

Skills and Jobs Survey 2024

Skills Anticipation and Labor Market Intelligence: Tools, Methods, and Policy Applications

Insights from a Personal Skills and Jobs Survey — Azerbaijan, 2024



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Focus

Skills anticipation, workforce intelligence, and labor market analysis in Azerbaijan



Dataset

Designed and conducted the Skills and Jobs Survey 2024 — 697 employers and 1,000 employees across Azerbaijan's formal economy



Tools & Methods

Excel

Power BI

Survey Design

Quota Sampling



Purpose Today

To share the findings, methodology, and tools that made the analysis possible

Why Skills Intelligence Matters Now

Azerbaijan's labor market faces a persistent and documented skills mismatch — evidence-based diagnosis is the first step toward remedy.

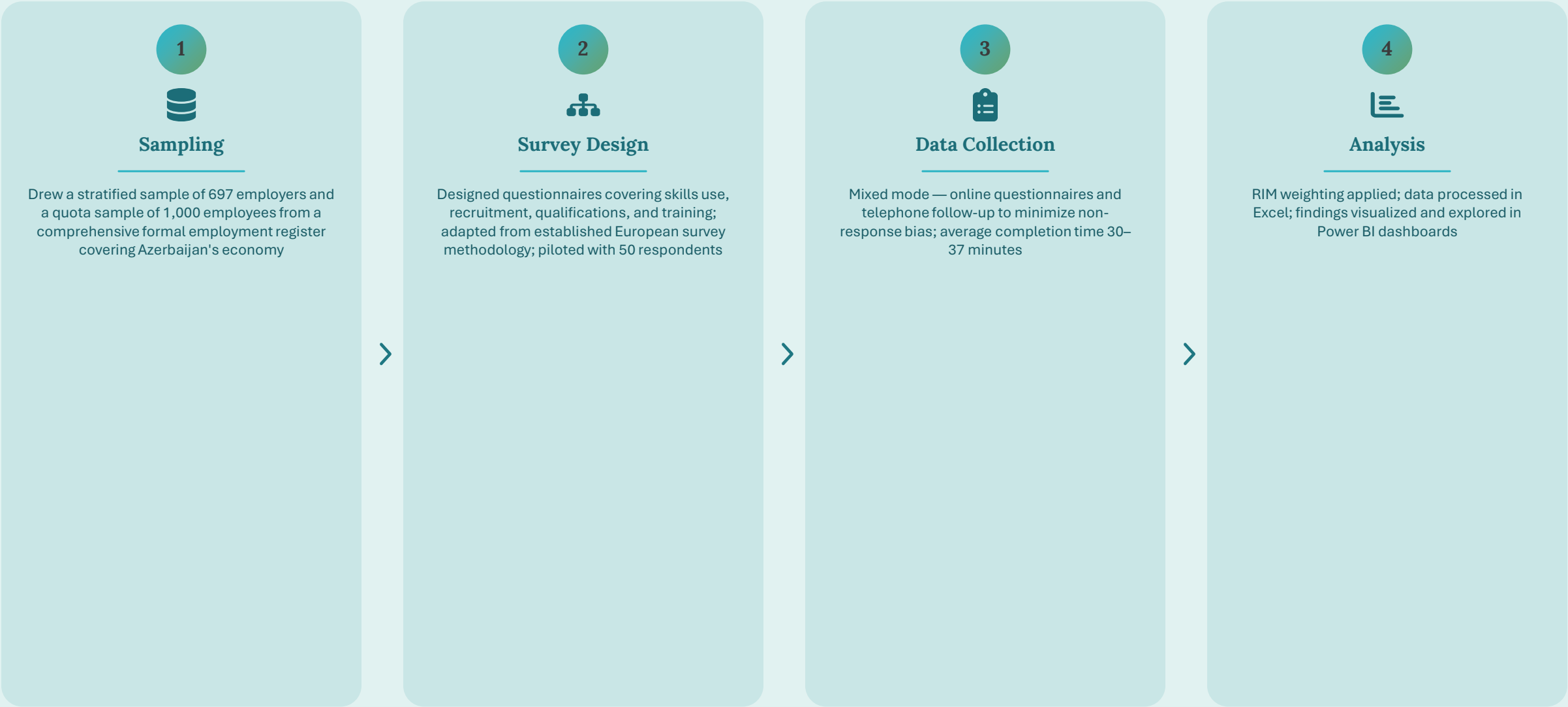
30% of school leavers enter the labor market without any qualification annually

