U.S. Expansions Duration

Sources: National Bureau of Economic Research and ATA
U.S. Expansions by Strength & Duration
(1949 to Current)

Average GDP Growth (%)

Months

Current US Expansion
<table>
<thead>
<tr>
<th>Year</th>
<th>Real GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg 2000-2007</td>
<td>2.7%</td>
</tr>
<tr>
<td>Avg 2010-2015</td>
<td>2.2%</td>
</tr>
<tr>
<td>2016</td>
<td>1.5%</td>
</tr>
<tr>
<td>2017</td>
<td>2.3%</td>
</tr>
<tr>
<td>2018</td>
<td>2.9%</td>
</tr>
<tr>
<td>2019</td>
<td>2.8%</td>
</tr>
<tr>
<td>2020</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Sources: BEA & ATA
The Drivers of Truck Freight, Plus Inventories

Sources: BLS, Census, and Federal Reserve
U.S. Economy is at Full-Employment

Sources: Department of Labor
Employment Costs: Wages & Salaries

Sources: BLS & ATA
Single-Family Housing Starts Will Continue Their Upward Climb

Total Housing Starts
(Monthly; Annualized Rate; Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.S.</td>
<td>1.18 M</td>
<td>1.21 M</td>
<td>1.28 M</td>
<td>1.37 M</td>
<td>1.45 M</td>
</tr>
</tbody>
</table>

Sources: Census & ATA
Factory Output is Stronger, But Outlook Recently Downgraded

**Factory Output (Index)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Index</td>
<td>90.0</td>
<td>95.0</td>
<td>100.0</td>
<td>105.0</td>
<td>110.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Factory Output (Year-over-Year Percent)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>-3.0%</td>
<td>-2.0%</td>
<td>-1.0%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Sources: Federal Reserve & ATA
Total Business Inventory-to-Sales Ratio
(Data adjusted for seasonal, holiday, and trading-day differences, but not price changes)

Source: Census Bureau
Freight Market
Total For-Hire TL Loads

Index: January 2010=100; 3-Month Moving Average

Includes Dry Van, Flatbed, Temp Controlled, and Tank Truck

Source: ATA's Trucking Activity Report
For-Hire Truckload Loads Growth

Source: ATA’s Trucking Activity Report
# For-Hire Truckload Loads

## Year-Over-Year Growth

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>Q1 2018</th>
<th>Jan-Jul 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dry Van</strong></td>
<td>0.8%</td>
<td>2.1%</td>
<td>5.7%</td>
<td>7.2%</td>
</tr>
<tr>
<td><strong>Temp Controlled</strong></td>
<td>-0.3%</td>
<td>5.0%</td>
<td>-0.1%</td>
<td>-8.8%</td>
</tr>
<tr>
<td><strong>Flatbed</strong></td>
<td>5.2%</td>
<td>1.3%</td>
<td>-8.7%</td>
<td>-6.1%</td>
</tr>
<tr>
<td><strong>Tank Truck</strong></td>
<td>0.0%</td>
<td>-2.8%</td>
<td>-3.2%</td>
<td>-3.9%</td>
</tr>
<tr>
<td><strong>Short-Haul (&lt;500 miles)</strong></td>
<td>1.5%</td>
<td>2.4%</td>
<td>2.8%</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Long-Haul (&gt;1,000 miles)</strong></td>
<td>1.7%</td>
<td>7.8%</td>
<td>6.1%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

*Source: ATA’s Trucking Activity Report*
Total For-Hire TL Miles

Index: 2010=100; Seasonally Adjusted; 3-Month Moving Average

Includes Dry Van, Flatbed, Temp Controlled, and Tank Truck

Source: ATA’s Trucking Activity Report
Dry Van Truckload Average Length-Of-Haul Continues to Fall

Source: ATA’s Trucking Activity Report
For-Hire Truckload Revenue

Revenue
(Index; 2015=100)

Revenue
(Year-over-Year Percent)

Excludes FSC Revenue

Source: ATA's Trucking Activity Report
## For-Hire Truckload Revenue

### Year-Over-Year Growth

<table>
<thead>
<tr>
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<th>2016</th>
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</thead>
<tbody>
<tr>
<td>Dry Van</td>
<td>-4.4%</td>
<td>0.7%</td>
<td>15.1%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Temp Controlled</td>
<td>-5.2%</td>
<td>4.8%</td>
<td>13.8%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Flatbed</td>
<td>-0.2%</td>
<td>2.0%</td>
<td>9.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Tank Truck</td>
<td>-0.6%</td>
<td>0.7%</td>
<td>3.3%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Short-Haul (&lt;500 miles)</td>
<td>-0.5%</td>
<td>3.5%</td>
<td>18.1%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Long-Haul (&gt;1,000 miles)</td>
<td>-18.2%</td>
<td>15.8%</td>
<td>8.8%</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Excludes FSC Revenue

