

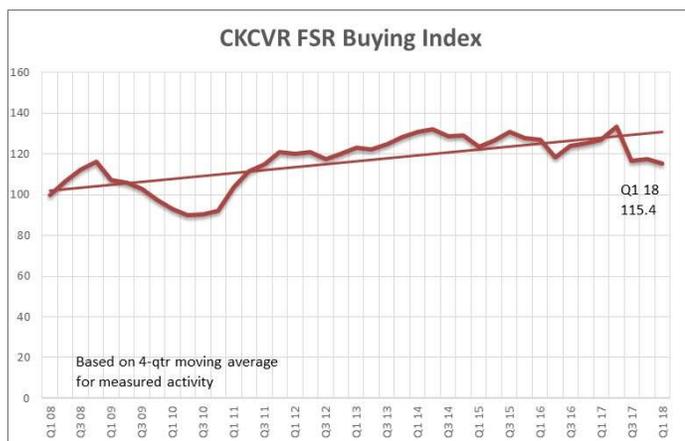
Fleet Sentiment Report – Q1 '18

CK Commercial Vehicle Research

Q1 2018 – February 1, 2018

Overview & Key Points

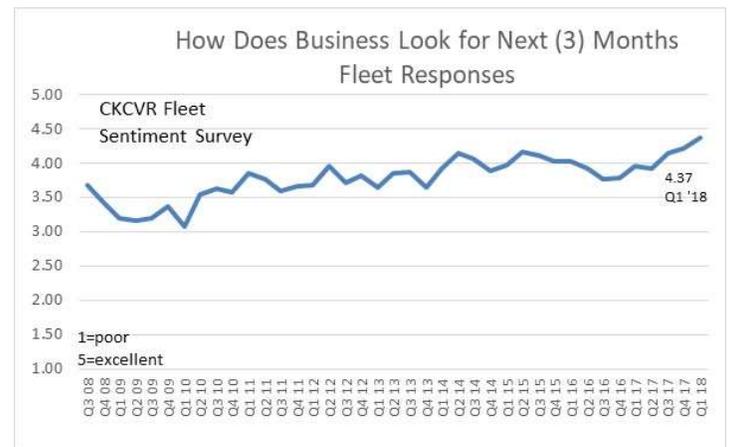
- Planned equipment purchases keep pace with only fall off due to exceptional numbers in Q4
- Larger fleets continue to purchase
- All fleet environment measures are positive
- How's Business rating highest ever
- Driver shortage still affecting two thirds of our respondents – no change
- Freight demand is STRONG at most companies
- Delay in GHG-2 requirements for trailers is basically having minimal effect on fleet purchase plans
- Interest in electric commercial trucks is spotty but all respondents understand roadblocks and possible benefits
- E-commerce and "last-mile" delivery demands are only expected to effect specific segments; but few expressing this as a reason to make wholesale changes any time soon – more an "adapt" mentality to changes as they see them.



The slight fall-off in the CKCVR Buying Index in Q1 2018 was primarily due to fewer fleets planning to place new orders for trailers

The index measures both velocity (percent of respondents) as well as overall weighted volumes of those planned orders, based on 4-quarter moving averages of the data collected. Any fall off in activity is strictly a reaction to especially strong orders in Q4 2017. Fleets need equipment and they are buying it (both trucks and trailers).

The overall situation at fleets is clearly shown in our "How's Business" rating. The question is posed "Considering all the factors that impact your company, on a scale of 1-5 (with 1 being poor and 5 being excellent) in your opinion, what is the overall outlook for your fleet in the next (3) months?" The average keeps rising to new heights – in Q1 2018, a new record of 4.37



Comments:

- Higher seasonal sales (beer distributor)
- Tax reform, general business conditions are very favorable (For-hire – frozen food)
- Everything is looking good (Large for-hire)
- Trucks that have drivers are making serious money (mid-size for hire, general freight)
- Need drivers (multiple)
- Rates are better and the amount of freight is increasing (mid-size for-hire, steel hauler)

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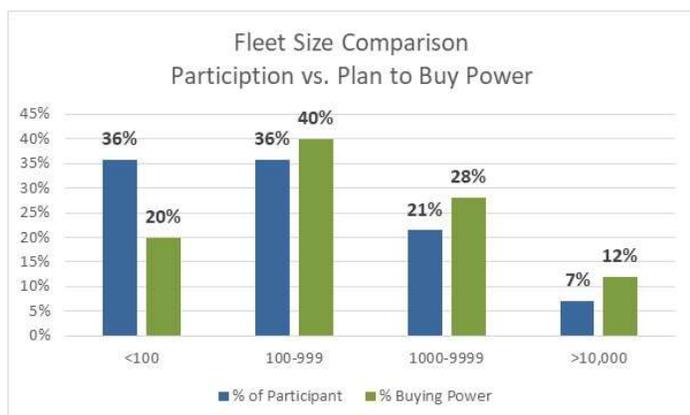
Equipment Purchase Plans