- PISA 2018: Azerbaijan ranked 69th out of 79 countries; average reading score 389, mathematics 420
- Workers graduating after 2008 are twice as likely to be overqualified for their first job compared to those graduating in the 1990s
- The gap between what the education system produces and what employers need remains wide — and largely unmeasured



My Survey — From Design to Dashboard

This personal research project followed a rigorous design — and tools like Excel and Power BI turned the raw data into actionable intelligence.



Two Surveys, Two Lenses

Employer and employee surveys answer different questions — together they reveal the full picture of skills supply and demand.



Employer Survey

697 companies — Demand-side

- What skills employers seek and which qualifications dominate in different occupations
- Where hiring is difficult and which roles face genuine recruitment shortages
- Reveals the demand side: recruitment needs and difficulties that only employers can describe



Employee Survey

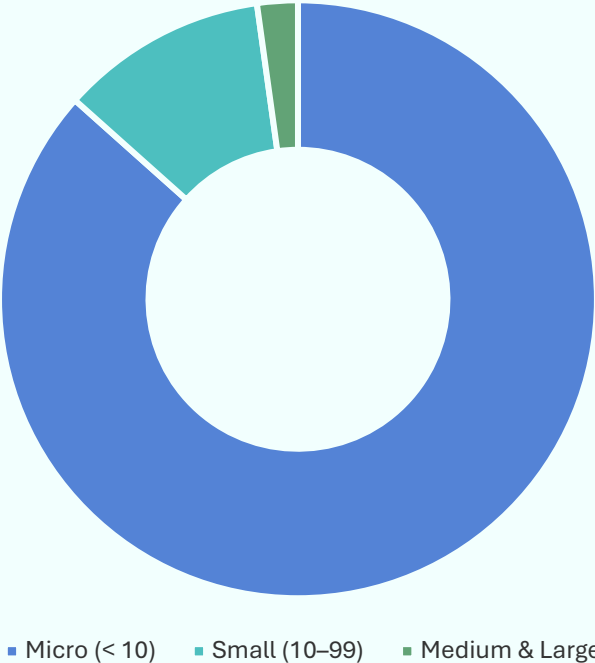
1,000 employees — Supply-side

- How workers use their skills on the job and where skills are underused or absent
- How skills evolve over time and what prevents further professional development
- Reveals the supply side: skill utilization and development constraints invisible to employers alone



Both perspectives are necessary: employers describe recruitment needs and difficulties; employees explain how they use skills and what prevents further development.

Company Size Distribution — 697 Surveyed Employers



Who Are the Employers? Survey Profile

Azerbaijan's employer landscape is dominated by micro-enterprises, which shapes the nature of training investment and skills development.

-  **Micro-enterprises — 86.6%**
Fewer than 10 employees; largest segment of the formal economy
-  **Small enterprises — 11.2%**
10-99 employees; secondary employer tier
-  **Medium & large enterprises — ~2.2%**
Together fewer than 1 in 40 registered companies
-  **Dominant sector — 48.3%**
Wholesale/retail trade, transport, accommodation & food services

Who Are the Employees? Survey Profile

The 1,000-person employee dataset reveals a workforce that is broadly educated but qualitatively mismatched.

