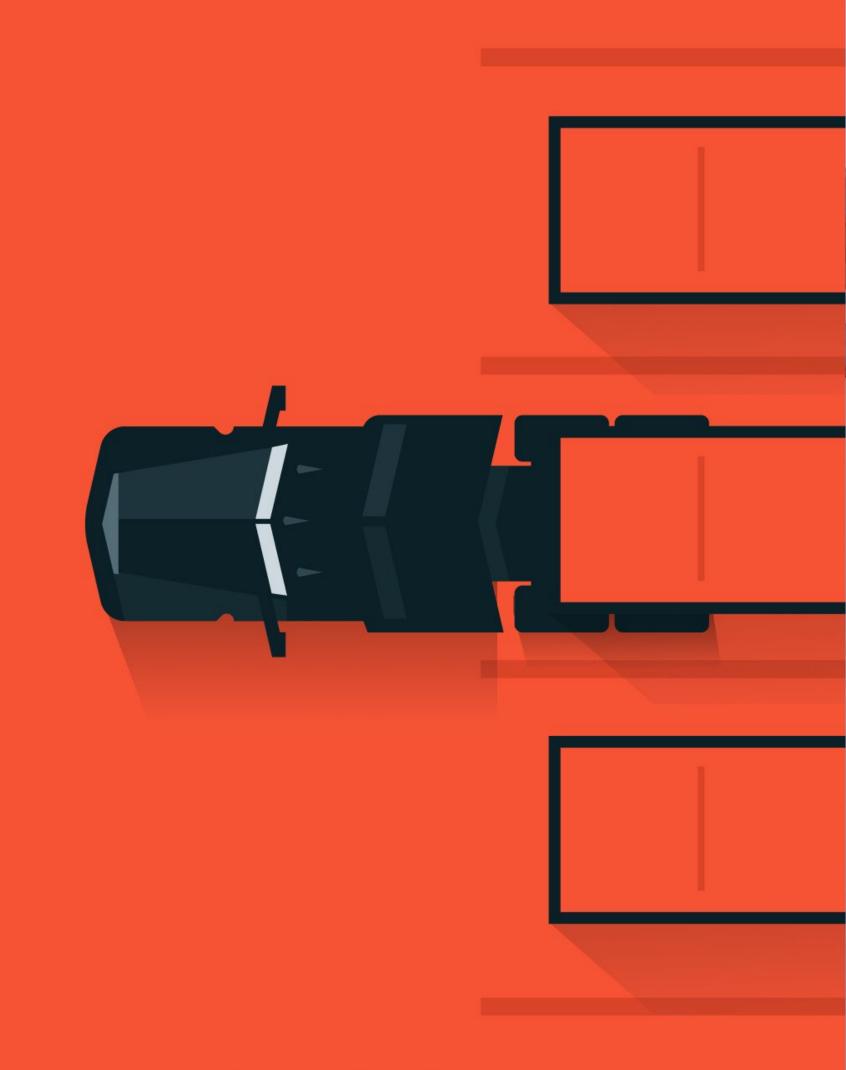


## The Problem of Empty Miles





#### Jennifer Wong

Head of Sustainability at Convoy

Jennifer@convoy.com



## Convoy started the movement in efficient freight

We're solving the toughest problems of waste and inefficiency in the trucking industry by using technology and data to optimize how thousands of truckloads move around the country each day via our Digital Freight Network

Saving money and time for shippers

Increasing earnings and reducing hassle for drivers

And eliminating carbon waste for our planet

#### Our Sustainability journey

Convoy launches the first digital freight network	Convoy operates nationwide	Convoy becomes a Women in Trucking corporate member	Automated Reloads reduces carbon emissions by 45%	Convoy shows 15% safer carriers than the industry	Convoy starts reporting scope 3 carbon emissions for shippers
APRIL 2015	OCTOBER 2018	JANUARY 2019	JUNE 2019	SEPTEMBER 2019	SEPTEMBER 2019
Convoy launched first annual haul stars awards	Convoy joins as a Sustainable Brands member	Convoy partners with Truckers Against Trafficking	Convoy launches collaboration with Feeding America	Convoy launches program to support Supplier Diversity	Convoy launches Green Appointment Windows to reduce co2 by 36%
OCTOBER 2019	OCTOBER 2019	FEBRUARY 2020	MARCH 2020	MARCH 2020	APRIL 2020
Convoy launched a vital aid program to haul donated shipments	Convoy partners with NMSDC and WBENC to support supplier diversity	Convoy launches collaboration with Natural Resources Canada to offer free eco-driving training	Convoy launches a carbon offset program for shippers	Convoy joins The Climate Pledge	Convoy publishes its first sustainability report
MAY 2020	SEPTEMBER 2020	OCTOBER 2020	OCTOBER 2020	APRIL 2021	MAY 2021

#### Poll Question:

Are you responsible for reducing carbon emissions?