Truck

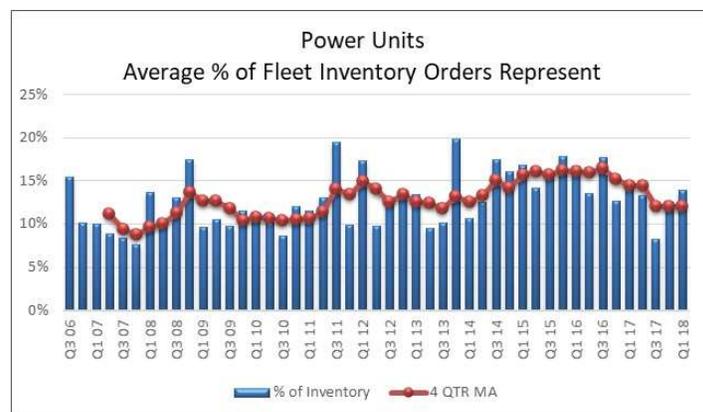
Nearly 60% (59.5%) of the Q1 respondents indicated they planned to place power unit orders during Jan, Feb, and March, a 19% q/q improvement and 20% y/y. While I don't expect Q1 orders to be higher than Q4, the number of fleets that plan to place orders shows continued strength in truck demand.



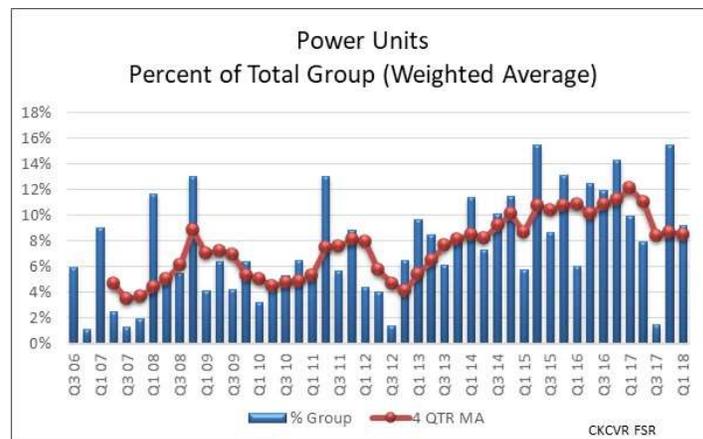
The fleets planning to place orders is heavily weighted towards the larger fleets in the response group as the following chart indicates (each of participants equipment buying plans can be seen in the addendum to this report).



Average size of the orders planning to be placed (13%) is also up from last quarter.



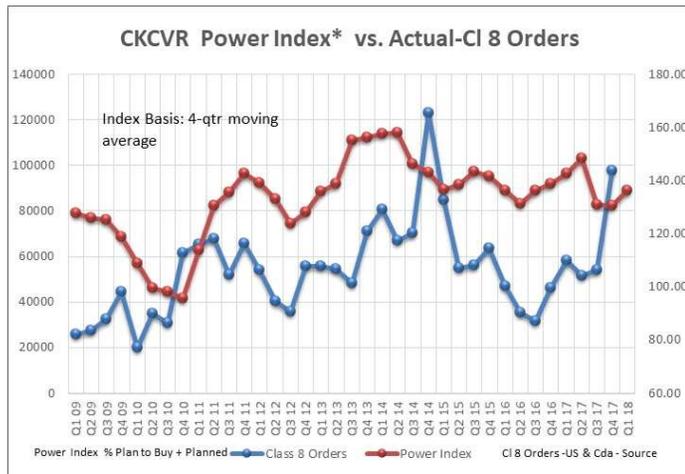
However, as we calculated the estimated number of units each fleet is likely to buy, for the group the total volume for Q1 (9.2% of total participant group inventory) is -40% from Q4 and down 7% y/y. There are obviously many orders in the pipeline at OEM's as Q4 orders were very strong.