1,000

employees surveyed in my research dataset

38

average age of respondents

5.6%

youth (18–24) in sample — reflecting their formal employment share

Gender split



● Male 56% ● Female 44%



Sampling Methodology

I applied quota sampling on gender, age, and sector of economic activity, with RIM weighting to align my sample with the overall working population profile.



High Formal Attainment — Quality Gaps Beneath

Over 90% of the active population holds upper secondary qualifications — but the quality data reveals weak foundational skills, signaling a gap between credential attainment and actual competence.



VET's Negative Image Drives Structural Mismatch

A negative social image of vocational education and training (VET) has pushed young people toward higher education. The result: an influx of HE graduates into non-graduate jobs, while technical and vocational positions remain underserved by appropriately trained candidates.

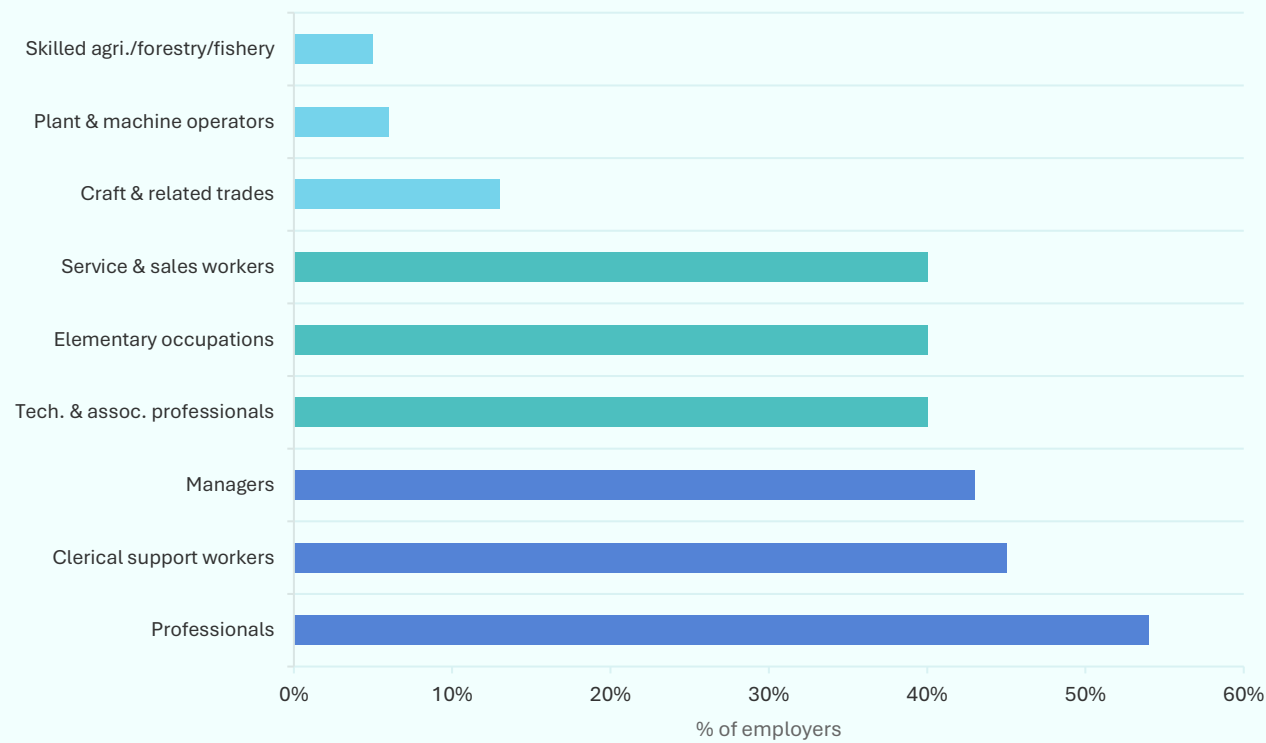
What Employers Are Looking For — Recruitment Attempts

Employers are most actively recruiting for high-level occupations, but the pattern of difficulty reveals where true skill shortages lie.

