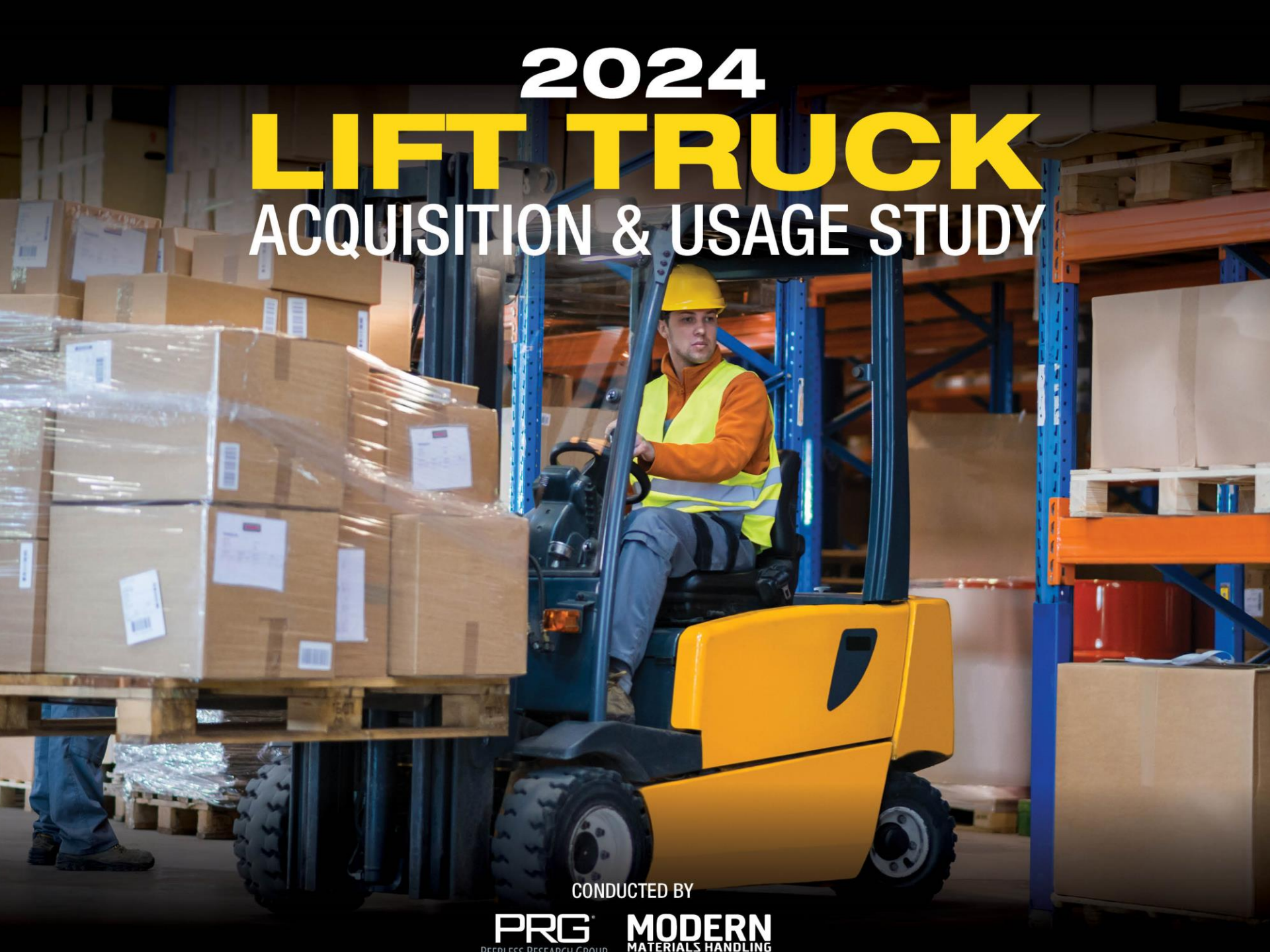


A warehouse worker wearing a yellow hard hat and a high-visibility vest is operating a yellow forklift. The forklift is carrying a large, heavy load of cardboard boxes on a wooden pallet. The worker is positioned in the center of the frame, looking towards the camera. The background shows a warehouse environment with blue metal shelving units and more boxes.

2024 **LIFT TRUCK** ACQUISITION & USAGE STUDY

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Introduction & Methodology

- ✚ This survey is the 2024 wave of *Modern Materials Handling's* annual tracking study to better understand how lift trucks are acquired and how fleets are managed and maintained. Where available the report compares this year's findings to 2023 and 2022 results.

- ✚ Specifically, the study examines:

- ✚ Lift trucks in use and planned for acquisition
- ✚ Lift truck acquisition
- ✚ Impact the economy has on lift truck acquisitions
- ✚ Lift truck maintenance arrangements and parts procurement
- ✚ Use of technology for managing lift truck fleet
- ✚ Respondent demographics

- ✚ Methodology:

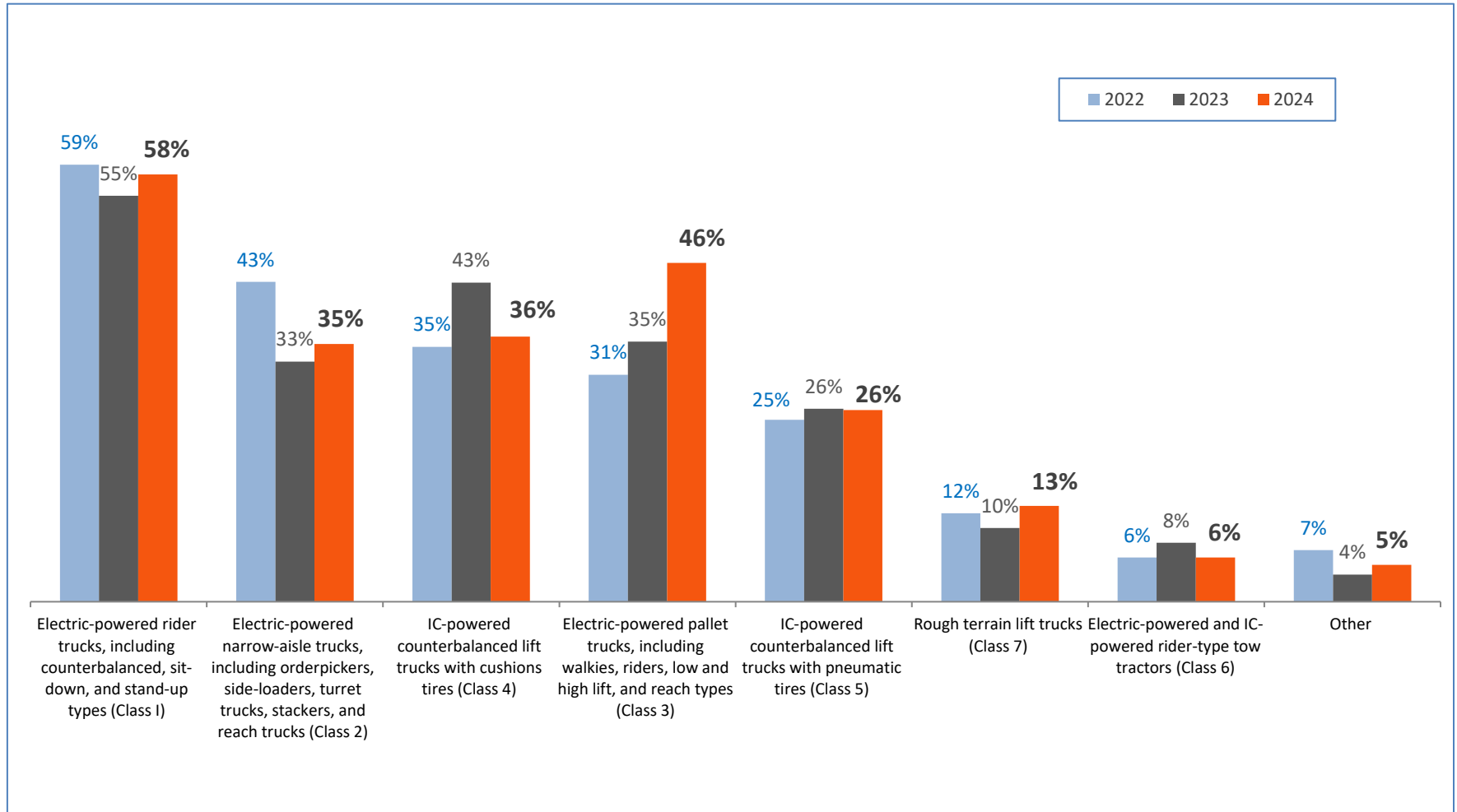
- ✚ Method: E-mail
- ✚ Sample: Subscribers to *Modern Materials Handling* magazine
- ✚ Respondent qualifications: Involvement in the evaluation and purchase of lift trucks for their facility
- ✚ Field & Response

	2024	2023	2022
Fieldwork	May	May	May
# of usable returns	190	189	185

- ✚ Margin of error: At a 95% confidence level, results are projectable at a margin of error of +/- 7.1%.



Types of lift trucks in use at facilities

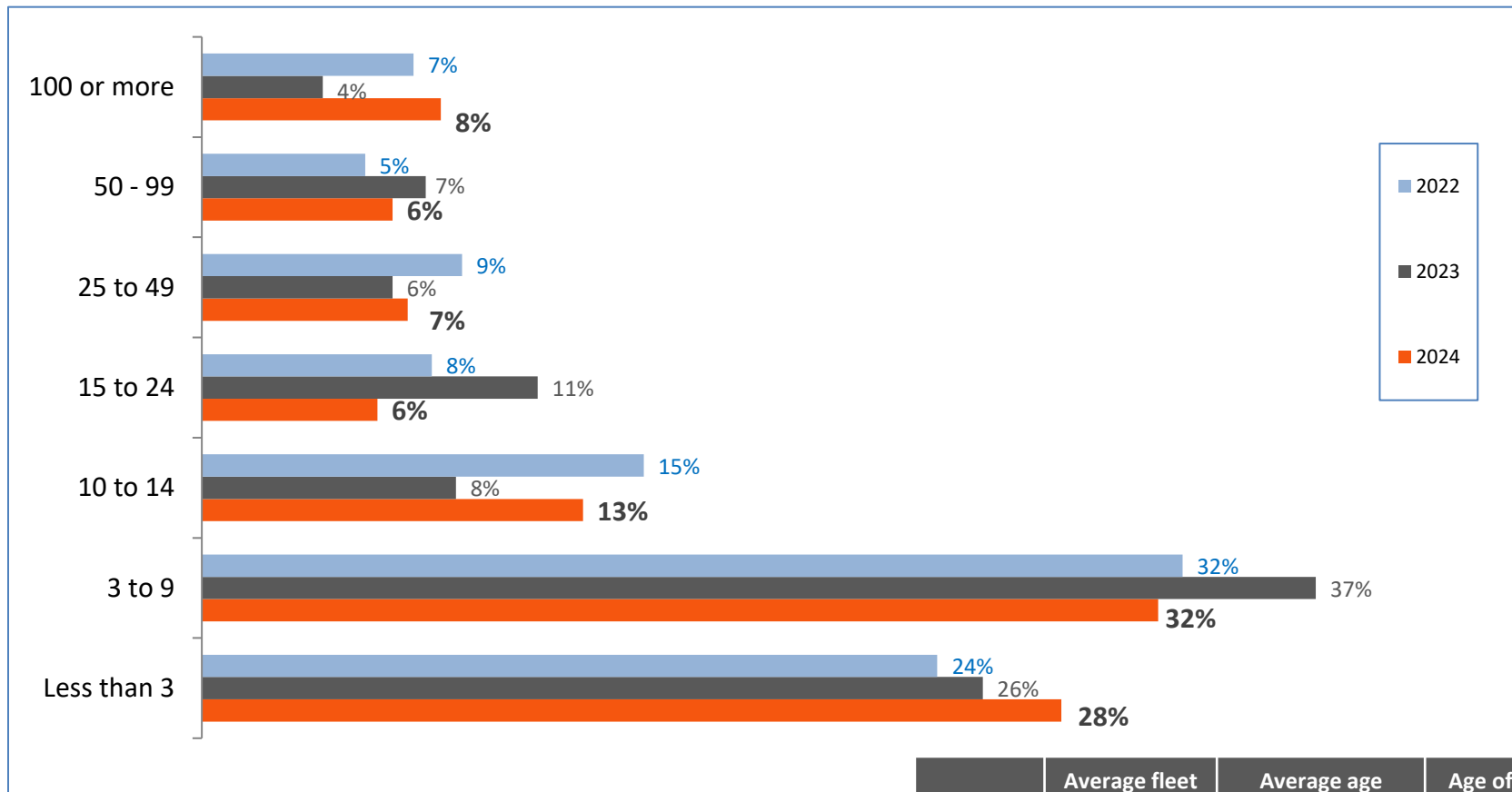


Note: Multiple answers accepted

What type(s) of lift trucks are in use at your facility?



