

Industrial Labor Map

2025 - 2027

Observatório
Nacional da
Indústria

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What is it?

Forecasting methodology for employment and training demand in industrial and related fields.

Central Questions

2027

What is the demand for initial education and training through 2027?

Future

What will be the employment dynamics in the coming years?

Today

What is the reality of the labor market today?



| **Chapter 1**

Current Outlook

| **Chapter 2**

Formal Employment Forecast

| **Chapter 3**

Estimated Demand for Professional Training

| **Chapter 4**

Future Outlook



Industrial Labor Map

Chapter 1

Current Outlook



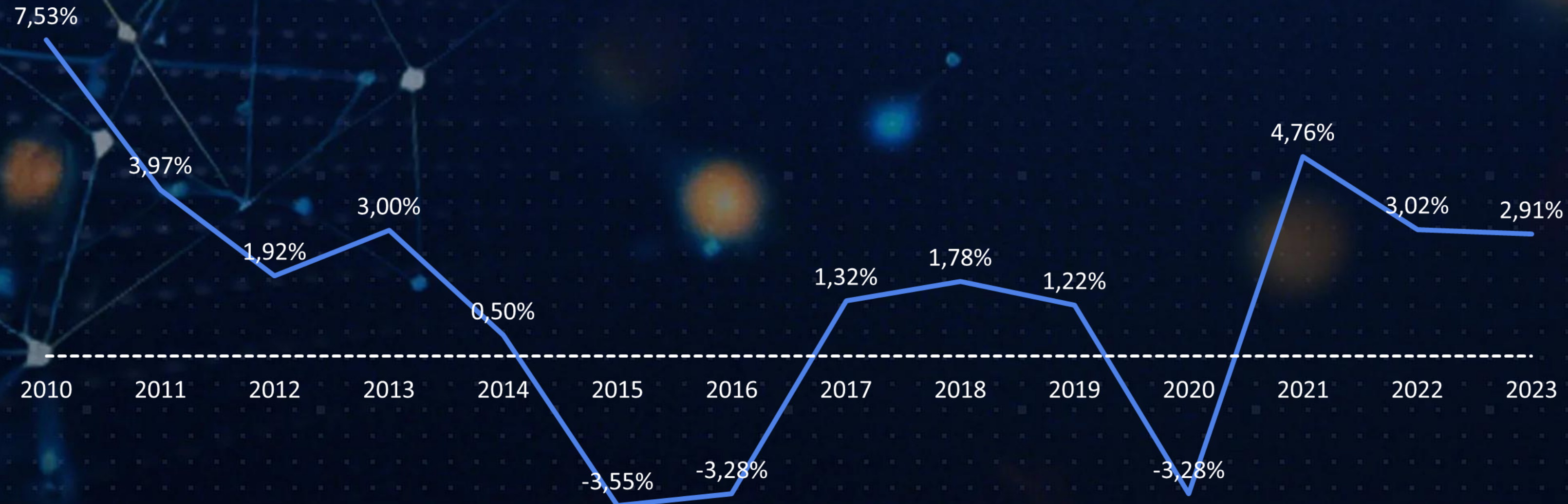
Highlights

Since 2022, Brazil has maintained **high levels of formal employment**, a trend that has persisted throughout the following years.

The current challenge lies in transforming the labor market to **expand job openings in more highly skilled positions**.

The importance of lifelong learning: we must provide **training for new workers and reskill the current workforce** to meet future market demands.

Average Annual GDP Growth in Brazil (2010 – 2023)