Key Findings

- Highest demand: Professionals (54%), Clerical support (45%), Managers (43%) [\[1\]](#)
- Least sought: Skilled agricultural workers (5%), Plant & machine operators (6%) [\[1\]](#)
- High demand ≠ shortage — recruitment difficulty (next slide) reveals the real mismatch

% of Employers Attempting to Recruit — by Occupation



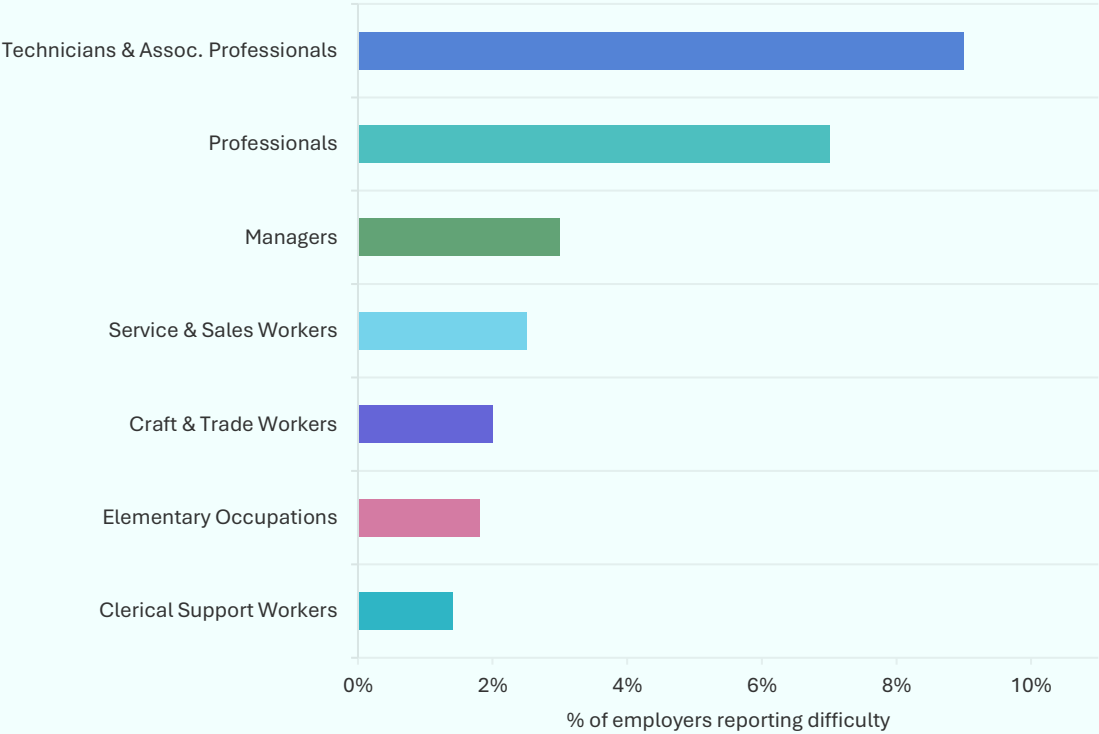
The Gap That Matters — Hiring Difficulties by Occupation

Difficulty hiring is concentrated in technical and professional roles, signaling a genuine skills mismatch — not just a demand signal.

Key Insights

- **Technicians (9%) and Professionals (7%)** have the highest hiring difficulty — roles requiring applied, specialized competency [1]
- Clerical support workers: only **1.4%** difficulty despite high recruitment volume — supply is broadly adequate [1]
- Managers: only **3%** difficulty despite 43% recruitment demand — market is partially functioning [1]
- High demand ≠ shortage: before drawing conclusions, investigate skills, pay, and conditions [3]

