



**CONVOY**

# SUPPLY CHAIN VISIBILITY AND THE DIGITAL FREIGHT NETWORK

How network insights help shippers optimize operational spend, improve facility performance, reduce carbon emissions, and become a shipper of choice.

Leading shippers know that better visibility into their freight operations translates into lower transportation costs, reduced waste, and higher carrier loyalty. Achieving that visibility requires a new type of freight service partner—one that provides transparent data into every step of the shipment lifecycle.

Read on to learn how Convoy's digital freight network automatically collects more than 1,000 data points on every shipment, and how our tools and data science teams can provide you with a level of supply chain visibility never before possible.

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## THE CHALLENGE OF OPERATIONAL VISIBILITY

In recent years, rising consumer expectations and market volatility have put pressure on both B2C and B2B supply chains. Demand for more efficient delivery and increasing economic uncertainty require supply chain professionals in every industry to continually audit their processes and identify inefficiencies in order to stay competitive.

Yet today, many shippers lose visibility of their freight as soon as a load leaves the docks. Incidentals are incurred without the ability to identify root cause. Operational issues often go unnoticed without a process for identifying patterns in problematic facilities. Key performance metrics including on-time pickup (OTP) and on-time delivery (OTD) are frequently inaccurate due to manual reporting. Carbon emissions go unchecked without an accurate approach for measuring their impact. And without consistent means for drivers to provide feedback, shippers have no way of knowing how to invest in a better carrier experience.

**The result?** Inefficiencies that add up to millions of dollars in incidental spend, tens of millions of pounds of wasteful carbon emissions from empty miles, and driver dissatisfaction that leads to longer booking times and higher prices.

**Data and analytics provide a solution.**

They shed light on hidden inefficiencies throughout a shipment's lifecycle and arm logistics teams with insights to improve supply chain operations. Gathering this data at scale requires a different type of freight service provider—one that's rooted in technology and offers the tools and services to provide visibility into every step of the shipment lifecycle.

“

Our relationship with Convoy has continued to evolve since we first started working with them in 2017. Through close collaborations with their team, we have collectively improved efficiencies within our supply chain and gained valuable insights on our own facilities while piloting new programs that Convoy has since rolled out nationally and with other customers.”

**CHEP**

A Brambles Company

## DIGITAL FREIGHT NETWORKS: A NEW SOURCE OF OPERATIONAL DATA

Digital freight networks (DFN) are a new class of freight service provider that combine technology, data, and a dense network of carriers and shippers to reduce the inefficiencies in the freight industry. Unlike traditional brokers and asset-based carriers that focus primarily on transporting freight, DFNs move freight more efficiently while also providing insights that help shippers improve their operational performance.

As a digital freight network grows, it creates a flywheel effect that benefits both shippers and carriers. With each new shipper in the network, drivers have more options for hauling loads, fewer empty miles, and fewer wasted hours, allowing them to earn

more each day. With each new carrier in the network, capacity increases and shippers benefit from higher service quality. As shipment volume increases across the network, trucks are better utilized and shipping costs come down, leading to better prices and more reliable service.

Because digital freight networks use technology to automate the brokering process and track shipment progress from start to finish, they collect an enormous amount of operational data that can then be shared with shippers to help them understand potential inefficiencies in their supply chain, and benchmark how their supply chain operations compare with others in their industry.

## HOW SHIPPERS BENEFIT FROM A DFN

- Time and money saved through automation
- The reliable capacity of leading asset carriers
- The flexible capacity of leading brokers
- Higher quality, safer carriers with fewer OS&D claims
- Insights that help eliminate operational inefficiencies

[LEARN MORE](#) about Convoy's digital freight network.

## How Convoy Collects Operational Data

As the industry's first and most efficient digital freight network, Convoy has prioritized accurate data collection since our founding in 2015. To date, we've collected and analyzed over 16 terabytes of shipment and operations data across our network, including nearly one million carrier ratings across 25,000 locations. For context, 16 terabytes is the equivalent of more than 104 million pages of digital content, such as Word documents or PowerPoint slides.

To collect that data, each of the hundreds of thousands of trucks in our network uses a GPS-enabled mobile app. From the moment

the driver accepts a load and pulls up to your pickup facility to the instant they deliver your shipment to its destination, the app gathers data at every step. This includes information on the type of truck (e.g. reefer or dry van), the type of shipment (e.g. live or drop), time stamps documenting the moment the load is accepted, the moment they pull into the dock and pickup begins, and the moment they pull away after pickup. The app also tracks wait time at the drop-off facility, the type of program (primary contract, backup contract, spot), to-the-minute on-time performance and delivery (OTP and OTD), the distance of the route, the driving duration, and more.

“ Not only does Convoy find us the most reliable trucks for our shipments, they also provide valuable data and insights that help us improve our supply chain performance.”



In addition, Convoy's DFN collects quantitative data from the mobile app and qualitative feedback from drivers that provide you insights into the carrier experience, including facility wait times, cancelation rates, facility ratings on yard space, parking, service, communication, amenities, and more.

Our technology platform enables us to share your shipment information with you

through detailed reports and online dashboards. It also enables us to compare your information with averages based on aggregate, anonymized data collected across our digital freight network.

Keeping your operational data safe and secure is a top priority at Convoy. We never share the specifics of your operational data with anyone.



“ Convoy has been able not only to meet the seasonal demands of our business with greater capacity, but they have provided additional insights to help us streamline our operations. By providing visibility on our shipments, facility ratings and accurate pickup/drop reports, we've improved the efficiency of our supply chain.”



## Categories of Operational Data

With more than 1,000 data points collected on every shipment, Convoy can provide shippers with visibility into an immense set of operational data. We deliver this data across ten core categories.

**SHIPMENT VOLUME** - For loads that you ship with Convoy, we provide month-over-month and year-over-year information on total number of loads, trends by shipment type (primary contract, backup contract, spot), top lanes, number of pickup and drop-off facilities, and total miles driven.

**FACILITY OVERVIEWS** - For each facility that Convoy services, we provide information on the number of shipments picked up and dropped off, as well as trends on incidental spend over time.

**FACILITY RATINGS** - Through a combination of automatically gathered data points and driver feedback, we provide detailed comparisons of operational efficiency and carrier preference

for your facilities. This includes trends in facility ratings, a list of highest and lowest-rated facilities, benchmarks of your facilities compared to the other shippers, feedback on yard space and customer service, and a detailed list of facility strengths and areas for improvement based on driver feedback.

**WAIT TIMES** - To better understand the efficiency of your facilities, Convoy provides a range of statistics and charts to help you understand wait time trends, facilities with the highest and lowest average wait times, the range of wait times at each facility, and more.

**INCIDENTALS** - To help you understand your total cost to ship, we provide statistics, charts, and benchmarks of incidentals. This includes a breakdown of detention, lumper, TONU, layover, and redelivery spend, incidental spend over time, and comparisons of your incidentals vs. similar shippers and vs. the rest of Convoy's shipper network.



**DRIVER SAFETY** - We set higher safety and compliance standards for our carriers than the nation's most prominent brokers and asset carriers. As part of our network insights, we provide you with details on carrier compliance and any incidents involving your shipments.

**SUSTAINABILITY** - At the core of our digital freight network is the goal of reducing carbon emissions associated with empty miles. As part of this, we provide a detailed assessment of your year-to-date environmental impact, including the amount of carbon emissions saved through the use of automated reloads, green appointments, and fuel savings.

**PERFORMANCE** - Whether you're shipping with Convoy for contract or transactional freight, we provide industry-leading tender acceptance and unmatched accuracy in reporting on-time pickup and on-time delivery. As part of our network insights, we provide detailed information on our OTP and OTD trends for all your live and drop loads,

including the number and percentage of shipments picked up and delivered on-time, early, and late.

**SUPPLIER DIVERSITY** - We're committed to fostering business partnerships that include Minority Owned Businesses, Women Owned Businesses, People with Disabilities Owned Businesses, Veteran-Owned Business, and LGBTQ+ owned businesses. As part of our network insights, we provide statistics and charts showing shipments and spend with diverse-certified carriers.

**CARRIER NETWORK** - Convoy works with tens of thousands of carriers across the US. Many of these carriers are small businesses with fleets between one and five trucks. Convoy provides you with a breakdown of the carriers covering your loads by fleet size so that you can see how you're supporting America's small businesses.

For a more comprehensive list of data points available to shippers, see [Appendix A](#).

“ We are continuously searching for ways to improve sustainability and reduce emissions across our entire value chain. By working with Convoy, we're able to lead this charge by collectively addressing the challenge of empty miles within the industry, streamlining our business and contributing to a more sustainable future.”