Size of lift truck fleets



In total, approximately how many lift trucks are currently in use at your facility?

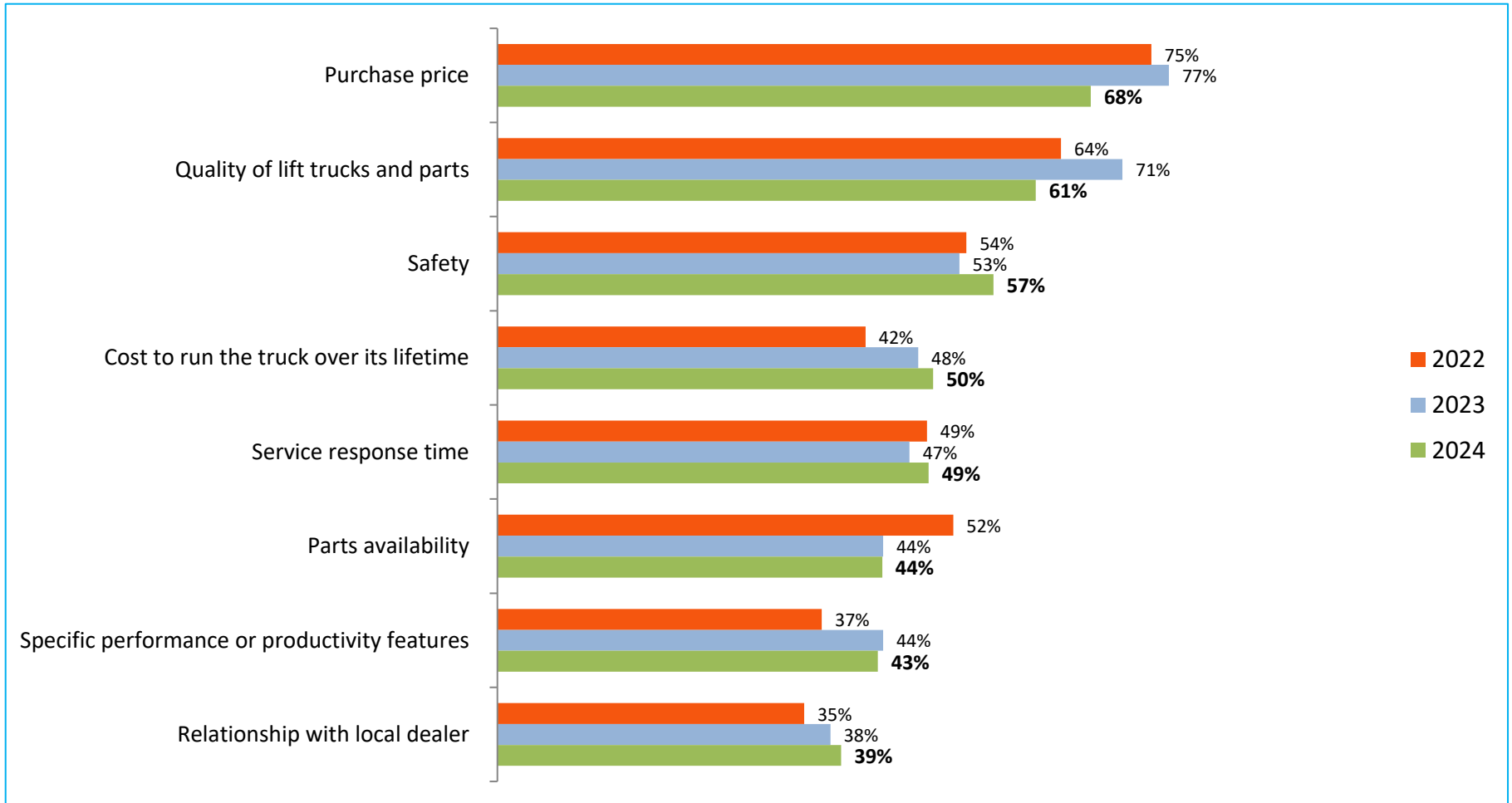
What would you say is the average age of the lift trucks in your fleet?

What would you estimate the age of your oldest lift truck currently in use?

	Average fleet size	Average age trucks in fleet	Age of oldest truck in use
2022	20	9 years	15 years
2023	18	8 years	14 years
2024	20	9 years	15 years



Characteristics considered important when evaluating lift trucks for purchase or lease

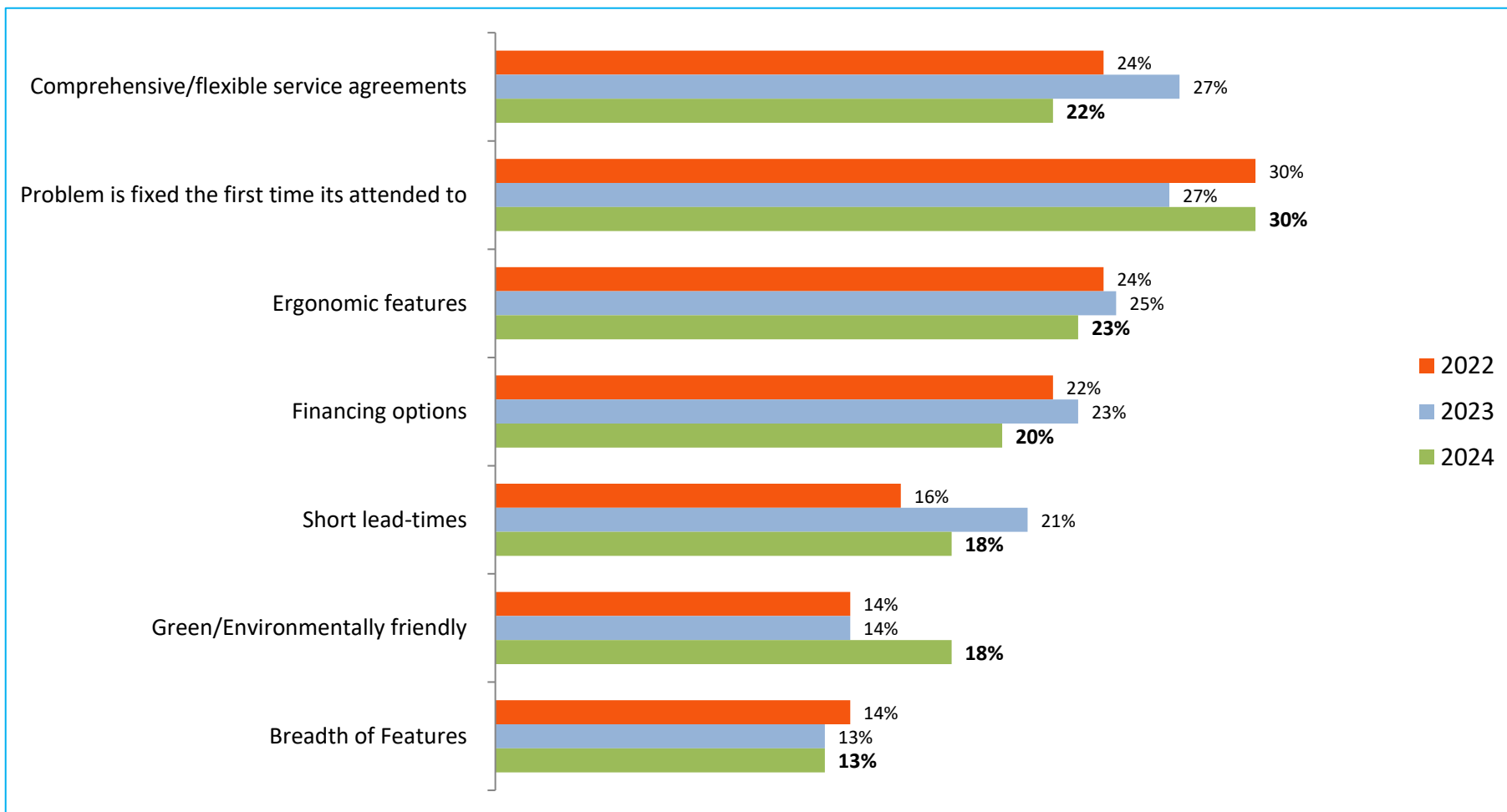


Note: Multiple answers accepted

When evaluating lift trucks for purchase or lease, how important are each of the following characteristics?



Characteristics considered important when evaluating lift trucks for purchase or lease [Continued]

