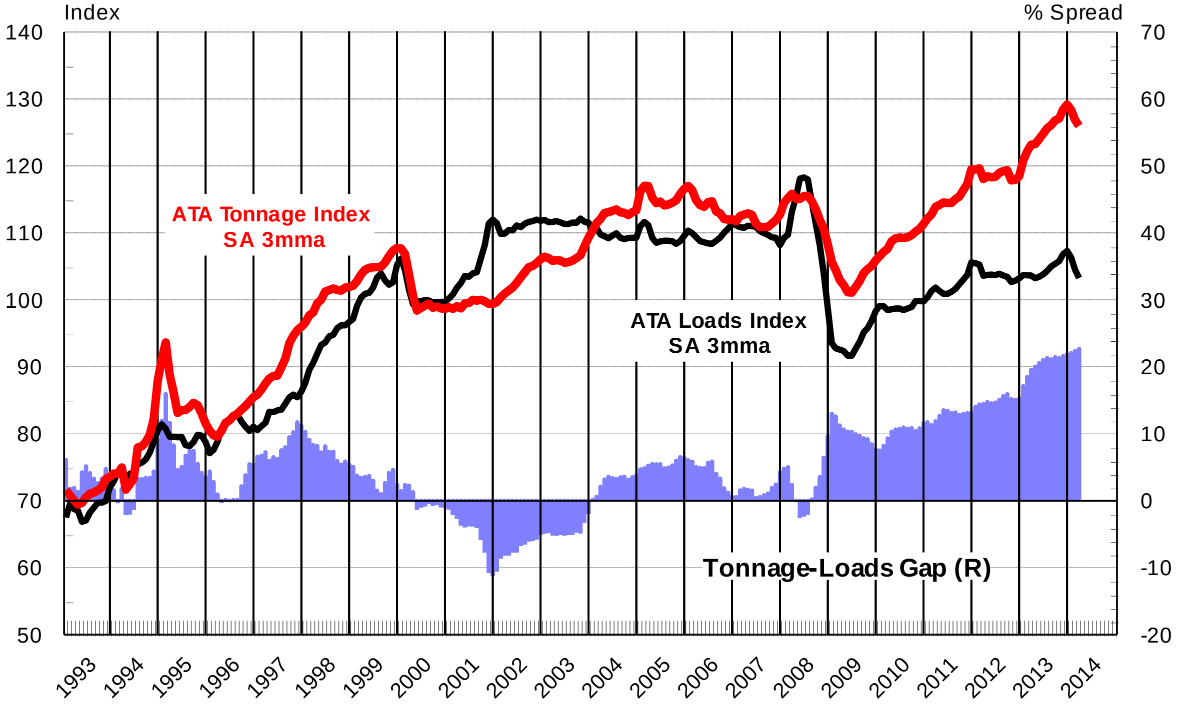
# Shipper Productivity

**ATA Truck Tonnage Index & ATA Truck Loads Index**

January '93 - March'14 (2000=100)




Source: American Trucking Associations, ACT Research Co., LLC: Copyright 2014

**Density**

Widening spread between tonnage & loads illustrates improved freight density

As well as:

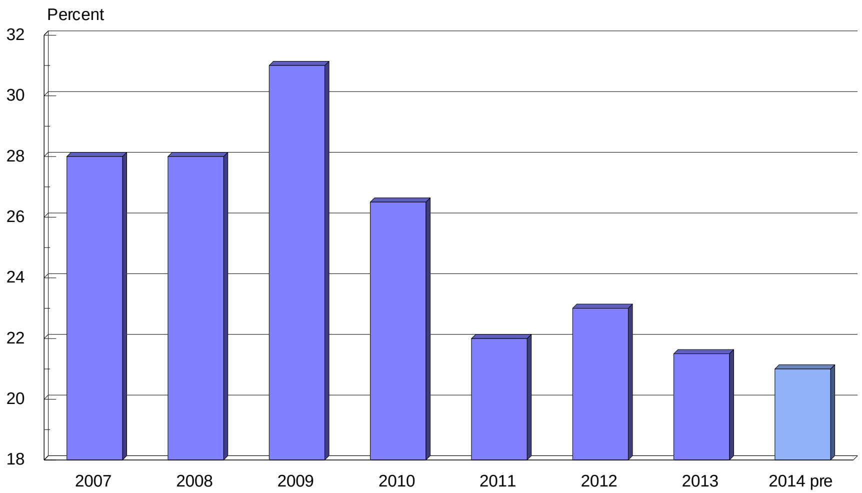
**Utilization:**

- Rise in private fleet backhauls
- Technology driven improvement in incremental capacity utilization

**Domestic intermodal**

# Productivity: Other Avenues

**NPTC Benchmark Survey:**
**Private Fleet Empty Backhauls Percentage**

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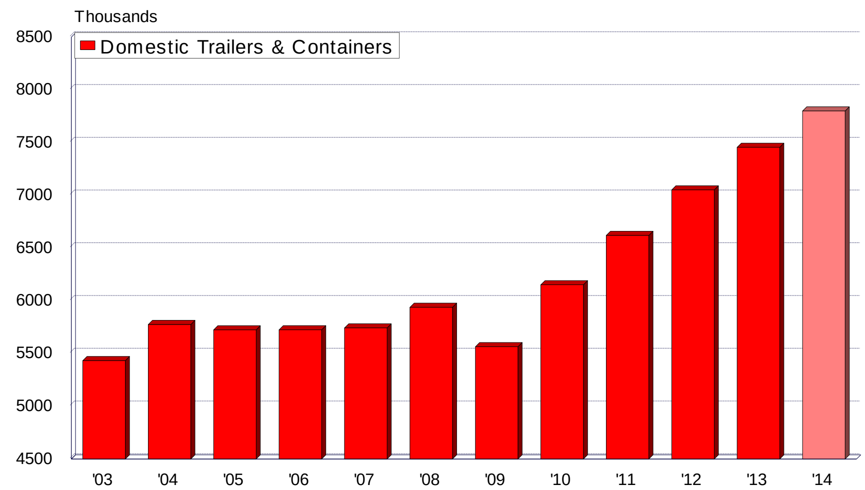
Private fleets get for-hire authority, farming capacity out to non-asset based 3PLs

Easy rule of thumb:
1mm IM loads = ~10k tractor pop.