## TURNING DATA INTO INSIGHTS

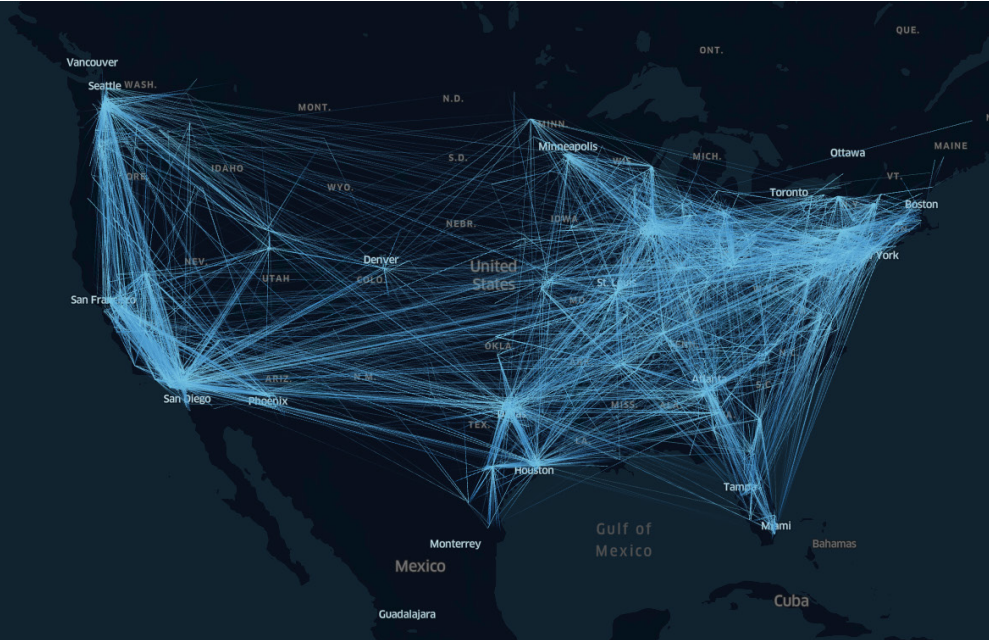
As we collect data on your shipments, we can turn the data into operational insights that can help you overcome real business challenges.

Through automatically generated reports, we show you trends and anomalies in your supply chain that may warrant further investigation. Through an online reporting dashboard,

we enable you to customize and visualize your data based on specific timeframes, geographies, shipment types, and more. And in partnership with Convoy's data scientists and industry account teams, we provide customized consulting services that help you analyze your shipment data and uncover hidden inefficiencies at your facilities.

### 7 BENEFITS OF CONVOY'S NETWORK INSIGHTS:

- Reduce total cost to ship
- Improve shipment performance
- Improve facility efficiency
- Forecast incidental budget for new facilities
- Improve the carrier experience
- Reduce carbon emissions
- Increase supplier diversity



Shippers in our network have access to the following insights products and services:

#### MONTHLY BUSINESS REPORTS:

Automated reports detailing supply chain health metrics like tender trends, on-time performance, incidentals, and more.

#### DYNAMIC DASHBOARD:

Our interactive, web-based dashboard with your shipment history that allows you to slice and dice your data as needed.

#### CUSTOM INSIGHTS:

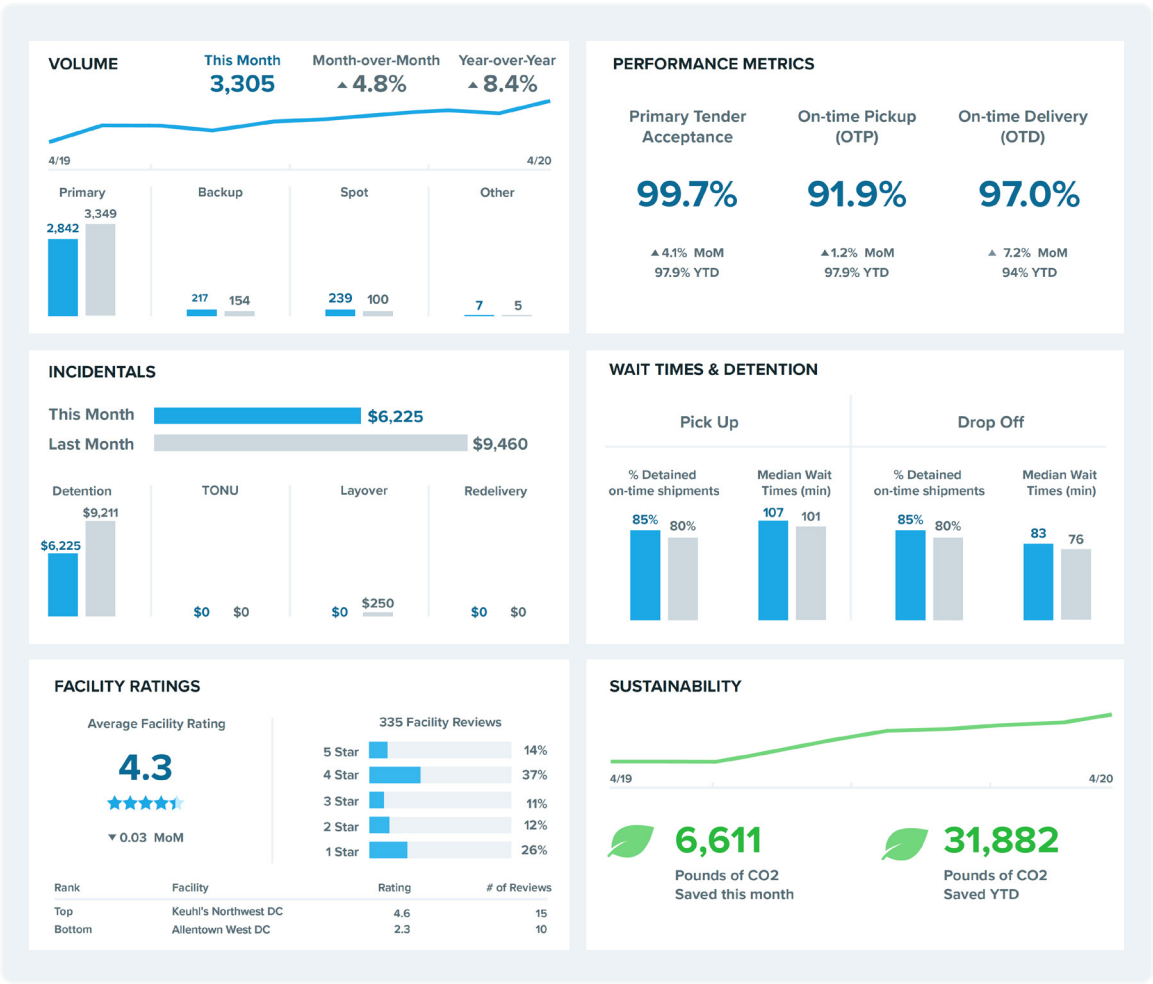
We'll work with you to analyze your specific network data and benchmark against our comprehensive data pool.