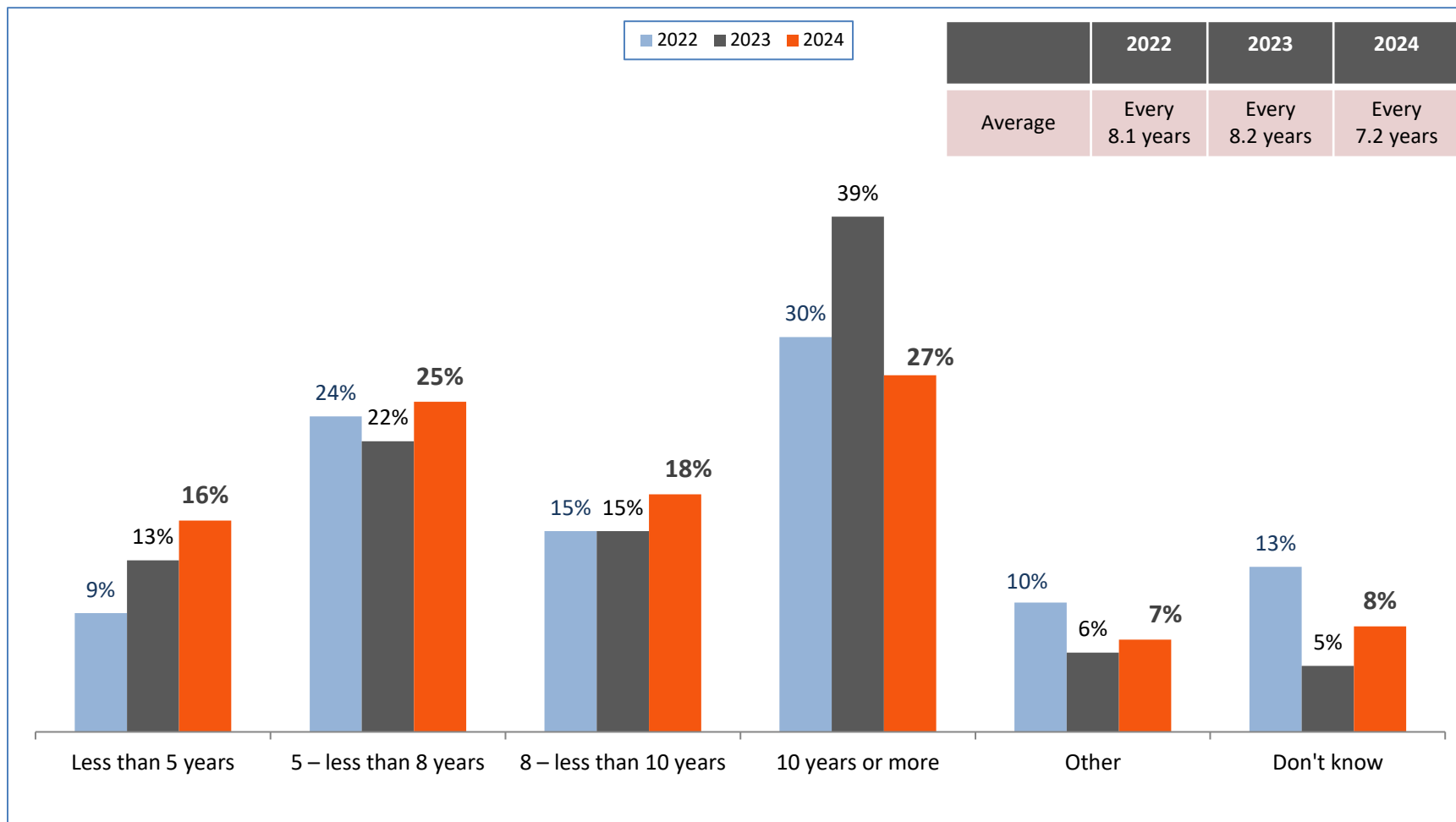


Note: Multiple answers accepted

When evaluating lift trucks for purchase or lease, how important are each of the following characteristics?



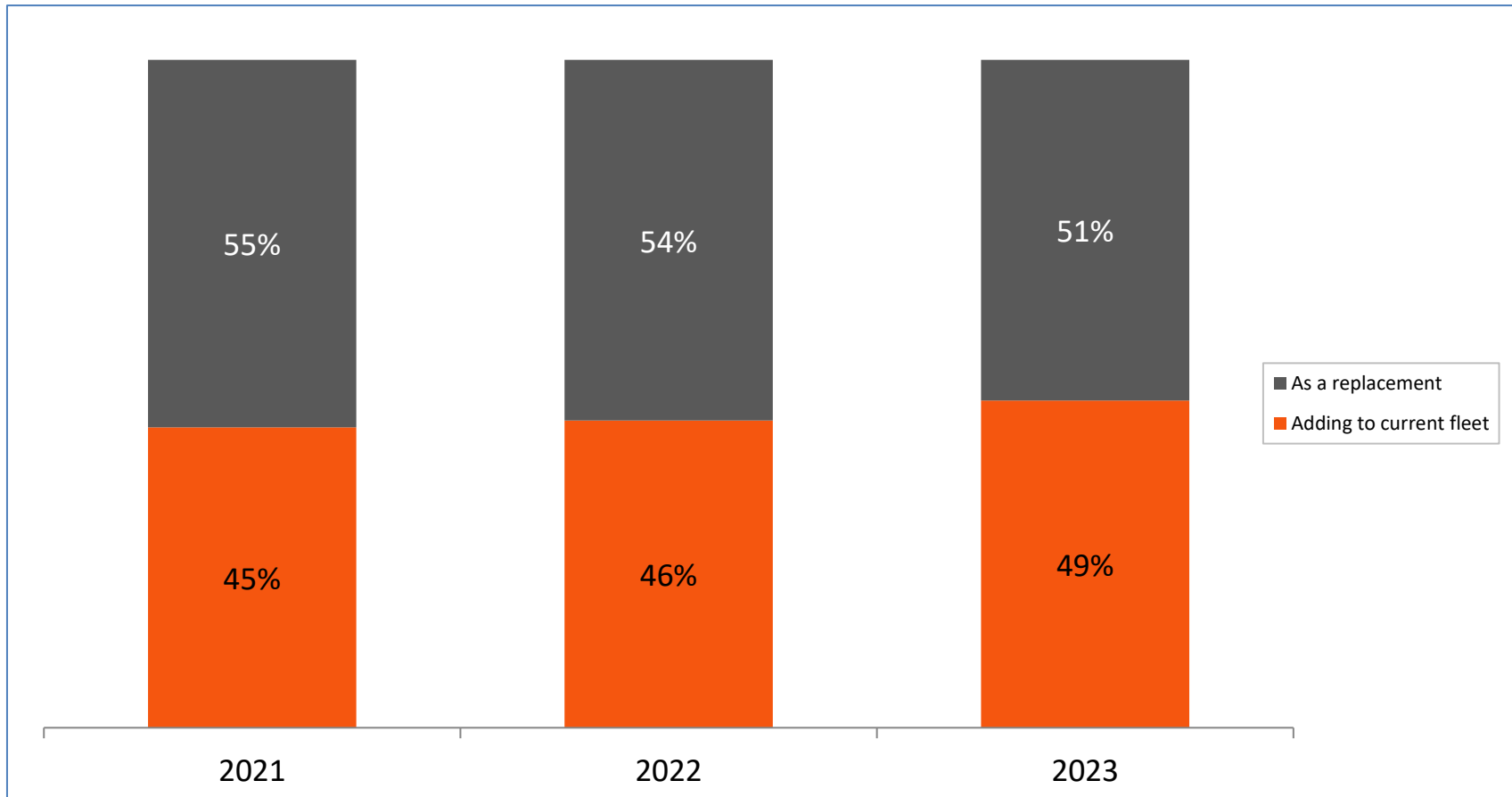
Replacement and retirement schedules



How often do you typically replace lift trucks?



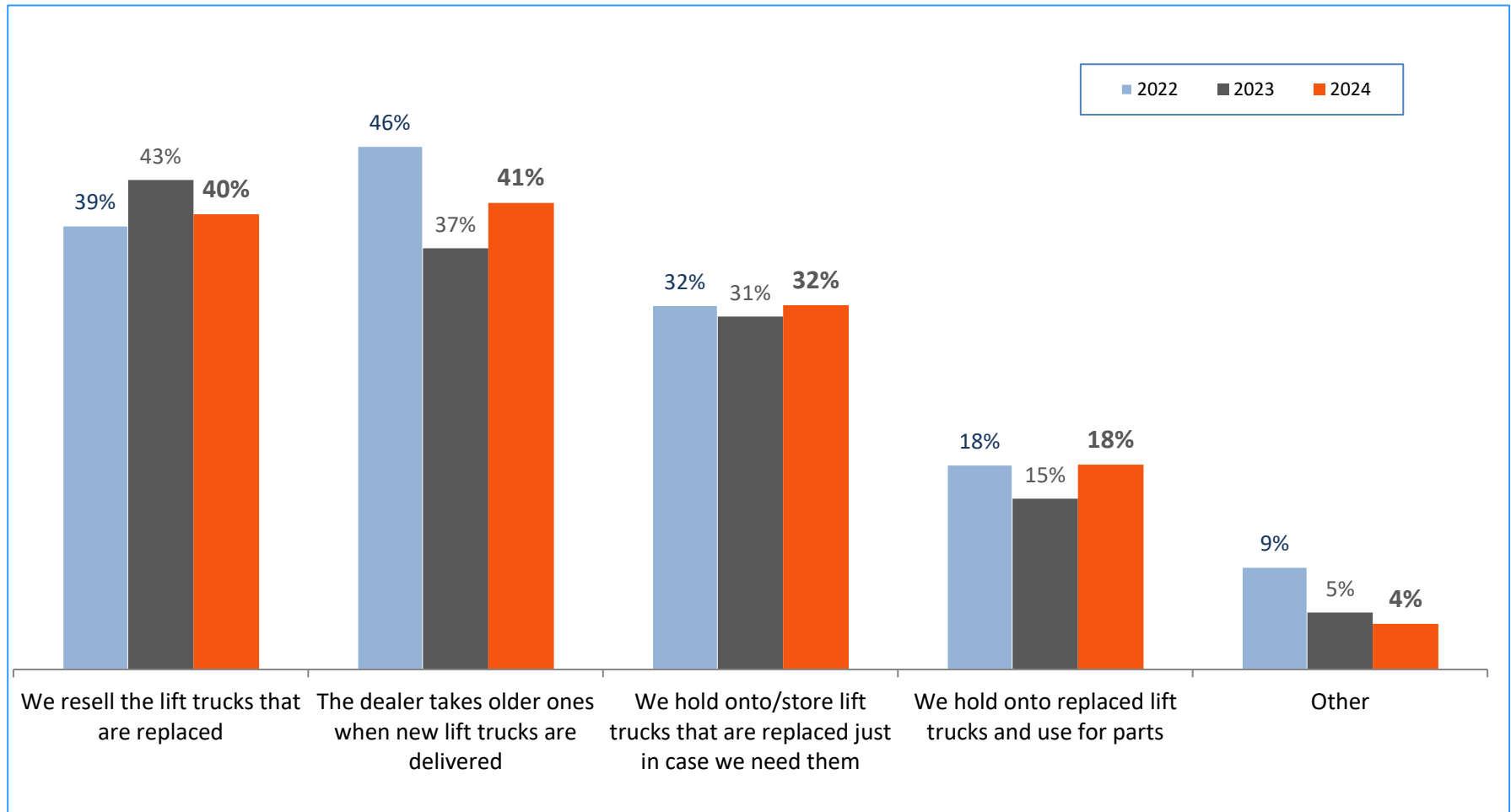
Percent of lift truck acquisitions expected to be an addition vs. replacement



What percent will be an addition to your fleet and what percent will be *replacing trucks now in use?*



How companies are handling rotation & disposal of lift trucks



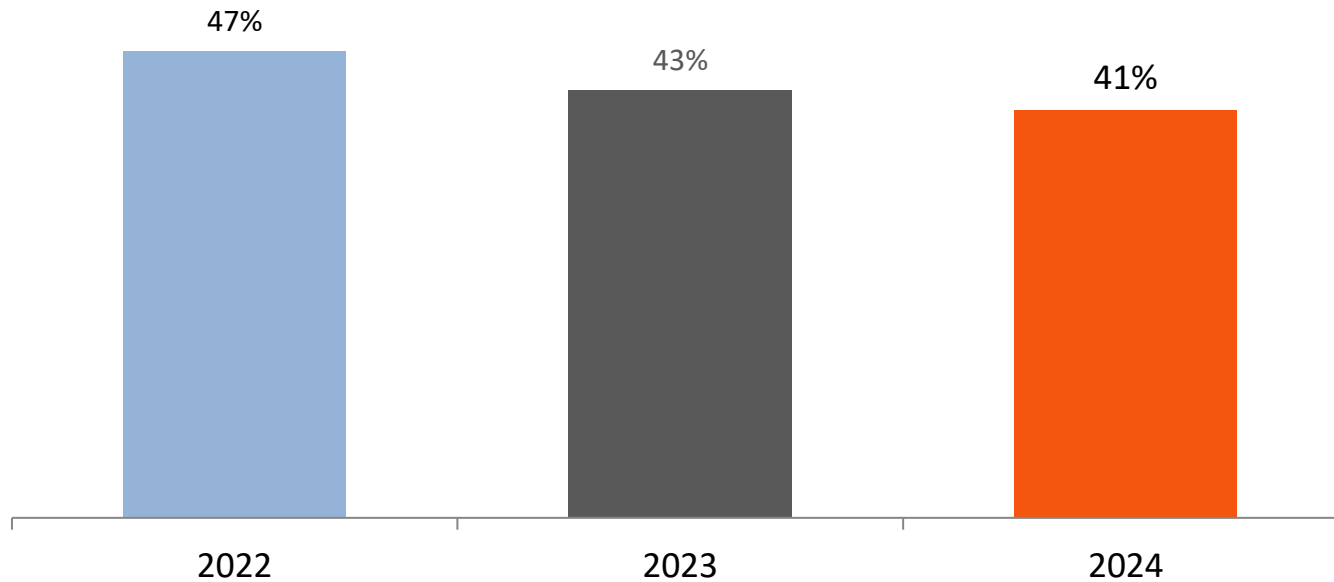
Note: Multiple answers accepted

For the lift trucks you buy, what are your practices regarding lift truck rotation or disposal?



