Intelligence Briefing.

Driver Shortage Report 2023
Freight – Global
Executive Summary

IRU and driver shortages

The shortage of professional truck drivers is one of the most serious and critical challenges facing our industry and economies – and it's getting worse.

Shortages are affecting goods transport operations in countries around the world, harming logistics supply chains and the consumers and businesses that depend on them.

To help the industry address this chronic issue, IRU has been studying driver shortages to quantify the scope of the challenge and identify solutions.

This report outlines the current and forecasted shortage of truck drivers, including a brief overview of demographic trends.

In addition to the content in this summary, the full version of the report includes sections on the:

- Economic outlook
- Attractiveness and accessibility of the profession
- Solutions implemented by transport companies to overcome the shortage of drivers

The full report is available for IRU members.

The report also has a companion version on driver shortages in Europe's road passenger transport sector.

Acknowledgements

Thank you to all IRU members and partners that have contributed to this report.

The driver shortage report is updated every year to disseminate best practices and help the industry to better attract and retain drivers.

IRU members

Partners

Dissemination partners

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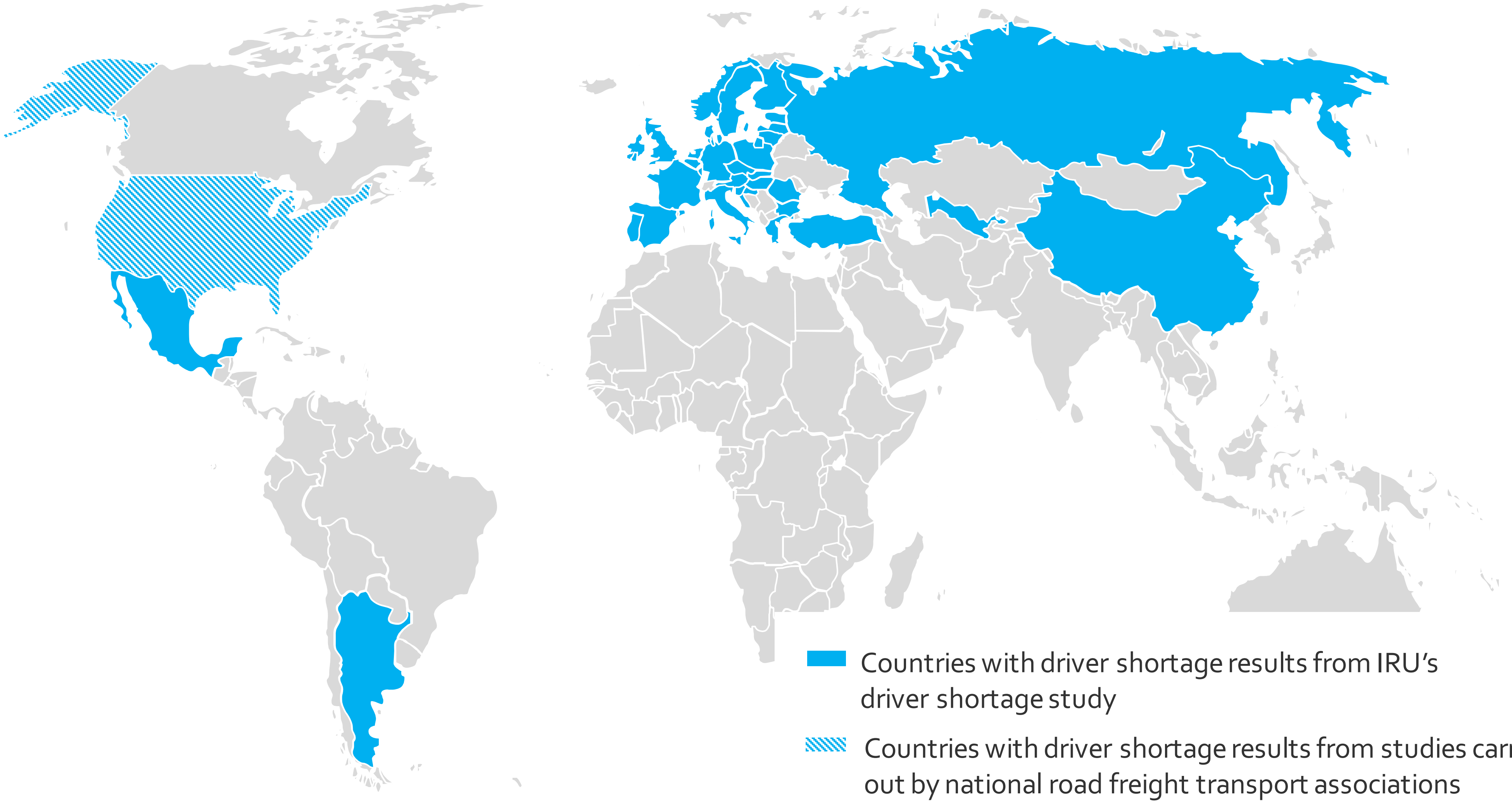
The full report is available for IRU members.

If you want to access the full report please contact us for more information.

Geographical scope

Countries covered represent 72% of global GDP



Countries with driver shortage results from IRU's driver shortage study

Countries with driver shortage results from studies carried out by national road freight transport associations

1.

Overview

3 million truck driver positions unfilled

In the countries studied, 7% of total truck driver positions are currently unfilled.

Driver shortages have increased globally, except in Europe and the United States, where pressure on driver demand has eased temporarily due to decreasing transport demand, primarily due to inflation.