A. Yes

B. No

#### CONVOY

# THE INEFFICIENCY OF TRADITIONAL MODELS



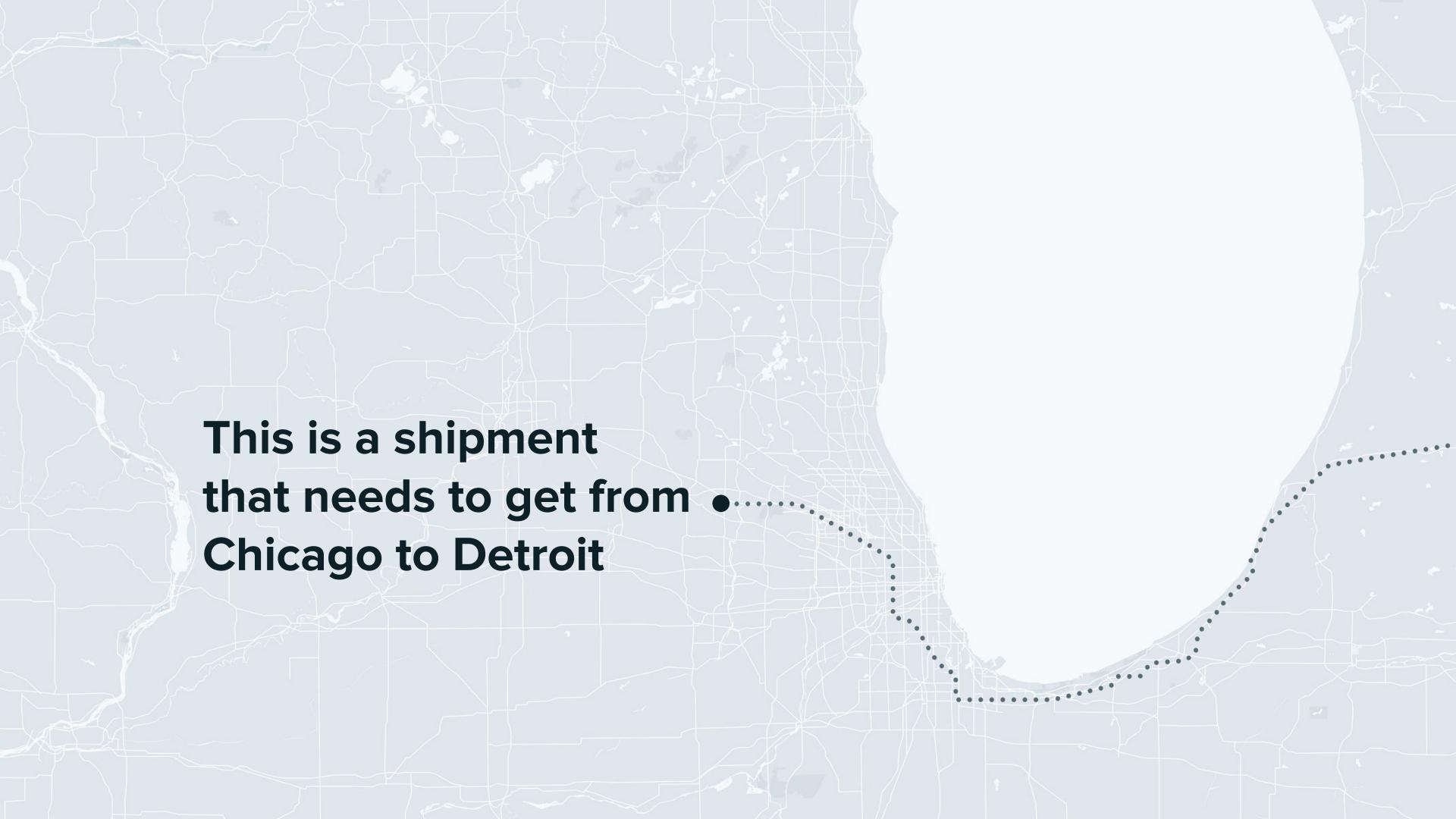


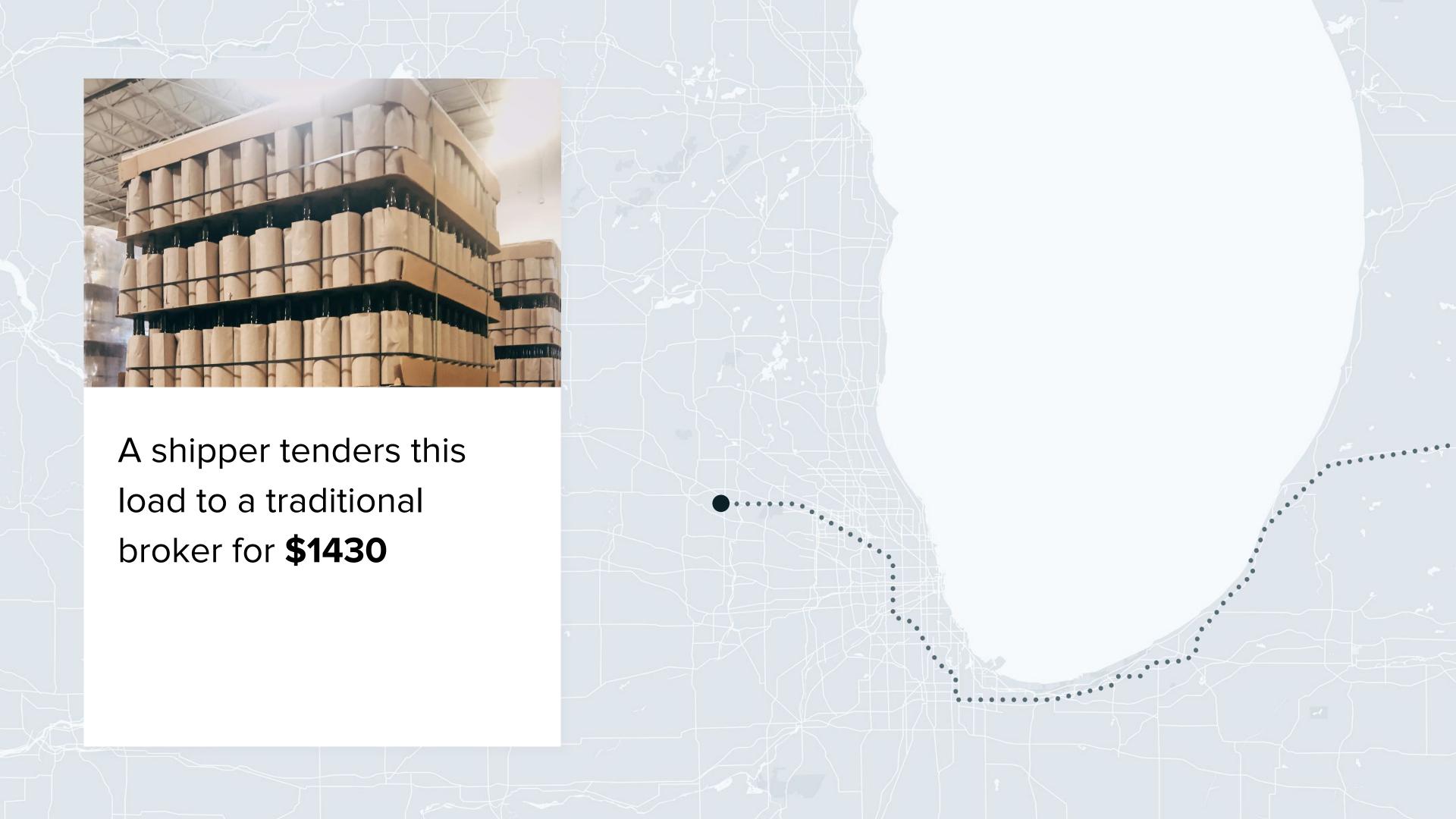