Future lift truck fleets

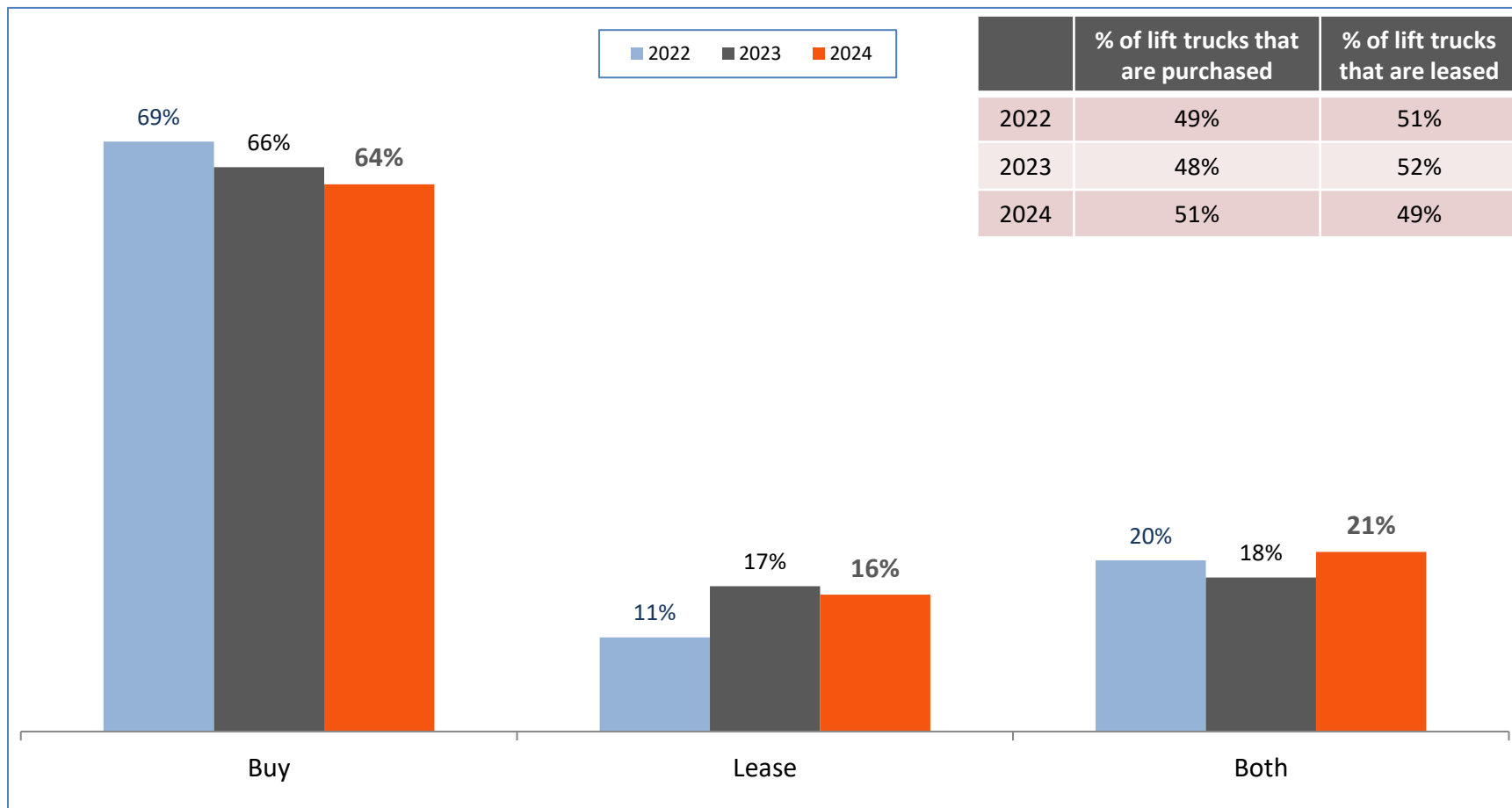
(% saying they do operate a core fleet)



Do you operate a core fleet of lift truck? In other words, a fleet of trucks you use regularly vs. a less-utilized reserve fleet.



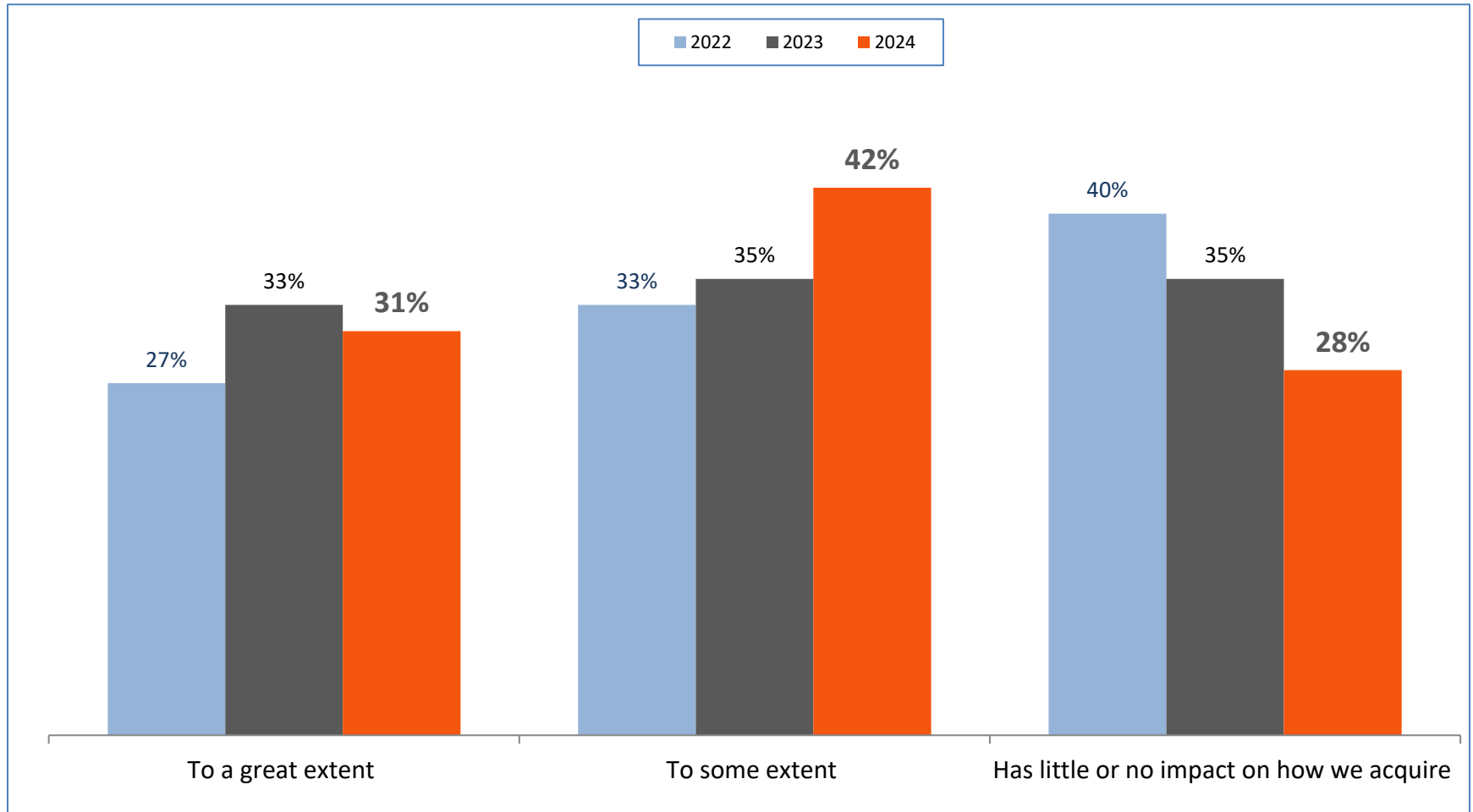
How lift trucks are acquired



Do you typically buy lift trucks, lease them or both?



Level of impact the economy or market factors have on lift truck acquisitions



To what extent does the economy or market factors influence how you acquire lift trucks?



Reasons the economy . . .

. . . has a great impact on lift truck purchase decisions

A growing economy has fueled our growth which in turn expands our operations
All depends on how the company is performing financially
Available cash forecasted profits
Being a construction based company we have to look at the ROI and current/ long term contracts
Business demand
Business downturn or supply chain issues
Business revenue drives what we can spend on lift trucks
Cash Flow
Cash flow and needs
Corporate must approve capex requests, the availability of funds correlates to the current economic conditions
Customers dictate how many we need in our fleet
Depends on market price vs budgetary needs
Directly proportional to demand. if economy is slow so is lift truck usage
Don't replace equipment when unsure of the direction of the economy
During economic down turns, the cash reserves are not available to make new acquisitions
Economy affects the spending at the company
Everything is up , we need to keep cost down
Forecast of sales and revenue affect budgeting efforts and cutting short our investment on fleet
How busy we are consistently is the biggest factor
If business conditions are not favorable forklift purchase will be deferred
If prices increases in the market, it plays a factor in my budget
If the capital is not there, management is reluctant to spend the money on new equipment
If the company is not selling and profiting we make do with what we have until no longer possible
If the sales isn't there the money isn't there
If we are busy and have a lot of need, verses if we are slow and can wait
If we are doing good, we get newer equipment
If we have a bad year we just fix them when they breakdown
If we're making money, we buy new equipment

Please explain how the economy/market-related issues impact your purchase decision.



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Reasons the economy . . .

. . . has a great impact on lift truck purchase decisions [Continued]

Lift trucks are lower on the priority list for my company's operations and requires periods with high revenue and/or low cost for the opportunity to order a new lift truck.

Market is slowing down

Operating profit drives whether we will purchase or lease, as well as whether we move forward with either

Our business is dependent upon consumer purchasing and ability to finance

Price

Price is always an issue with the economy/market

Sales vs need vs ROI

Sells and program start or end dates will determine purchase or lease

Since the downturn in e-spending started in 2022, we have leased all of our newer trucks

Supply and demand

The prices are so high that we have looked at leasing but buying the lease

We are a nonprofit organization that we rely on grants

We are currently slow in our business and cash flow is minimal

We can often delay or expedite purchases based on economic conditions

we perform lease vs. buy assessment based on market conditions

When the Economy is good, the confidence to invest in the equipment is faster

When the need is there, we both forklifts. The better the economy the greater the need, but that also means others are after the same units we are so we have to pay more for the trucks.