But the shortage remains a structural issue in all regions. Between 55 and 75% of truck companies in most countries face severe or very severe difficulties finding drivers.

Economic and trucking industry growth slows

Trade and output growth slowed in 2022 and remained weak in the first months of 2023, weighed down by the war in Ukraine and high inflation and tight monetary policy in major economies. High energy prices and rising interest rates have dampened consumption and investment, negatively impacting transport demand.

Global GDP growth fell from 6.1% in 2021 to 2.3% in 2023[2]. The trucking industry's revenue growth decreased to 4.2% in 2023, down from 6.0% in 2022[2].

Headline inflation has declined (5.7% in June 2023 in OECD countries, down from its peak of 10.7% in October 2022), but core inflation[1] persists in many economies. Inflation is projected to moderate gradually in 2023 and 2024, but it will remain above central bank objectives in most countries.

Less transport demand in Europe and US

In Europe, GDP growth is projected to fall to 0.6% in 2023, down from 3.6% in 2022[2]. High consumer prices and lagging wages have reduced consumers' purchasing power, lowering demand for goods transport. Falling road freight rates since the end of 2022 reflect this downward trend (Upply's European road freight rate spot index for Q2 2023 was down for the third consecutive month, 7.6 points year on year).

In the United States, manufacturers and distributors faced a sudden slowdown in merchandise spending in the second half of 2022, with a month-over-month fall in orders from September 2022 to February 2023. This has sharply cut freight transport volumes (0.7% decrease in January 2023 year on year).

Sources: IRU driver shortage survey 2023, OECD, European Commission, Institute for Supply Management (IHS), the International Labour Organisation (ILO), the United States Bureau of Labor Statistics, World Trade Organization (WTO), and Reuters
1. Excluding energy and food; 2. Growth in real terms, IHS.

Operators bearing the brunt of driver shortages amid rising costs

At least 50% of operators reported having serious problems hiring skilled drivers, across the countries studied.

Many are also unable to expand their business (over 50% in most countries) and are losing existing clients and revenues.

Trucking companies are also operating in a context where costs are increasing (fuel, salaries, vehicle costs, tolling charges, etc), and the investments required to keep up with environmental targets are significantly more expensive.

According to the American Transportation Research Institute (ATRI), the marginal cost of driver salaries grew by 15.5% in 2022, the fastest pace observed to date.

Operators in many regions also faced rising fuel costs in 2022, mainly driven by operational instability. The marginal cost of fuel increased by 53.7% in the United States in 2022, according to ATRI. In Europe, diesel prices fell in early 2023 from their 2022 peak (around +30% in Europe), but they were still higher than before the war in Ukraine. In February, one year after the war had started, they were 8% higher than the previous year.

Together, driver salaries and fuel costs make up more than two-thirds of operators' costs.

In some regions, vehicle and repair and maintenance costs have also increased significantly.

In the United States, truck and trailer payments, repair and maintenance, automobile liability insurance premiums and tyres, all reached high marginal costs in 2022, according to ATRI. The spike in truck and trailer payment costs (18.6%) constituted their greatest annual change since 2014, representing 15% of operators' costs.

In Europe, inflation, supply chain issues and increased labour expenses are driving up the cost of maintenance for truck trailers.

Women still not in the driving seat

The share of women drivers remains extremely low at just 6% in the countries surveyed. This is below the overall transport industry benchmark (over 10% in the countries studied, 20% in Europe and the United States).

China (6%) and the United States (8%) have the highest share of women truck drivers.

Where are the young people?

Across the globe, the share of drivers under 25 is below 12%, reaching less than 5% in Europe.

The only two countries surveyed with a higher share of drivers under 25 are China (17%) and Uzbekistan (25%).

However, the overall transport industry (e.g. 4% in Europe and 10% in the United States) is not performing much better than the trucking sector when it comes to attracting young talent.

Barriers to becoming a truck driver

The "school-to-wheel" gap is a key challenge facing the industry. The minimum driving age for international freight transport is between 21 and 26 in many countries.

High training, licence and qualification costs also make it expensive to become a truck driver. In France, for example, the average cost to obtain a truck driver licence and a Certificate of Professional Competence is EUR 5,250, over three times the minimum monthly wage.

Other challenges, such as prolonged time away from home and difficult working conditions, discourage many from joining the profession.

Demographic timebomb

The share of drivers above 55 is much higher than the share of drivers under 25 in most countries, reaching a third of the total driver population in Europe and the United States. China, Uzbekistan and Türkiye are the only countries surveyed with a higher proportion of young drivers.

An ageing population – particularly in Europe and the United States where less than 13% of workers are under 25 – partially explains driver shortages, suggesting that the available pool of national workers may not be sufficient to cover the gap.

Nevertheless, the truck driver profession has a significantly lower share of young people than other professions.

Shortage forecast to rise

In 2028, the shortage of truck drivers is forecast to surpass 7 million in the countries surveyed, reaching 4.9 million in China, 745,000 in Europe, and 200,000 in Türkiye.

What can be done?

The full report, available for IRU members, contains legislative solutions as well as best practices and actions pursued by national transport associations and transport operators to overcome the shortage of truck drivers.

2.