**Domestic Intermodal Loadings**

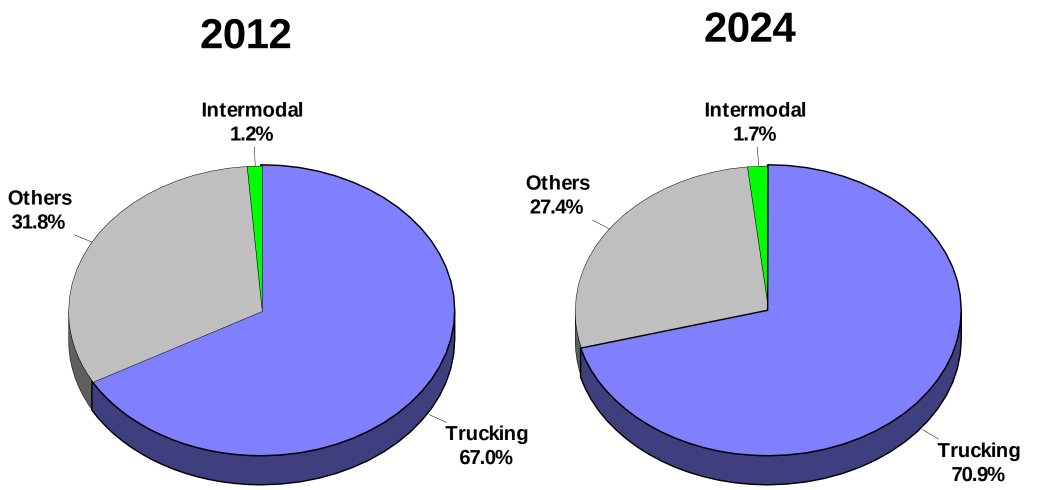
2003-2014F




IANA, ACT Research Co., LLC: Copyright 2013

# Size of the Pie Reality

## U.S. Freight Tonnage by Mode

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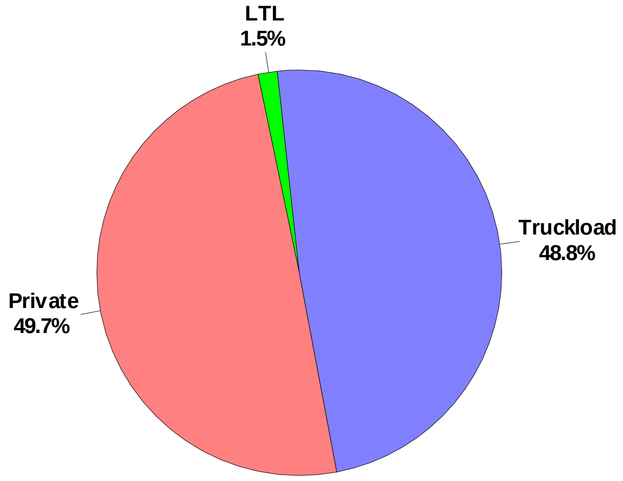
## U.S. Truck Tonnage 2012

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Applying this data to ACT's "active" population:
1ppt of modal share ~20k truck population

# Productivity:
## Undermining U.S. C8 Tractor Demand

| 2007-2013 Capacity Diversion | Source data/methodology | Active stock Capacity Impact |
|---|---|---|
| **Shipment Density**:<br>. Product, Packaging Loading, etc. | ATA Tonnage & Loads<br>~10ppts | 140k units |
| **Fleet Utilization**: | | |
| . Private fleet backhauls | NPTC ('07-'13):<br>29% to 21% = ~2ppts | 28k |
| . Improved technological ability to connect loads & equipment | Rise of 3PLs, optimization software, smart phones, tablets, etc. Estimate: ~5ppts | 74k |
| **Domestic Intermodal**:<br>. 1mm = 10k pop. | 2007 = 5.7mm<br>2013 = 7.5mm = 1.3ppts | 18k |
| Total Productivity Impact | 2007-2013 | 260k |



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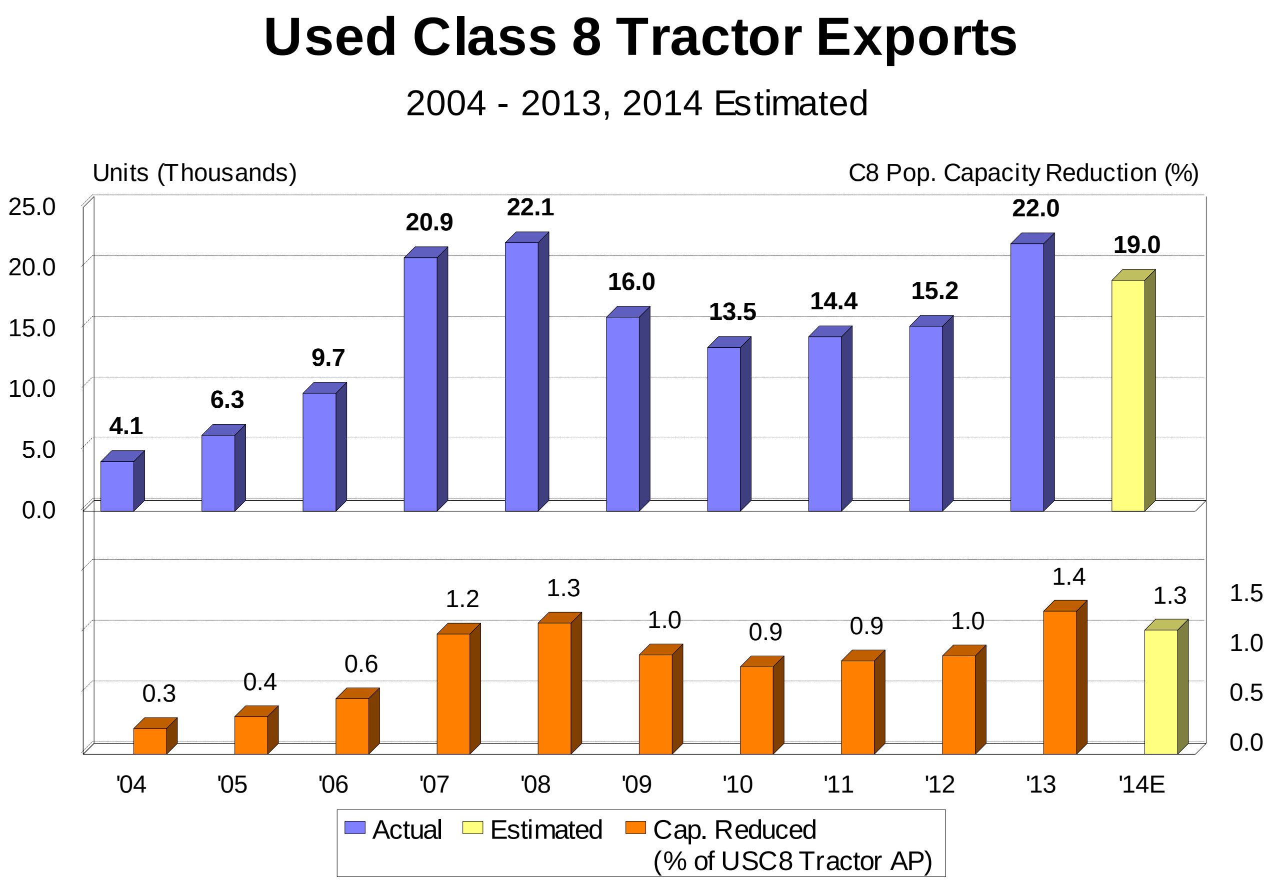
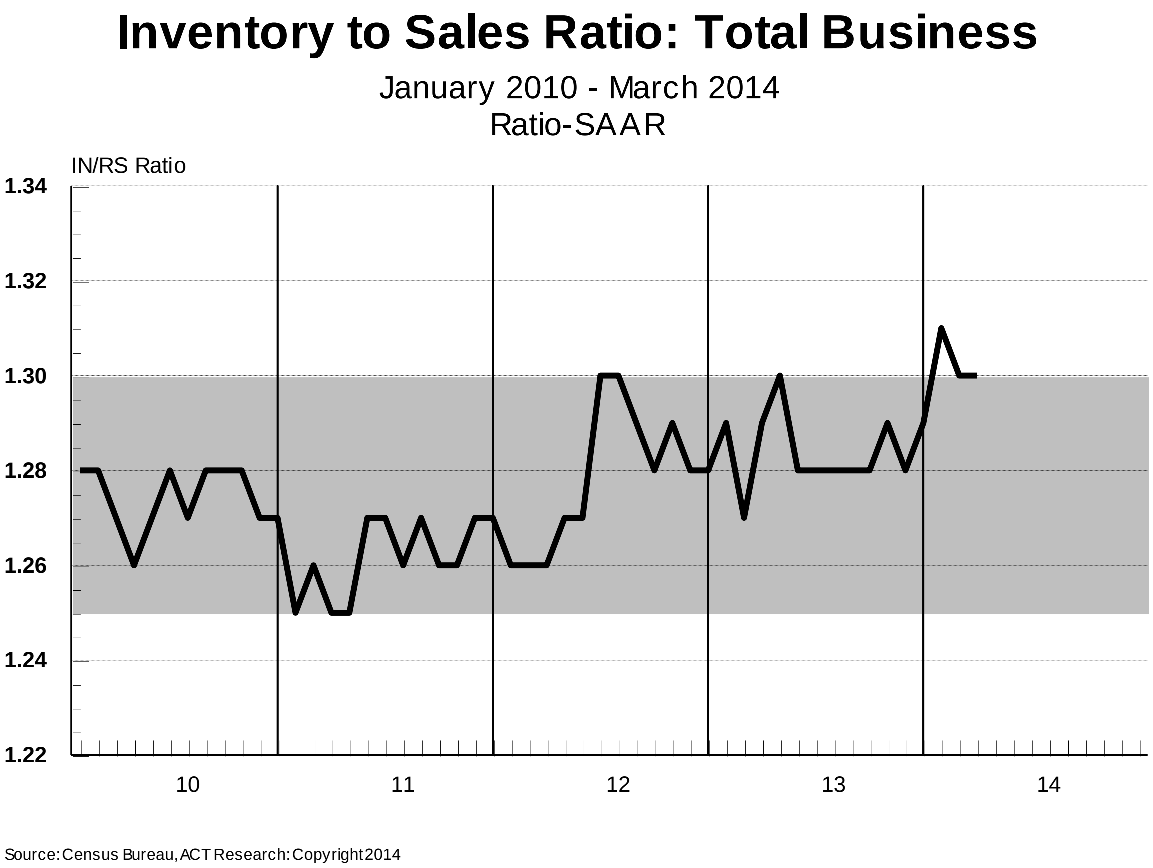
# It Could Have Been Worse