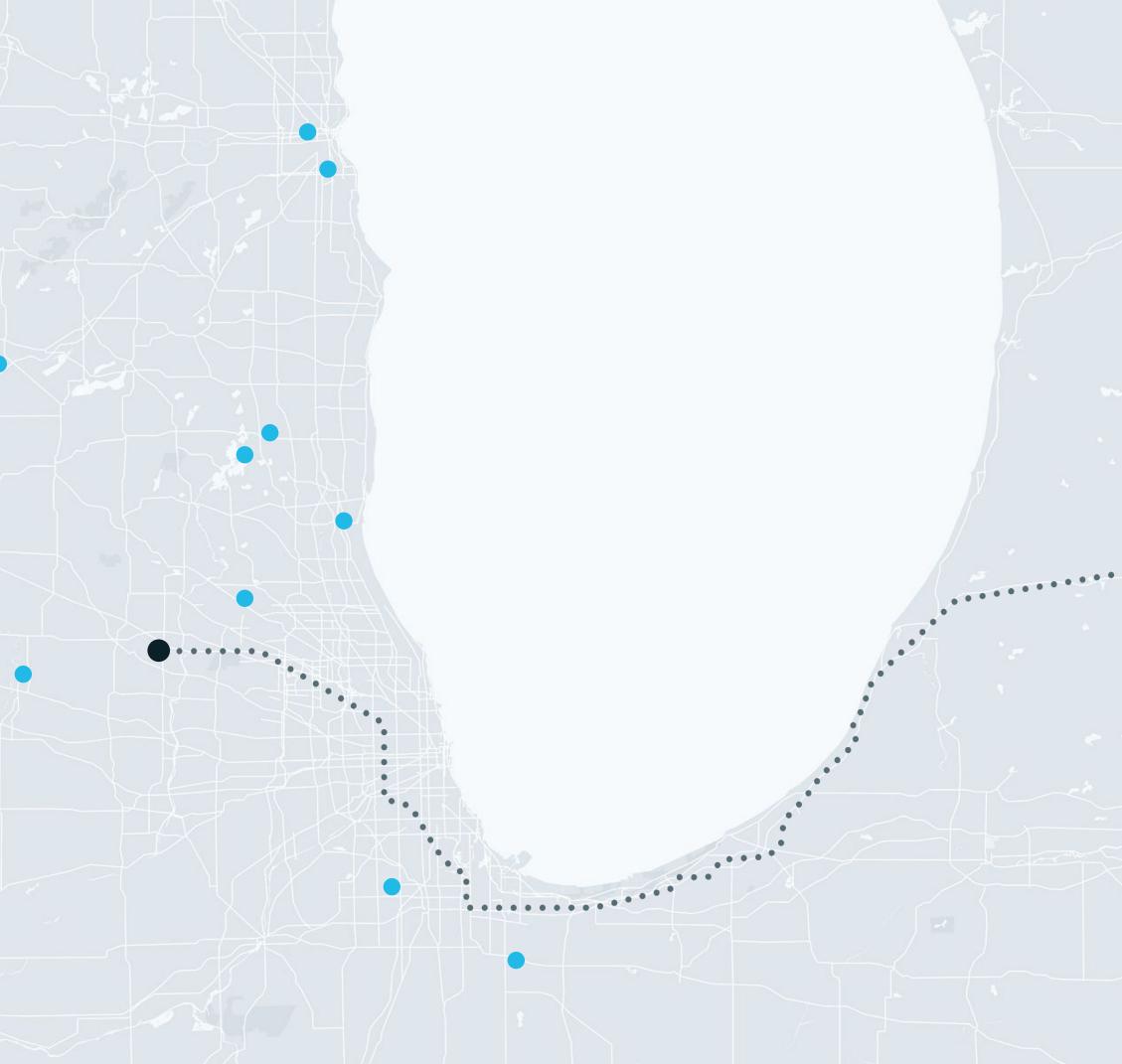
# Every business has a problem of empty miles