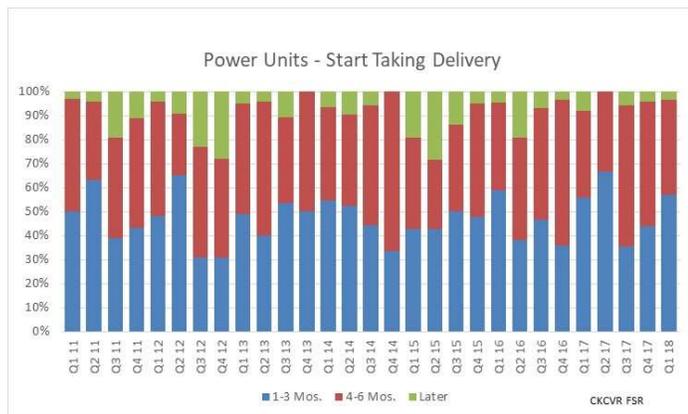
By using a 4-quarter moving average for percent of fleets planning to purchase and the weighted average volume (Power Unit Index), we compare our data to actual orders that were placed. Overall, we track pretty well indicating that our group is representative of the industry. However, we certainly did miss the spike in actual Q4 orders either due to the timing of our survey and/or how/when OEM's book the order (purchase order #, negotiated price, etc.) and when some fleets consider the new order firm with released units for delivery.

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Clearly, many of these orders have been expected by the OEM's (and possibly already booked) as many (57%) are designated to start being delivered within the next (3) months as the chart below shows; 39% in 4-6 months and 4% later.



Expected changes to specs for these new power units include:

On Class 8's

- ADB on steers
- Automated transmissions
- Battery APU's
- Collision avoidance
- Maybe Bendix Fusion
- Pusher axle, Bendix Wingman Fusion
- Safety items; disc brakes
- Freightliner, IHC, Volvo all have new models this year so much has changed

- (1) fleet indicated it was “dropping over-priced extended warranties” this time around

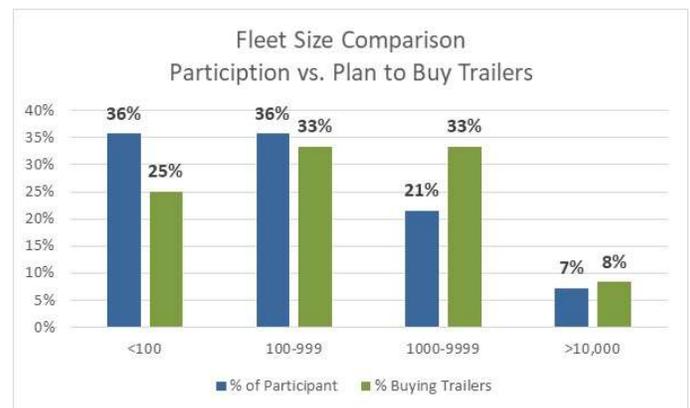
On Class 5-7

- FSL
- Using aluminum bodies, idle shut down system

In addition to the new units being purchased, a few fleets (5) expected to buy some used units (estimated – 10).

Trailers

Fewer of our Q1 FSR participants plan to place trailer orders in Jan, Feb and March (28.6%) – very understandable no matter how strong the industry is after the significant trailer order activity at the end of last year.

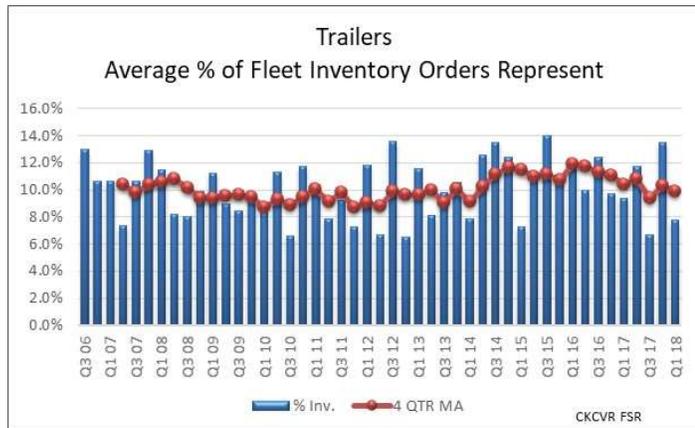


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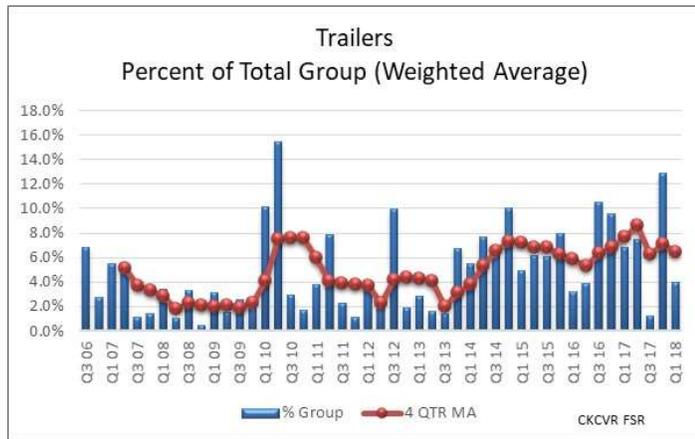
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As with truck orders, the activity was heavily weighted to the larger fleets.