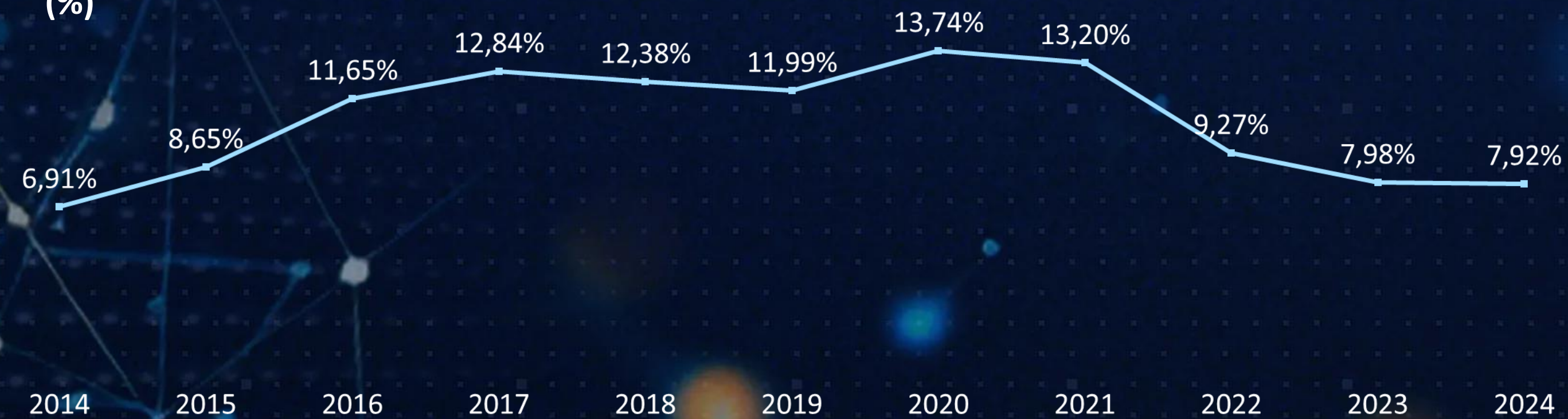


Source: SCN/IBGE

Brazilian Labor Market Developments (2014 – 2024)

Unemployment rate (%)

(%)



Average wage (BRL)



Source: PNAD/IBGE

Chapter 2

Formal Employment Forecast

Definition of Industrial Employment

The most relevant occupations for industry and for SENAI's course offering strategy were selected, representing **17.8 million** formal jobs (34% of the total economy):



Industry

- Industrial and Cross-sectoral Occupations ✓
- Non-industrial occupations ✓

11 millions jobs ✓



Other Sectors

- Industrial and Cross-sectoral Occupations ✓
- Non-industrial occupations ✗

6.8 millions jobs ✓

Formal Employment Forecast

- | Formal employment forecasts were estimated using **Time Series** and **Machine Learning** models - including ARIMA, Prophet, and XGBoost-implemented via R software.
- | Time series data were smoothed to prevent **pandemic-related shocks** from distorting the results.
- | Employment level forecasting were estimated across a combination of **36 sectoral groups** and **22 occupational categories**.

Chapter 3

Estimated Demand for Professional Training

Estimated Demand for Professional Training

| **Initial Training:** Preparing workers for career entry.

- Types: Technical Education, Higher Education, and Professional Qualifications.
- Calculations were based on labor **market replacement rates** and **initial training hypotheses**.

| **Training and Development (T&D):** Continuous training for workers seeking to upskill or complement competencies within their current occupation.

- Types: Health and Safety initiatives, Hard skills, and Soft skills.
- Estimated based on primary research results with industry CEOs.

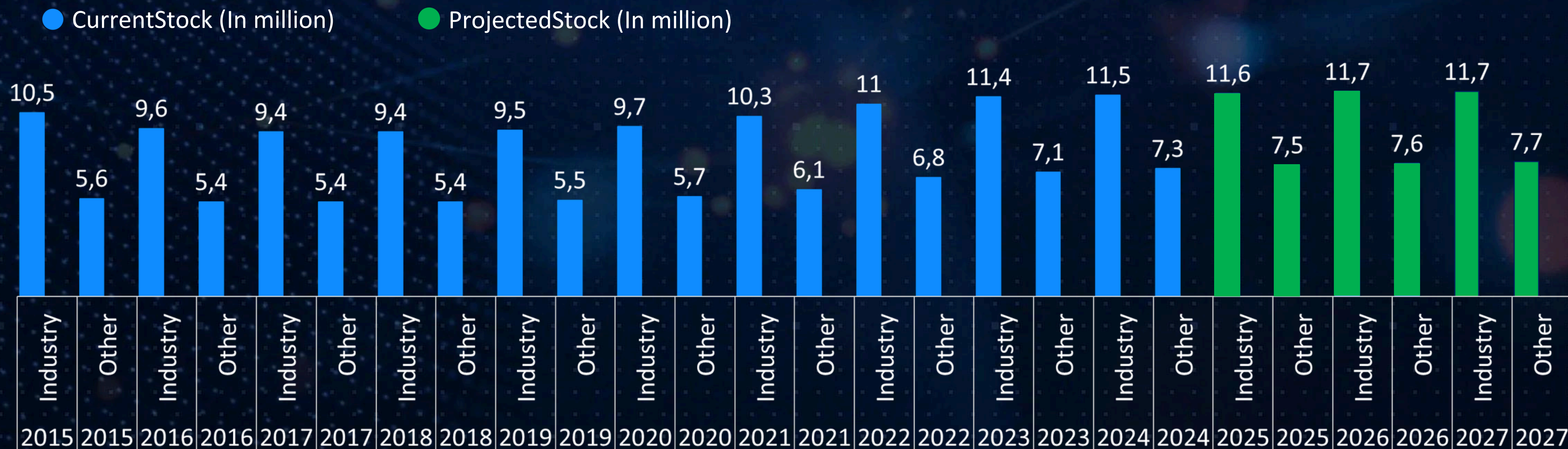
| **Demand for Professional Training = Initial Training + T&D**