## Monthly Business Reports

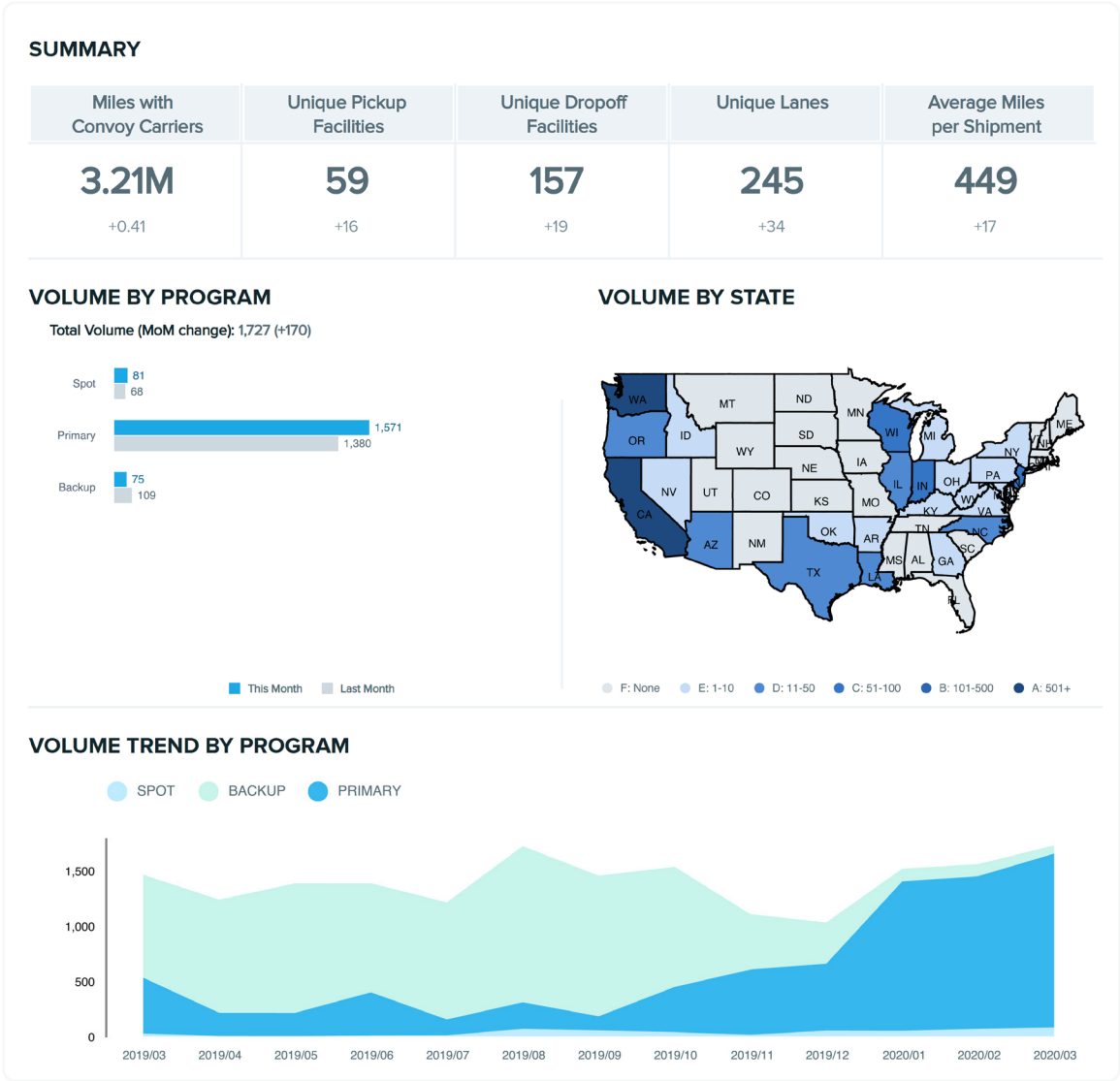
As a shipper in our network, you get a comprehensive monthly business report of your Convoy shipments, analysis of key lanes, incidental patterns, driver feedback, facility ratings, and more. We can also provide these reports for individual facilities or regions by request.

**Each report begins with an overview of your:**

- Freight volume
- Incidentals
- Facility ratings
- Performance
- Wait times
- Carbon emissions



We continue with a summary of your Convoy freight volume over the last month. Included are growth trends in your shipment volume month-over-month and a breakout of the freight allocated to primary contract, backup contract, and spot. For shippers who use Convoy's live and drop programs, a separate summary is provided for each.



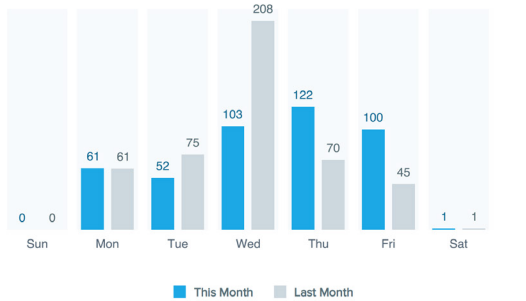
We then drill into lane and tender trends. Included are snapshots of lanes with the highest volume, lanes with the highest month-over-month volume increases and decreases, tenders by day of week, and average lead time for primary contract, backup, and spot freight.

**LANES WITH HIGHEST MONTH-OVER-MONTH VOLUME INCREASE**

Pickup	Dropoff	Truck Type	Volume (+/- QoQ)
Fremont, OH	Holland, MI	DRY VAN	70 (+69)
Louisville, KY	Garland, TX	REEFER	49 (+36)
Tulare, CA	Riverside, CA	REEFER	27 (+26)
Fremont, OH	Taylor, PA	DRY VAN	26 (+25)
Garland, TX	Fort Worth, TX	REEFER	48 (+21)
Fort Worth, TX	Houston, TX	REEFER	61 (+17)
Lakeville, MN	Aurora, IL	DRY VAN	19 (+16)
Granite City, IL	Morris, IL	DRY VAN	32 (+15)
Fresno, CA	Perris, CA	DRY VAN	30 (+15)
Fremont, OH	New Baltimore, MI	DRY VAN	12 (+11)

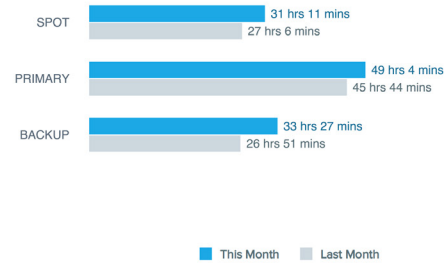
**TENDER & LEAD TIME DISTRIBUTION**

Average Tenders by Day of Week



Average Lead Time by Program

Avg Lead Time (MoM change): 37 hrs 54 mins (+4 hrs 40 mins)

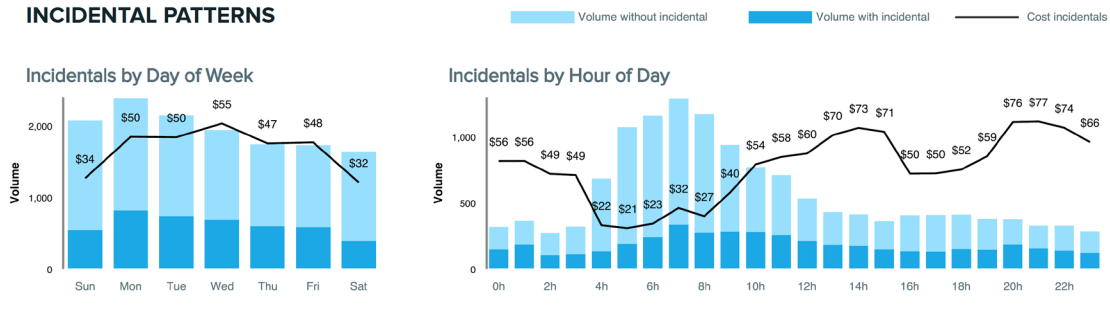


To help you identify opportunities for reducing the total cost of shipping, we provide several analyses of your incidental spend. These include your average incidental cost per shipment, the percentage of your total costs made up by incidentals, and the percentage of shipments that incurred incidentals, all benchmarked against Convoy network averages.

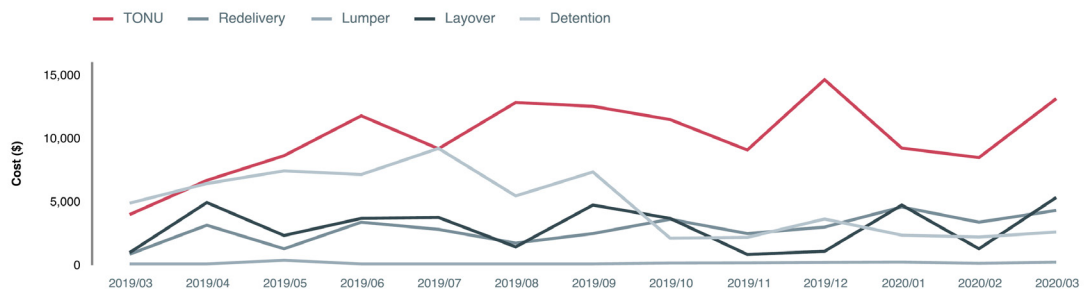


In addition, we identify daily and hourly trends in incidental costs, as well as detailed breakouts of TONU, redelivery, lumper, layover, and detention incidentals. These can often reveal inefficiencies in facilities, as we explore later in this paper.