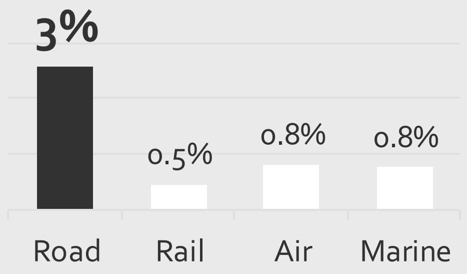
Driver shortage

The importance of the trucking industry

a. Road transport is the backbone of the logistics industry and economy

1. The trucking industry's revenue accounts for **3% of global GDP**, more than all modes put together, and over three times any other mode of transport[1].
2. Road transport's **versatility and cost effectiveness** make it suitable for most distances and operations: from short distances to intercontinental trips.
3. Trucking **is essential for business, logistics and society.** Road transport is the first and last leg of almost every journey.
4. Trucks complete journeys. They are **indispensable to intermodality**, connecting other modes between each other and with producers and consumers.
5. The trucking industry is a significant **source of employment** and **social cohesion**, creating jobs and bringing economic development to rural and remote areas.

Contribution to global GDP



Global freight transport revenue USD 4 trillion

Source: 1. IHS Markit – S&P.

The Importance of the trucking industry

b. The shortage has significant consequences for the logistics industry and economy

Short-term impact

1. Contribution to freight rate increases and inflation
2. Supply chain disruptions and/or delivery delays
3. GDP growth slows, competitiveness of trucking and consequently other industries
4. Less skilled driver workforce, potentially leading to higher CO_2 emissions

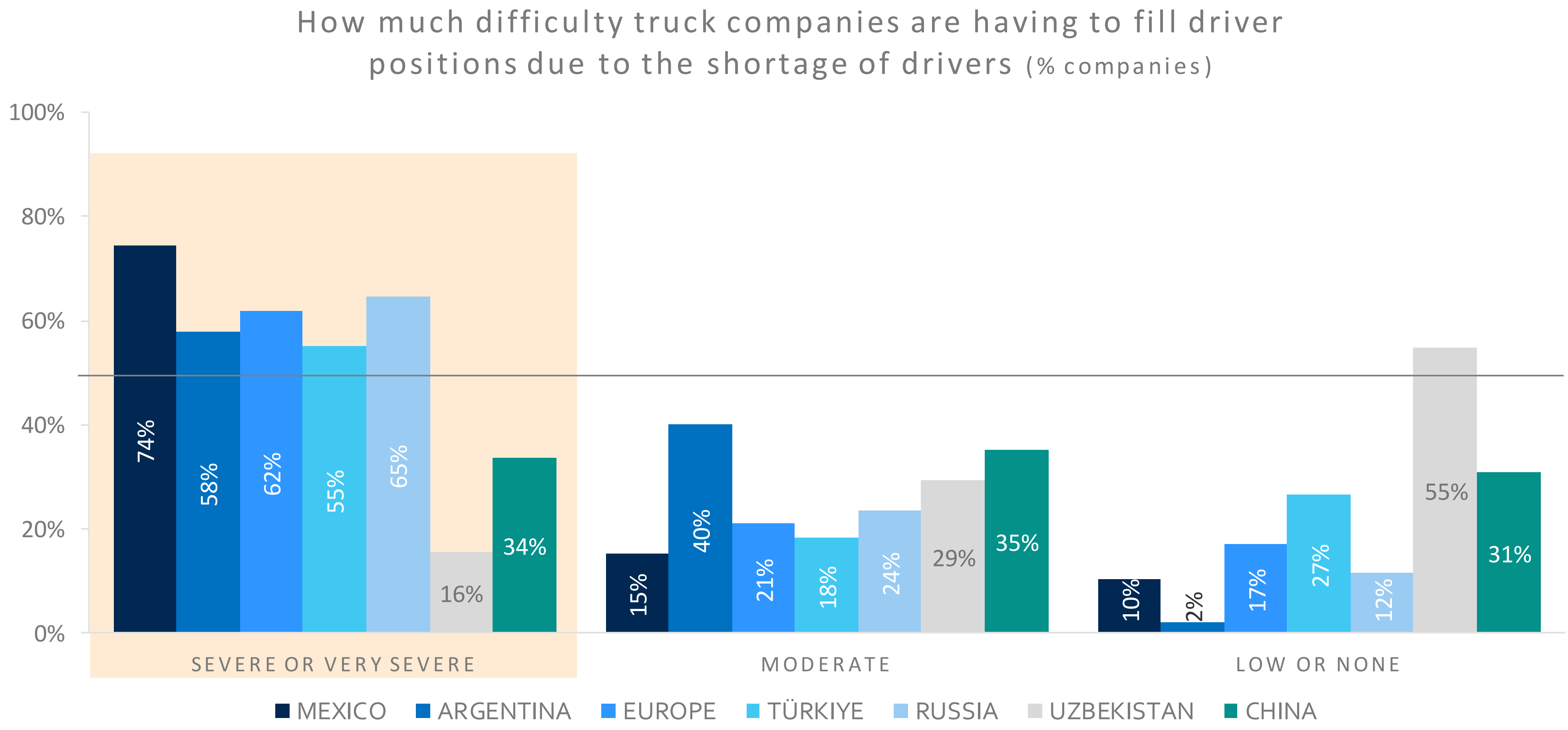
5 years

5. Acceleration of automation (self-driving trucks)

Long-term impact

Accelerated/exponential driver shortage

Over 50% of companies face severe or very severe difficulties filling truck driver positions in many countries



Sources: IRU survey 2023, Q: "How much difficulty are you having to fill driver positions due to the shortage of drivers?"