From 2007 to 2013, 124,000 tractors were exported out of the U.S. (~100k out of NA

**Final tally is a net productivity hit of ~140k units, or about 10% of active tractor capacity**

# Why Are We Seeing this?




January aside, permanent or opportunistic?

A) Shippers trading slower speed for lower freight rates

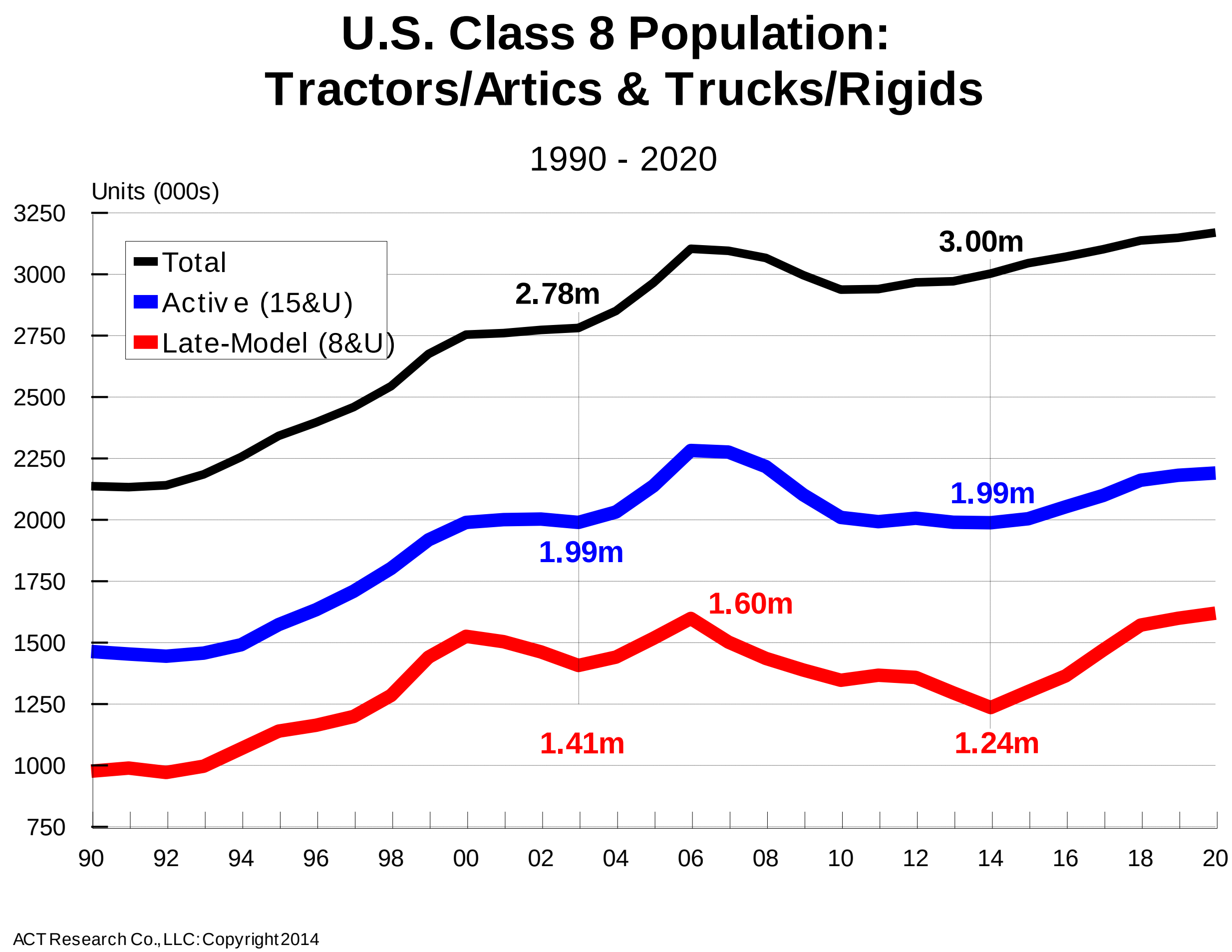
B) A reflection of cheap money and China no longer exporting deflation

# Productivity: Key question

- At what point do the outsized productivity improvements of the past 7-8 years begin to taper?
  - Our work suggests that 2012 was the high-water mark for the rate of productivity growth
    - Productivity still growing above trend, but at a slower rate

– If the economy grows as expected* and productivity growth slows, the next several years will be very good for truckers and by extension new truck and trailer demand

# Defining Population




Despite 22% GDP growth from 2003 to 2013:

Total pop. up just 8%

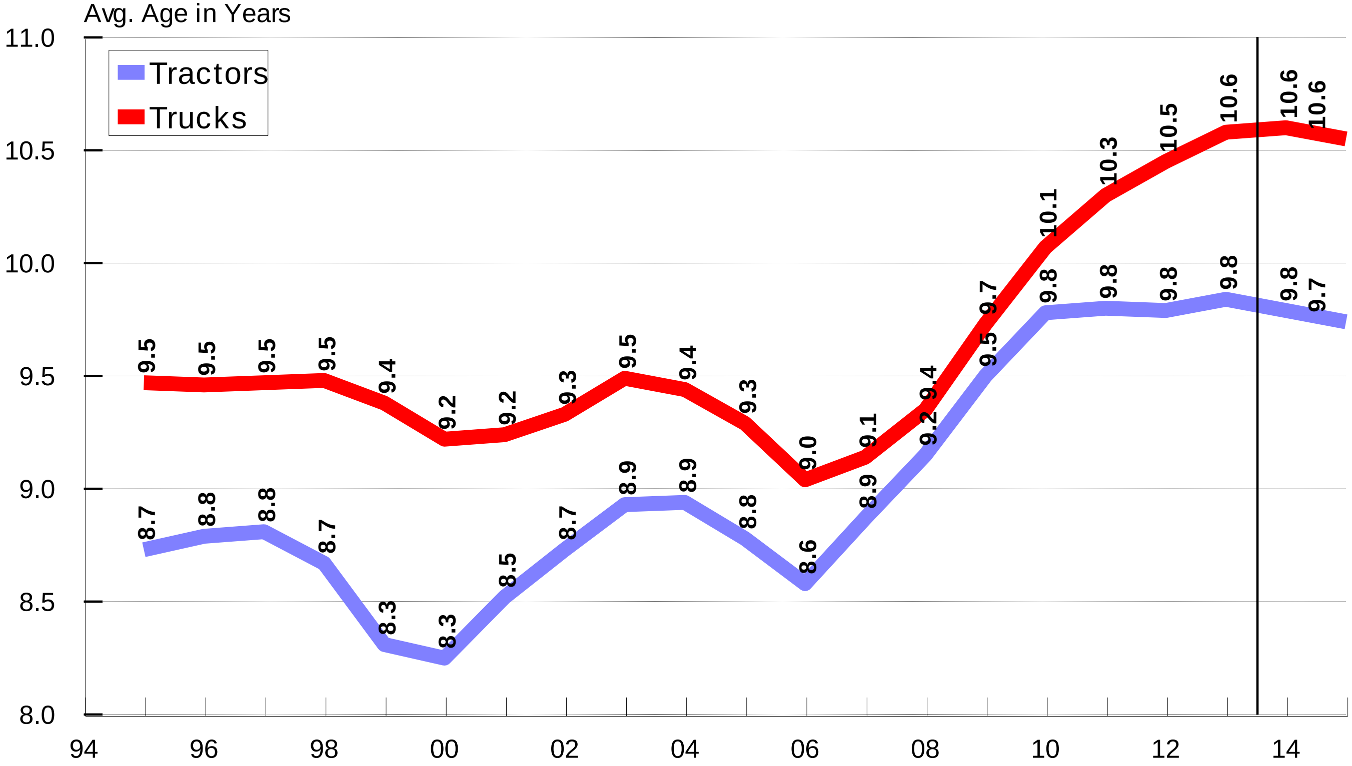
Active pop. is unchanged

Late-model pop. down 12% (and 23% from '06 peak)

# Fleet Demographics

## U.S. Class 8 Population Model Outputs: Avgerage Age, TOTAL Population

1995 - 2015




The high cost of trucks and the inability of the industry to gain traction on freight rates has kept fleet age at high levels:

Implicit in an older fleet is a less safe fleet

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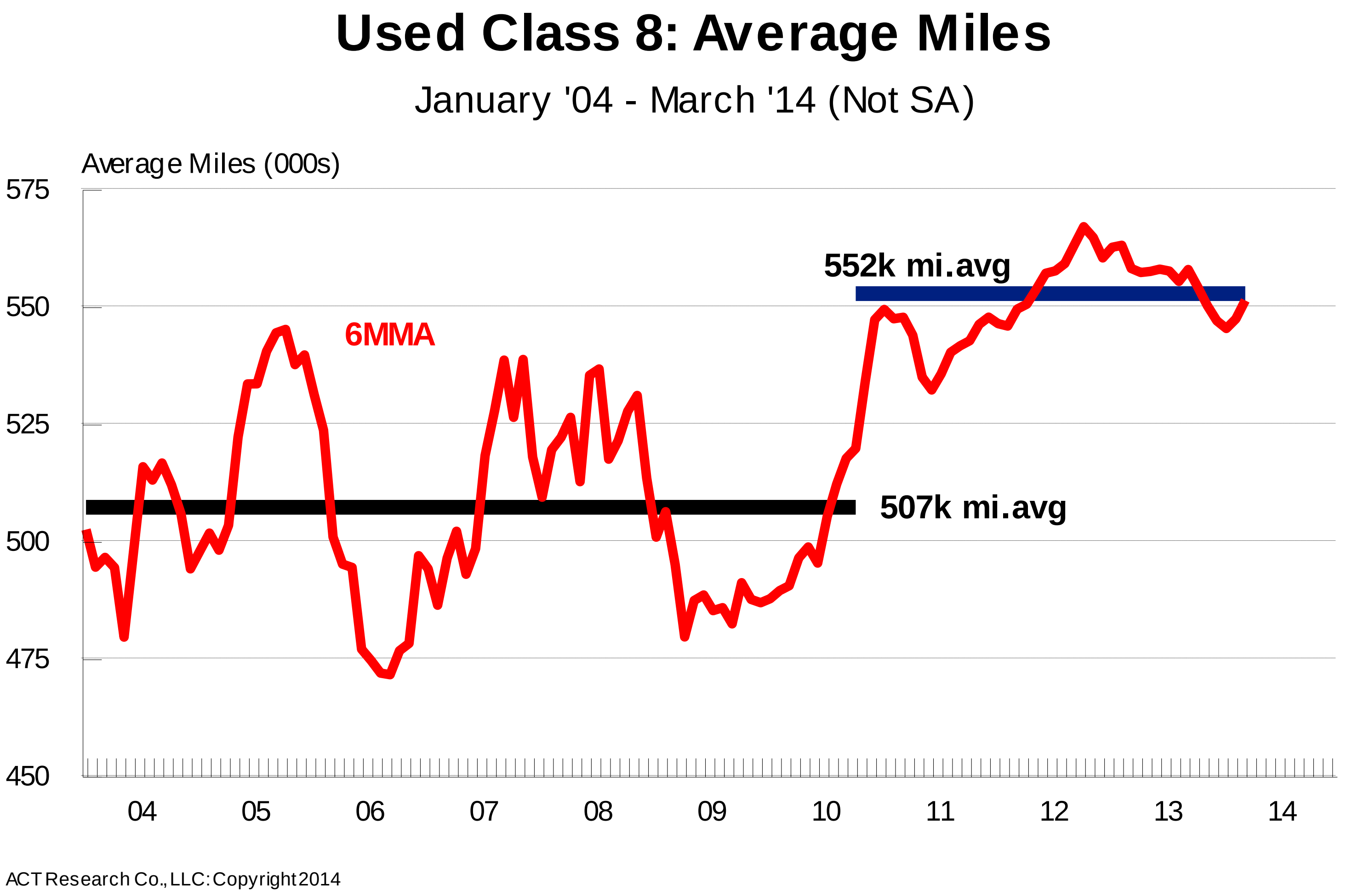
# Truck Quality or Necessity?



# Driver Shortage

- **The freight will get delivered**
  - Freight determines driver demand, not the reverse
  - Who, When (How long) and How Much
- **There is no substitute transportation mode for heavy tractor-trailer combinations**
- Transportation is a commodity and the Law of Supply & Demand has not been repealed
- Driver shortage does not preclude profitability
- All that said, there is no “Easy Button”

# Classic

***The Traffic World*** (now part of *Journal of Commerce*)

**Dec. 12, 1914**

## The Truck Driver Problem

- "Practically every truck manufacturer and nearly all employers **complain of the great difficulty of securing drivers who are competent** and who will work handling freight aside from those who drive horses. They are agreed that the profit or loss from truck transportation is largely dependent upon the drivers, **and yet a majority of truck owners will hire the men who will work cheapest**, entrusting valuable property in their keeping…)

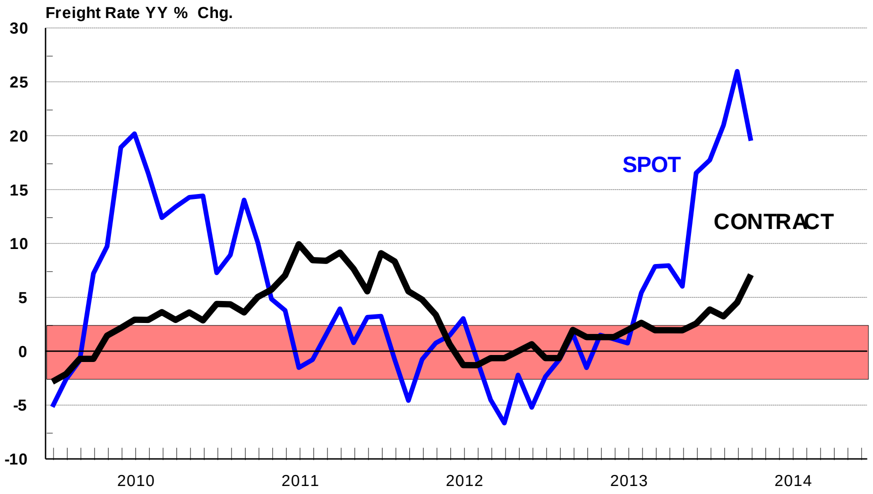
# Freight Market Conditions

- Spot freight rates move higher following the capacity constraining changes to HoS
- Stronger economic growth in 2H’13 exacerbates already snug capacity
    - Driver situation started biting around this time
- Polar Vortices impact output in Q1, but impact truck availability even more
    - Reading between the lines on economic reports