INCIDENTAL PATTERNS



INCIDENTAL BREAKOUT TREND

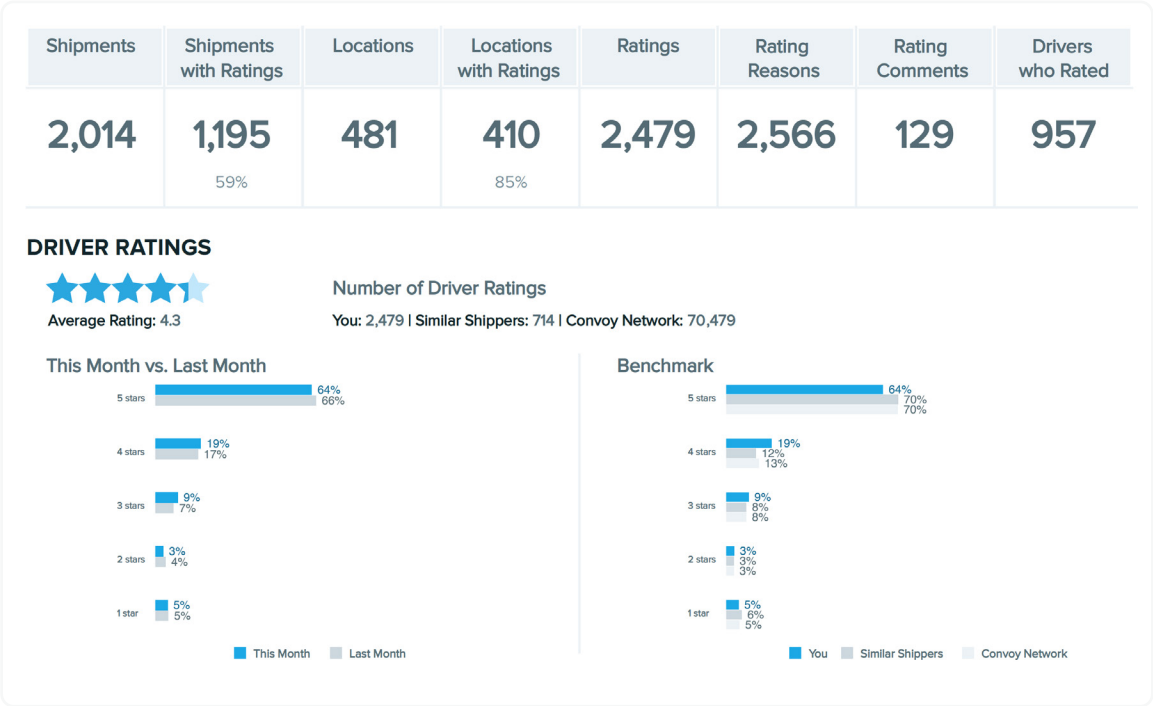


The report continues with a section devoted to facility ratings and driver feedback. Through these statistics and charts, you can identify problematic warehouses and distribution centers, find ways to improve your customer service, and ultimately improve carrier perception of your brand, leading to more available capacity and lower prices.

“ Simply fast and reliable transportation made easy for your shipping needs. The information available before, during, and after each shipment is truly mind-blowing.”



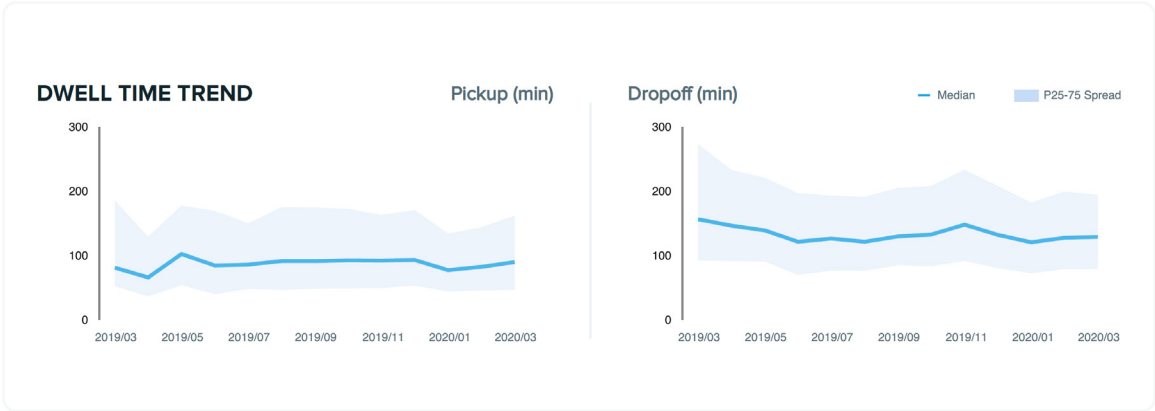
GE APPLIANCES



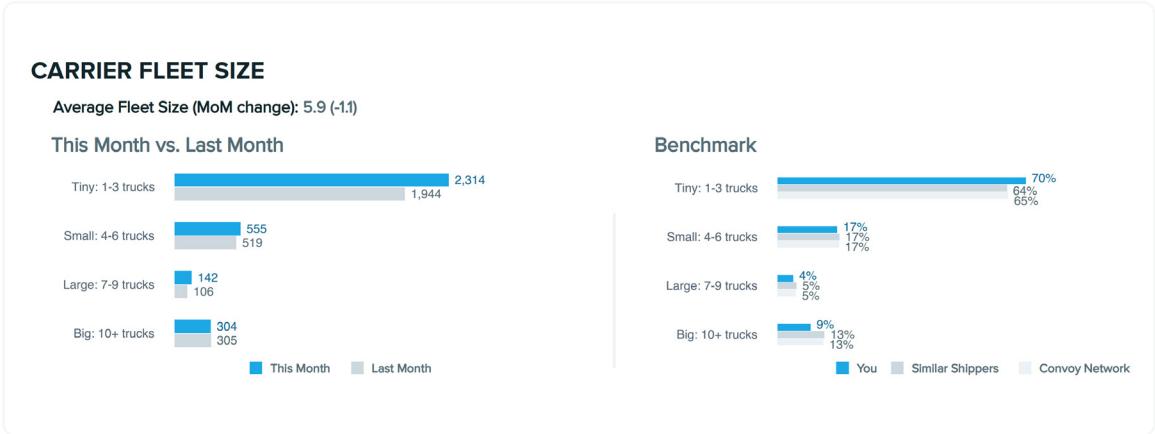
As part of the hundreds of thousands of ratings collected from our network of drivers, we also gather qualitative and verbatim feedback. We then present this information in the monthly business report through a series of tables and visualizations, including word clouds.



Drivers care about reasonable wait times, as excess wait time eats into their hours of operation and puts them at risk for ELD violations. We use GPS data through the Convoy app to measure the average time carriers spend at facilities. And as part of the monthly business report, we show statistics of wait times for the top pickup and delivery facilities where drivers were on time, broken out by live and drop shipments. We can also benchmark your pickup and dropoff wait times compared to Convoy network averages.



As part of Convoy’s commitment to small businesses, we work with tens of thousands of carriers whose fleets number between one and five trucks. To show you how you’re supporting America’s small businesses, our monthly business report provides a breakdown of the carriers covering your loads by fleet size.



## Dynamic Reporting Dashboard

Beyond the monthly reports, you can dig deeper into your data with Convoy’s interactive online dashboard of your entire shipment history. The dashboard enables you to slice and dice the data to uncover more insights into the efficiency of your facilities.

The dashboard is divided into three sections. On the **Facility Overview**, you get a bird’s eye view of all your facilities and can easily compare performance based on incidental spend, driver wait time, ratings, and more. You can filter the data by date, pickup vs. drop-off, drop vs. live shipments, and dry van vs. reefer trucks. You can look at your facilities individually or group them by lane, city, state, or region. And you can also set thresholds for wait time and ratings to more easily highlight facilities that are above or below your network average.