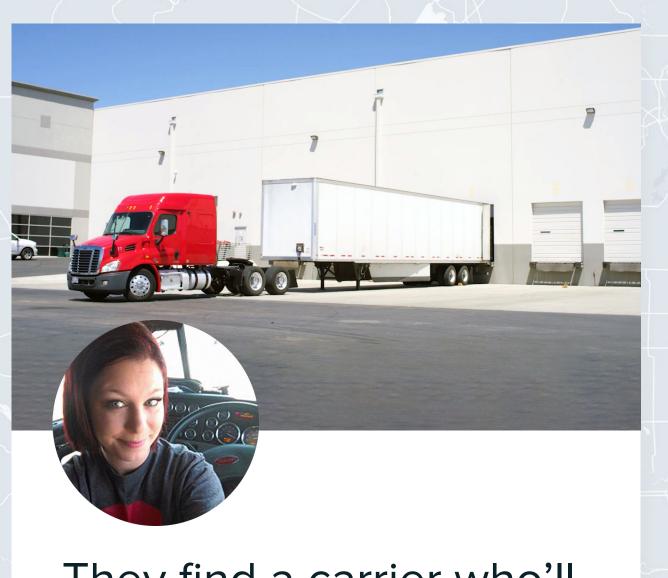






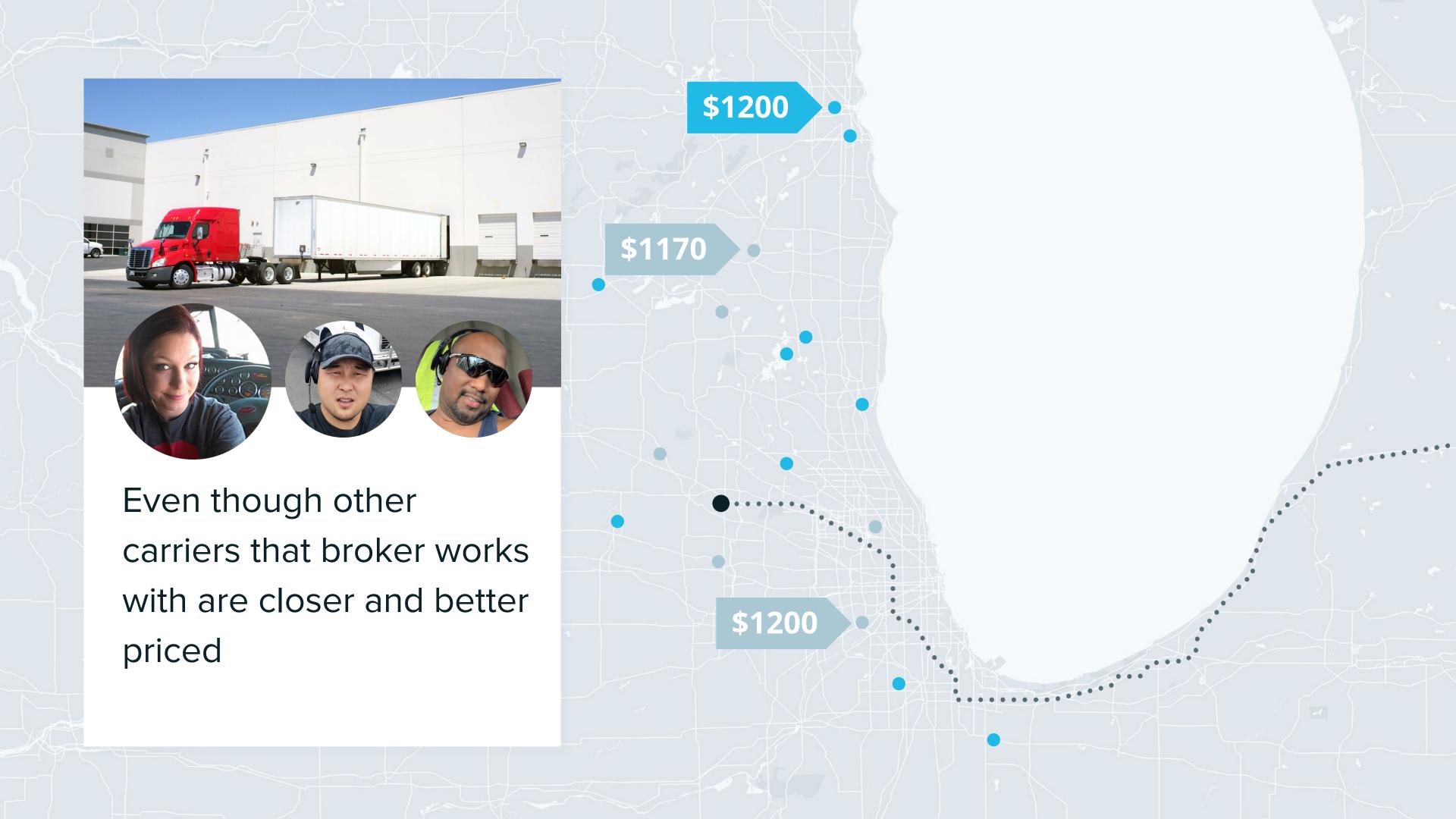
The broker sales rep has a handful of carriers in that area who they call and email to negotiate the load





They find a carrier who'll do the job for **\$1200**, at a 16% margin for the broker







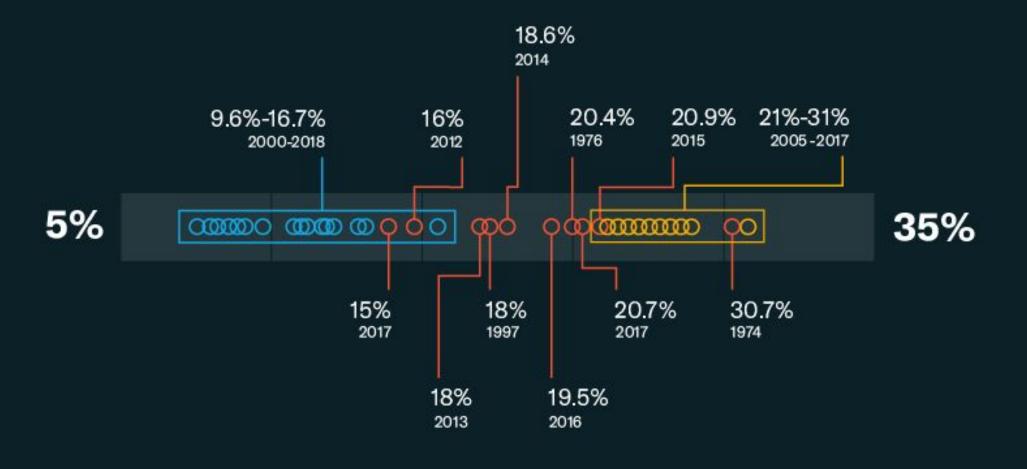
# There is a huge opportunity to improve productivity and reduce waste

#### **Poll Question:**

What percentage of your transportation miles are empty?

