

# The Quality and Future of Freight Jobs

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**THE HEINZ ENDOWMENTS**  
HOWARD HEINZ ENDOWMENT • VIRA I. HEINZ ENDOWMENT


# Key Points

- Deregulation and technology have transformed freight jobs
- That transformation disempowered and deskilled labor
- Equally important changes are coming from Ecommerce


The main concern is not whether we will have jobs but the location and quality of those jobs

# Today's trucking industry

Job quality and problems vary




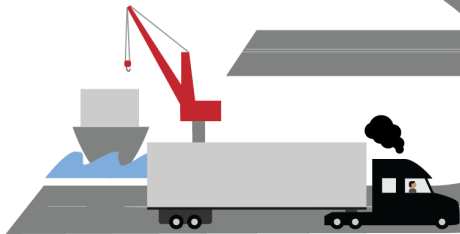
**Full truckload driver**  
Average earnings: \$47,000 – \$54,000




**Parcel driver**  
Average earnings: \$60,000



**Delivery driver**  
Average earnings: \$36,000



**Port driver**  
Average earnings: \$29,000 – \$35,000



**Less-than-truckload driver**  
Average earnings: \$69,000

# A robot apocalypse?

Fears of massive job loss

**1.8 million American truck drivers could lose their jobs to robots. What then?**

One of the last well-paying working-class jobs is basically doomed.  
By David Roberts | @drvox | david@vox.com | Aug 3, 2016, 8:40am EDT

**Self-Driving Trucks Are Going to Hit Us Like a Human-Driven Truck**

The imminent need for basic income in recognition of our machine-driven future

**Man VS Machine**

**GOLDMAN SACHS: Self-driving trucks will kill 300,000 jobs per year**

JON LESAGE, OILPRICE.COM  
NOV. 15, 2017, 6:06 PM

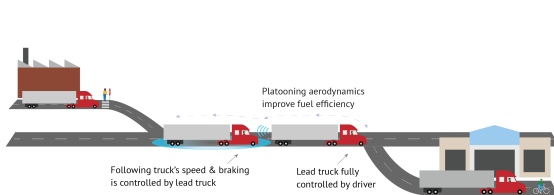


# Self-driving Truck Research

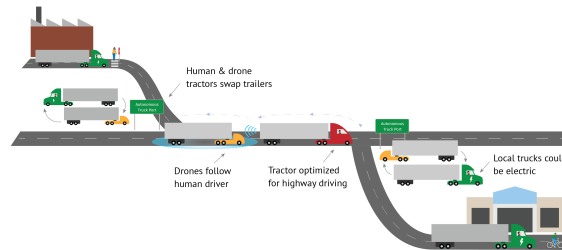
## Method:

1. Understand the technology
2. Develop possible scenarios of adoption
3. Overlay those scenarios on the existing industry to estimate potential labor impacts
4. Identify alternative adoption scenarios and policy responses