Please explain how the economy/market-related issues impact your purchase decision.

June 2024



Reasons the economy . . .

. . . has some impact on lift truck purchase decisions

As of late - market related issues have biggest impact due to long lead times from OEMs. Need to balance replacement time, lease term and delivery dates.

Availability of equipment and pricing

Availability of funds for new equipment purchases

Available cash flow, likelihood of recession

Available stock

Availability, price, and company economic stability for such a large purchase

Based on forecasted sales volume over the course of 3 years, if we know we are going into a several year downturn will reduce FT purchase due to reduced runtime hours on lifts.

Based on sales volumes

Budget constraint is affecting the decision. It makes us price sensitive.

Budgets vary depending upon current market factors.

Business climate affects budgeting for any capital expenditures

Capitalization is easier when the company is doing well. But when a real need is presented, we do capitalize regardless of economy.

Cash flow

Corporate is always looking for the best deal

Cost analysis benefit

Cost and availability of used trucks

Cost Lead Times

Cost of overhead is evaluated

Cost, reliability

Current cost and impact to customer bottom line.

Defense if the Item We Need is in our area. If it has to be shipped well the cost is very high.

Depending on how our end market is doing and what our forecasted volumes are.

Depending our product demand

Depends on cost

depends on profit margins which are driven by the economy

Economic issues affect production rates which changes the number of lifts required in the plant

Economy will affect if we purchase or put off the purchase of a new forklift

Please explain how the economy/market-related issues impact your purchase decision.



Reasons the economy . . .

. . . has some impact on lift truck purchase decisions [Continued]

Financial strains determine when and how much we can afford

If business is down, we wait to replace

If our business sector is in a downturn, we do not purchase, only lease/rent

If sales are strong it frees up more cash for the purchasing of assets

If we do not have the volume business for Grains, we don't need as many lifts

Interest rates, lead times and costs due to market conditions

It doesn't we buy when needed

It may regulate the number of trucks to replace

Money needs to be there for replacing

More work more trucks

Mostly impacted by customer demand and market slowdown.

Must order earlier due to long lead times

Need to make sure our cash flow is good.

Price service and availability

Pricing continues to raise so we repair more and try and stretch another year or two out of each truck

Sales reflected in budget constraints

The current poor economy may affect our ability to buy replacement lifts.

The economy does not affect us as much as the customer demands and sales opportunities

The money that is available and expected available governs what we can purchase.

There has to be a need that will justify and pay for the cost of the unit.

Try to purchase based on long term and not short term spikes or dips

We continued to maintain and keep the older lifts when the economy was smoking hot, when lead times were over a year and parts were hard to come by, coupled with costs that were ridiculous. Slower economic pace, better deals, and lead times

We have elected in some cases to delay or cancel new equipment based on economic conditions, but balance this with consideration of life expectancy of what we have in the fleet.

We have grown significantly since COVID so we are adding lift trucks not replacing

We might explore reducing the costs of our equipment by trying to extend the life of the forklifts versus buying or leasing new equipment in an economic downturn

When our plants are slow we do not buy lift trucks

Please explain how the economy/market-related issues impact your purchase decision.



Reasons the economy . . .

. . . has no impact on lift truck purchase decisions

Company has traditionally leased all electric units. Prefers leases for lift trucks.

Cost of return on investment

Extended lead time affects purchase planning for future capital budget

Has little to no impact. If we need one, we buy one.

If lead time becomes long may purchase ahead of need.

If we buy a new or used lift it is needed for its lift capacity

If we have a need for a truck were likely to move forward with the acquisition regardless of current market conditions.

Internal finance decision.

It didn't if I needed a machine I bought it

Maintenance costs are the driving factor

My business operates with one customer but they are a global entity. Our business has never been impacted by the economy or market influence's.

Not much of a factor. When a truck is no longer serviceable or economically repairable, we replace it with either a new or used truck.

Only with sourcing and selection. Vendor must be leader in technology for innovation, quality and safety. Autonomous vehicles in the product portfolio for any vendor are a must.

The economy doesn't impact our purchase decision, we lease on a 5 year bases

The economy has no impact on my purchase decision

The economy/market has little effect on our purchase decision. Our company has experienced 5 years of steady growth

We buy when we need it not based upon economic factors

We don't like to put cash into trucks and lease instead

We need lift capacity regardless of economic status

We need the trucks when we need them, unfortunately can't wait for favorable economic conditions to change

We seek quality and nature-friendly

When we need a forklift we buy one regardless of the economy

When we need a truck we order it

When we need one we need it

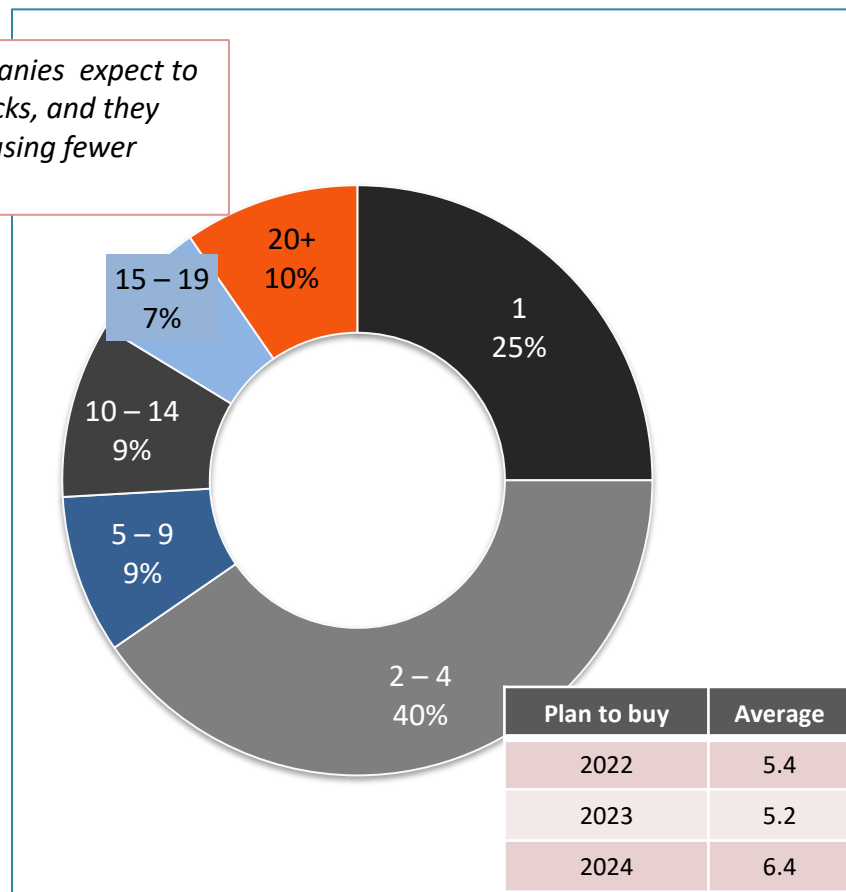
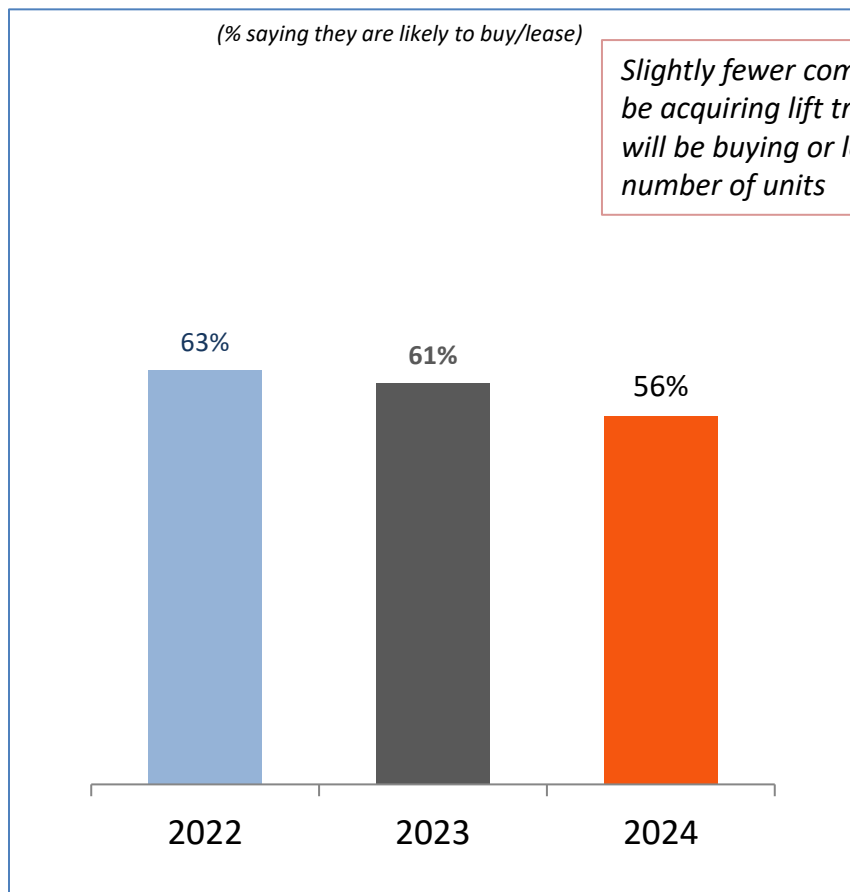
Please explain how the economy/market-related issues impact your purchase decision.



Lift truck purchasing

Likelihood of buying/leasing lift trucks within the next 24 months

Number of lift trucks plan to buy/lease within the next 24 months

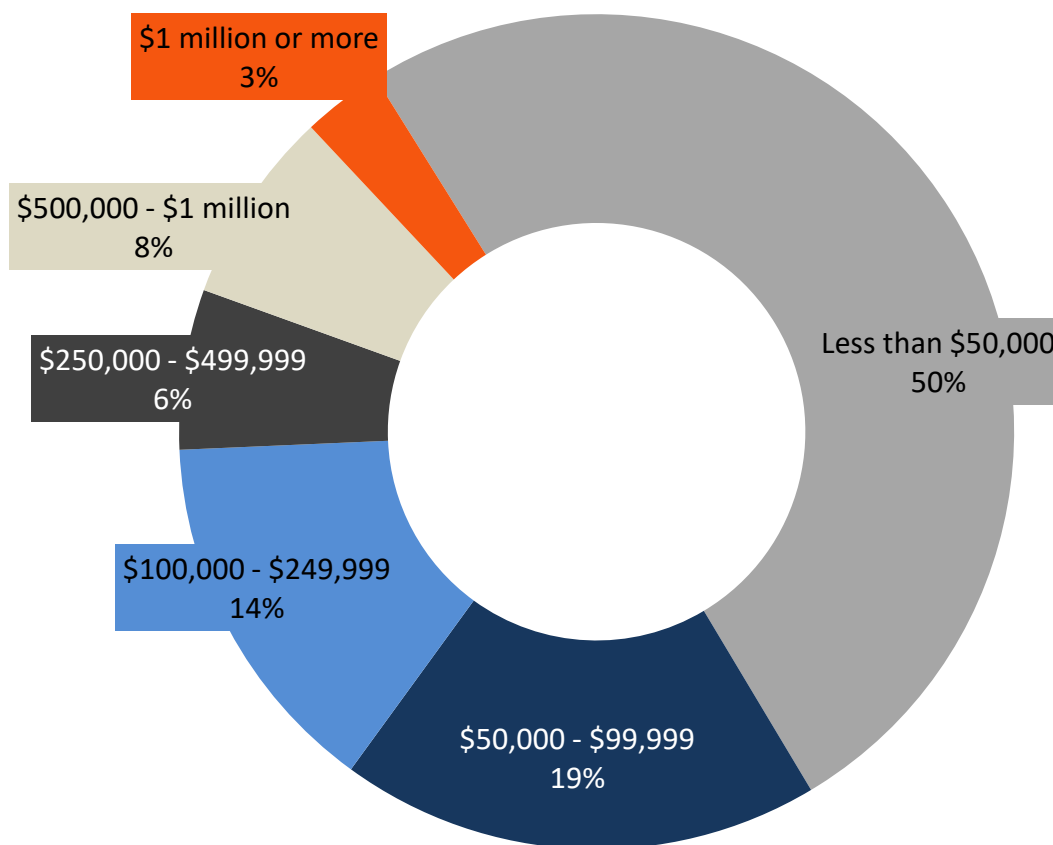


Are you likely to buy or lease lift trucks within the next 12 - 24 months?