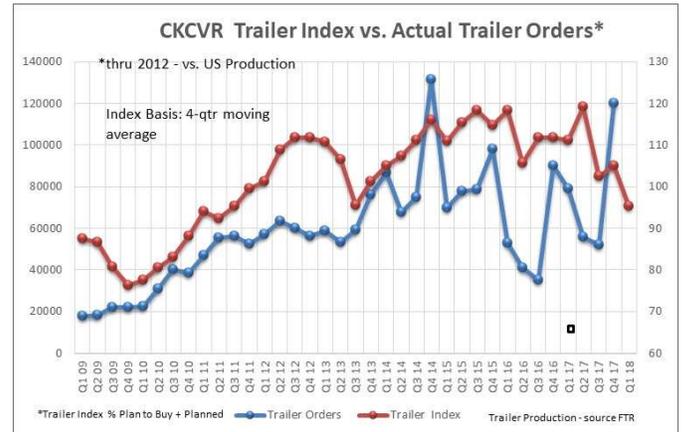
The average size of new trailer orders expected (7.8% of inventory) was also lower than Q4 (again not a surprise).



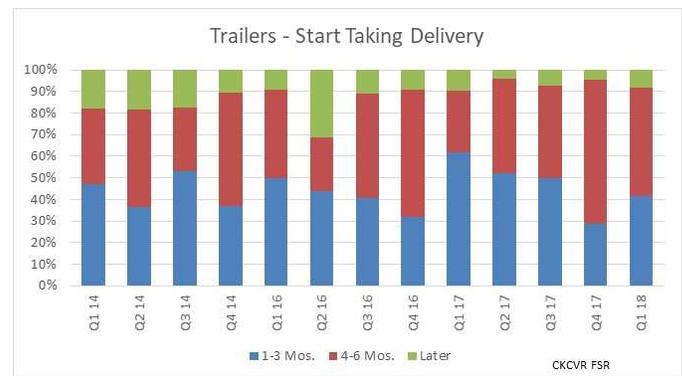
Bottom line – fewer fleets, smaller size orders = less overall expected volume for trailer orders in Jan, Feb and March (4% of group inventory).



Our Trailer Buying Index (measured the same as Truck Buying Index) would certainly indicate a fall off from Q4 in actual trailer orders when they are reported for Q1.



42% of the orders are expected to start being delivered in the next (3) months; 50% within 4-6 months and 8% later than that.



The expected changes to new trailers include:

- Brakes and Aerodynamics
- Disc brakes

Four of our respondents indicated they planned to buy some used trailers (for a total of about 20 units if they can be found).

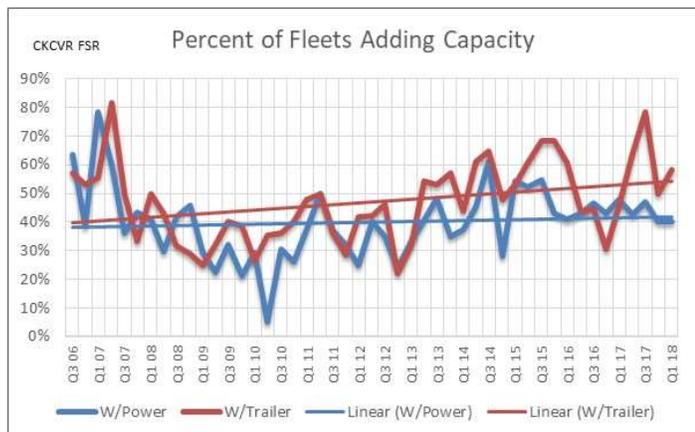
Capacity Increases with New Equipment

Because of a continued driver shortage in an environment of strong freight, many fleets are using added trailer purchases to increase their capacity (doing more drop and hook, etc.)

As the following depicts – any capacity increases have trended down for trucks and up for trailers.