- A. Less than 10%
- B. 11% 20%
- C. 21% 30%
- D. 31% 40%
- E. More than 41%
- F. Don't know this data

# Wide range of estimates for empty miles in trucking



Notes: \* California only

Sources: American Trucking Research Insitute U.S. Census Bureau,
Interstate Commerce Comission, California Vehicle Inventory and
Use Survey, annual financial reports of various asset based carriers.
National Private Truck Council, 2017.

Large asset based carrier

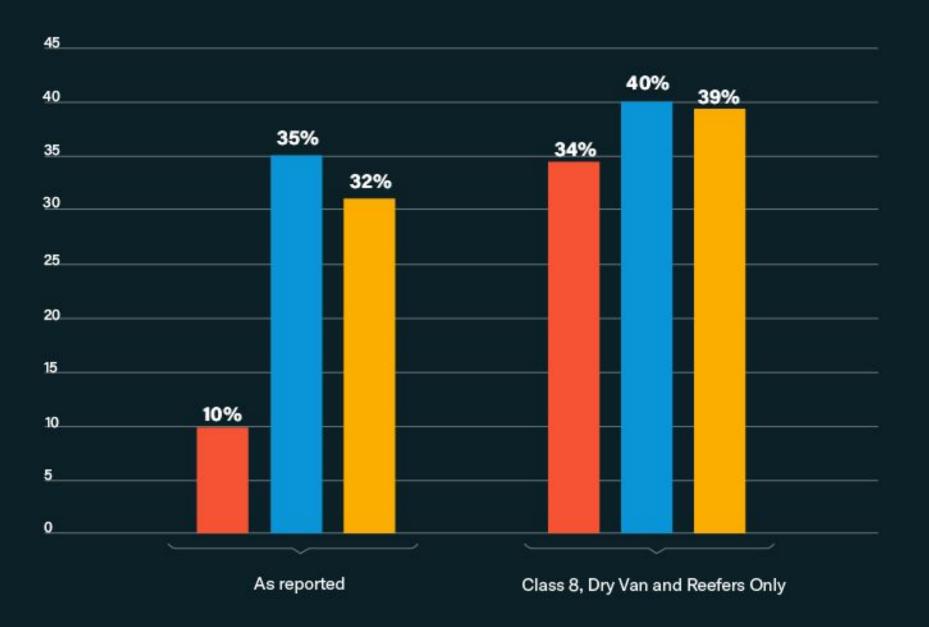
O Total market, survey

Private fleet, survey

Freight Economics



# Share of total miles driven empty



- Mid-sized and large asset based carriers
- Private fleets
- Independent carriers / owner operators

Source: Convoy analysis of U.S. Census Bureau, Vehicle Inventory and Use Survey, 2002