**INPUTS & FILTERS**

Location Aggregation  
Facility Address

Location Filter

Year  
All

Period  
All

Facility Category  
All

Drop/Live Shipments  
All

Truck Type  
All

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**THRESHOLD**

Overtime  
120

Rating  
4

### FACILITY OVERVIEW

**COLOR LEGEND**

- Top
- Average
- Bottom
- Above Average
- Below Average
- Neutral

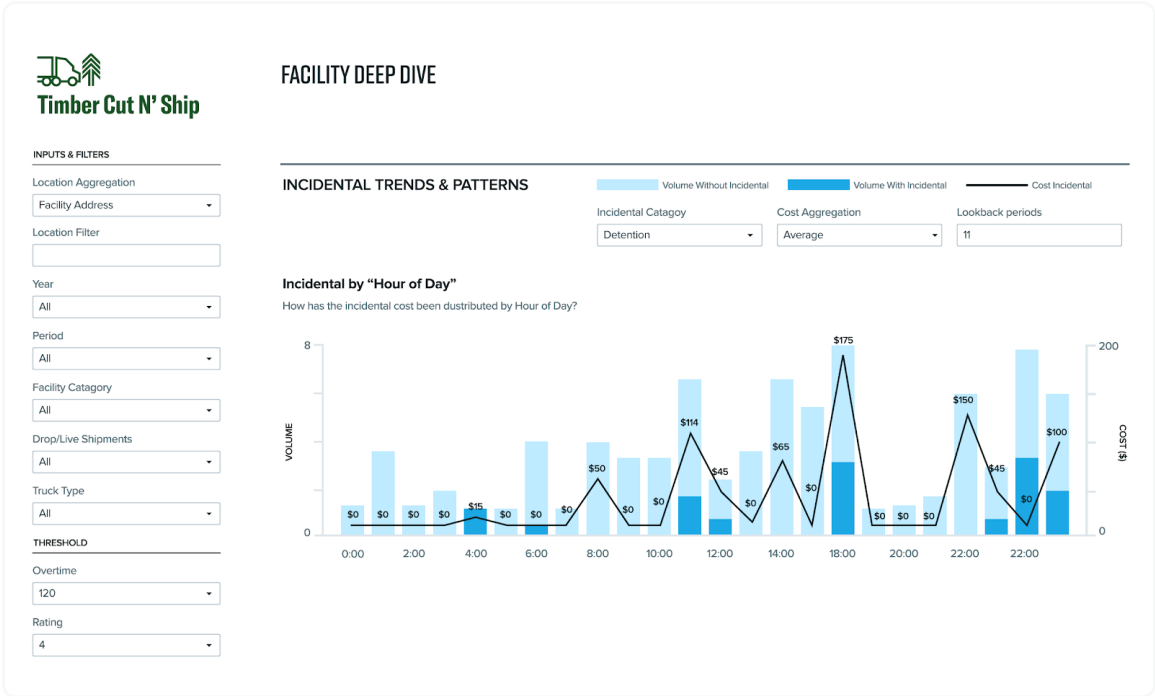
Location	Volume	Spend up	Linehaul + Fuel	Pct Incidental	Fine Incidental	Avg Incidental	Pct Dwell Time >X	Median Dwell Time	Count of Rating	Count of Rating Comments
ABC Hardware #530 - WA	80	2.6%	\$38,937	20%	\$1,000	\$65	30%	60min	19	9
Warehouse #4230 - TX	32	5%	\$26,234	19.8%	\$1130	\$100	45%	120min	15	0
Distribution Center #202 - CT	72	3.6%	\$2,980	60%	\$675	\$92	45%	106min	22	0
ABC Hardware #320 - NY	36	4.1%	\$9,782	44.4%	\$120	\$0	10%	112min	30	5
Warehouse #2330 - WI	52	9.0%	\$12,300	17.8%	\$0	\$100	70%	85min	21	12
Purple Supply #298 - OR	43	7.5%	\$18,540	38%	\$0	\$60	50%	141min	15	6
Distribution Center #742 - MA	17	10%	\$4,756	12.6%	\$875	\$25	29%	122min	9	0
Distribution Center #677 - CA	20	6.6%	\$6,447	0.0%	\$955	\$15	30%	139min	5	0
Warehouse #1230 - IN	72	1.6%	\$16,524	10%	\$80	\$0	14%	140min	36	0
ABC Hardware #120 - AZ	32	2.6%	\$30,831	8.7%	\$25	\$90	9%	112min		0
Warehouse #130 - MO	68	2.3%	\$11,472	22.0%	\$245	\$125	5%	105min	13	0
Purple Supply #253 - NC	29	2.6%	\$24,246	17.8%	\$315	\$0	50%	90min	6	0
Distribution Center #472 - GA	57	5.6%	\$15,035	17.8%	\$0	\$15	45%	200min	9	0

“ We looked to Convoy due to their ability to provide real-time data-driven insights combined with innovative programs that drive better performance.”



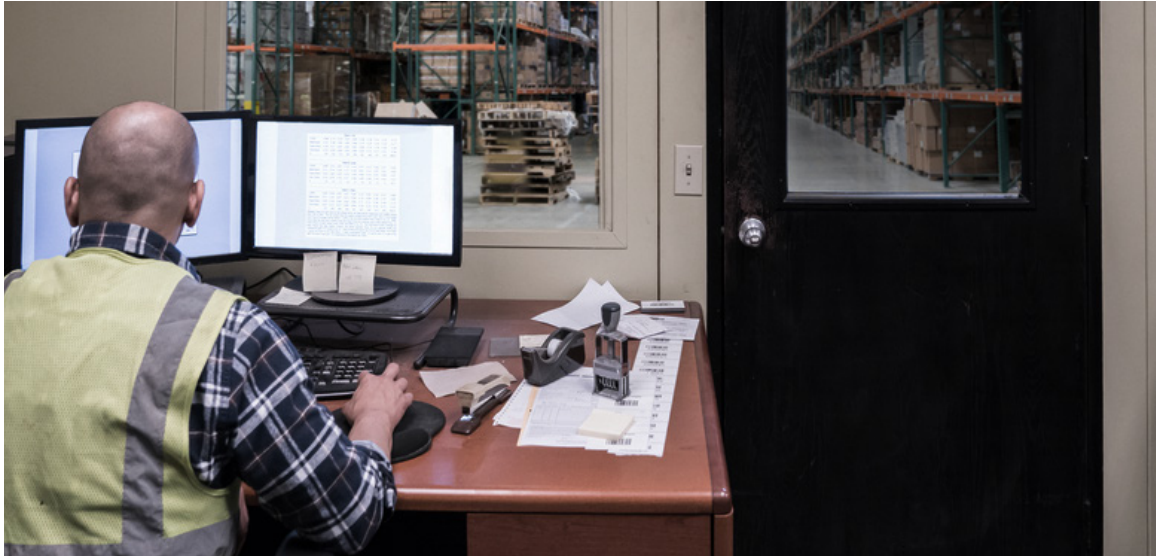


The **Facility Deep Dive** enables you to drill into your incidental spend, wait times, and carrier ratings for all your facilities. For example, you can see how your average detention, layover, and TONU spend has changed over the last couple of months or years. You can see how your incidental spend varies by day of week or by hour of day. You can get a list of every reason that every driver has ever rated your facilities positively or negatively. And you can compare your facility ratings, wait time, and incidental spend to the rest of the Convoy shipper network.



“ Our partnership with Convoy has helped P&G reduce costs and improve service by looking at transportation differently. We value Convoy’s commitment to transparency, innovation, and sustainability, underpinned by a culture of operational excellence.”





## Custom Insights

Beyond the automatically generated reports and the interactive online dashboard, one of the most effective ways to identify and address inefficiencies in your supply chain is to partner with Convoy's account management and data science teams. Together, we've worked with shippers in every industry to improve their supply chain efficiency, reduce costs, and improve their customer service.

### Here's how it works:

- You have a question or an observation about a specific area of your supply chain. Or, you have a larger strategic question about supply chain optimization that you'd like us to explore.
- Our team of data scientists and industry-specific account teams work in partnership with you to analyze your specific shipment and lane network data.
- Our team leverages our comprehensive data on nationwide lanes, locations, and drivers to uncover what may be contributing to your circumstance.
- We then bring our data-supported hypothesis, which we combine with your systems and business knowledge. Together we arrive at meaningful, actionable insights.

8 Examples of Business Insights

Here are eight examples of questions we've helped answer for our shippers by way of custom insights.

“What caused a jump in my month-over-month incidentals at my top facility?”

**The Problem:** You noticed an unexpected 23% MoM increase in incidentals at your highest trafficked facility, according to Convoy's monthly business report.

**The Process:** Convoy's investigation discovers that wait time at the same facility nearly doubled in the same timeframe, and volume increased by almost 20%.

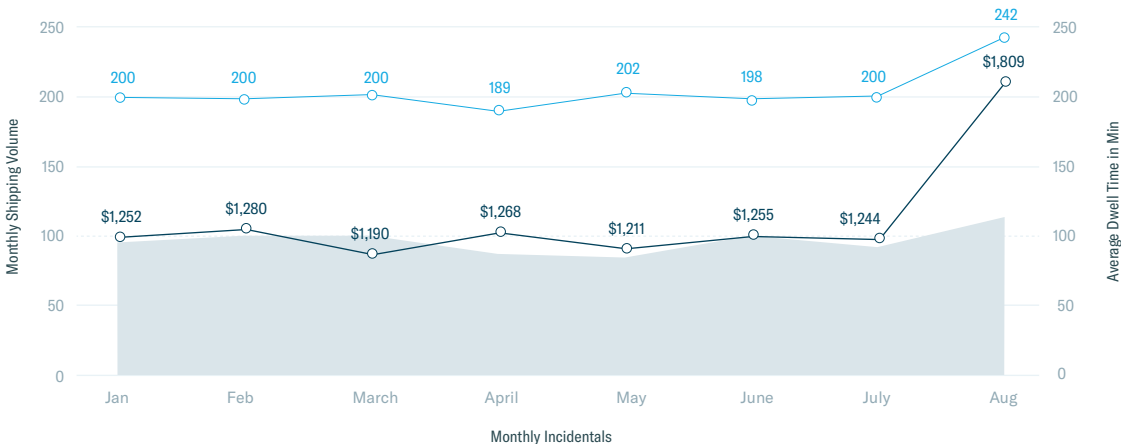
**The Insight:** The volume is taxing the facility's ability to get trucks in and out, increasing detention—the number one incidental contributor. As a next step, we look to do load balancing and rerouting to other facilities where it makes sense.

FACILITY ANALYSIS

Data Insights

Legend ■ Incidentals ■ Dwell time in Min ■ Volume

Volume increases are taxing the facility's ability to get trucks in and out, increasing detention.



“I have a handful of facilities in the Southern California region—why is one responsible for a disproportionate amount of incidentals?”

**The Problem:** One of your facilities experienced more incidentals in a single quarter than all your other facilities combined according to Convoy’s monthly business report.