Driver shortage 2023
Global

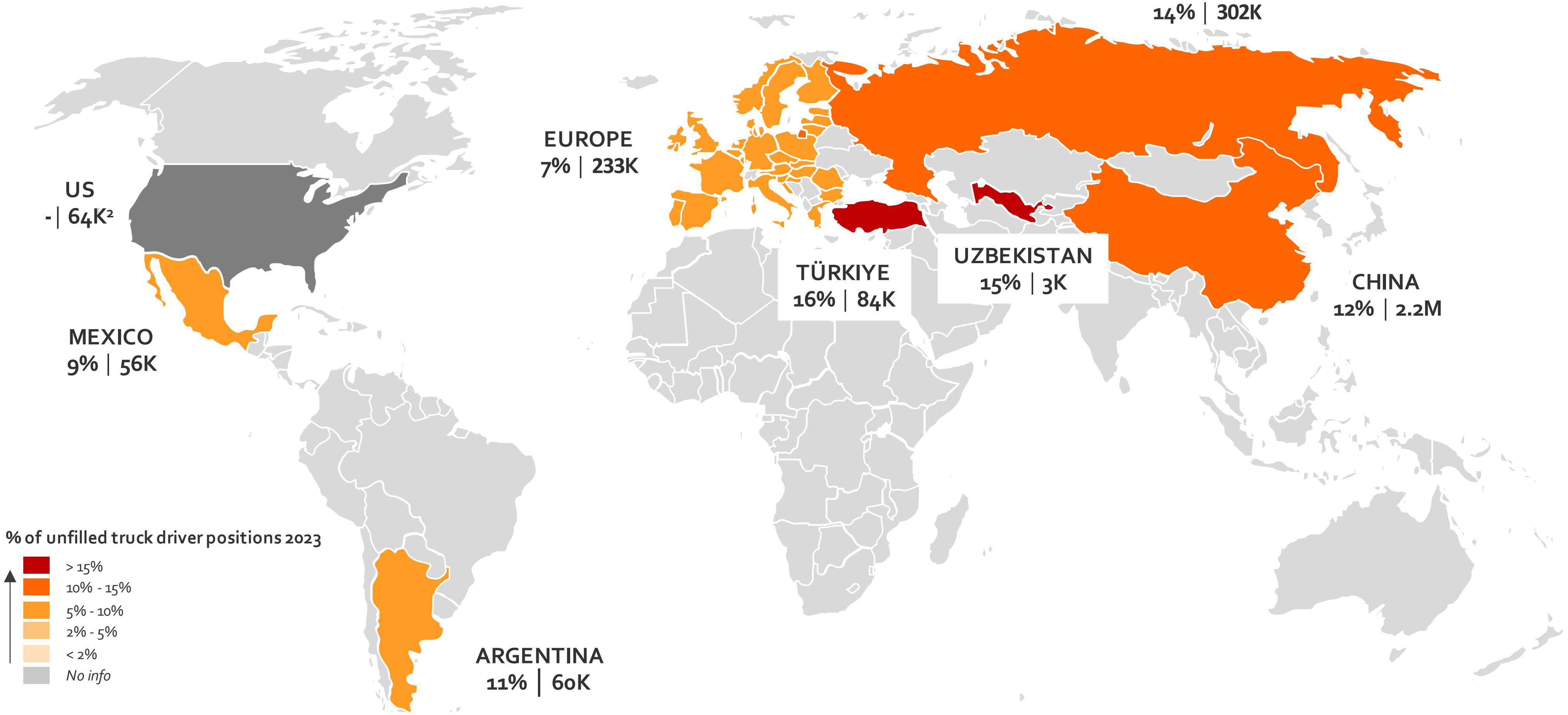
3.0M

Over 3.0 million truck driver jobs are unfilled in the countries studied

Scope of countries: Argentina, Europe (EU-27 + United Kingdom, Norway), China, Mexico, Russia, Türkiye, United Sates, and Uzbekistan.
Note: Unfilled truck driver jobs are calculated based on the total number of truck drivers in each country, and the share of unfilled positions reported by road freight transport companies.

Truck driver shortages 2023

% of unfilled truck driver positions in 2023 | Number of truck driver jobs unfilled in 2023[1]



Sources: IRU survey 2023 and national road transport associations. 1. Unfilled truck driver jobs calculated based on the total number of truck drivers in each country, and the share of unfilled positions reported by road freight transport companies (more details in methodology section). 2. For the United States, the data is based on the number of truck drivers missing instead of the number of truck driver jobs unfilled (based on the American Trucking Associations' 2022 study).

Gender balance

Women make up 6% or less of the truck driver population

At 8%, the United States is the only country with a higher share of women drivers.

The share of women truck drivers is well below the overall transport industry employment rate of women, which varies between 6% and 29%.