# Rising Rate Environment

**DAT Trendlines:**
**Dry Van Revenue per Mile (exFSC)**
**Year over Year % Change**

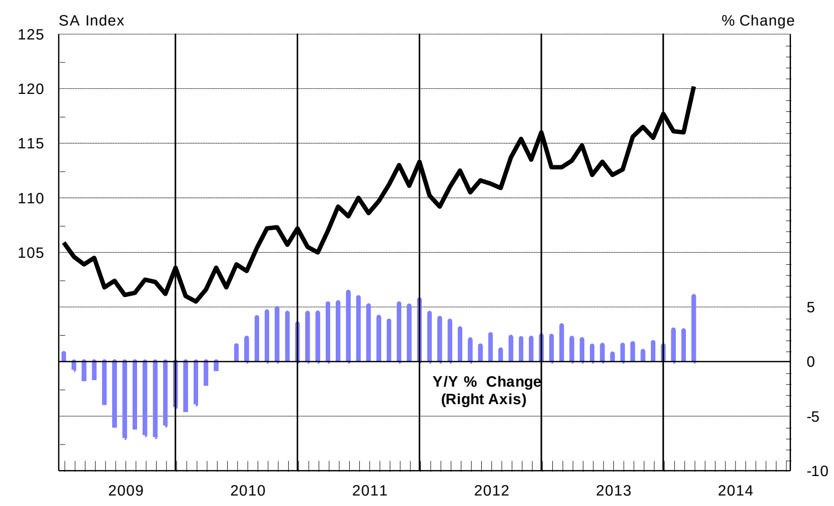
January '10 - April '14 (2000=100)




Source, Transcore Commercial Technology Group, ACT Research Co., LLC: Copyright 2014

**Cass Truckload Linehaul Pricing Index**

January '09 - March '14 (01'2005=100)

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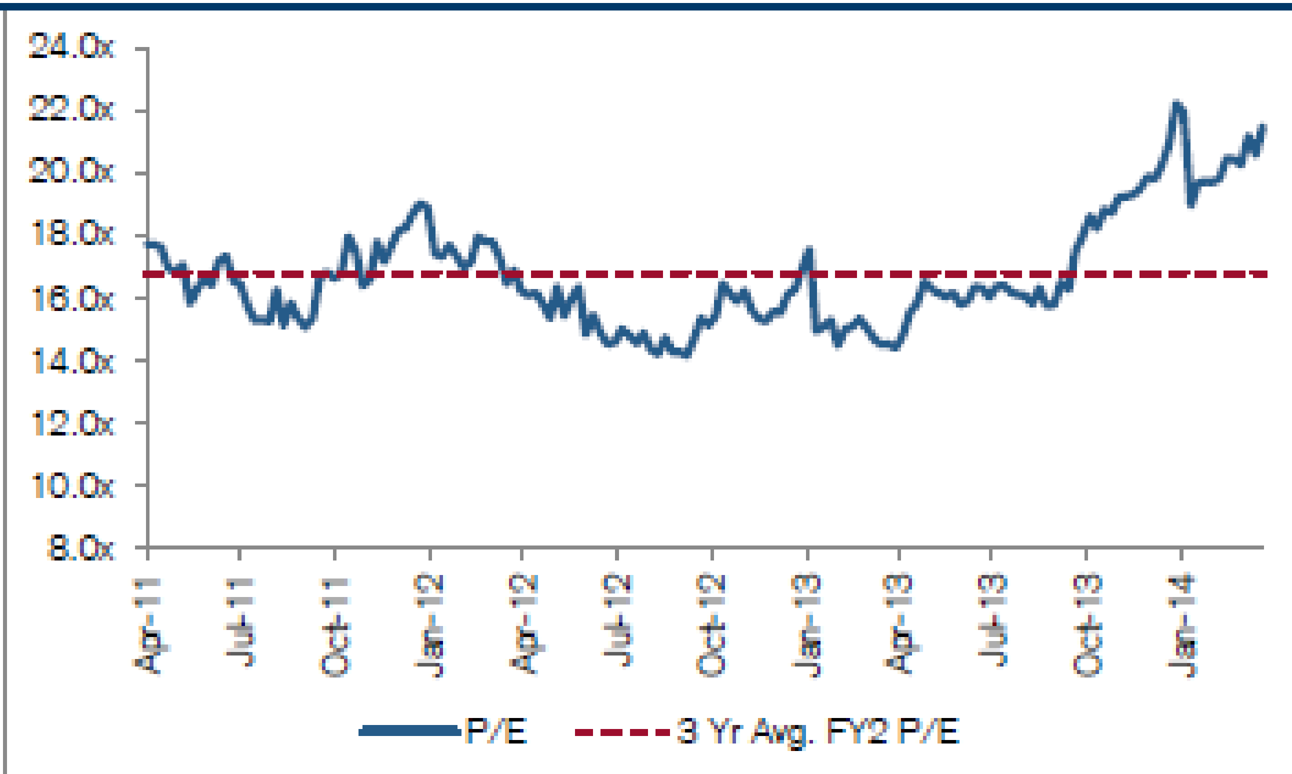
Spot rates were moving higher
*before* the weather got bad