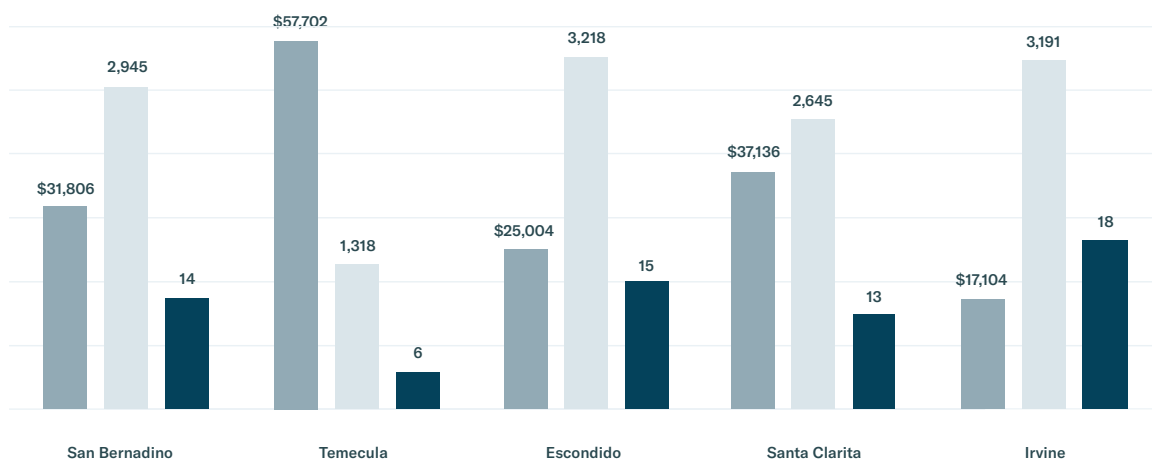
**The Process:** The data science team discovers that the facility has limited shipping windows compared to other similar-sized facilities in the network. These narrow shipping windows are the result of the facility being staffed by only five lumpers—roughly half as many as are employed at your comparable facilities.

**The Insight:** When schedules go awry (as schedules tend to do), the facility employees have no stretch to put out fires while also keeping the facility running at the same time. Now armed with this information, you’re empowered to make the case for increasing people resources at the understaffed facility.

### 20Q1 Total Cost Incidentals

Legend      ■ Incidental Costs    ■ Volume    ■ Staff

Temecula has the highest incidental costs, low volume and smallest staff.



“How can I reduce detention costs at a problematic facility?”

**The Problem:** You’re struggling with dock bottlenecks and backups. Anecdotally, you can’t point to any specific problems or patterns.

**The Process:** The data uncovers that detention begins to increase at 3AM, builds to a peak between 6 and 7AM, and returns to normal by 11AM. Once time of day is identified, we look at shipment volume and detention cost to uncover that you’re effectively paying an extra \$40 per load during the peak hours of 6 to 7AM.

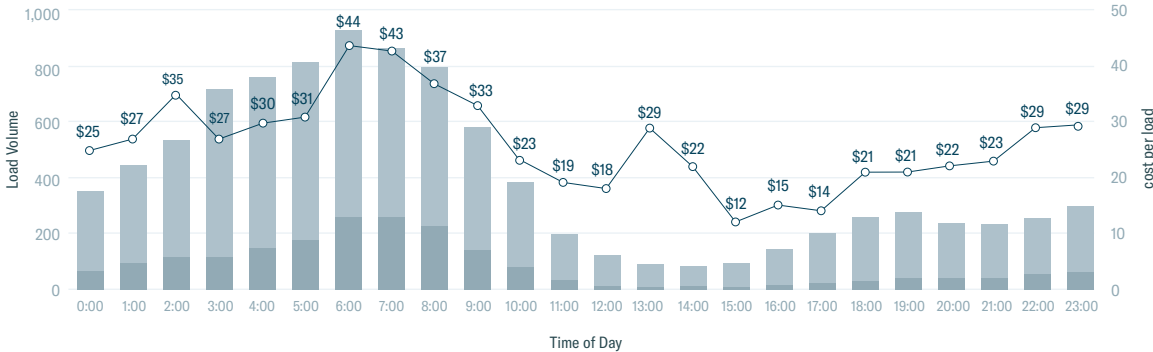
**The Insight:** If you shift your morning picks and drops across the afternoon and evening, you could save up to \$150,000 per year.

FACILITY ANALYSIS

Detention builds and peaks at 6am.

Legend      ■ Incidental loads      ■ Non-Incidental loads      ■ Incidental cost per load

Because of detention, this facility essentially pays an extra \$44 per load during the peak hours of 6 to 7AM.



“How much more efficient are my drop shipments than my live shipments, and what would be the budget impact of shifting more of my loads to drop?”

**The Problem:** You'd like to better understand live vs. drop performance. You know drop is more efficient than live, but you can't quantify the difference.

**The Process:** Comparing data, Convoy discovers that although both live and drop performed better than the industry average, drop incidental frequencies are half of live's, and the average incidental per load shipped is 34% less for drop.

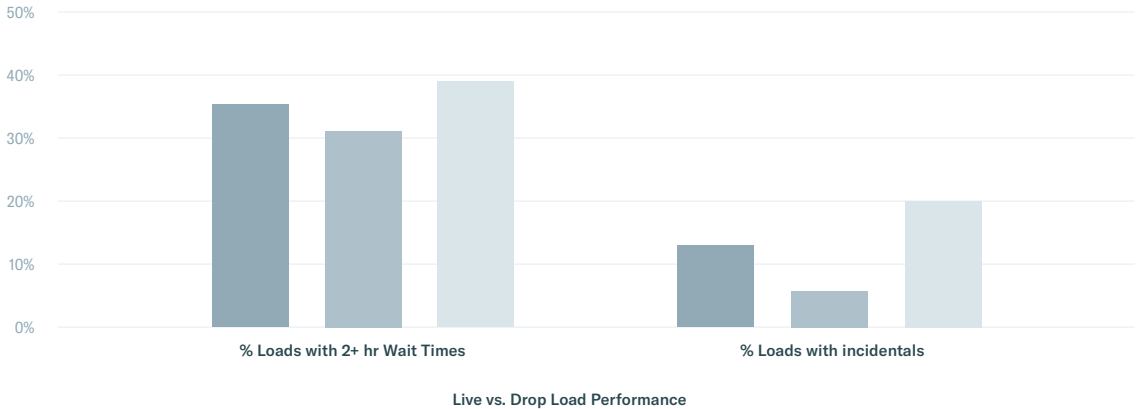
**The Insight:** If you prioritize increasing your load allocation to [Convoy's drop-and-hook program](#) from 6% to 25%, you could save nearly \$86,000.

FACILITY ANALYSIS

Drop is out-performing Live shipments.

Legend ■ Live ■ Drop ■ Convoy Food & Beverage Index

This Facility used Drop on 6% of 88k loads.

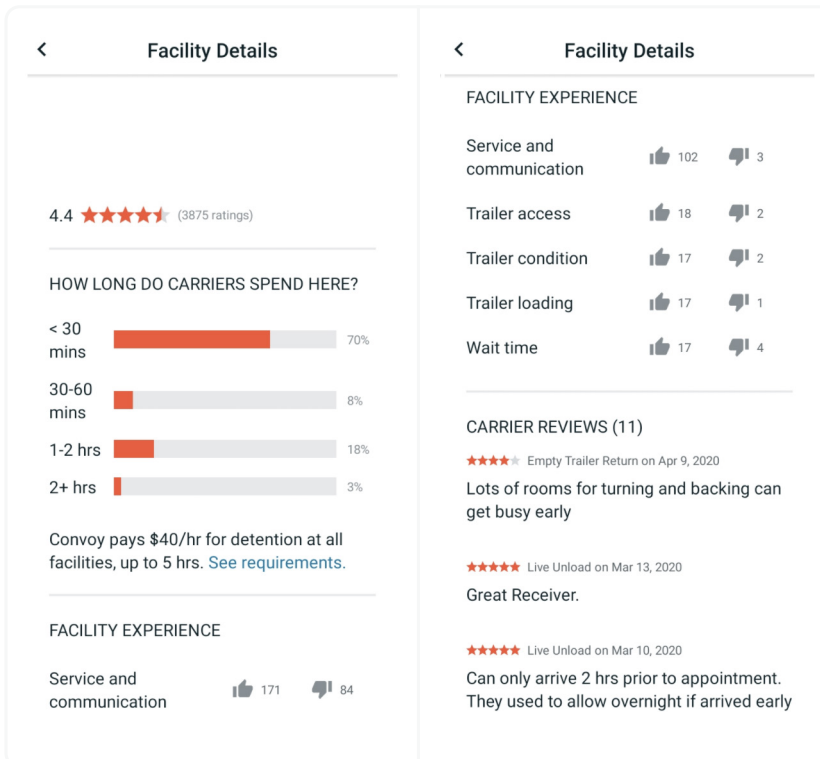


“How can I improve the carrier experience at my facilities to become a shipper of choice?”