How many lift trucks do you plan to buy in the next 24 months?



Spending plans for the upcoming 12 months

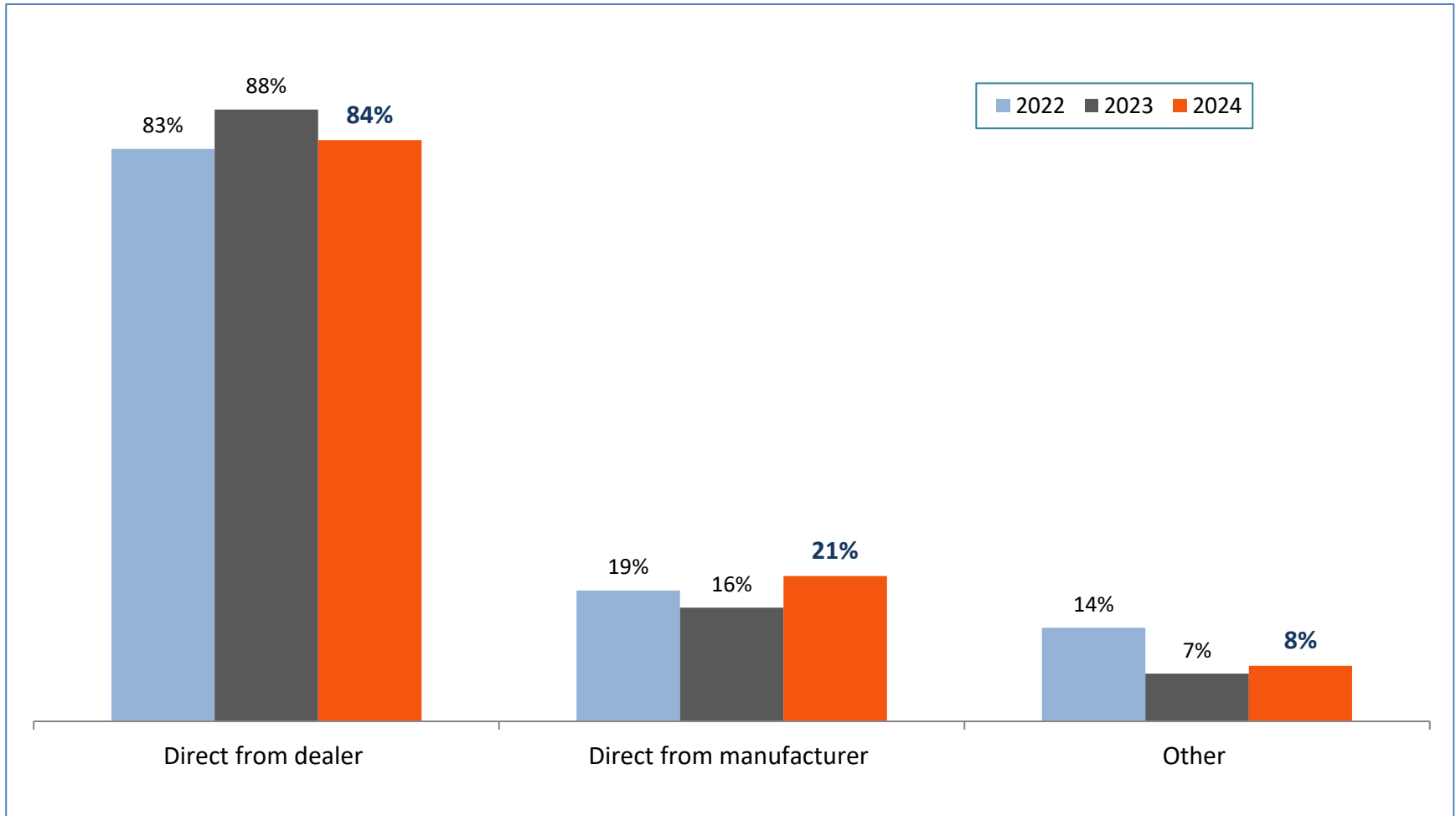


	Average spend	Median spend
2022	\$158,470	\$49,730
2023	\$139,815	\$44,760
2024	\$174,379	\$48,590

How much do you plan to spend on lift trucks in 2024?



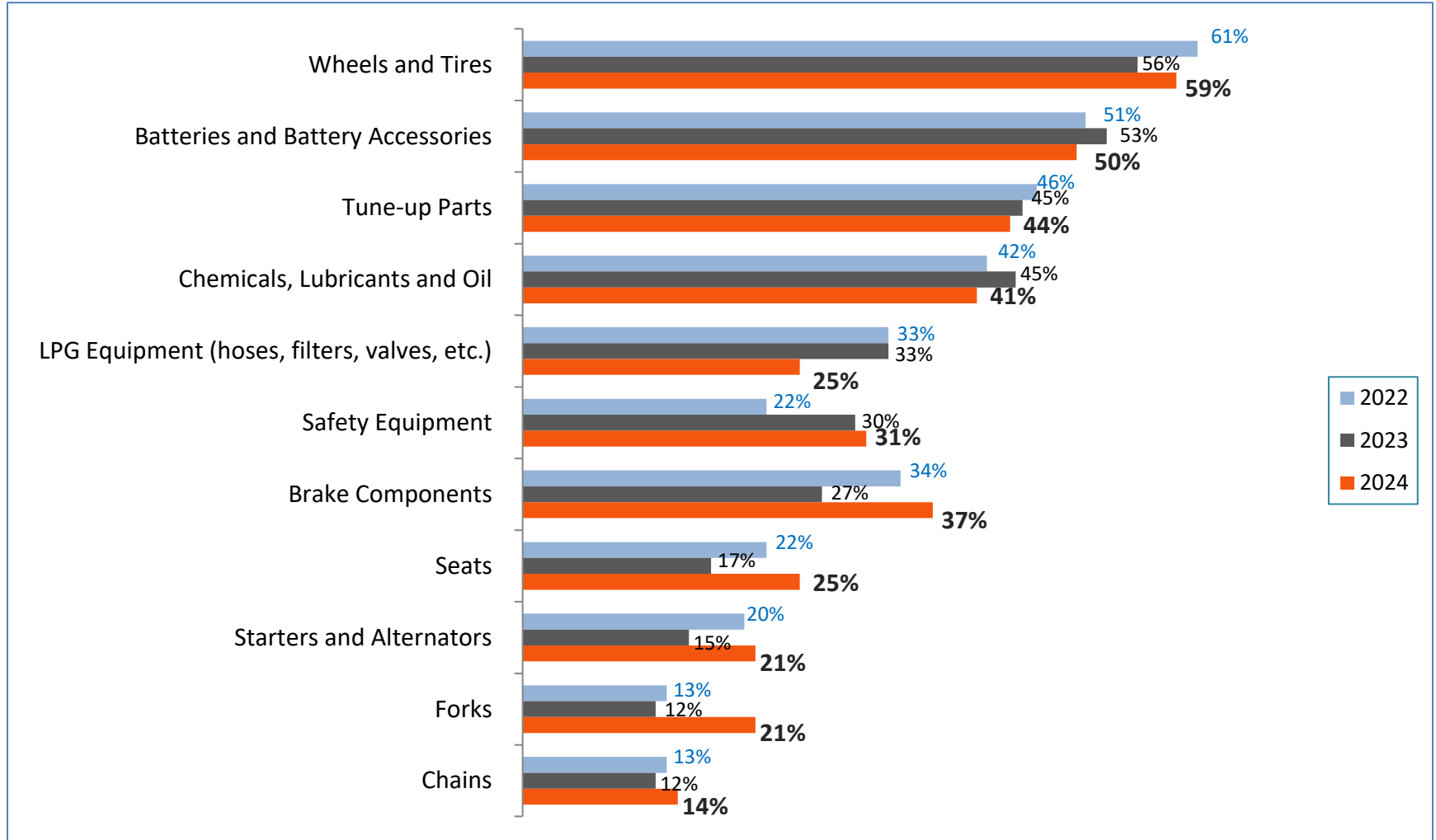
Sales channels



From which channel(s) do you commonly purchase lift trucks?



Parts likely to purchase or replace



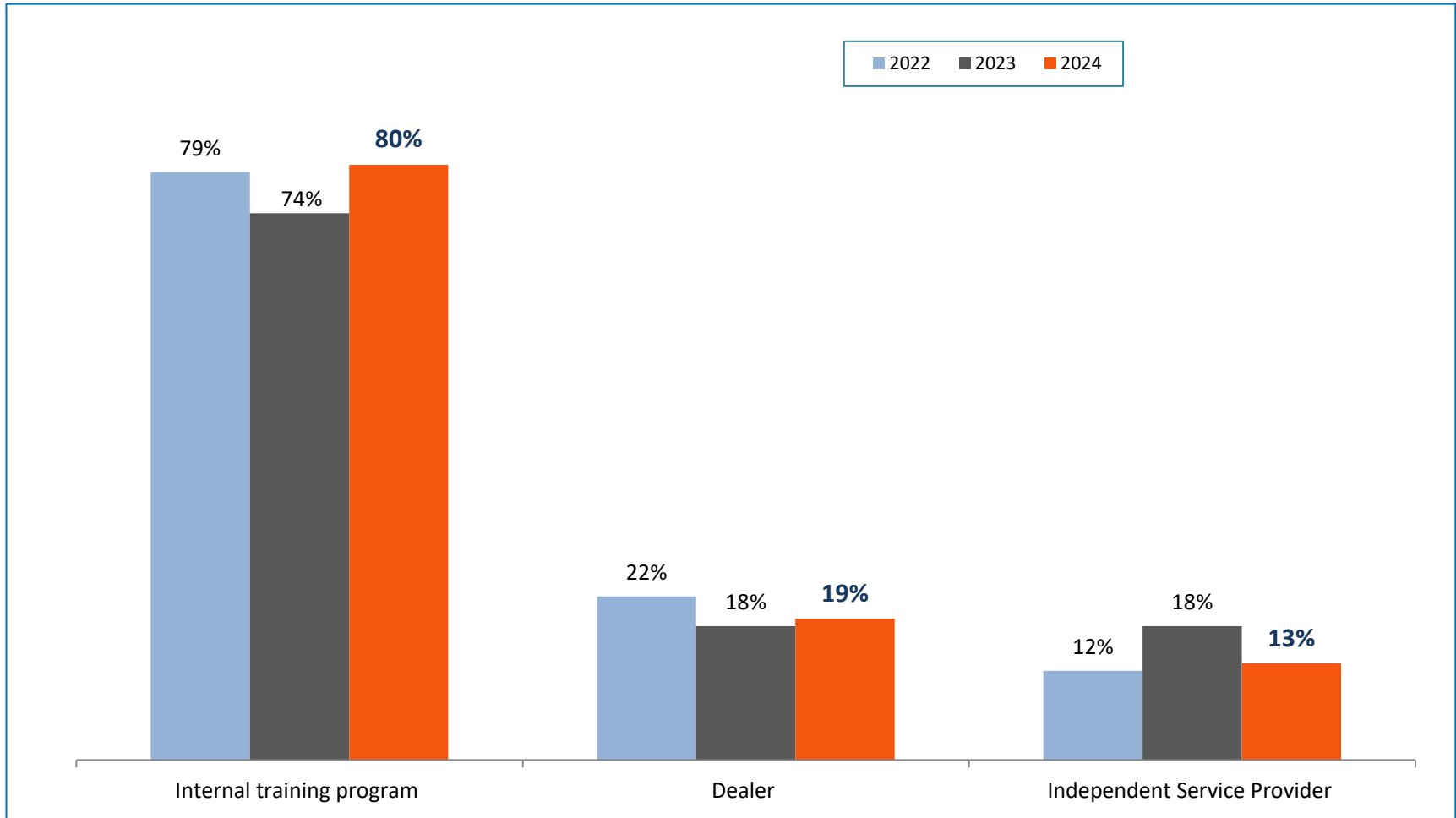
Note: Multiple answers accepted

Which lift truck parts are you likely to purchase/replace in the next 12 months?