#### CONVOY

# MAKING PROGRESS IN REDUCING CARBON EMISSIONS









#### Measure your carbon emissions

## Types of Emissions: 4 Scopes

#### **Global accounting standards**

Scope 1: Direct Emissions

Natural gas for heating

Scope 2: Electricity

Office Lighting

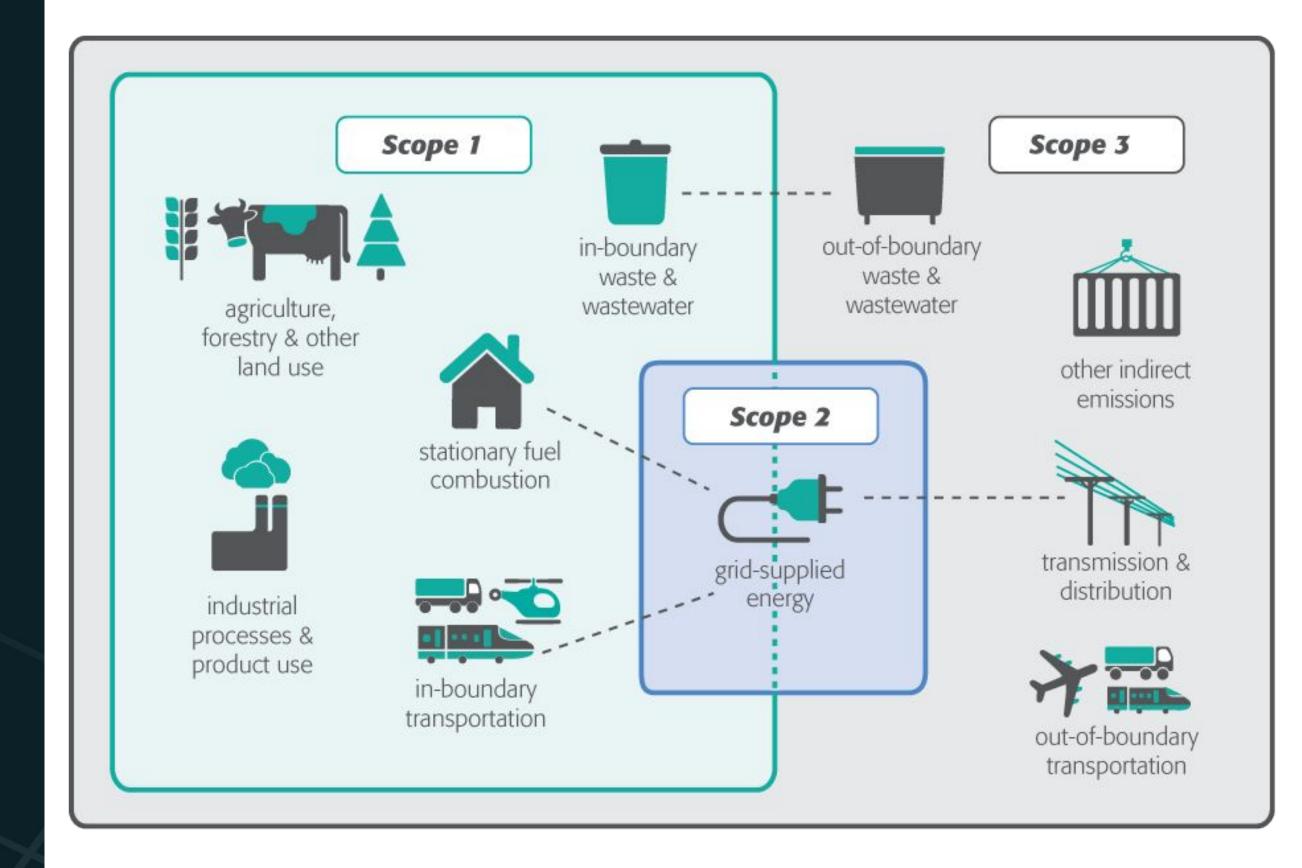
Scope 3: Indirect emissions

Commuting and business travel

Cloud services (mostly aws)

All physical goods (like computers)

Scope 4: Prevented emissions



#### **Poll Question:**

Do you know the carbon emissions emitted by your transportation?

A. Yes

B. No

#### ENVIRONMENTAL IMPACT REDUCE CARBON EMISSIONS

# Tracking and reporting on carbon emissions



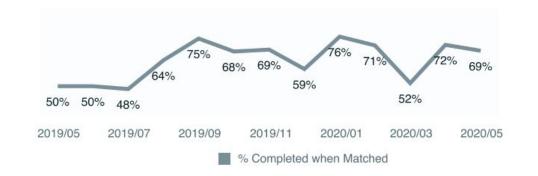


3,687
Gallons of Fuel
Saved YTD

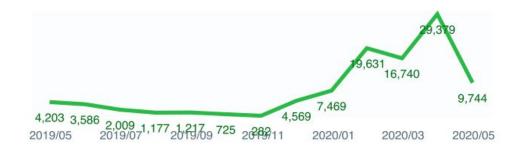


\$414.8 In Equivalent CO2 Offset YTD

#### **Automated Reload Efficiency**



#### Carbon Emission Saved



#### Reducing Emission & Saving Money

If you were to pay for carbon emissions you've saved in 2020, it would have cost you \$414.8 (\$0.051 per load) in carbon offsets.

Timeline	# of Automated Reloads (vs Total Volume)	CO2 Saved from Automated Reloads (lb)	CO2 Saved from Green Appointments (lb)	Total Fuel Saved (gal)	Total Carbon Emissions Saved (lb)
May 2020	32 (1,607)	9,744	76	433	9,744
April 2020	112 (1,715)	29,380	456	1,306	29,380
March 2020	44 (1,727)	16,741	-	744	16,741
February 2020	49 (1,557)	19,632	587	873	19,632
January 2020	28 (1,516)	7,470	-	332	7,470
December 2019	19 (1,030)	4,570	288	203	4,570