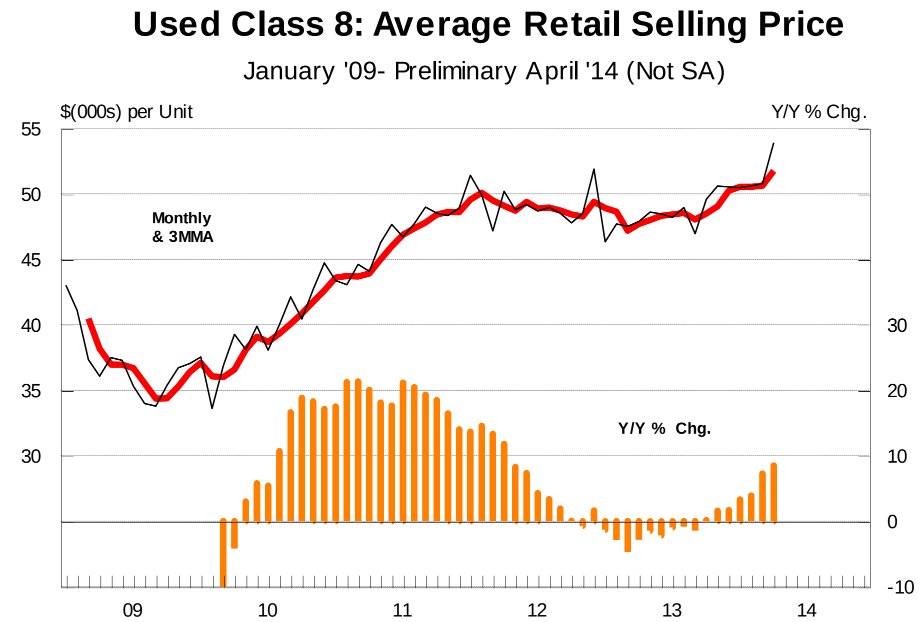
# Wall Street Has Noticed

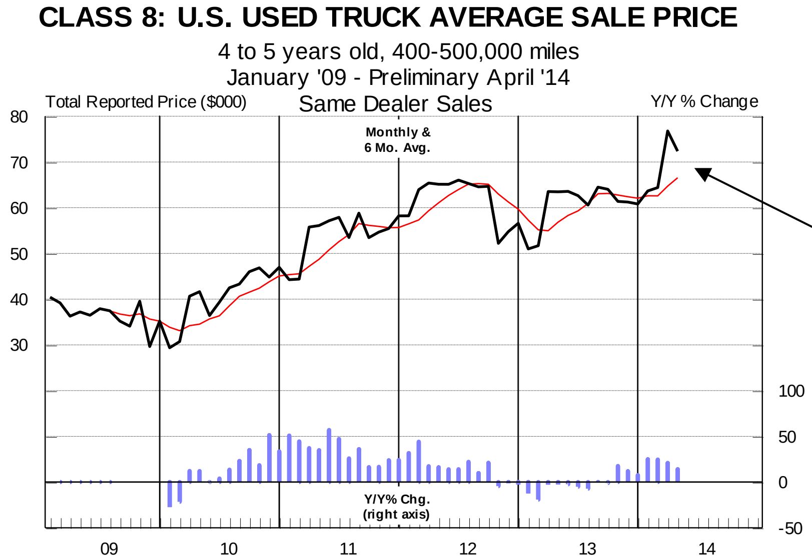
Exhibit 1: KNX 3-Year Historical Forward P/E




Source: Company data, Credit Suisse estimates

# Used Prices Strong




More expensive EPA'10 trucks become part of the 4-5 year population

# New Equipment Demand

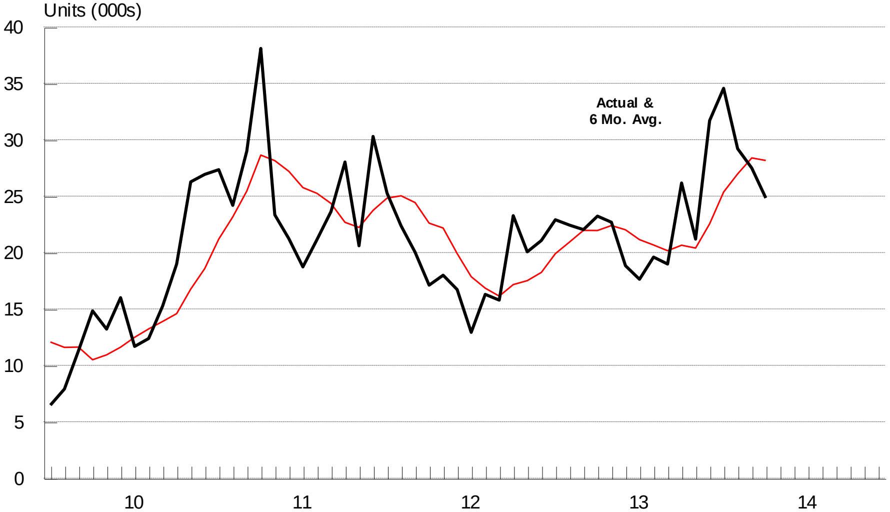
- Rapid change in sentiment
  - Stronger and more consistent freight
  - Traction on freight rates & profitability
  - Improved confidence

- Short-term industry outlook
  - Class 8 orders booked at 320k SAAR October-March
  - Backlogs expand rapidly
    - From 4 weeks to 5 months
  - Low inventories provide some cushion for build

# Never "If", But "When"

## TOTAL CLASS 8: N.A. NET ORDERS

January '10 - April '14

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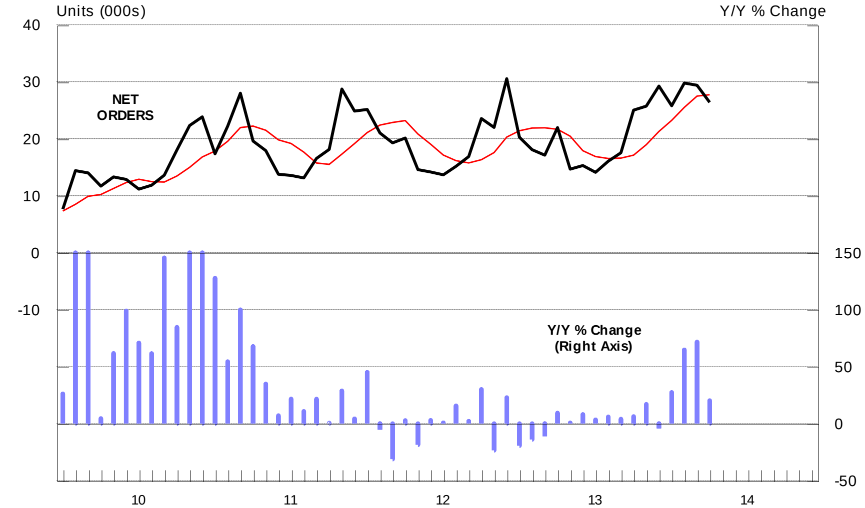
## TOTAL TRAILERS: NET ORDERS

**Year over Year Percent Change**

**January '10 - April '14**

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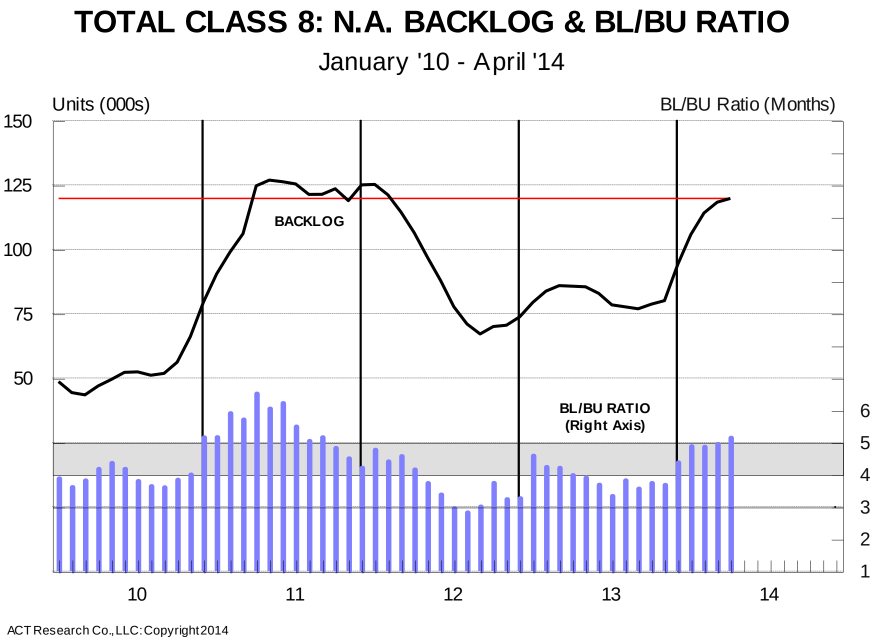
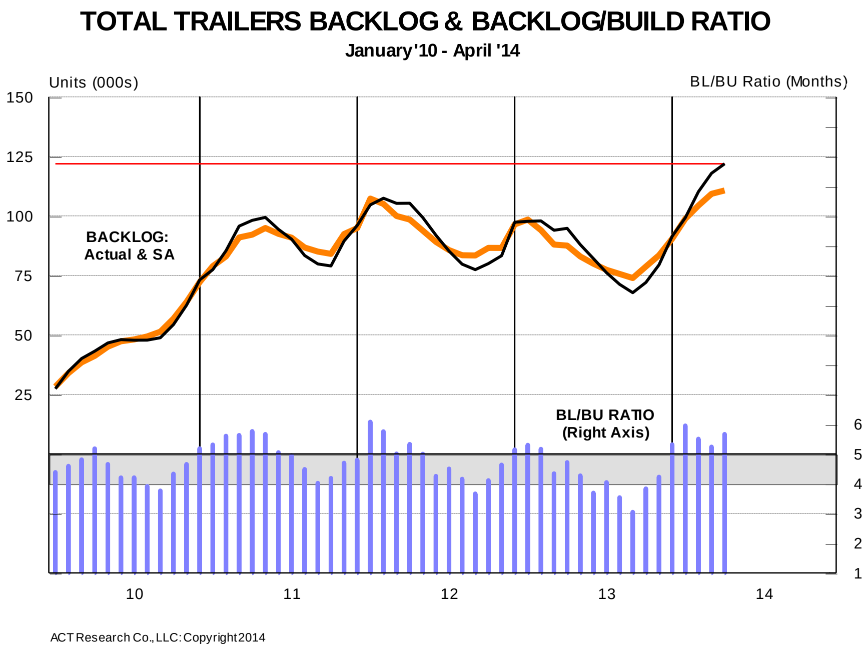
# Improving Visibility