Chapter 4

Future Outlook

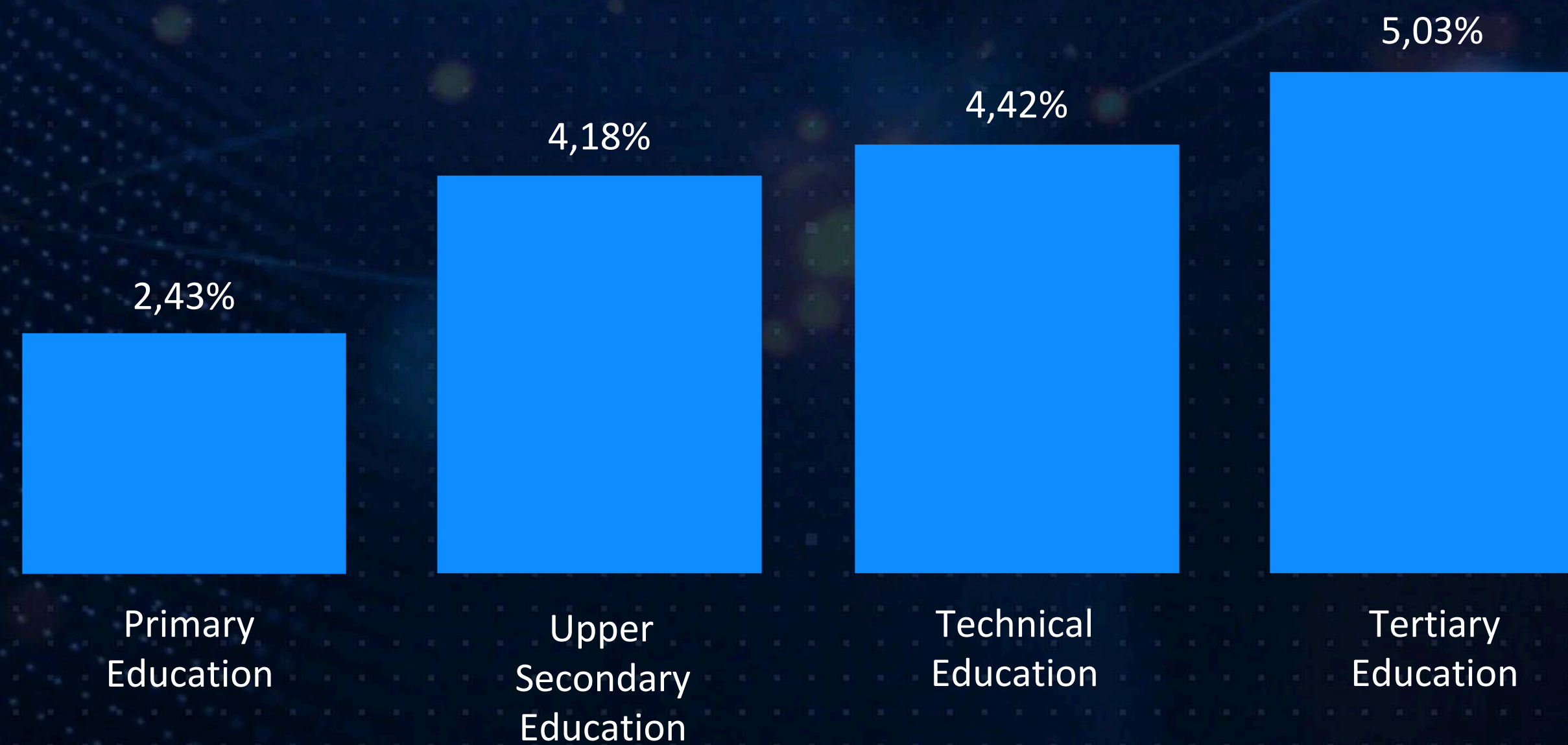
Brazil

Formal employment in **industry and related occupations** is projected to **continue growing** through **2027**



Source: RAIS/MTE. Industrial LaborMap/ONI (2025 –2027).