6%

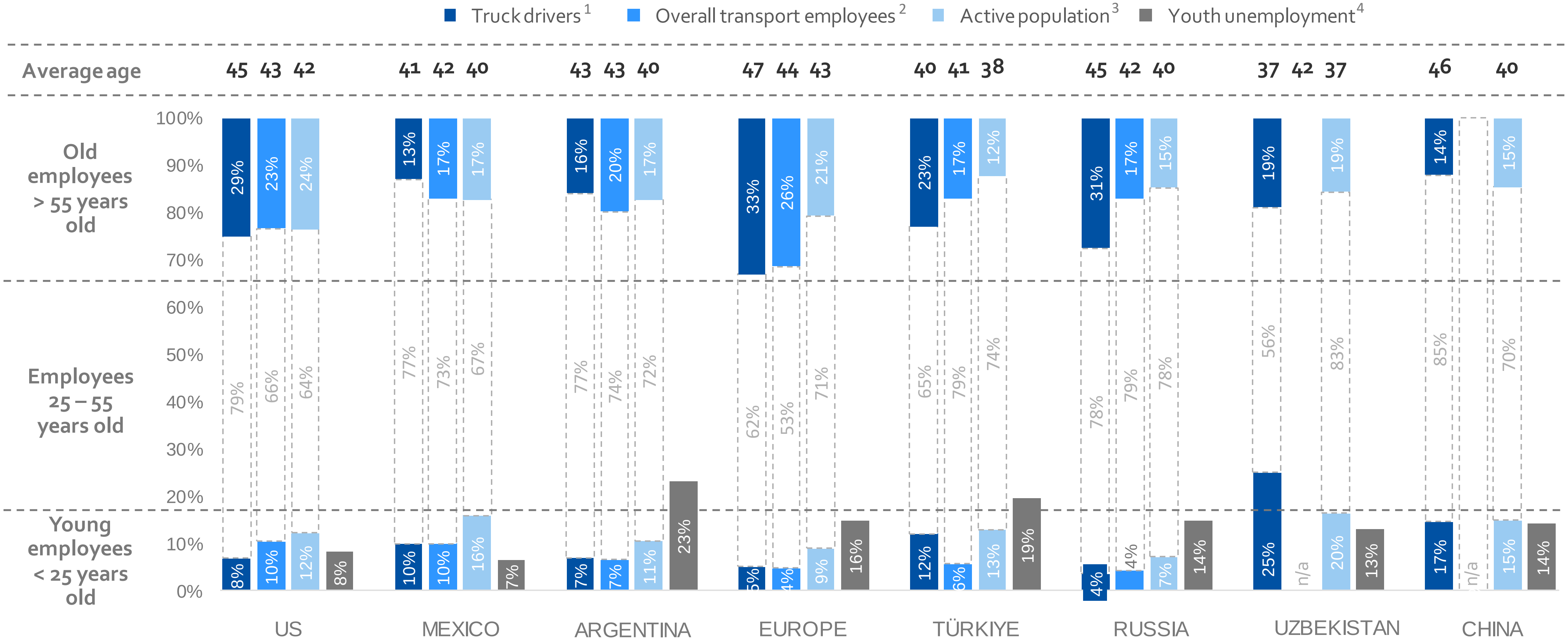
Age distribution

The share of drivers under 25 remains low at 12%

China (17%) and Uzbekistan (25%) are the only countries with a higher share of drivers under 25 years old.

12%

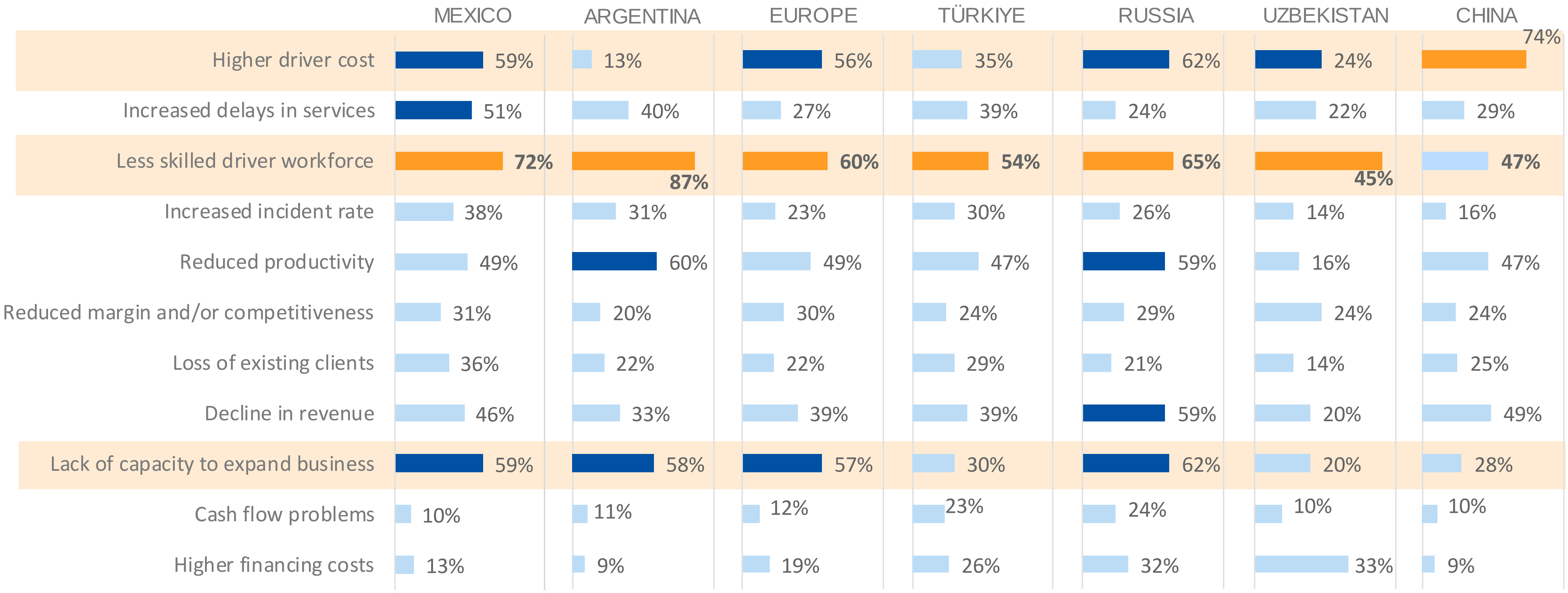
Age distribution – 2023



1. IRU 2023 survey except US, Bureau of Labor Statistics, US department of Labor 2022, NAICS 484 Truck transportation; 2. Eurostat and ILO 2022 (transportation and storage) except Argentina (ILO 2021); 3. Eurostat and ILO 2022; 4. Eurostat and ILO 2022, except Argentina and China, ILO 2021, and Uzbekistan ILO 2020.