# Class 8 BL Analysis:
## Strong Near-term Filling

**Build Timing of Units in Backlog as of April 2014**

| CLASS 8 | 2014 YTD | Q2'14 May-Jun | Q3'14 Jul-Sep | Q4'14 Oct-Dec | Q1'15 Jan-Mar | Beyond | 2014 Fcst. |
|---|---|---|---|---|---|---|---|
| BACKLOG DISTRIBUTION | | 44,709 | 48,625 | 21,506 | 3,576 | 1,312 | 119,728 |
| . Distribution by Quarter | | 37.3% | 40.6% | 18.0% | 3.0% | 1.1% | |
| Class 8 Actual/Forecast Build | 90,278 | 49,403 | 77,900 | 75,000 | | -- | 292,581 |
| . Open build slots: 2014 | | 4,694 | 29,275 | 53,494 | | -- | 87,463 |
| . % Open | | 9.5% | 37.6% | 71.3% | | | |

| | YTD | May-June | Q3'14 | Q4'14 |
|---|---|---|---|---|
| DAYS | 82 | 42 | 63 | 59 |
| BUILD UPD (A/F) | 1,101 | 1,176 | 1,237 | 1,271 |

Build plan guidance from OEMs in May suggest a more aggressive 2nd half: Extrapolating May guidance produces 290k-295k for NA BU in 2014





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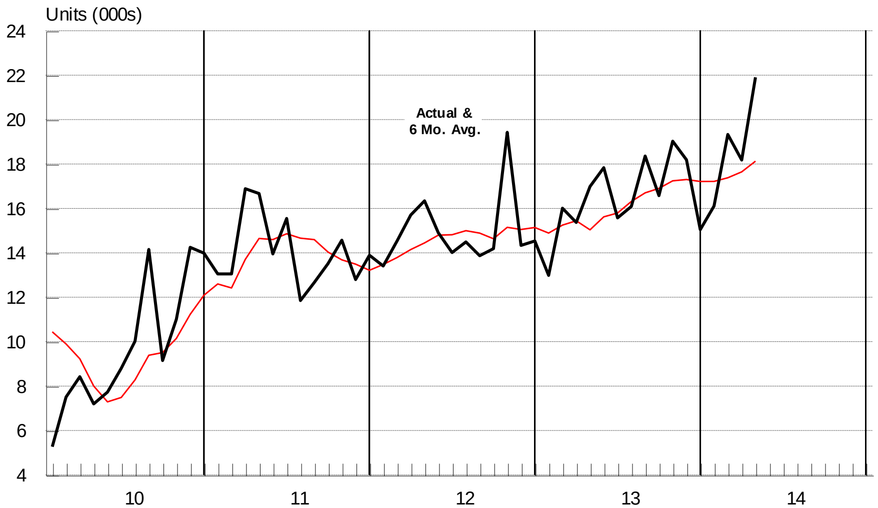
# Mediums Too

**TOTAL CLASSES 5-7: N.A. NET ORDERS**

January '10 - April '14

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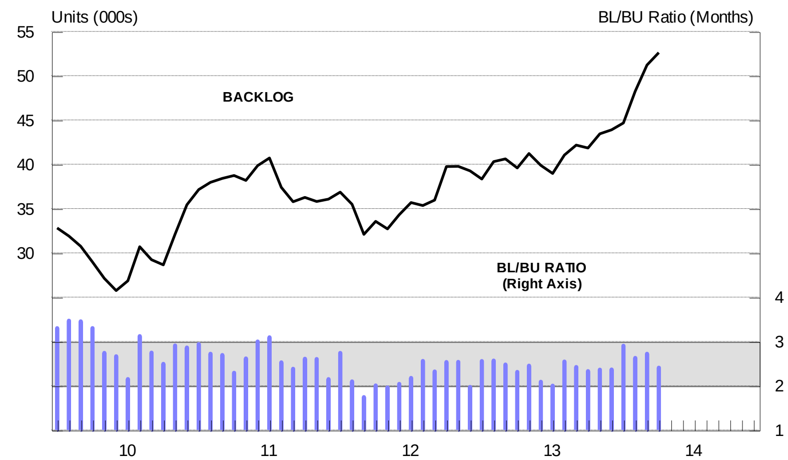
**TOTAL CL. 5-7: N.A. BACKLOG & BL/BU RATIO**

January '10 - April '14

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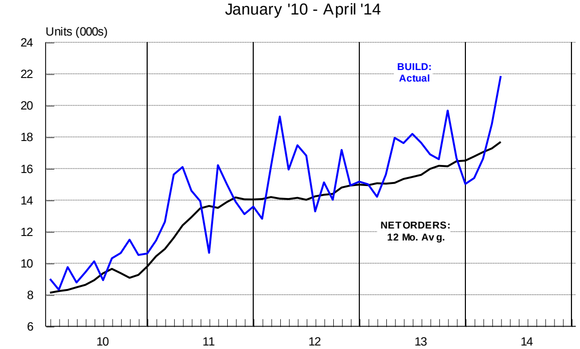
**TOTAL CLASSES 5-7:**
**N.A. NET ORDERS (Trailing 12 mo.) & BUILD (Actual)**