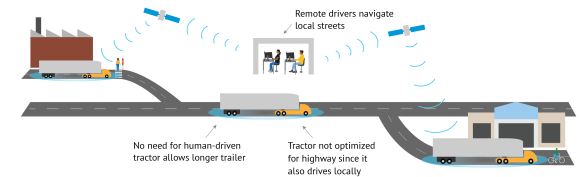
# 6 potential adoption scenarios



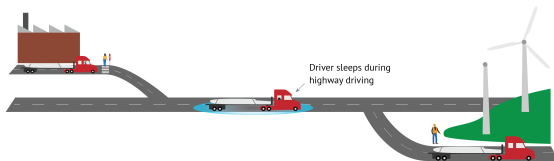
Human-human platooning



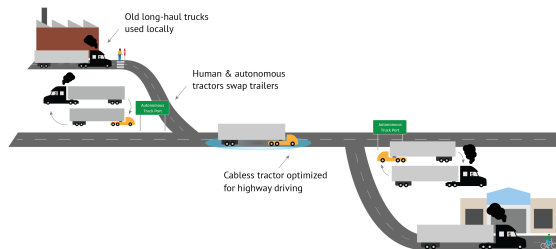
Human-drone platooning



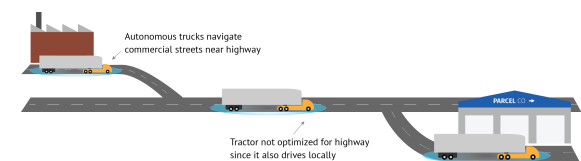
Highway automation  
+ drone operation



Autopilot

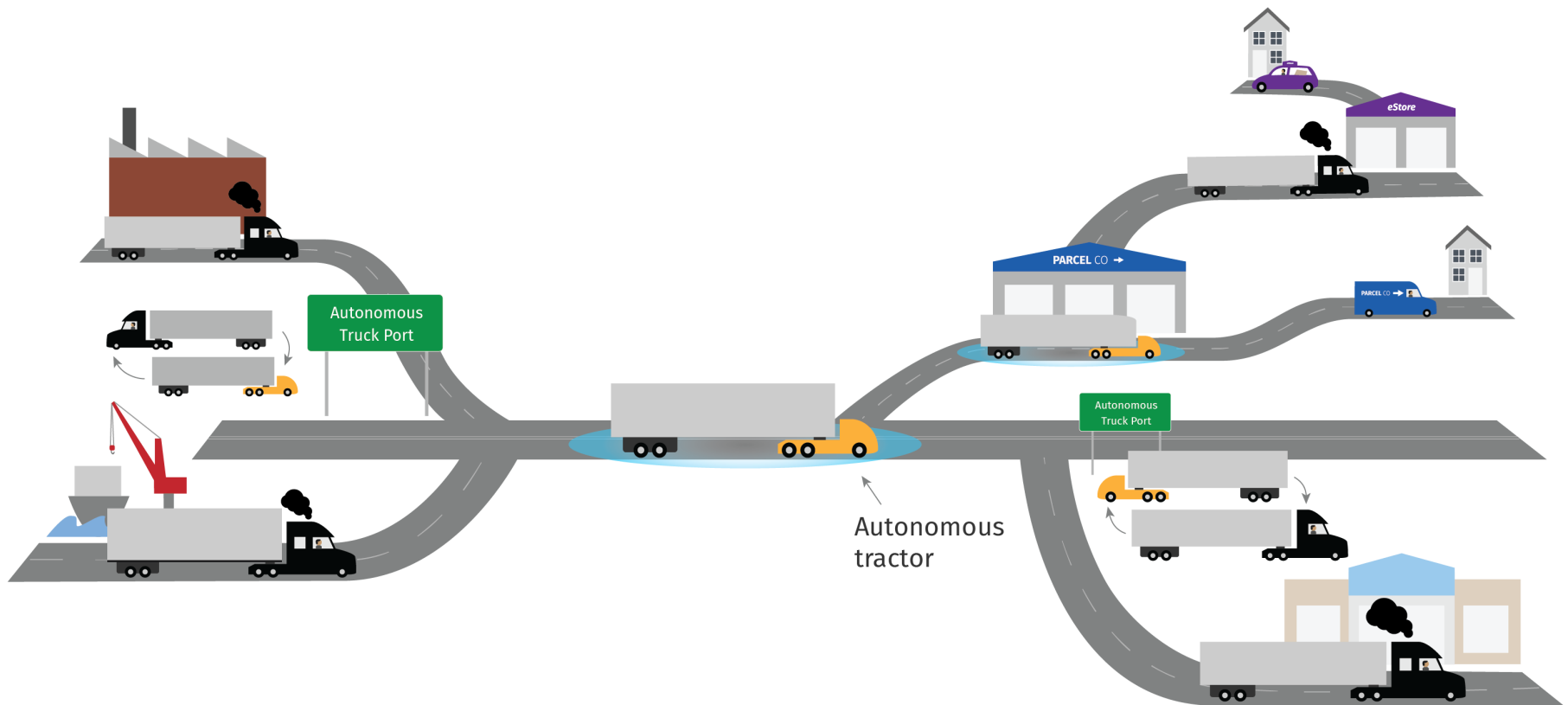


Highway exit-to-exit  
automation



Facility-to-facility  
automation

# A likely adoption scenario



Key segments of the trucking industry	Average annual wage	Number of drivers	Independent contractors	Potential impact of autonomous trucks
LONG DISTANCE DRIVING				
Full truckload	\$46,641–\$53,690	211,000	Common	Significant job loss
Less-than-truckload	\$69,208	51,000	Uncommon	Significant job loss
Parcel	\$59,660	32,000	Uncommon	Significant job loss
LOCAL DRIVING				
Ports	\$28,783 (contractors) \$35,000 (employees)	75,000	Predominant	Uncertain
Pickup and delivery	\$35,610	877,670	Mixed, potential to shift towards contractors	Strong job growth
POTENTIAL NEW SEGMENT (PROJECTED)				
Autonomous truck ports	?	100,000+	?	Strong job growth

**Job loss**

**Job growth**

# The Bigger Picture

We are in a period of tremendous change

1. Ecommerce
2. Regulatory and legal contests
3. Digitization of freight
4. Climate and clean air policies
5. Autonomy

Even without self-driving trucks, freight jobs will look very different in 10-20 years.

The goal shouldn't be to predict outcomes, but to shape them with smart policies.





Ecommerce  
+  
Technology  
=  
?!

# What Will Last-mile Delivery Jobs Look Like?



Audra Pankrez recently loaded her Kia Soul with 22 Amazon packages for deliveries while 10-year-old son Shane rode along.

– The Kansas City Star

Thank You