A less skilled driver workforce, inability to expand business as well as higher costs

How driver shortages impact trucking companies
(% companies selecting each listed impact)



1 impact in a country
Impact suffered by > 50% companies

Source: IRU survey 2023, Q: "How is the driver shortage impacting your business? (Please select all that apply.)"

Driver shortage forecast 2028

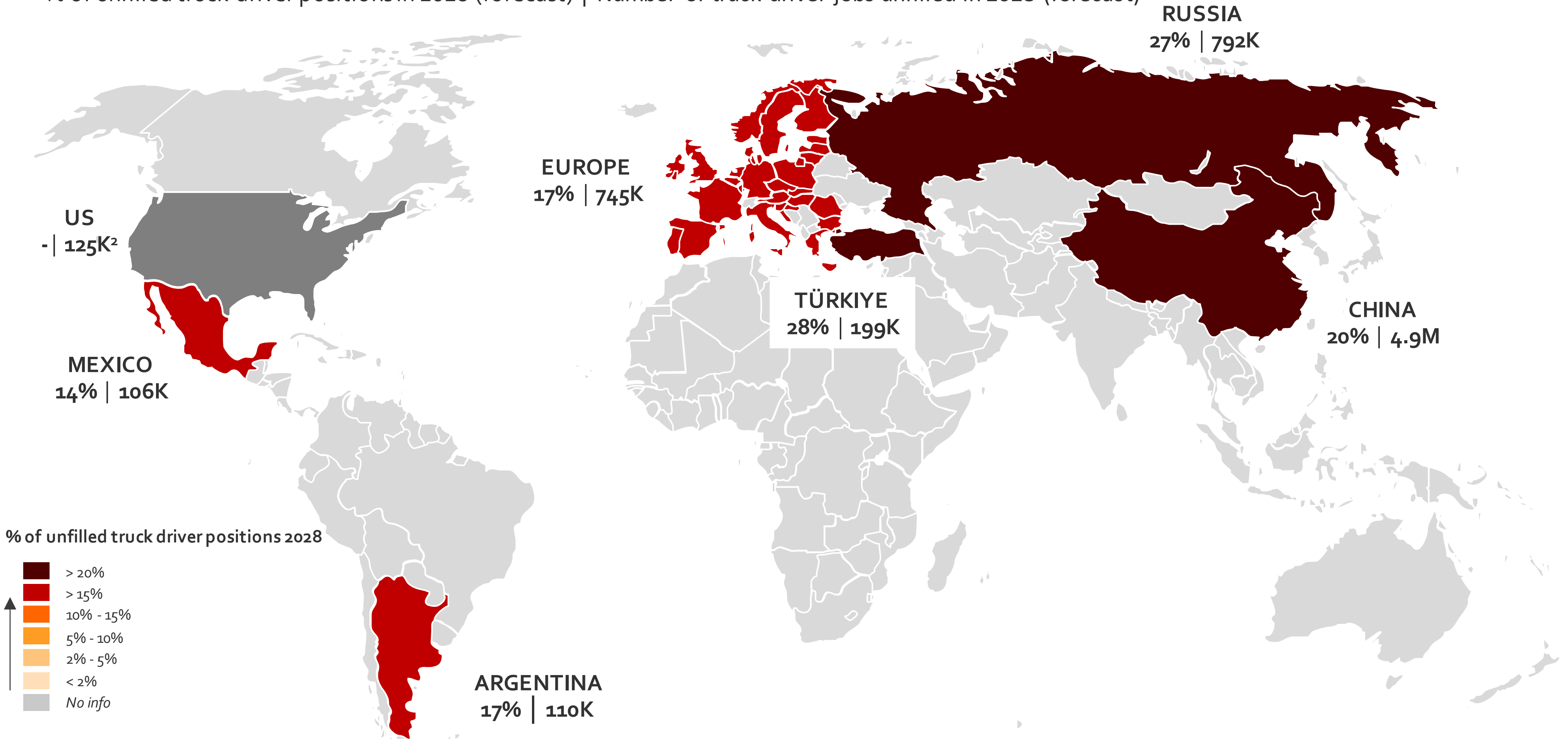
7.0M

By 2028, over 7.0M truck driver jobs could be unfilled in the countries surveyed

Scope of countries: Argentina, Europe (EU-27 + United Kingdom, Norway), China, Mexico, Russia, Türkiye, United Sates (ATA's estimation).