**The Problem:** Loyalty amongst drivers is hard-earned and easily lost. You want help understanding which facilities are viewed poorly by drivers, resulting in longer booking times and higher prices.

**The Process:** The Convoy DFN collects carrier experience data by automating shipment tracking and requesting driver feedback in the Convoy app. Examining your underperforming facilities, we discover that carriers are experiencing average turnaround times of more than two hours, which is 23 minutes longer than other facilities in your network. Reviewing comments from drivers who rated the facility poorly, 90% indicated long wait times are the primary issue.

**The Insight:** You can optimize your scheduling windows so that drivers can get in and out faster. After two months, your facility is free of one-star reviews and only 10% of carriers still indicate long wait times.



“We’re adding new lanes and facilities to our network—how can we predict performance and forecast our incidental budget?”

**The Problem:** You need to expand operations and add new customer facilities to your network. You want to avoid the inevitability of reactively addressing challenges.

**The Process:** Although these lanes and facilities are new to you, Convoy already ships thousands of loads in and out of these locations. This means we predictively identify problematic facilities at your customer sites before you even ship a load.

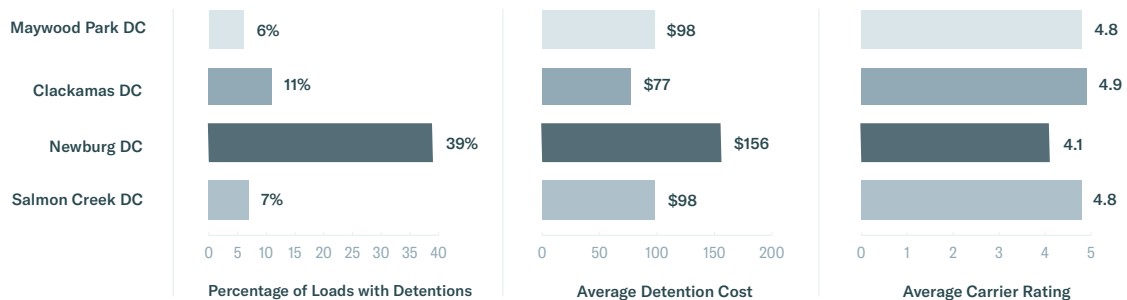
**The Insight:** You understand on a regional and metro-level how each new location performs based on prior network data, and develop a strategy to minimize schedule disruption and incidental costs.

**FACILITY ANALYSIS**

**Regional Performance Review**

Legend      Maywood Park DC      Clackamas DC      Newburg DC      Salmon Creek DC

Newburg DC appears to cause the most performance issues



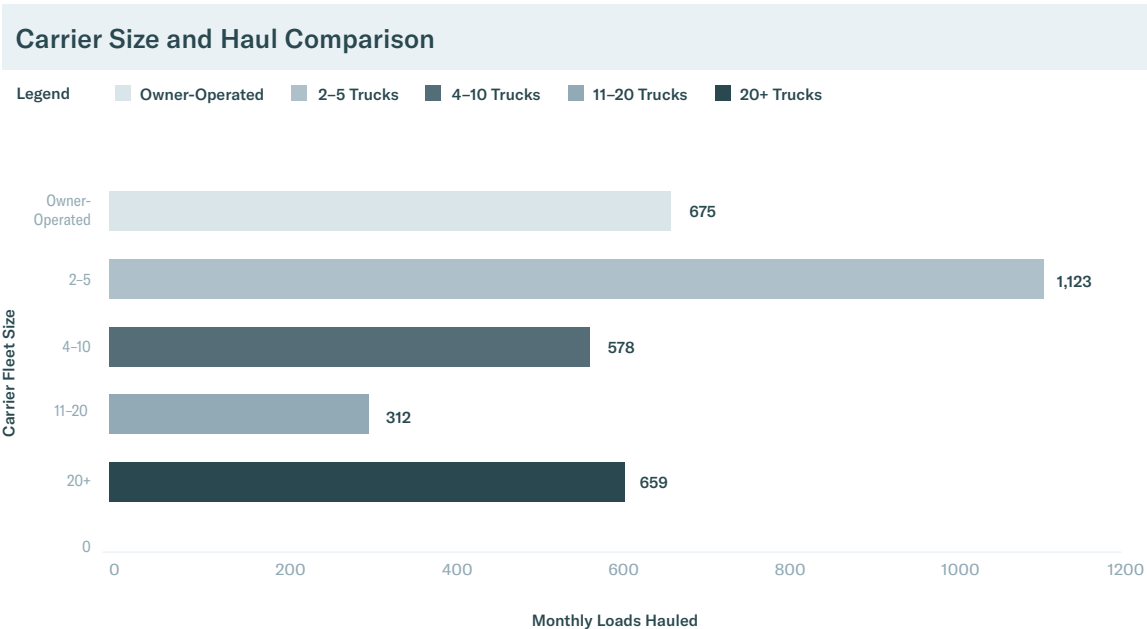
## “How can I increase supplier diversity?”

**The Problem:** Like 90% of the Fortune 100 companies who have supplier diversity initiatives, you recently enacted diversity requirements, but you lack data to help understand what your carrier base looks like. You need to establish a starting point before looking to improve it.

**The Process:** Convoy is committed to fostering carrier business partnerships that include Minority Owned Businesses, Women Owned Businesses, People with Disabilities Owned Businesses, Veteran Owned Business, and LGBTQ+ owned businesses. Beginning with a focus on small businesses, Convoy analyzes your carrier base to determine your supplier diversity baseline.

**The Insight:** Only 54% of your drivers hauling loads are owner-operators or run less than five trucks. Together, we work to prioritize using more of these small businesses across your network, raising your small business carrier percentage to 86% after six months.

### CARRIER FLEET ANALYSIS



“How can I make progress against my corporate sustainability goals by reducing CO2 emissions?”

**The Problem:** Today, 72 million metric tons of CO2 equivalent emissions are the result of empty miles, and 74% of S&P 500 companies have corporate environmental impact goals specific to sustainability and carbon reduction. During your RFP process, you tell freight service providers you will make awards based on sustainability impact.

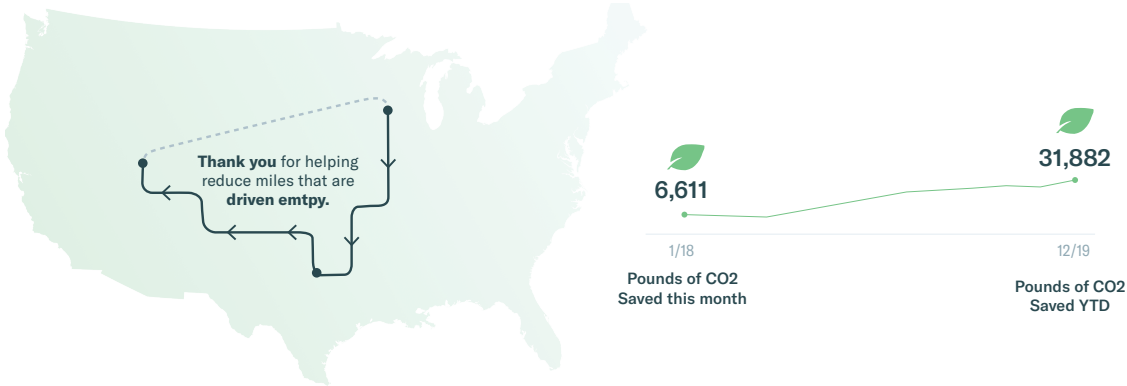
**The Process:** Convoy crafts a forecast model built around the available data on your network. We view the lanes and shipment volume and identify the percentage of loads that can be batched by way of our [Automated Reload program](#)—currently yielding a 45% decrease in CO2 emissions from trucks running empty less often.

**The Insight:** Our RFP response projects your future CO2 savings across our strongest lanes at 9M lbs, 11% above the industry average.

FACILITY ANALYSIS

Sustainability

Convoy’s mission is to transport the world with endless capacity and zero waste. Our technology has introduced efficiencies to the freight industry that reduce the number of empty miles and corresponding carbon emissions.



## WRAP UP: THE FUTURE OF OPERATIONAL VISIBILITY

Data and insights have become the new currency of the modern supply chain. Shippers with the most data, and the ability to get practical insights from that data, stand to lower their shipping costs, improve customer service, and contribute to top-line business growth. Those that continue to operate without visibility pay the price by way of wasted spend, unchecked carbon emissions, and carrier dissatisfaction.

Digital freight networks enable shippers to gather data at massive scale and get insights that can improve the efficiency of their supply chains. Convoy's digital freight network provides the most comprehensive data set in the industry, and empowers shippers with monthly business reports, a dynamic reporting dashboard, and custom consulting engagements.

If you're interested in exploring how Convoy's network insights could benefit your business, we'd love to make an introduction. In as few as 100 loads, we can start examining patterns in your shipments and identifying potential areas to improve your transportation efficiency.