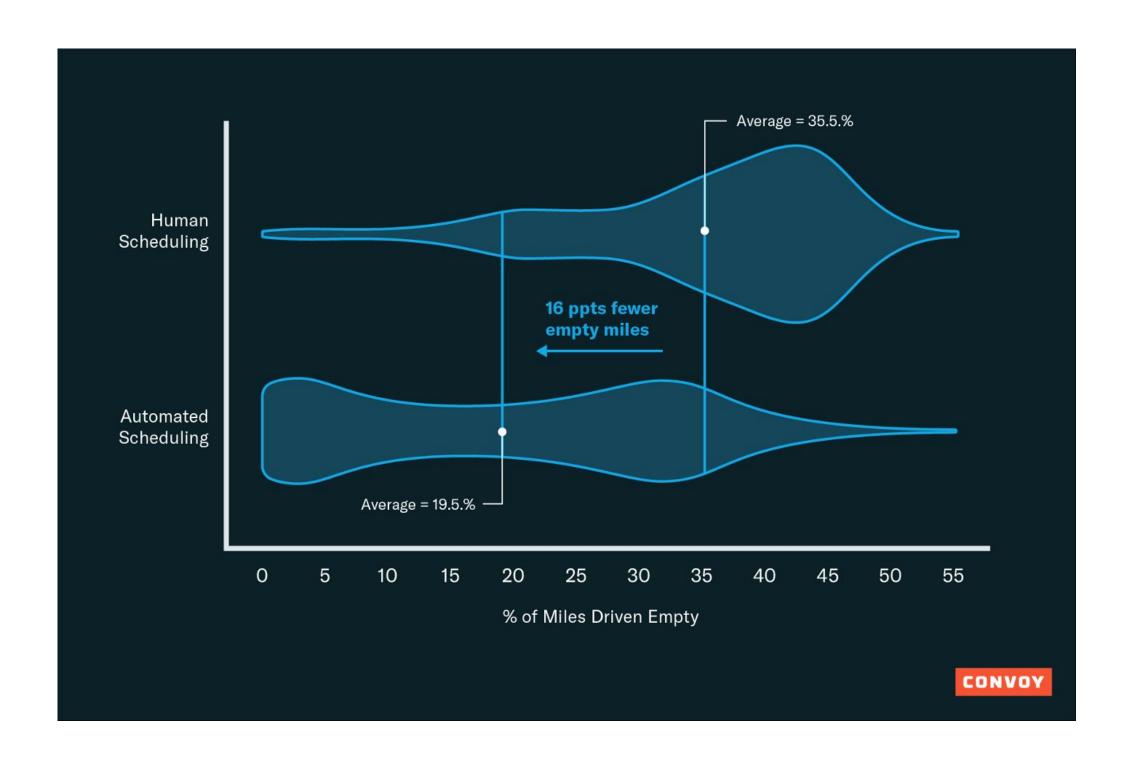
## Identify decarbonization strategies

ENVIRONMENTAL IMPACT
REDUCE CARBON EMISSIONS

#### Automated Reloads

Improving the ability to connect shipments more effectively immediately reduces carbon emissions in your supply chian.

Empty miles driven produce 72 million metric tons of CO<sub>2</sub> equivalent emissions. Bundled shipments reduce scope 3 carbon emissions by 45%.



#### ENVIRONMENTAL IMPACT REDUCE CARBON EMISSIONS

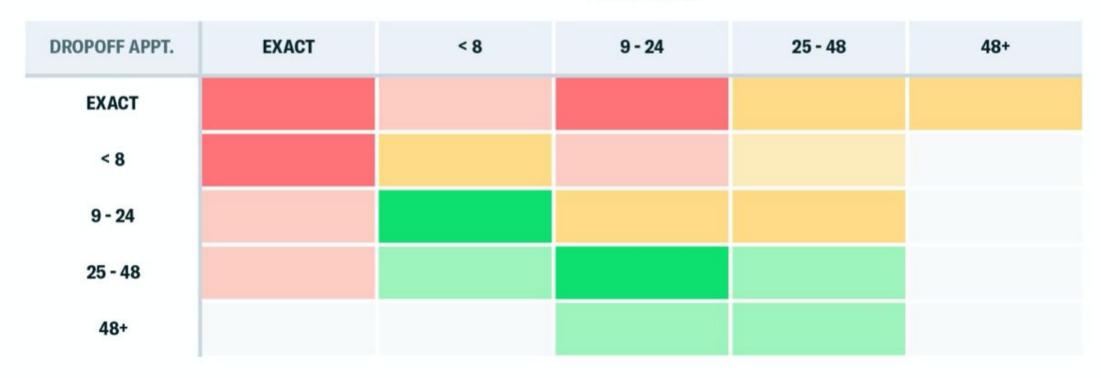
### Green Appointments

Green Appointments give shippers the choice to offer longer pick up and delivery times, which increases the chances of booking the most efficient driver for the job.

Shippers that have flexible pick up and delivery dates get access to the best carriers, at the best price, and reduce scope 3 carbon emissions by 36%.

#### Batch percentage by pick up and dropoff appointment windows.





## 5

Offset the rest

#### ENVIRONMENTAL IMPACT BECOMING CLIMATE POSITIVE

#### **Carbon Offsets**

A carbon offset represents a reduction in emissions of carbon dioxide or other greenhouse gases, which is created through an emissions reduction project.

Carbon offsets are an effective way for shippers to counteract the Scope 3 carbon emissions produced during transportation.

Here are two examples of projects we've chosen for their impact reducing the carbon footprint and providing community benefits:



**Truck stop electrification** that reduces the need for truck drivers to burn diesel to stay comfortable and operate electronics in their cabs



**Forest conservation** in the Amazon rainforest by providing alternative economic opportunities to local communities

The cost to fully offset the emissions from the average shipment is \$3 or 1¢ per mile.

#### CONVOY