Truck driver shortage forecast 2028

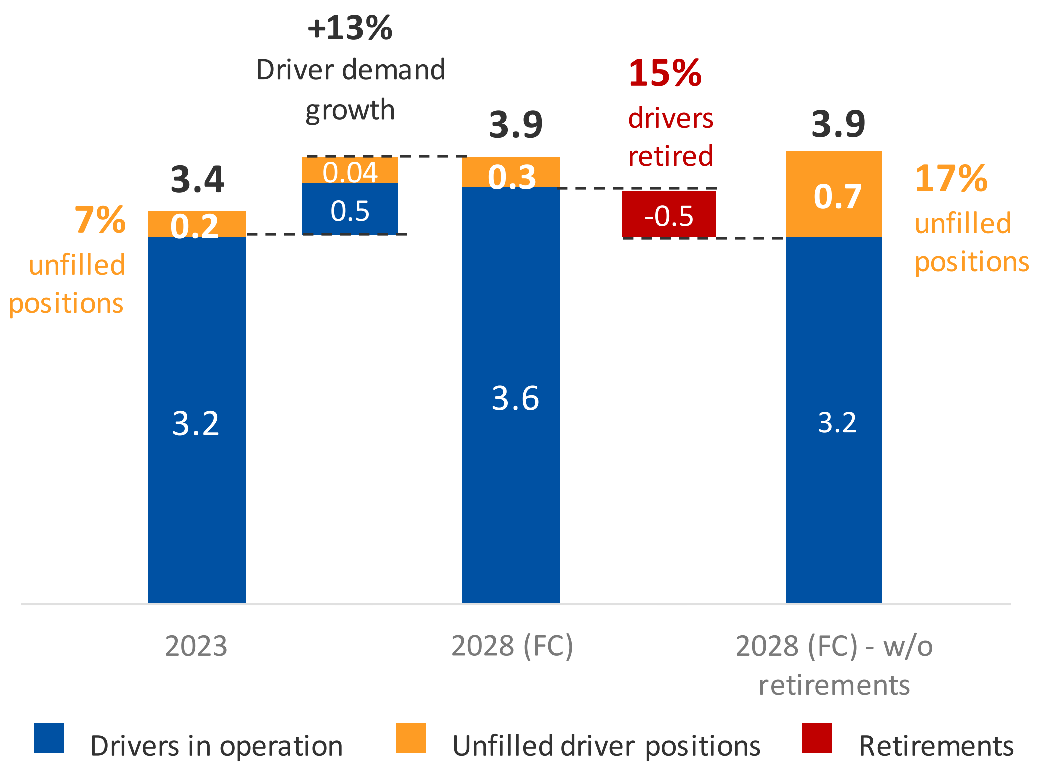
% of unfilled truck driver positions in 2028 (forecast) | Number of truck driver jobs unfilled in 2028 (forecast)



Source: IRU calculation (except for United States)
1. For the United States, the 2028 forecast shows number of truck drivers that will be missing instead of the number of truck driver jobs that will be unfilled (based on the American Trucking Association' driver shortage study 2022)

Driver shortage forecast 2028 calculation – Europe example

Total truck drivers needed (millions)



Forecasting model methodology:

- **More drivers needed**: Based on road cargo ground transport revenue (real) growth[1], demand for road goods transport services and driver demand will increase at the same rate.
- **Retiring drivers**: We assume that 1) drivers over 55 years have the same age distribution than the total labour force and 2) drivers retire at 65 years old in Europe[2] and at the minimum legal age in the other countries[3].
- **Driver productivity** (level of service provided by the driver per unit of time) and **the level of attractiveness of the profession** remain the same.

1. Assuming cargo ground transport revenues (real) growth (IHS Markit) representing the monetary value of the volume of goods transported, we consider that this indicator represents the road freight transport demand; 2. Based on road freight transport associations' feedback (in some countries drivers might retire a bit sooner, in others a bit later). Two other scenarios were modelled (retirement at the minimum legal age, and retirement at average age of retirement of the workforce), with very similar (but worse) results in terms of drivers missing; 3. Based on road freight transport associations' feedback.

3. Methodology and definitions

IRU's driver shortage survey was shared with IRU members to disseminate with trucking companies.

The 2023 results were collected between February and April 2023. **Over 4,700 companies from 23 countries** (16 in Europe[1]) responded to the questionnaire.

For each topic (e.g. percentage of women drivers, young and old drivers, etc), the results show the average, weighted by each company's number of drivers, and in the case of Europe, the country's weight in terms of truck drivers compared with the total number of European drivers.

For each country, the results are validated with national road freight transport associations to ensure that the sample of respondents is representative of the market.

Transport associations also provide contextual information to better interpret the results, including the existing barriers to attract and retain drivers, actions needed and best practices.

Share of unfilled driver positions: It's based on the answers to the questions "How many drivers do you currently employ?" and "How many unfilled driver positions do you currently have?".

The 2024 forecast is based on the respondents' own forecasts (answers to the question "Could you please indicate: 1) what would be the ideal total size of you driver workforce next year? (Considering your business needs and growth expectations.) 2) Out of this total, how many driver positions do you expect to remain unfilled due to the shortage of drivers?").

Number of unfilled driver positions: Based on the total number of truck drivers in each country (sources: Eurostat for European countries, national associations for the rest) and the percentage of unfilled driver positions (the number of drivers is considered to correspond to the driver positions that are filled). For Europe, the total number of unfilled positions includes all European countries (for the ones not participating in the survey, an estimation was done based on the number of drivers and the European average of unfilled truck driver jobs).

1. Including main road freight transport markets (88% coverage in terms of number of drivers in EU-27 + United Kingdom and Norway): Austria, Belgium, Czech Republic, Estonia, France, Germany, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Romania, Slovakia, Spain, and the United Kingdom.

The 2028 truck driver shortage forecast (FC) is based on driver shortages in 2023 and total sales (real) of cargo ground transport from Information Handling Services (S&P-IHS Markit), except for the United States (using ATA's own forecast).

The following assumptions were made:

- Cargo ground revenue (real) growth represents the monetary value of the volume of goods transported. We consider that this indicator represents the road freight transport demand.
- Rate of new drivers between 2023–2028 remains the same as in 2023
- The productivity of drivers remains the same as in 2023

Drivers are assumed to retire at:

- 65 years old in Europe. In some countries, the minimum retirement age is 65 but many drivers retire earlier. In other countries, the minimum legal age to retire is lower but many drivers stay beyond the retirement age.
- Minimum legal age of retirement for other countries

Three different retirement scenarios were modelled for each country (retirement at 65 years old, at minimum legal age, at average age of retirement). The ones mentioned above were selected based on discussions with national road transport associations to ensure accuracy.