Get started today: [WWW.CONVOY.COM/SHIPPER](http://WWW.CONVOY.COM/SHIPPER)



“ By working with Convoy and leveraging their digital freight network we've been able to reduce our overall transportation costs.”

**LAND O LAKES®**



Get started with Convoy today  
**CONVOY** ▶

## About Convoy

Convoy is the most efficient digital freight network and one of the largest truckload carriers in the United States. We move thousands of loads around the United States and cross-border to Canada each day through our optimized network of dry vans and reefers, helping shippers lower transportation costs, reliably deliver their freight on-time, and achieve their sustainability goals. With the reliability of leading asset carriers and the flexibility of leading brokers, we're a top-tier carrier for Fortune 500 companies in food and beverage, consumer packaged goods, retail, building and materials, oil and gas, automotive, and packaging.



# APPENDIX A

## Sample Data Points and Visualizations Shared with Shippers

### Shipment Volume

- Loads this month
- Loads by type
  - Primary this month vs. last month
  - Backup this month vs. last month
  - Spot this month vs. last month
  - Other this month vs. last month
- Month-over-month load % growth
- Year-over-year % growth
- Trailing 12-month line graph:
  - Total loads
- Trailing 6-month stacked line graph:
  - Volume trends by shipment type
- Total miles with Convoy carriers
- Number of unique pickup facilities
- Number of unique drop-off facilities
- Number of unique lanes
- Average miles per shipment
- Top 5 lanes this month

### Performance

- Primary tender acceptance %
- Primary tender acceptance MoM %
- Primary tender acceptance YoY %
- Total # of pickups (Live)
- Total # of pickups (Drop)
- OTP % (Live)
- OTP % (Drop)
- OTP MoM %
- OTP YoY %
- Total # of drop-offs (Live)
- Total # of drop-offs (Drop)
- OTD % (Live)
- OTD % (Drop)
- OTD MoM %
- OTD YoY %
- Trailing 6-month OTP % (Live)
- Trailing 6-month OTP % (Drop)
- Trailing 6-month OTD % (Live)
- Trailing 6-month OTD % (Drop)
- Driver Performance Breakout (Live)
  - # and % of pickups that were early
  - # and % of on-time pickups
  - # and % of pickups that were late
  - # and % of drop-offs that were early
  - # and % of on-time drop-offs
  - # and % of drop-offs that were late

- Driver Performance Breakout (Drop)
  - # and % of pickups that were early
  - # and % of on-time pickups
  - # and % of pickups that were late
  - # and % of drop-offs that were early
  - # and % of on-time drop-offs
  - # and % of drop-offs that were late

### Incidentals

- Total incidental spend this month
- Total incidental spend last month
- Spend by type
  - Detention this month vs. last month
  - TONU this month vs. last month
  - Layover this month vs. last month
  - Redelivery this month vs. last month
- Total monthly shipments with incidentals
- # of incidentals by type
  - Detention
  - TONU
  - Layover
  - Redelivery
- Trailing 6-month incidental rate (%) trend
- Trailing 6-month incidental average cost
- Incidental total cost and # of shipments
- YTD incidental total spend by month
- YTD percent of shipments with incidentals
- YTD average incidental costs by month Benchmark: Incidental cost per shipment
- Benchmark: Incidental % of costs
- Benchmark: % shipments with incidentals Incidentals by day of week
  - # of shipments
  - Cost
- Incidentals by hour of day
  - # of shipments
  - Cost
- Detention Deep Dive
  - 5 highest detention for pickup
    - Location
    - Detention spend
    - # of shipments impacted

- 5 highest detention for drop-off
  - Location
  - Detention spend
  - # of shipments impacted
- Trailing 6-month pickup detention
- Trailing 6-month drop-off detention
- Benchmark: % loads with detention
- Benchmark: Average detention cost
- Layover deep dive
  - 5 lanes with the highest layover cost
    - Pickup location
    - Drop-off location
    - Total layover spend
    - # of shipments impacted
  - Trailing 6-month average layover cost
- TONU deep dive
  - 5 lanes with highest TONUs
    - Pickup location
    - Drop-off location
    - Total \$ TONU spend
    - # of shipments impacted
  - Trailing 6-month average TONU cost
- Redelivery deep dive
  - 5 lanes with highest redelivery
    - Pickup location
    - Drop-off location
    - Total \$ redelivery spend
    - # of shipments impacted
  - Trailing 6-month avg redelivery cost

### Wait Times

- Pick Up
  - % of detained on-time loads MoM
  - Median wait times MoM
- Drop Off
  - % of detained on-time loads MoM
  - Median wait times MoM
- 5 pickup facilities with highest wait (Live)
  - Pickup location
  - # of on-time pickups vs. total pickups
  - # of on-time pickups with extra wait
  - Median extra wait time

- 5 pickup facilities with highest wait (Drop)
  - Pickup location
  - # of on-time pickups vs. total pickups
  - # of on-time pickups with extra wait
  - Median extra wait time
- 5 drop-off facilities with highest wait
  - Drop-off location
  - # of on-time drop-offs vs. total
  - # of on-time drop-offs with extra wait
  - Median extra wait time
- Trailing 6-month pickup wait time (Live)
- Trailing 6-month pickup wait time (Drop)
- Trailing 6-month drop-off wait (Live)
- Trailing 6-month drop-off wait (Drop)
- Benchmark: % wait time above threshold
- Benchmark: median wait vs. threshold
- Trailing 6-month dwell time trend
- Dwell time correlation to driver rating

**Facility Overview**

For Each Facility

- # of shipments
- Spend up %
- \$ Linehaul + fuel
- % Incidentals
- \$ Final incidental
- \$ Average incidental
- % Detention
- \$ Final detention
- \$ Average detention
- % Layover
- \$ Final layover
- \$ Average layover
- % TONU
- \$ Final TONU
- \$ Average TONU
- % Dwell time > threshold
- Median dwell time
- # of ratings
- Average rating
- % Ratings > threshold

**Facility Ratings**

- Average facility rating across all facilities
- Average facility rating MoM change

- # of facilities reviewed
- Percentage of facilities rated 1-5 stars
- Top-rated facility
  - Rating
  - # of reviews
- Bottom-rated facility
  - Rating
  - # of reviews
- 5 highest-volume pickup facilities
  - # of pickups
  - Total driver ratings
  - % of 5-star ratings
  - Average driver rating
  - Average driver rating (Metro)
- 5 highest-volume drop-off facilities
  - # of pickups
  - Total driver ratings
  - % of 5-star ratings
  - Average driver rating
  - Average driver rating – (Metro)
- Overall star rating per facility (1-5 stars)
- Actual wait time
- Yard space quality
- Wait time perception
- Service and communication
- Verbatim carrier reviews
- Reasons for facility ratings
  - Good service or communication
  - Poor service or communication
  - Easy trailer access
  - Good trailer condition
  - Poor trailer condition
  - Trailer loaded properly
  - Trailer not loaded properly
  - Quick loading
  - Slow loading
  - Slow unloading
  - Quick unloading
  - Short wait time
  - Long wait time
  - No parking
  - Parking available
  - Long wait at gate
  - Short wait at gate
  - Good facility amenities
  - Poor facility amenities
  - Difficult trailer access
  - Convenient trailer pool location
  - Limited yard space
  - Accessible yard
- Benchmark: % of ratings above threshold
- Benchmark: Average Ratings

**Sustainability**

- Pounds of CO2 saved this month
- Pounds of CO2 saved YTD
- Trailing 12-month pounds of CO2 saved
- Automated reloads breakdown
  - Monthly automated reloads (Live/Live, Drop/Drop, Drop/Live)
  - YTD automated reloads (Live/Live, Drop/Drop, Drop/Live)
- Map: Automated reload volume by state
- % of Live/Live automated reloads
- Gallons of diesel saved this month
- Trailing 6-month automated reload history
  - # of qualified shipments
  - # of automated reloads
  - Gallons of fuel saved
  - Total CO2 emissions (lb)
  - Total CO2 emissions saved (lb)

**Tender Trends**

- Average tenders per day
- Average pickups per day
- Average lead time by volume type

**Carrier Network**

% of loads by carrier size

**Automated Brokering**

- Automated brokering rate this month
- Chart: Trailing 6-month automation rate
- 5 most automated lanes
  - Pickup location
  - Drop-off location
  - Automation rate
  - # of shipments
- Automation on 5 busiest lanes
  - Pickup location
  - Drop-off location
  - Automation rate
  - # of shipments

**Supplier Diversity**

- Trailing 6-month diverse carrier loads
- # of shipments
- # shipments hauled by diverse carriers
- Freight spend with diverse carriers

**Driver Safety**

- Table: Trailing 6-month driver incidentals
- # of shipments
- # of shipments with driver incidentals
- % of shipments with driver incidentals