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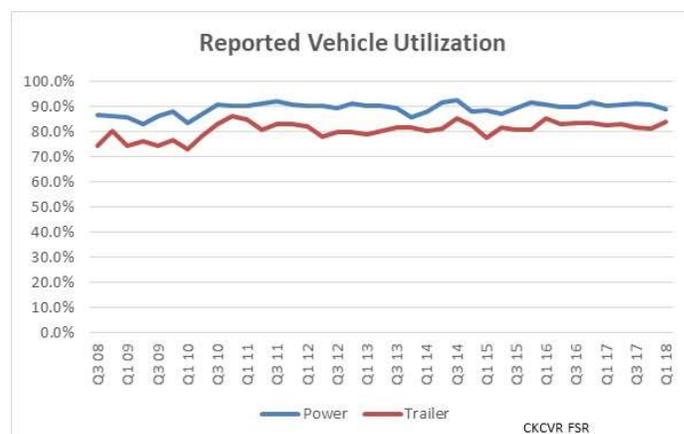
The addendum spells out who exactly is planning to add capacity and for the most part it's those involved in building/construction – either their business or the commodity they haul. They are not large for-hire fleets who are most heavily beset by the continuing driver shortage. So, based on the fleets who are trying to add capacity and for most, the few number of units designated to do that, the overall percentage of the current (and recent) purchase volumes is low (3.2% of truck purchases and 6.6% of trailers in this quarter). Most purchases continue to be for replacement, albeit at an accelerated level keeping total demand up.



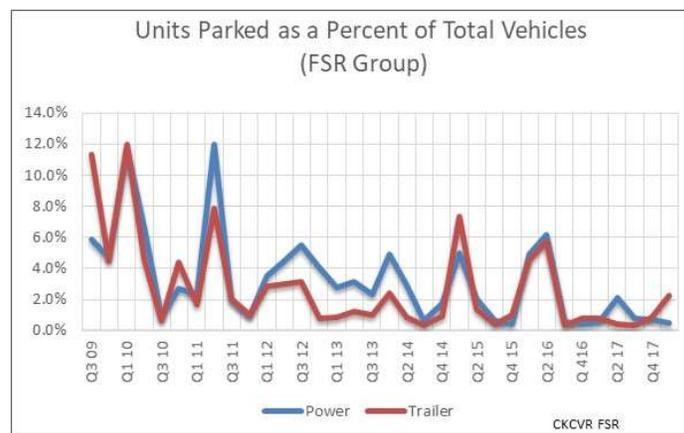
Throughout our surveys – many, many fleets have been consistently telling us “we would add more capacity if we had more drivers – there is plenty of freight to haul”

Equipment Utilization/Parked Vehicles

Equipment utilization continues strong although somewhat softer than Q4 for trucks but up for trailers. This is another reflection on how fleets are increasing their capacity in light of ELD mandate and driver shortage – using their trailers more efficiently and getting the most out of them. Combined with the parked vehicles chart; it's pretty clear that most commercial vehicles are in use and very few parked against the fence because there is no work for them.



Parked vehicles remain a non-issue with the consistent demand for the use of vehicles to work and haul freight. Any vehicles appearing on the chart below are either parked for regular business reasons (waiting to be traded, waiting for major repairs, spare trailers, etc.) or because of lack of drivers to put in them.

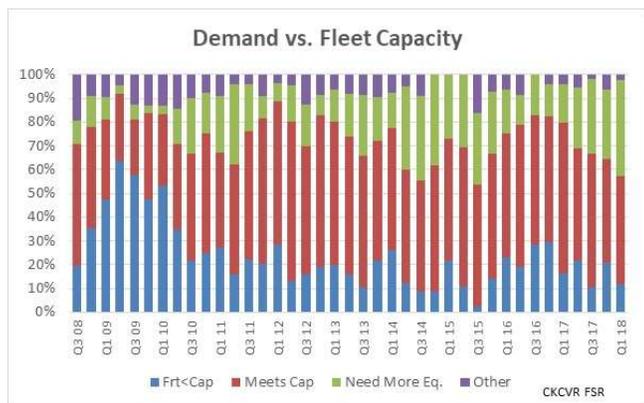


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Work/Freight Demand vs. Fleet Capacity

With the choice of 1) Demand is less than our capacity, 2) Demand meets our capacity or 3) We need additional equipment to meet current fleet demands” Our group is increasingly choosing the third option indicating they need more equipment to handle the load. As I looked closely at those fleets who made this choice, it seems to me that some of them have enough equipment BUT don’t have drivers to utilize it; which is why even though capacity is extremely tight, fleets are not adding trucks, in particular, that would add to their overall equipment numbers.