Drivers over 55 are assumed to have the same distribution by age than the total labour force

The **economically active population** (also called the labour force) is the sum of people who are employed or unemployed.

The **youth unemployment rate** is the number of unemployed people (aged from 15 to 24 years old) as a percentage of the economically active population (the total number of people employed and unemployed equals the labour force).

Upply's European Road freight rate index

The rates are the result of Upply's own econometric and statistical modelling, which is based on the analysis of over 750 million invoiced transport prices.

Upply provides Truck Load (LTL & FTL) weekly rates estimations based on observed transactions for each major European trade lane associated with a confidence index. These rates are computed from Upply's key partners and users data.

Intelligence Briefing

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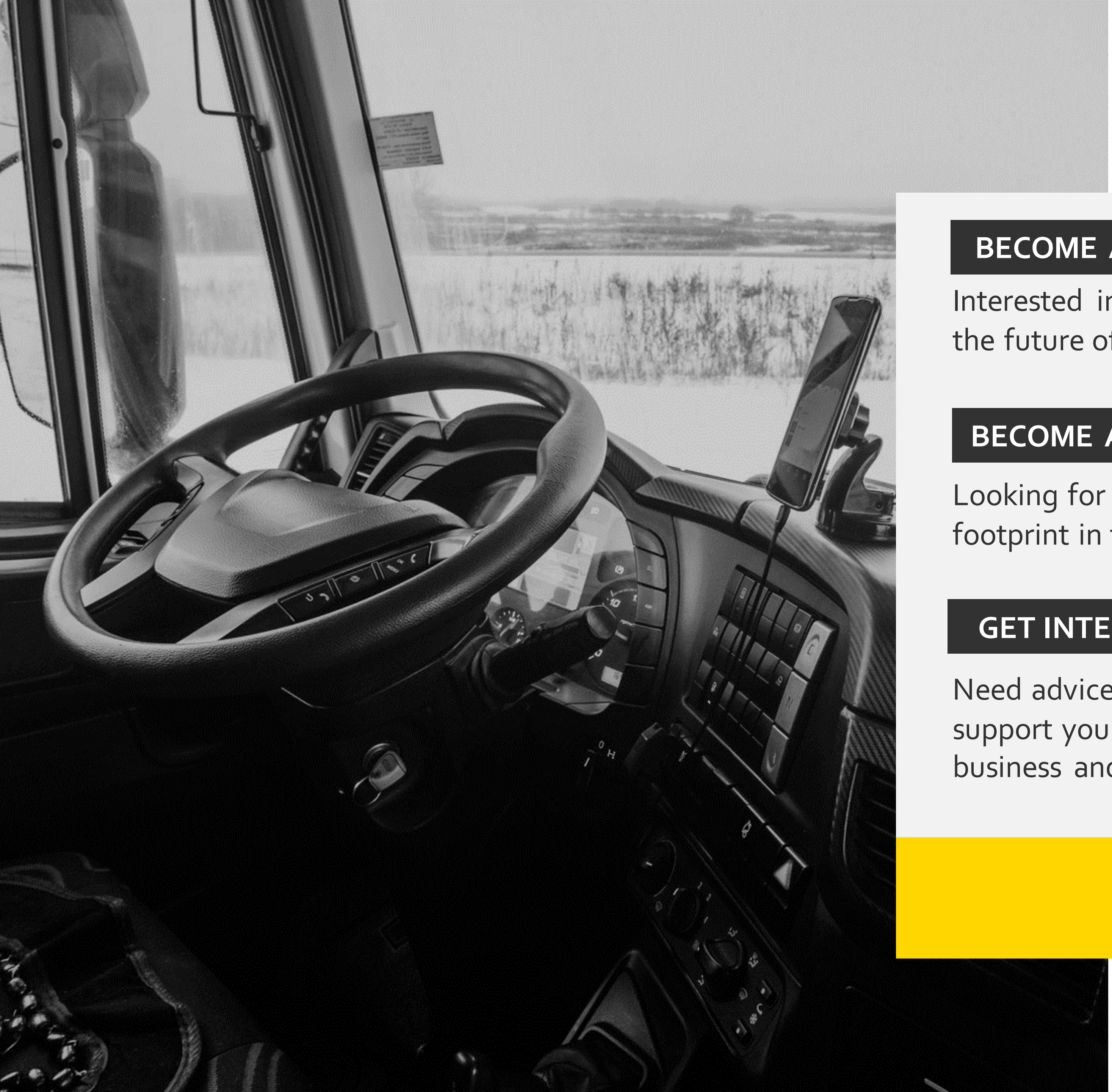

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About IRU

IRU, the world road transport organisation, has 75 years of on-the-ground experience with a network of 175 members from around the world. We represent the entire industry – bus, coach, truck and taxi, and strive for the sustainable mobility of people and goods across the planet.

As the voice of more than 3.5 million companies operating mobility and logistics services in over 100 countries, IRU fosters impactful solutions to help the world move better. We bring a unique perspective, bridging the public and private sectors to support trade, economic growth, jobs, safety, the environment and communities.

IRU provides concrete services to transport and logistics companies, ranging from representation at the European and international level, trade and transit tools, driver skills assessments (including eco-driving), comprehensive research and insights with thematic workshops and roundtables on decarbonisation, driver shortages and digitalisation.

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