% of Employers Reporting Difficulty Hiring by Occupation



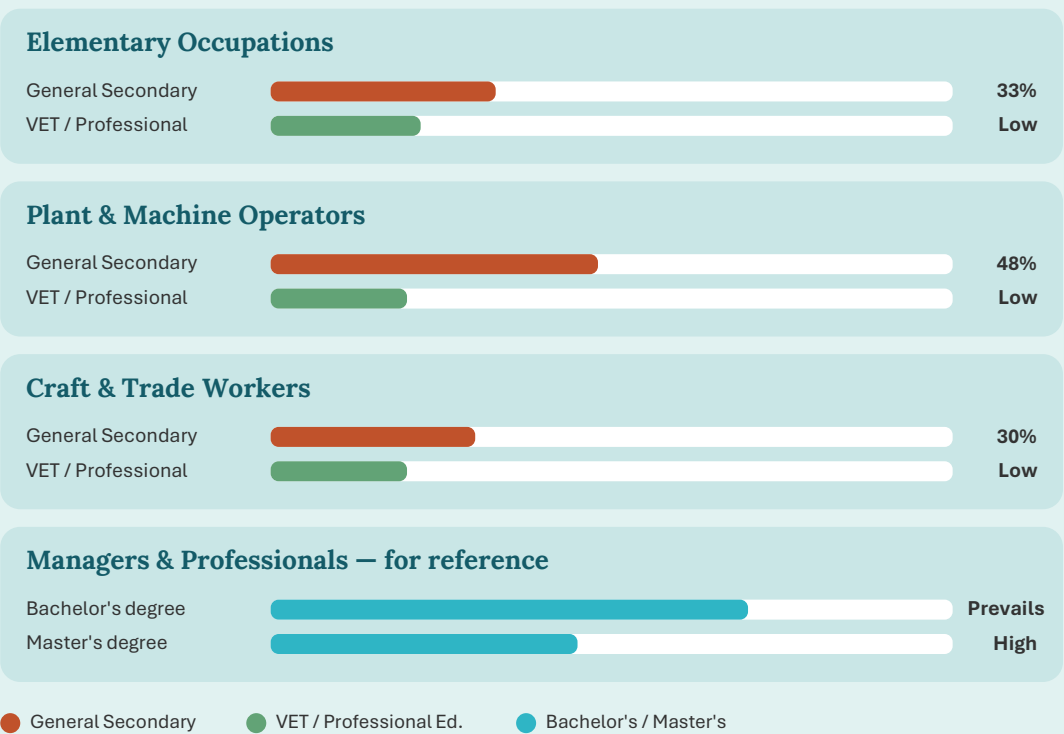
The Educational Mismatch — Qualifications in the Wrong Places

The educational profile of workers in lower-level occupations reveals a structural mismatch: VET is underrepresented where it is most needed.

Occupation Ladder — Qualification Fit



Qualification Profile — Lower-Level Occupations



Skills Use and Overqualification

From the employee side, overqualification and underutilized skills are persistent challenges that reinforce the mismatch picture.



Workers graduating after 2008 are **twice as likely** to be overqualified for their first job compared to those graduating in the 1990s. [2]



STEP Employer Skills Survey 2013: key gaps identified in job-specific technical skills, problem solving, communication, teamwork, and leadership.



High accessibility of higher education, combined with the negative image of VET, has increased the influx of HE graduates into non-graduate jobs.



Skills stagnancy is also a risk: workers in jobs with limited scope for skill development cannot grow professionally.



Both **quantitative mismatch** (wrong level of qualification) and **qualitative mismatch** (wrong type of qualification) are present simultaneously.

Small Employers, Big Challenges — The Training Gap

The dominance of micro-enterprises in Azerbaijan's economy creates a structural barrier to employer-sponsored skills development.

86.6% of surveyed companies are micro-enterprises with fewer than 10 employees

- Micro and small enterprises lack economies of scale: strategic investment in training is difficult to justify, and partnership with training institutions is rare
- Employer-sponsored training is less common than in economies dominated by large firms; skill upgrading happens less on the job
- Vast potential exists for upgrading skills in low- and medium-level occupations — but requires **public support mechanisms**, not just employer initiative

Policy implication: skills development strategy must account for the micro-enterprise majority — not be designed only for large, structured employers.