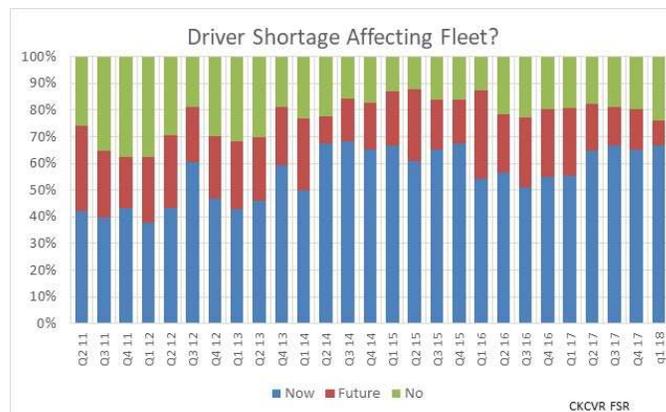
The comments we received regarding the work/freight environment points out how critical drivers are:

- Freight is strong but it does not matter how many trucks we have if we have no drivers for them
- We are stable but could add business if we could find the qualified drivers
- If we had more drivers we could add more equipment - we have plenty of freight
- Need more drivers
- Need drivers
- Right now, we are static, everything in use
- If we had drivers we could utilize every piece of equipment
- We need more I/C power
- Balance our freight load with a mix of internal and external carriers

- We have more freight than we know what to do with, but would have to add trucks and trailers AND drivers to move the material

And speaking of

Drivers



Consistently over the past (12 months), two-thirds of the fleets we survey have a shortage of drivers – primarily a shortage of “quality” drivers.

For the Q1 2018 survey, here are fleets indicating that they **don’t** have a driver shortage presently

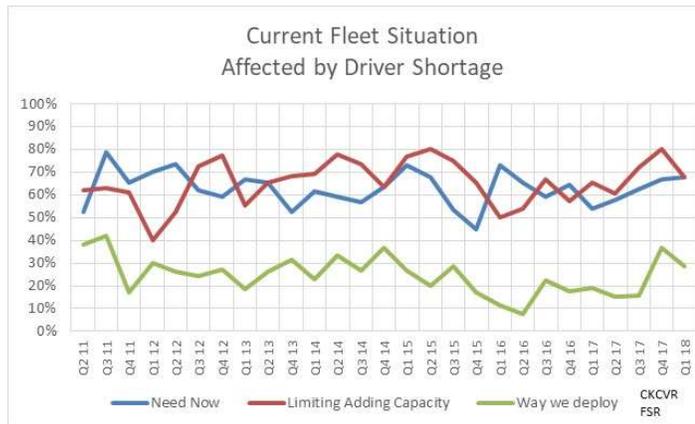
Fleet Description		Fleet Size
Private	Construction	38
Private	Beverage	184
For Hire - TL	Food products / Paper	195
For Hire	Intermodal	1600
Municipal	Water Department	85
For Hire	O/O	2
Government	City Services	7
Private	Construction	6
For Hire	O/O	2
For Hire	Warehousing	64

For the group that is experiencing a driver shortage, most need them now to fill seats but another two thirds said they can’t grow because of lack of drivers.

Additionally, a third of the respondents indicated they will be forced to change the way they “deploy” their equipment.

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How fleets may change their deployment of equipment:

- We have considered doing LTL to get drivers home each night
- (Using more 3PL)
- Working to have all drivers home each night
- Adding O/O
- Reconfigure routes

And,

- We would buy more equipment if we could find dependable drivers

Seems to me the biggest impact of the driver situation will be in how freight is moved (shorter routes will become more of a necessity) and what type of equipment will be used (more day cabs, maybe more medium duty – but certainly fewer sleepers being purchased). Shortage of drivers is also impacting (and will continue) truck specifications – more automated transmissions, more safety equipment, better driver amenities for the sleepers that will still be required, etc.

Supplemental Questions – Q2 2018

Trailer GHG-2 Delay

Q. Now that the GHG-2 regulations for trailers have been put on hold, does that change your overall purchase plans for trailers in 2018?

I expected to get some feedback relating to trailer purchase plans based on the delay– however, all but one respondent indicated it would make NO difference in their trailer purchase plans. The one exception was a fairly large LTL carrier that plans to eliminate trailer skirts and automatic tire inflation on trailers he buys until GHG-2 trailer regulations are mandated (if that happens).