Industrial and related occupations at the **tertiary level**
are projected to experience **the highest growth** rates
(2025 - 2027)



Source: Industrial LaborMap/ONI (2025 –2027)

What is the scale of the challenge?



Brazil

By **2027**, an estimated **14,045,008** workers in Brazil will require qualification in industrial and related fields.

Source: Industrial LaborMap/ONI (2025 –2027)

Initial Education and Training

An estimated **2,245,838** workers will require initial training to access industrial and related occupations in the coming years.

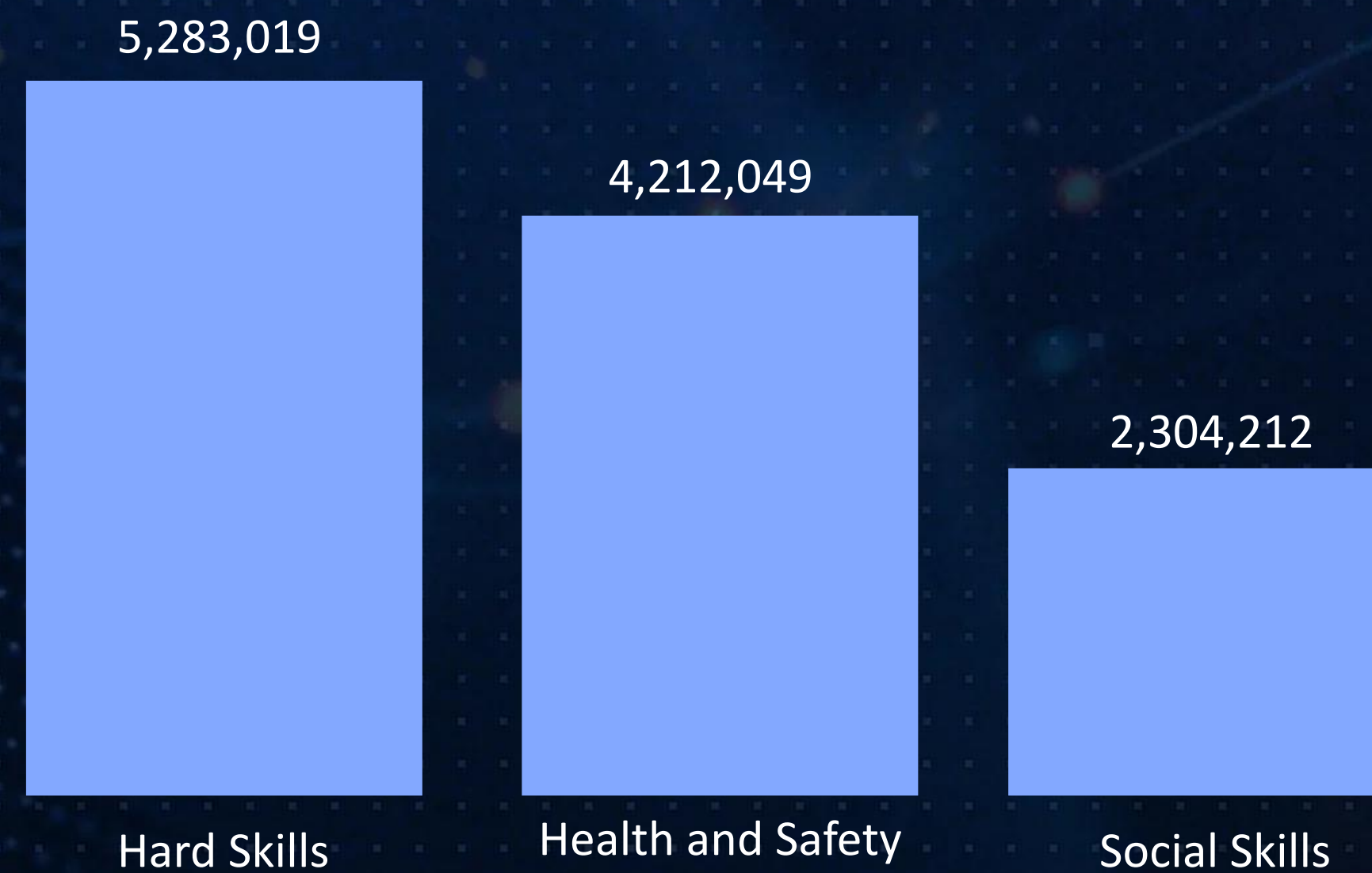
Source: Industrial Labor Map/ONI (2025 – 2027)

Training and Skills Development

By **2027**, **11,799,171** workers will require upskilling to respond to organizational and technological transformations.