January '10 - April '14

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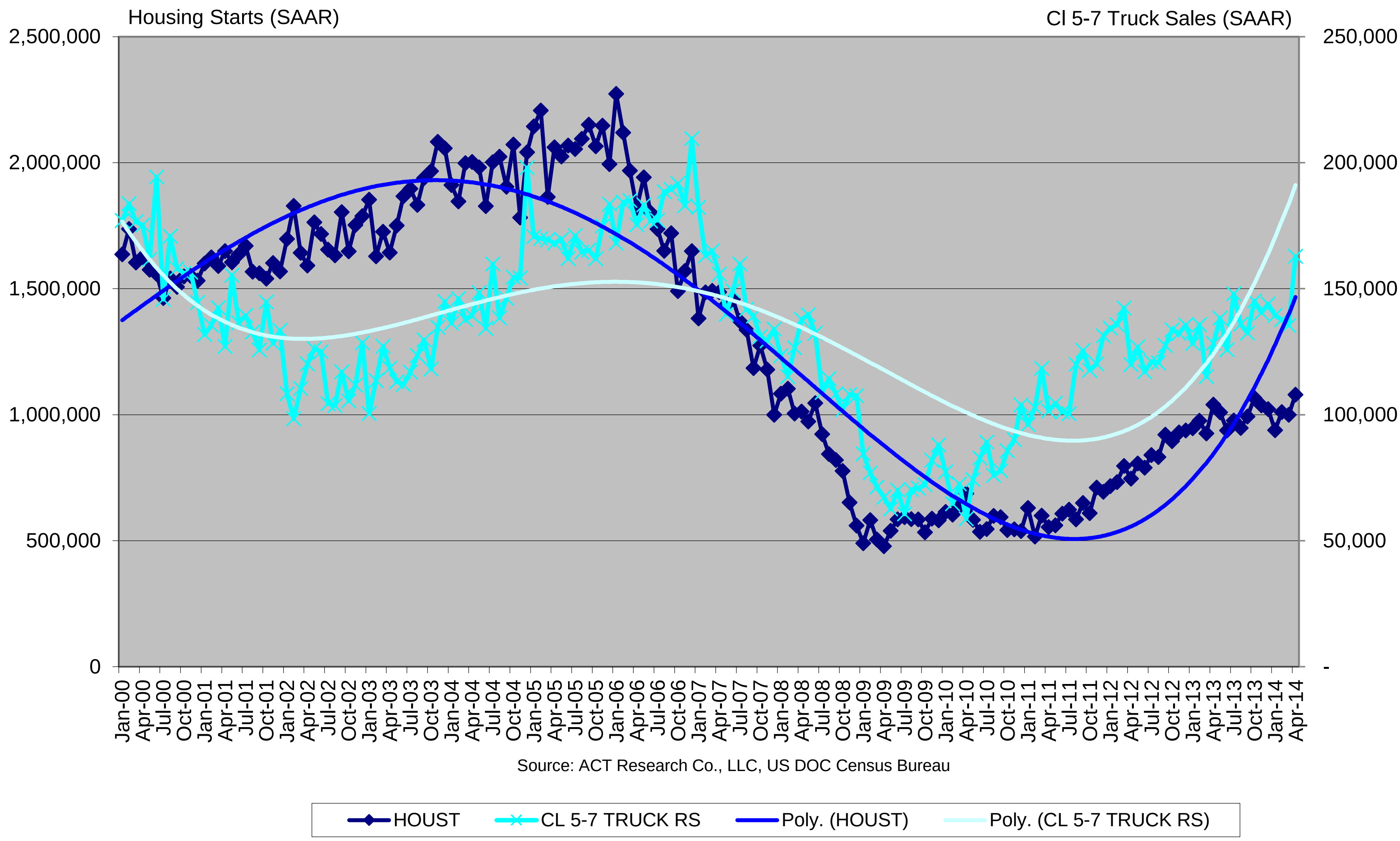
# N.A. Classes 5-7 Order Distribution

(Data through April 2013, annualized)

| Classes 5-7 Orders | Truck (000s) | Bus (000s) | RV (000s) | Total* (000s) |
|---|---|---|---|---|
| Past 12 Mo. | 152.1 | 35.6 | 17.6 | 212.2 |
| Past 6 (AR) | 156.3 | 32.4 | 19.0 | 217.5 |
| Past 3 (AR) | 163.8 | 38.4 | 23.0 | 237.7 |
| Apr. (AR) | 192.2 | 41.6 | 27.9 | 262.9 |

* Total includes Step Vans

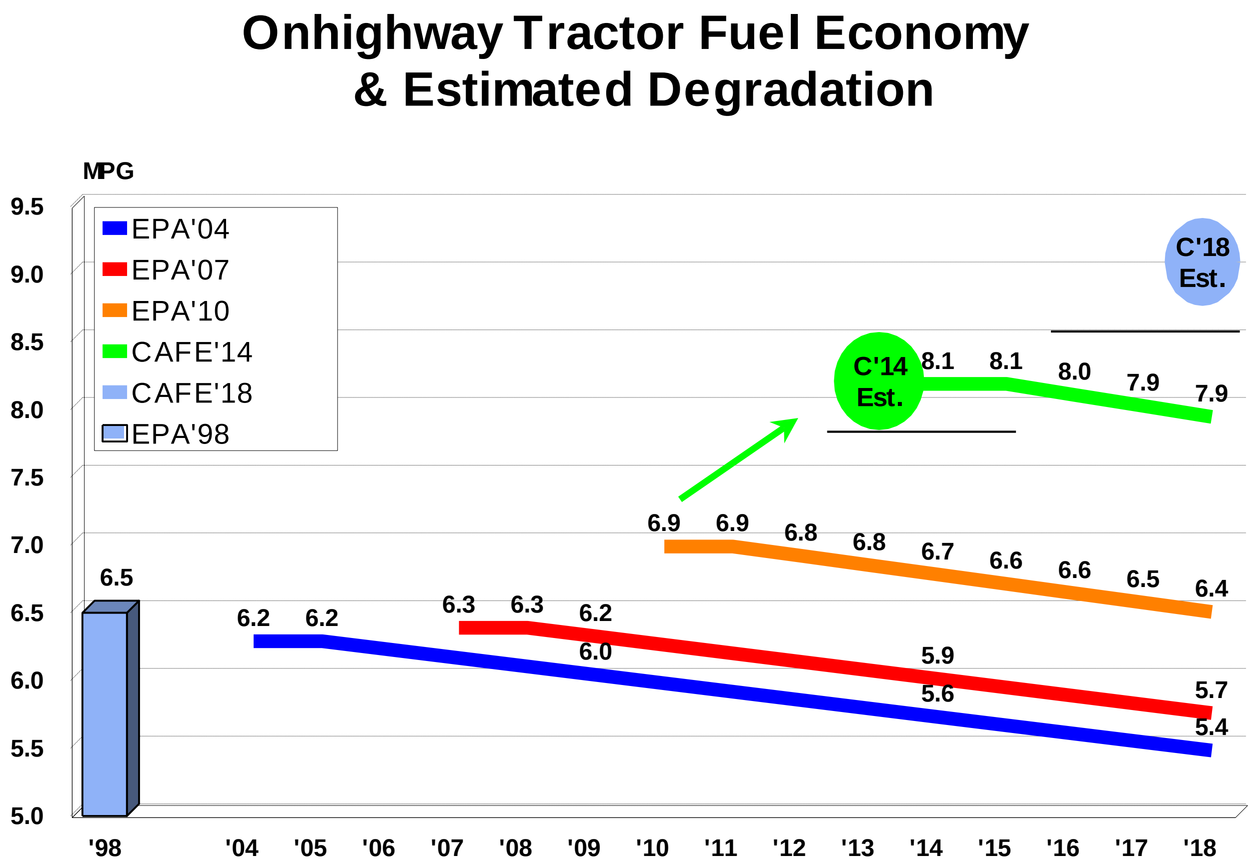
# Housing Starts vs. Cl 5-7 Truck Sales



# Demand Impediments

- Equipment (especially C8) is meaningfully more expensive and very good
- Regulations, HoS (2005, 2013), CSA, etc., and changes in warehousing have reduced mileage/truck ~8%-10% per year since 2004
    - More trucks required, but fewer trucks per year
- The rate of economic growth relative to the rate of productivity has not been favorable cycle to date
    - To reiterate, this situation is critical to trucker profits

# Significantly Better MPG




Sources: ACT Research w/inputs from PHH FirstFleet, NACFE, and fleet inputs.
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The difference between 6mpg & 8mpg over 100k miles?

**4,200 gal./yr. =~$17k/yr.**

# Forecasts

| | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| NA Class 8 BU (000s) | 278.7 | 245.5 | 293.0 | 295.6 |
| | | | | |
| Memo: U.S. C8 RS (000s) | 198.7 | 187.6 | 220.0 | 223.0 |
| US C8 NG RS | | 8k | 10k-12k | 14k-16k |
| NA C5-7 BU (000s) | 176.6 | 188.2 | 213.8 | 222.0 |
| | | | | |
| U.S. Trailer FS (000s) | 236.8 | 238.5 | 261.4 | 264.7 |

Domestic tank supply capacity constrained at ~10k

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