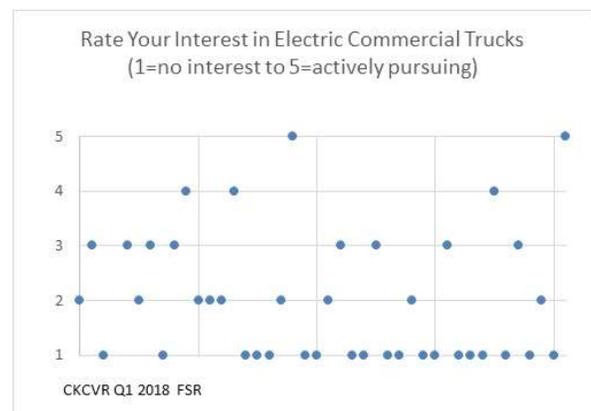
The comments received reflect the reality that the suggested trailer modifications in the GHG-2 mandate for trailers were sensible and ultimately cost-saving for fleets.

- We already met the requirements with our last (3) trailer buys
- We may add some aerodynamics to get ahead of GHG-2
- Our purchases are the same with or without GHG-2

Electric Trucks

Q. On a scale of 1-5 (with 1=no interest at all to 5=are actively pursuing) how much interest does your fleet have in the development of electric-powered medium and heavy-duty trucks?

On this 1-5 scale, the average rating was 2.02, so fairly low...**but** there is interest, certainly at some locations more than others, with a few actively pursuing the technology. The scatter chart below reflects where each respondent's answer fell on the scale.



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The fleets with the strongest interest in electric trucks (4 or 5 rating) included the following (with some comments included):

- (Mid-Size For-Hire – Frozen Food) Very interested but not looking to purchase at this time. Would like to see if they are as problem-free as Musk says. Also need charging infrastructure in place for charging
- (Private Fleet – 300 Power Units) Interested in evaluating. Watching for actual product releases
- (Large For-Hire – Transportation/Warehousing/Logistics) We are very interested in them. We placed deposit on the Tesla units and are looking into yard trucks now

Others with not the same level of interest but certainly serious about the concept

- (Municipal Water Department) The interest is there, just not sure of logistics when it comes to charging stations
- (Large For-Hire) We have some lanes that might work for electric power
- (Small-to-Mid Size For-Hire – Building Products) Investigating maintenance investment on these units
- (Large For-Hire) Due to our being a dedicated carrier we utilize our day cab tractors (2) shifts per day and recharging them may be an issue

Q. Regarding electric trucks, in your view what are the major roadblocks to this development for the commercial vehicle industry. And, what ultimately would be the benefits?

The top roadblocks mentioned were

- Charging station infrastructure (or if planning to do themselves – cost of setting that up)
- Distance on a single charge – how far?
- Initial cost
- Weight issues
- How long does it take to recharge?
- Maintenance issues
- Sufficient power/torque to pull their loads
- Residuals and ROI unknowns

While most responses fell into one of the categories above, below are some specific responses

- Weight, distance on charge and ability to rapidly recharge. Unknown residuals
- Developing batteries that will allow trucks to go distances that make sense to the industry
- Infrastructure to do recharging on a large group of vehicles - Weight of CV
- What happens in the event of a breakdown? Will keeping batteries charged be an issue? What is the ROI?

And, the top expected benefits were:

- Low or no fuel costs
- Less reliance on non-renewable energy
- Environmental benefits – less emissions/pollution
- Maintenance cost savings (maybe) especially as it relates to DPF's

Specific comments regarding benefits

- I wouldn't have to worry about DEF and DPF's but I am sure it will bring other issues
- Lower CPM, emissions, lower maintenance costs, hopefully. Lower cost of operation, diminished oil dependence, eliminating the emission control nightmare

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E-Commerce and Effect on Trucking

Q. How do you see the changes taking place in distribution channels because of how freight models are changing due to the “Amazon” effect of increasing e-commerce (more last mile deliveries, less TL demand, etc.) affecting your fleet and the commercial vehicle industry in general?

Many of the answers received carved out trucking segments that specifically would not be affected by this consumer driven change including:

- Tanker fleets
- Raw material haulers
- Most private fleets
- Municipal/Utility fleets

For those with some exposure to this phenomenon, quite a few mentioned that shippers and receivers will be forced to work better together under this scenario and that ultimately the increased costs for on-line purchases will be passed onto the consumer. As one respondent opined “Will that ultimately send the consumer back to brick and mortar stores to avoid escalating costs of products delivered to your doorstep”.... or is the convenience just too beneficial to worry about some added cost.