June 2024



Companies train operators with in-house training programs

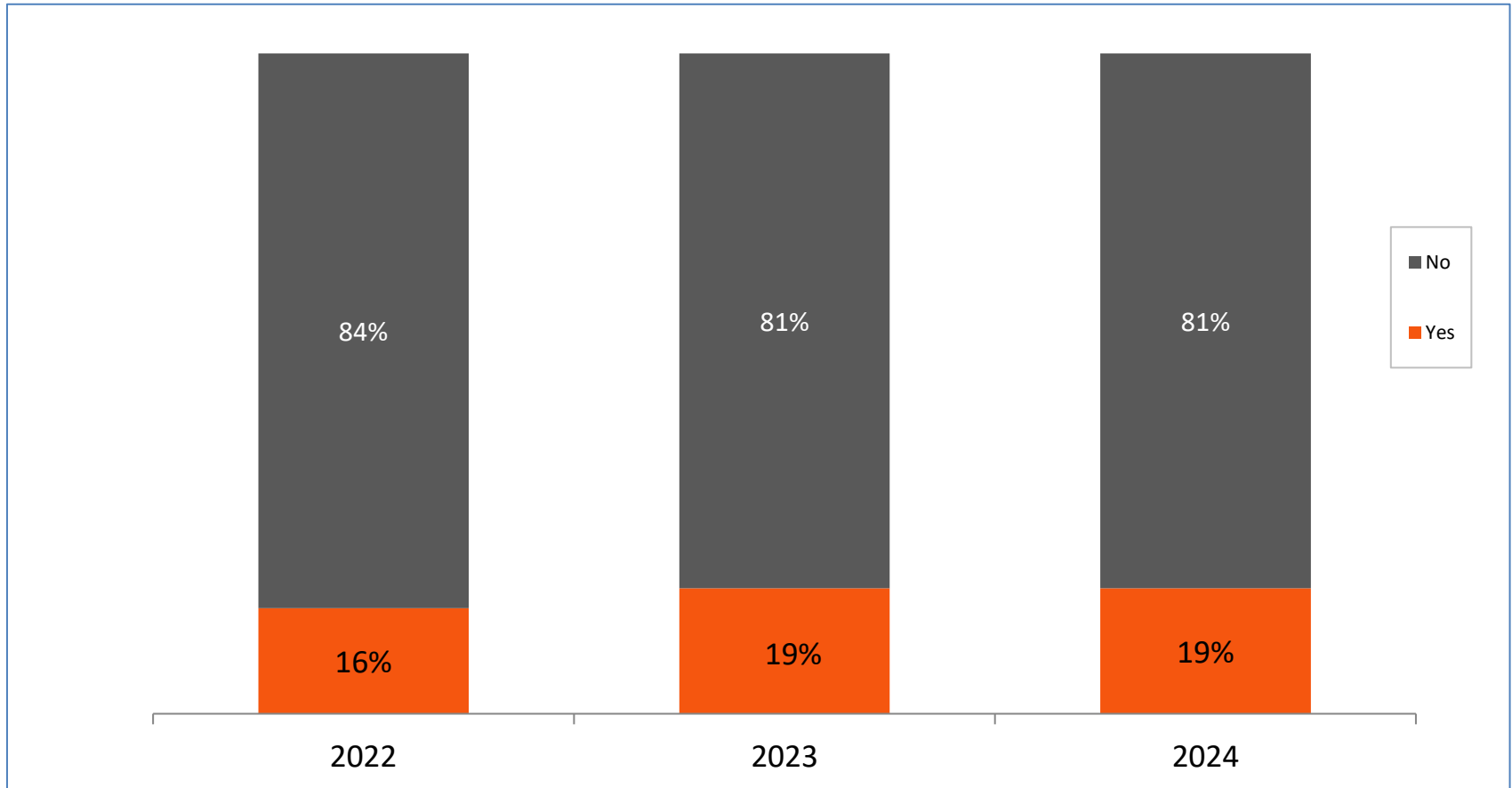


Note: Multiple answers accepted

How are you training your lift truck operators?



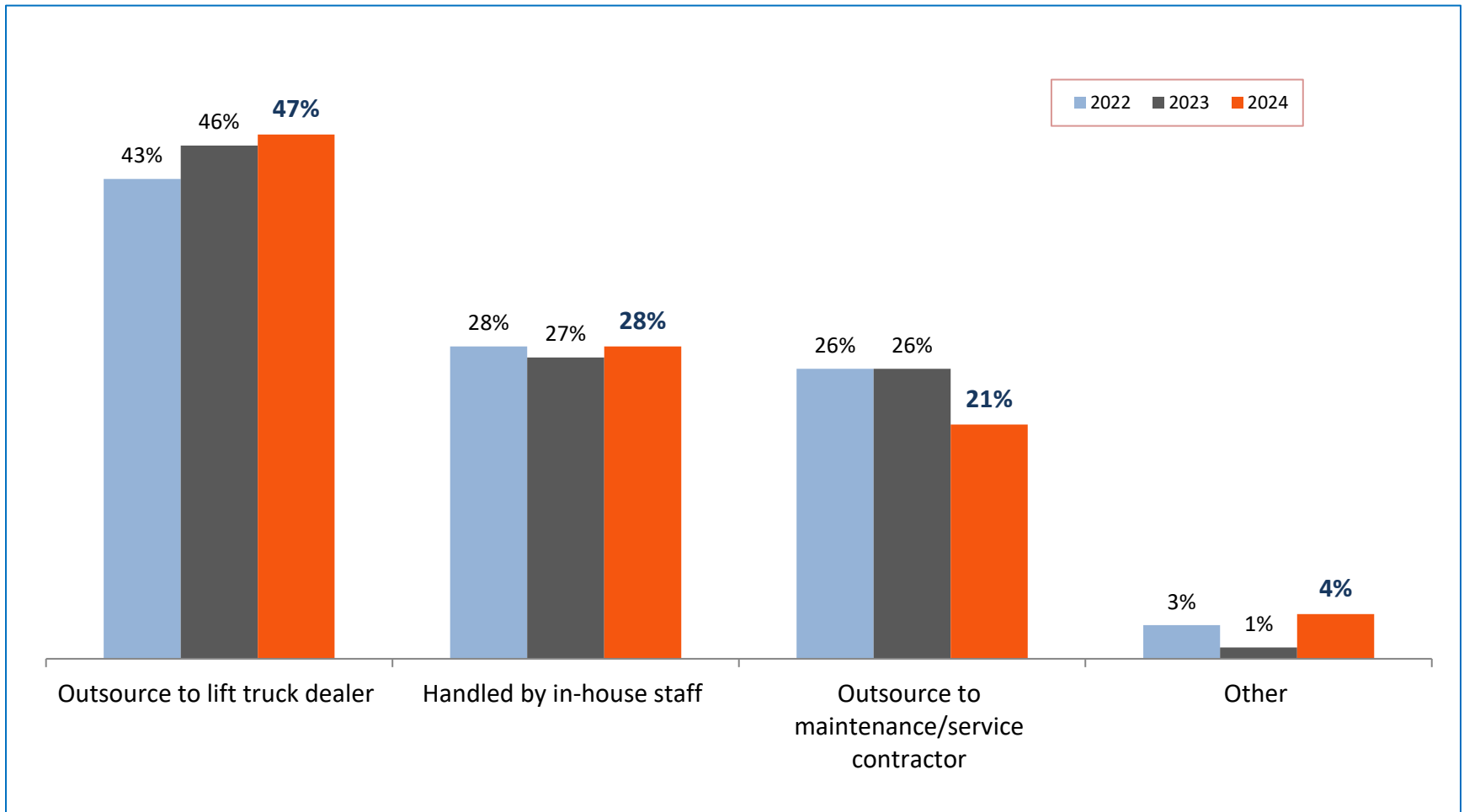
Usage and adoption of autonomous or semi-autonomous forklift technology



Are you using or planning to evaluate/acquire any kind of autonomous or semi-autonomous forklift technology (i.e. dual mode or remote control based that allows for "dual mode" operation of a forklift or AGV -- these can either be operator-driven or will operate autonomously by flipping a switch)?



Servicing and Maintaining lift trucks



Note: Multiple answers accepted

How do you primarily service/maintain your lift trucks?