Three Takeaways for Evidence-Based Skills Policy

My research translates into three principles that should guide how we collect, interpret, and act on labor market intelligence.



Takeaway 1

Both Perspectives Are Necessary

Employers describe recruitment needs and difficulties; employees explain how skills are used and where development is blocked. Neither dataset alone is sufficient for informed decisions. [\[3\]](#)



Takeaway 2

Evidence Needs Interpretation

High recruitment demand is not the same as a skills shortage. We must investigate whether the constraint is skills, pay, working conditions, or geography before drawing conclusions. [\[3\]](#)



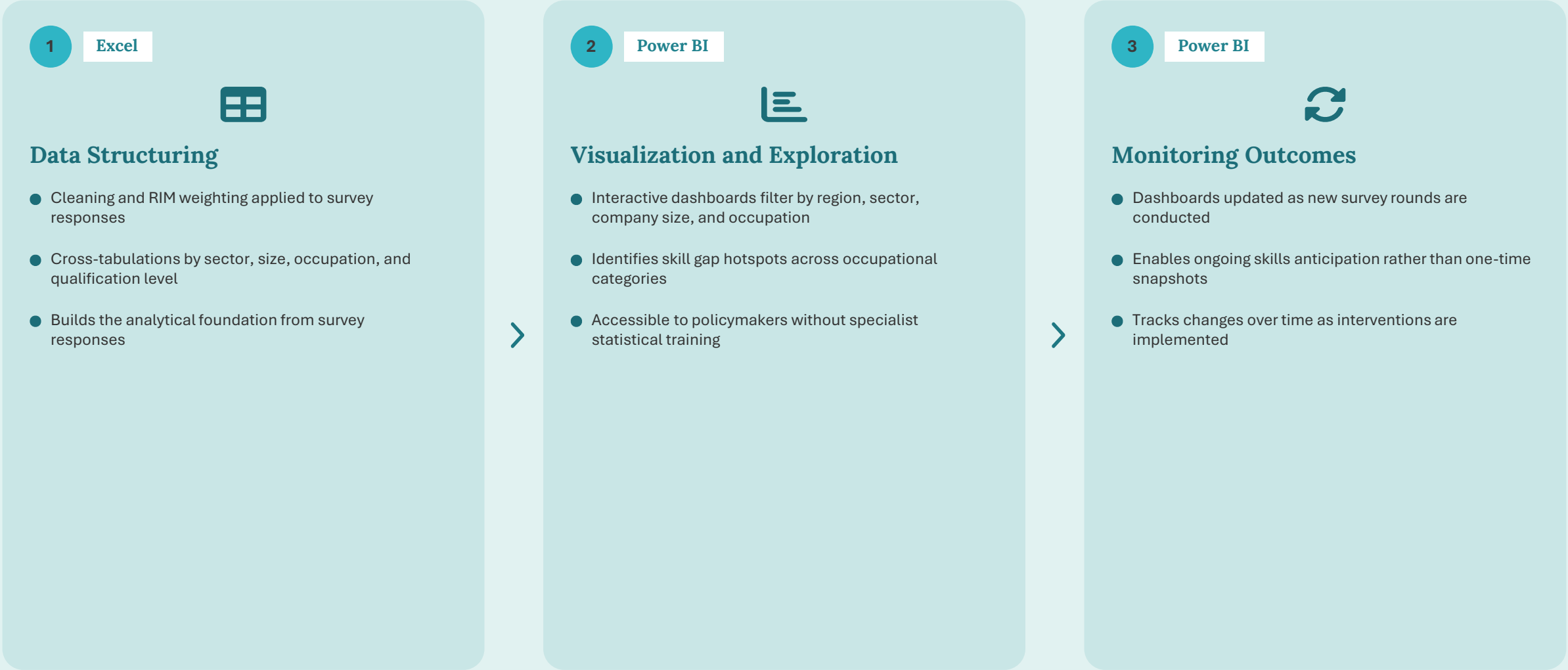
Takeaway 3

Analysis Must Lead to Action

Findings should feed directly into training content, career guidance, support for small employers, and retraining programs. The dashboard is not the endpoint — it is the starting point. [\[3\]](#)