**Source:** ATA's Trucking Activity Report
ATA's Trucking Activity Report

LTL Tonnage

Index: 2010=100; 3-Month Moving Average

Source: ATA's Trucking Activity Report
LTL Tonnage Growth

- 2016: 1.7%
- 2017: 1.0%
- Q4 2017 YOY: 3.8%
- Jan-Jul 2018 YOY: 3.9%

Source: ATA's Trucking Activity Report
U.S. Bank Quarterly Trucking Freight Payment Indexes

**Shipments**
(Index; 2015=100)

**Spend**
(Index; 2015=100)

Source: U.S. Bank
Industry Capacity Remains Very Constrained
US Retail Class 8 Truck Sales

Includes Tractors & Straight Trucks

Source: ATA's American Trucking Trends 2018 & ACT Research
US Active Population Class 8 Truck Age

Includes Tractors & Straight Trucks

Source: ACT Research
US Class 8 Tractor Exports

Units

20-year average

* 2018 is a YTD annualized rate

Source: Census Bureau

* 2018 is a YTD annualized rate

Source: Census Bureau
Top Importers of U.S. Used Tractors

2007
- Russia: 19%
- Mexico: 28%
- Nigeria: 10%
- Panama: 5%
- Canada: 13%
- Panama: 5%
- Others: 10%

2017
- Mexico: 26%
- Nigeria: 19%
- Mexico: 14%
- Vietnam: 10%
- Guatemala: 19%
- Canada: 6%
- Others: 14%
- Others: 10%
For-Hire TL Tractor Changes: Large vs Small Fleets

Includes company tractors and independent contractor equipment

- Large TLs
- Small TLs

2018 data is through July

Small Fleet: Less than $30 million in annual revenue

Source: ATA's Trucking Activity Report
For-Hire Truckload Tractor Data

Company & I.C. Power Units
(Year-over-Year Percent)

- Large TL
- Small TL

Source: ATA's Trucking Activity Report
Large TLs: Company Tractors vs Independent Contractor Equipment

Index: January 2017=100

Trough to Peak: +3.6%
Peak to Trough: -3.9%

Source: ATA's Trucking Activity Report
Small TLs: Company Tractors vs Independent Contractor Equipment

Index: January 2017=100

Trough to Peak: +3.2%
Peak to Trough: -2.5%

Source: ATA's Trucking Activity Report
LTL Truck Counts
(Index: 2015 = 100)

2016 — 2017 — 2018

2018 YTD +0.1% over same period in 2017

Source: ATA's Trucking Activity Report
## For-Hire TL & LTL Pricing Proxies

### Year-Over-Year Growth

<table>
<thead>
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<td>12.3%</td>
<td>13.6%</td>
</tr>
<tr>
<td>LTL</td>
<td>1.4%</td>
<td>0.0%</td>
<td>5.2%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Truckload: Average Revenue per Mile  
LTL: Average Revenue per Ton  
Excludes FSC Revenue

Source: ATA’s Trucking Activity Report
For-Hire Truckload Revenue per Mile

Year-Over-Year Growth

Includes Dry Van, Flatbed, Temp Controlled, and Tank Truck
Excludes Fuel Surcharges

Source: ATA's Trucking Activity Report
The Driver Situation Remains Very Difficult
Truck Driver Turnover Rates

All rates are annualized

Source: ATA
The driver shortage is primarily an over-the-road for-hire truckload issue. So how many drivers are in that space?

Based on government data, ATA estimates that there are roughly 500,000 OTR for-hire TL drivers.

Source: U.S. Department of Labor
Driver Shortage

Source: ATA's Truck Driver Shortage Analysis 2017
Jobs Created by Industry Since January 2017

Thousands of Jobs

- Manufacturing: 400
- Construction: 420
- For Hire Trucking: 30

Source: Department of Labor
ATA Driver Compensation Study

2017 and 2013 Median Pay (Solo Company Drivers)

- Private
- Refrigerated
- Tank Truck OTR
- LTL OTR
- LTL Local P&D
- Flatbed
- Van Dedicated
- TL National Irregular Route Van
- Tank Local

Source: ATA’s 2017 Driver Compensation Study
WHAT ELSE CAN BE DONE?

• DRIVE-Safe Act
• Improve driver efficiency/driving time – Reduce driver waiting times
  • 8,500/month to 9,000 = 5.9%
  • 8,500/month to 9,500 = 11.8%
• Female Drivers
Download ATA’s Report for Free at:

http://trck.ng/drivershortage
The Long-Run Looks Good Too
Growth in Tonnage

Total Increase from 2018 to 2029

- Pipeline, 134%
- Air, 37%
- Rail Intermodal, 35%
- Trucking, 27%
- Waterborne, 16%
- Rail Carload, 5%

Source: U.S. Freight Transportation Forecast to 2029
Distribution of Tonnage by Mode: 2018 vs 2029

2018
- Truck: 70.2%
- Rail Carload: 11.3%
- Pipeline: 10.8%
- Water: 6.3%
- Rail Intermodal: 1.3%
- Air: 0.1%

2029
- Truck: 65.9%
- Rail Intermodal: 1.3%
- Water: 5.4%
- Pipeline: 18.6%
- Rail Carload: 8.7%
- Air: 0.1%

Source: U.S. Freight Transportation Forecast to 2029
Thanks!

rsuarez@trucking.org