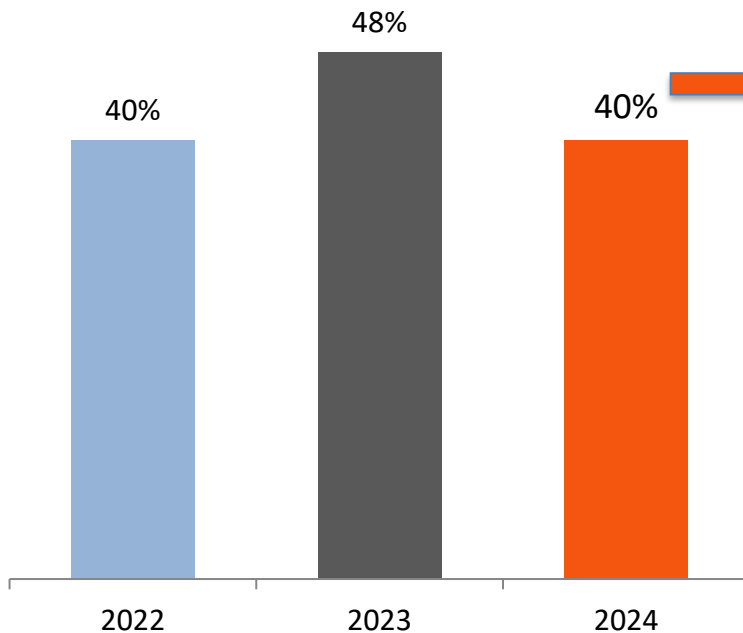
June 2024



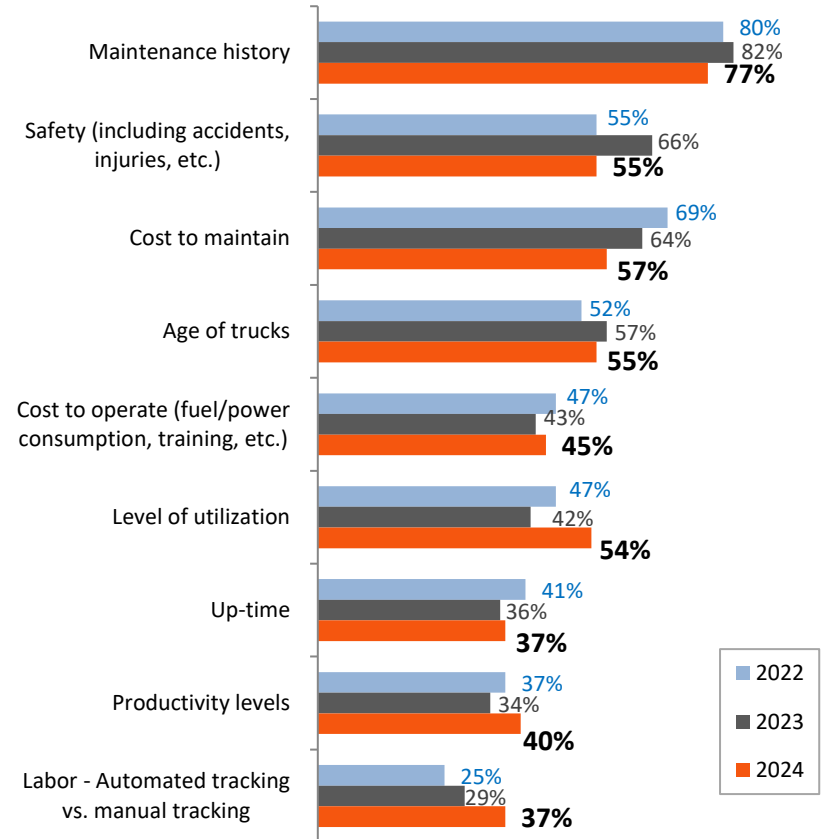
Fleet management technologies target maintenance & cost

Adoption of fleet management software

(% saying they have adopted)



Tracking usage with technology



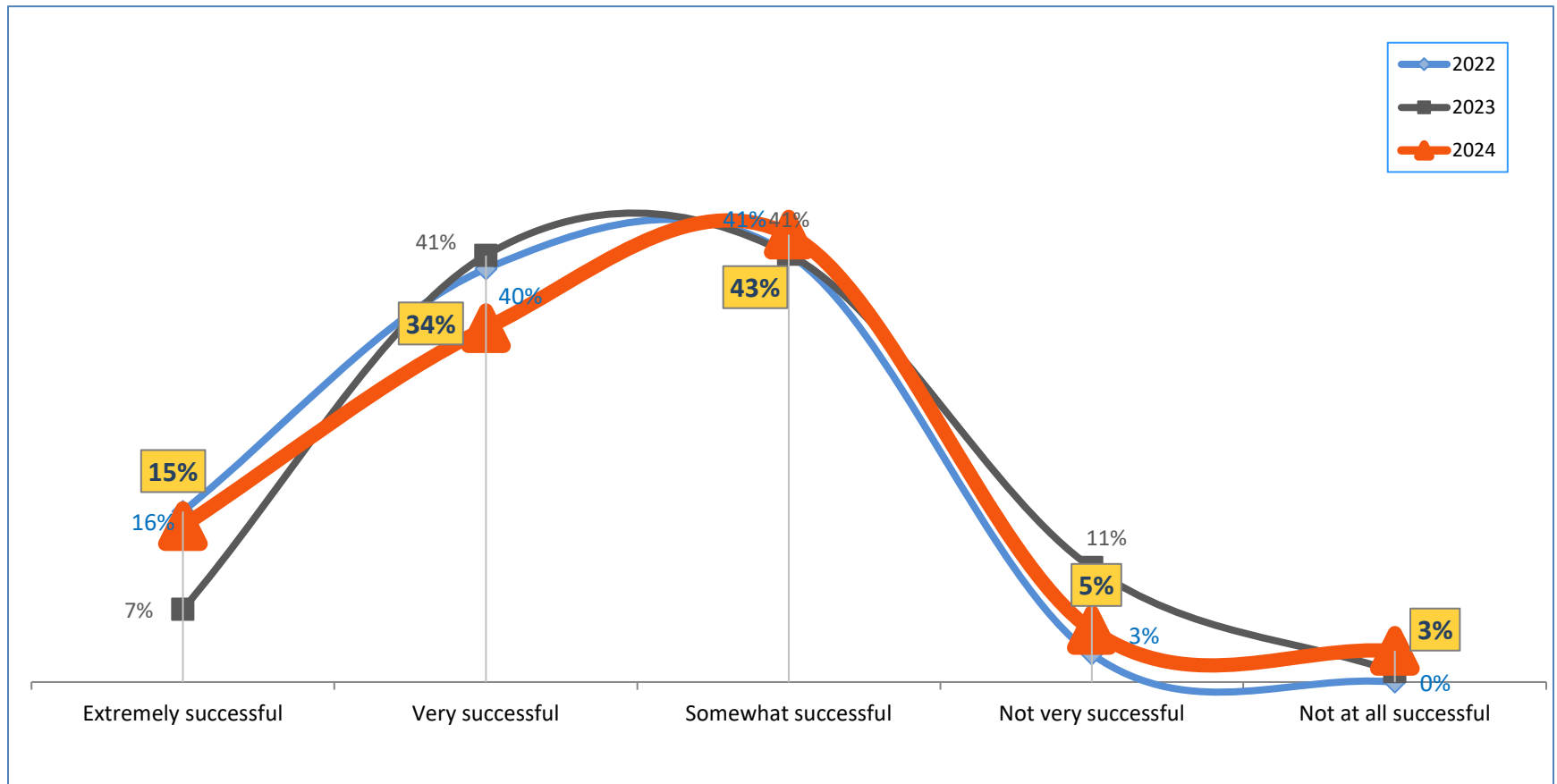
Based on % who have adopted or planning to implement fleet management technology

Note: Multiple answers accepted
If so, what are you tracking?

Have you adopted technology to help you manage your fleet?



Organizations are increasingly finding positive results with their fleet management technologies



How successful is your fleet management technology implementation?



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Reasons for neither using nor having plans to implement a fleet management technology application

All Equipment has a folder
Already have
Because our current fleet of lift trucks adds up to only two trucks
Budget constraints
Current priorities have changed due to slowdown
Do it myself
Do not need it
Don't have enough need or more importantly time to warrant another software to learn and use
Expense
Fleet is not that large
Hasn't seemed necessary.
Have not looked into it
I have an internal system to track hour usage and a portal with my contractor to track service costs currently for each unit
In the works
It is not necessary to have technology if you have a maintenance plan for service and replacement
No cash to do so
No need (6)
No need for it, manage it using an excel spreadsheet
No need to do it
No proven value to us when demonstrated during sales cycle
No, we are old school
Not a priority
Not cost efficient at this time
Not enough demand for that type of application
Not enough trucks
Not enough trucks to justify investment
Not enough trucks to justify the expense

Why are you not using/don't have plans to implement a fleet management technology application?



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Reasons for neither using nor having plans to implement a fleet management technology application [Continued]

Not for us
Not in the budget
Not large enough
Not many forklifts
Not needed
Not needed / cash
Not needed with our small scale
Not needed
Only have 2
Only have 4 trucks
Only three lifts and a small warehouse overall
Only use two trucks
Our fleet is just too old
our forklift management process does not require new technology
Service provider handles
Small amount of equipment. Financial strains.
small business
Small company
Small fleet
Small fleet
Smaller sized fleet, no value yet to software for maintenance
There is no desire for that here at this facility
Time and resources
Too costly
Total forklift hours per week are below 20
Upper management does not see the value in it, so they do not want to invest the money
We are a small company
We are a small operation
We are a small warehouse and can keep up with what is going on with the equipment easily enough

Why are you not using/don't have plans to implement a fleet management technology application?



Reasons for neither using nor having plans to implement a fleet management technology application [Continued]

We call for service when needed
We do not have picking racks for automated fleet needs
We do on excel
We don't have enough to needed it. They are housed in same location.
We don't have enough trucks to justify fleet management technology.
We have a Maintenance Application for all equipment at the site where Forklift PMs are loaded into.
We have a small fleet, not really necessary at the moment.
We have something in play and will be keeping what we have
We have them serviced regular, and repair as recommended by the mechanic
We have visibility of all of the fleet on a daily basis.
We keep a file on each unit
We only have one (1) forklift
We only use 1 lift a few times a month
We outsource our maintenance with the mfg./dealer and we have a small "fleet". So, the dealer basically takes care of this.
We rely on vendor
We use 1 rider forklift
We use a tech from the dealership
We use spreadsheets and maintenance schedules
We're not big enough
Would to have that, but no current plans to purchase. I am work in Safety, so that would not be something I would decide.

Why are you not using/don't have plans to implement a fleet management technology application?



Understanding how to apply the data is the main roadblock to technology adoption

A lack of buy-in from the C-Suite of the value metrics for such a program

Accurate input

Based on Grain House need, lifts are moved to locations where needed when busy

Biggest challenge has been operator use and monitoring their own Preventive maintenance process of checking, cleaning, and reporting issues when they arise

Cash flow

Communication between all divisions

Cost (3)

Cost and implementation.

Cost in damages

Current system obsolete, no funds allocated for replacement system.

Currently everything is tracked manually

Developed in house

Finding the right owner of the process

Funding

Getting all data recorded correctly

Getting individuals to take ownership of process

Getting the right data

Getting vendors to set-up

Good data entry

Have not implemented it yet

Having the workers log the information in the system. I would say compliance to usage.

Implementing automatic forklift or AGV require a systematic upgrade of the production line and MES. Simply replacing manual forklifts with AGV does not benefit as expected

Internal - ourselves

It is difficult to get operators to consistently perform pre-use inspections. We are considering an electronic system with pre-use inspections built-in that would prevent use if not performed.

It is managed by a 3rd party

Knowledge of software consumed by operators

What would you say is/has been your biggest challenge/obstacle in implementing and/or using a fleet management software solution?



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Understanding how to apply the data is the main roadblock to technology adoption [Continued]

Lead times (2)
Lift drivers
Maintaining current maintenance
Maintenance personnel
Maintenance and compliance
Moving from plant fleet management to the new Fleet Management program
No challenge, our dealer handles this
No one offers canned reports that meet my wants.
Number of units in use
Parts and service
Parts outages
Parts retro fit
Patience by operators
People
Preventative maintenance
Record keeping
Single platform across multiple brands.
Single point of ownership within the company
Telematics are marginal
Time management
Tracking costs. just getting someone to enter data
Training everyone to use
Understanding the information and acting on it
Use of data
We are still not very automated in our information tracking
Well making workers understand the importance of using all PPE equipment

What would you say is/has been your biggest challenge/obstacle in implementing and/or using a fleet management software solution?



Respondent Demographics

Primary activity at location

	2022	2023	2024
Manufacturing	38%	36%	44%
Distribution Center	21%	33%	26%
Warehousing	31%	24%	21%
Other	10%	7%	9%

Industry

	2022	2023	2024
Manufacturing	66%	65%	74%
Wholesale Trade	14%	15%	6%
Retail Trade	3%	5%	4%
3rd Party Logistics Provider	4%	2%	4%
Transportation/Warehousing Services	8%	7%	6%
Other Non-Manufacturing	5%	6%	6%

What is the primary activity at your location?

What is the primary product or service at your location?

Company size

	2022	2023	2024
Average # of employees	296	255	303
Average revenues	\$464M	\$406M	\$520M

How many employees are there at your facility?

Which best estimates your company's annual revenues for 2024?