Tools That Turn Evidence into Intelligence

Excel and Power BI are not just analytical software — they are the infrastructure that connects raw survey data to policy-relevant insight.



Key point: Tools lower the barrier to evidence use — policymakers and practitioners can explore data directly without requiring specialist statistical training.

Learn More — Get the Data from Eurostat

You can replicate this kind of analysis using open labor market data from Eurostat — and this video shows you exactly how.

Video Resource



How to Extract Job Market Data and Prepare Insights from Eurostat

youtube.com/live/YjbkZjt1U?si=azVnZLf0Z5fZCRNn

What Eurostat Provides

Free, open-access labor market data covering skills, occupations, qualifications, employment rates, and sector trends across European economies.

Practical Next Steps — Try It Yourself

1

Download a Eurostat Labor Market Dataset

Navigate to Eurostat's database, select an indicator (skills, employment by occupation, qualification levels), and export to CSV or Excel.

2

Clean and Weight in Excel

Structure the raw data — apply filters, cross-tabulations by sector and occupation, and weighting to align with the population of interest.

3

Build a Power BI Dashboard

Import the structured data into Power BI and create interactive visuals — filter by region, sector, or qualification level to explore patterns.

4

Identify Skill Gaps in Your Context

Use the same analytical approach from this research — compare supply and demand, spot mismatches, and translate findings into actionable intelligence.

From Analysis to Action — Policy Applications

Skills intelligence is only valuable when it flows into concrete decisions about training, guidance, and employment support.



Training Content

My survey findings on technical skill gaps and underrepresentation of vocational education should directly inform curriculum reform and course design in vocational programs.



Career Guidance

Evidence on overqualification and qualification mismatch should reframe VET's image for young people and their families — showing where demand and employment prospects are strongest.



Support for Small Employers

Policy mechanisms — short modular training, sectoral skills funds, co-funded apprenticeships — must be designed for the 87% micro-enterprise majority, not for large firms.



Retraining & Active Labor Market Programs

Identified gaps in problem solving, communication, and technical skills should be addressed through targeted upskilling programs linked to employment services. Power BI dashboards enable ongoing tracking of whether interventions are closing the identified gaps over time.



Closing — The Purpose of This Work

Skills anticipation is not a research exercise — it is infrastructure for better decisions, and my survey shows how to build it independently.

- This presentation set out to show how personal, evidence-based research on employers and employees can guide better training and employment decisions
- My Skills and Jobs Survey 2021 is a practical demonstration: survey design, data collection, Excel-based analysis, and Power BI visualization are the toolkit; labor market intelligence is the product
- The methods and tools are replicable — anyone can build this kind of labor market intelligence with the right dataset and the right analytical approach

Three Takeaways



Both perspectives matter



Evidence needs interpretation



Analysis must lead to action

Next Steps



Repeat survey rounds to build time-series data



Expand Power BI dashboards across sectors and sub-regions



Connect findings to curriculum reform and employment service design

Skills and Jobs Survey 2024 — Personal Research

Thank You

Questions, connections, and next steps — let's keep the conversation going.



Dataset

Skills and Jobs Survey 2024 — Personal Research



Eurostat Data Resource

<https://www.youtube.com/live/YjbkZjt1U?si=azVnZLf0Z5fZCRNn>



Tools Used

Excel | Power BI | Survey Design & Quota Sampling



Evidence-based labor market intelligence is achievable — independently, rigorously, and with tools you already have.



Open for Questions