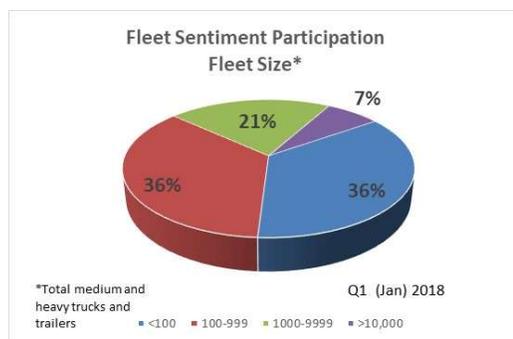
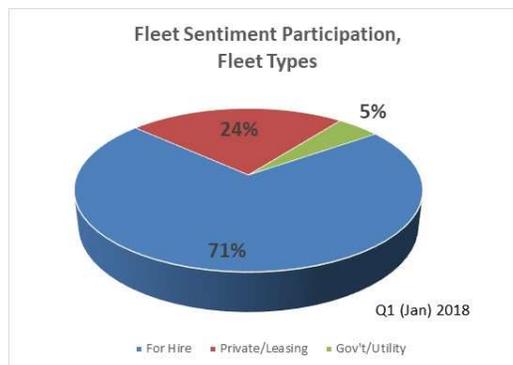
There were two schools of thought regarding Amazon getting into trucking themselves: 1) so far Amazon’s attempt at freight hauling has been a “miserable failure” because they don’t put any value into trucking in general and 2) Amazon has a high standard and quality people (that they will need) are in scarce supply at the moment.

Many just know that they will have to adapt and plan to do that...they’ve been faced with greater challenges.

- We are doing some of these deliveries I think it will continue to grow and we will have to adapt to continue being a player
- We will have to change to meet the demand, shorter hauls, tighter delivery windows
- This will define how distribution networks effectively operate; however, the pendulum swings both ways. Where people may think it's headed may end up looking different than then expected
- We are running with it. It is what we do best. Last mile will be the major impact on the industry that changes. Maybe the post office will make some money too

Q1 2018 Participants

(42) respondents operating 33,000 class 8 trucks, 1200 medium duty trucks and 87,000 trailers. See full list in addendum



Let me know if you have any questions about this report.

Chris Kemmer

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Plans to Place Orders - Jan-March		Plan to Buy Power				Plan to Buy Trailers		
		Fleet		Percent	Percent		Percent	Percent
Fleet Type		Size*	Yes	of Fleet	Add Cap	Yes	of Fleet	Add Cap
For Hire	TL	456	1	5%	0.0%			
For Hire - TL	Food products / Paper	195	1	7%	50%			
For Hire	LTL	2975	1	19%	10%	1	13%	15%
Private	Caskets	869	1	20%	0%	1	10%	0%
For Hire	TL	87	1	20%	50%	1	15%	50%
For Hire TL	General Freight	41	1	5%	0%	1	10%	50%
For Hire TL	General Freight	1115	1	25%	25%	1	12%	100%
Private	Beverage	184	1	10%	50%			
For Hire TL	Building Supplies - Flat	610	1	10%	100%	1	8%	100%
For Hire LTL	Frozen Food	262						
For hire TL	Flatbed Loads	2033						
For Hire TL	General Freight	>50,000	1	5%	0%	1	5%	0%
For Hire	General	1250						
Private	Tires	1099	1	10%	0%			
For Hire TL	Buildiing Materials	324	1	1%	0%	1	1%	0%
For Hire TL	General Freight	35						
For Hire	Truck Load - General	1750	1	10%	0%	1	5%	0%
For Hire	General Freight	7680	1	15%	0%	1	10%	
For Hire	Transportation/Wareh	10350	1	20%	0%			
For Hire	Bulk Liquid Food Haulers	412						
For Hire	General Freight/Logistics	300	1	100%	0%			
For Hire	Heavy Eq. Haul	341						
For Hire	Expedited Air/Trailer Onl	3545	1	20%	10%			
For Hire	OTR	173						
Private	Building Products	183						
Private	Gravel	20						
For Hire	O/O	2						
For Hire	Steel Hauler	620	1	30%	0%			
Private	Industrial Equipment	74	1	10%	0%			
Private	Recycling	296	1	5%	0%			
Government	City Services	7						
For Hire		8						
For Hire	Regional	18						
Private	Construction	6						
Private	Construction	38	1	1%	50%	1	2%	100%
For Hire	TL	16000	1	15%	0%			
Private	AG	3						
Municipal	Water Department	85	1	2%				
For Hire	Liquid Chemical/Fuel H	727	1	5%	100%	1	2%	100%
For Hire	O/O	2						
For Hire		64						
For Hire	Intermodal	1600	1	10%	30.0%			
		*Total medium/heavy trucks and trailers						