Source: Industrial Labor Map/ONI (2025 – 2027)

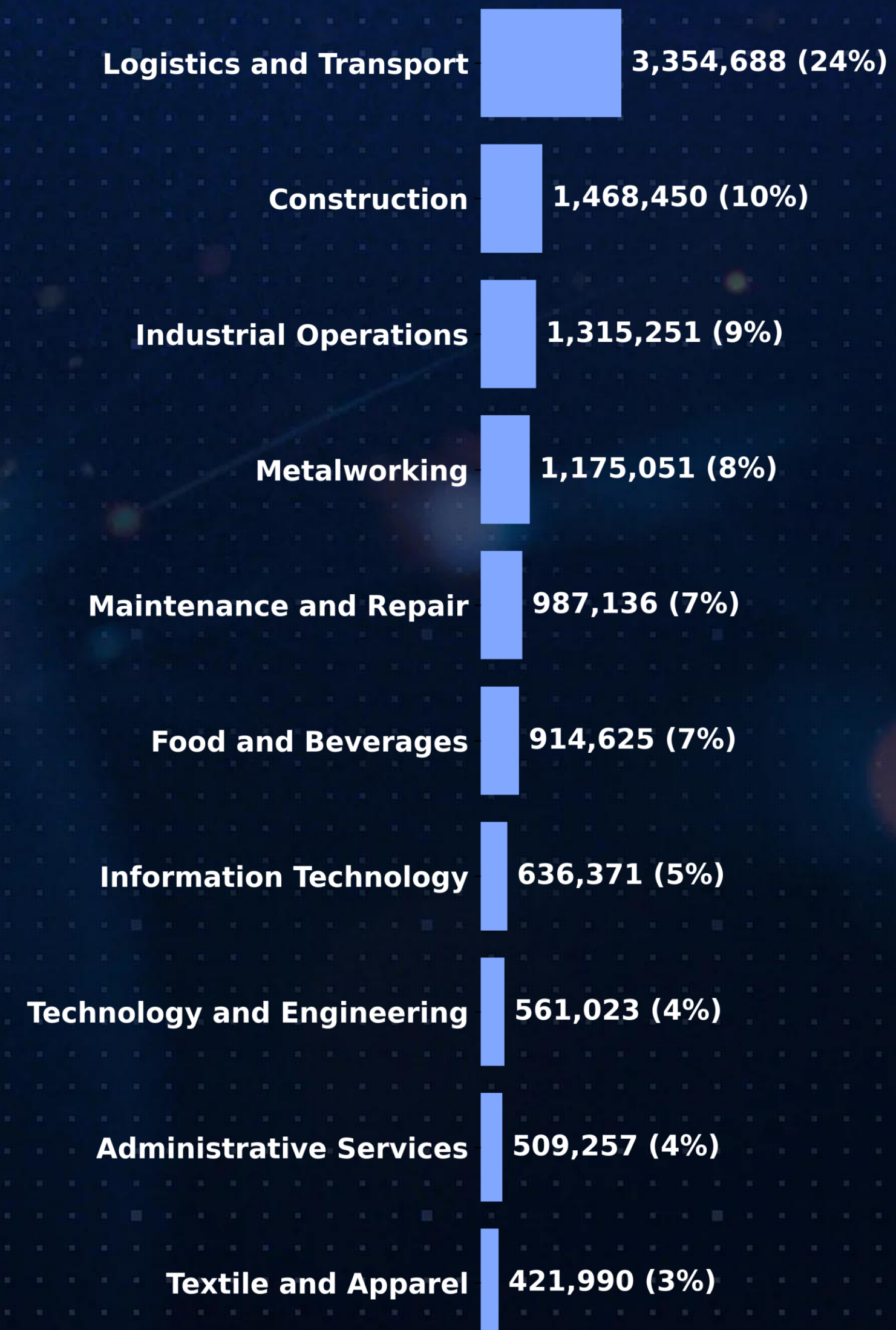
Total Demand for Training and Development (T&D) up to **2027**, by Type



Source: Industrial Labor Map/ONI (2025 – 2027)

Logistics and transport,
Construction, and Industrial
Operations are expected to
lead training demand across
sectors.

Source: Industrial Labor Map/ONI (2025 – 2027)



**The future of the labor market
also depends on the decisions
we make today.**



Thank you!

Observatório Nacional da Indústria

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