



Labour market tensions until 2035 – What can we learn from Cedefop's Future Shortage Indicator?

Cedefop virtual get-together

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Skill-deficiencies
Human-capital-deficiency
Workforce-shortages
Labour-mismatches
Skill-imbbalances
Competency-shortage
Skills-shortages
Workforce-scarcity Aptitude-scarcity
Occupational-shortfall
Competency-deficit
Talent-mismatches
Skills-mismatches
Skills-gaps



Shortage-ology



A theoretical construct?

- In theory wages are a clearing device . . . but:
- Short-term supply is inelastic
- Labour market imperfections (*Beveridge curve*)
- Inefficiency of institutions (*Institutional constraints theory*)
- Firms pay higher than clearing wage (*Efficiency wages theory*)
- Firms may not want to pay high new workers (*Insider-outsider theory*)
- Non-economic factors (*Labour mobility theory*)

Is it possible to measure in practice?



It is a 'notoriously difficult' task (Bosworth 1993:242)



"Labour shortages are not easy to measure" (OECD 2003:103)



"No single empirical measure of occupational shortages exists, nor does it appear that one can easily be developed" (US Bureau of Labor Statistics 1999:17)



'Accurately measuring skill shortages can be challenging due to various factors including data limitations, labour market dynamics, and the subjective nature of skills assessments' (CHAT GPT 2023)

Data and methods commonly used

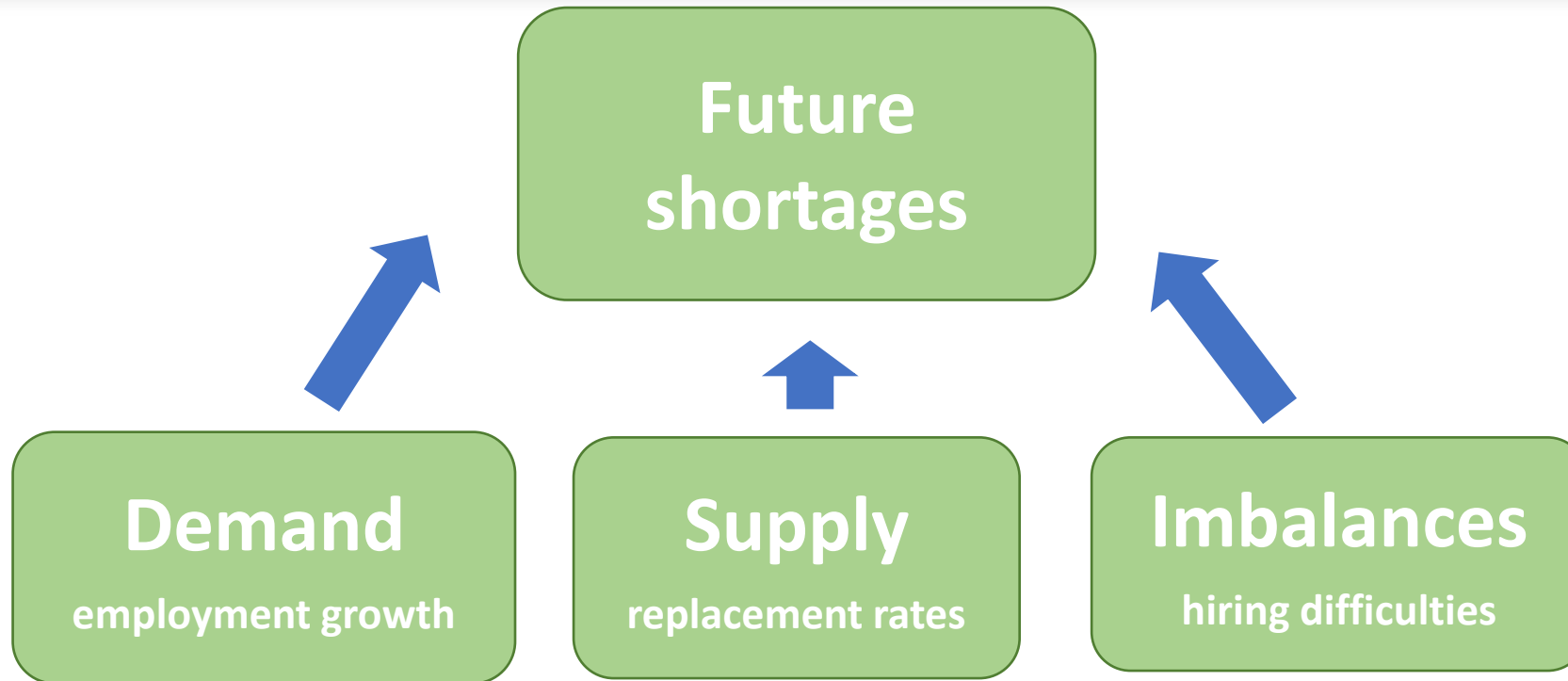
- Employers/employees surveys
- Job vacancy data
- Case studies
- Immigration data
- Trends in indicators
- Forecasts of demand





Future shortage indicator

Powered by Cedefop skills forecast

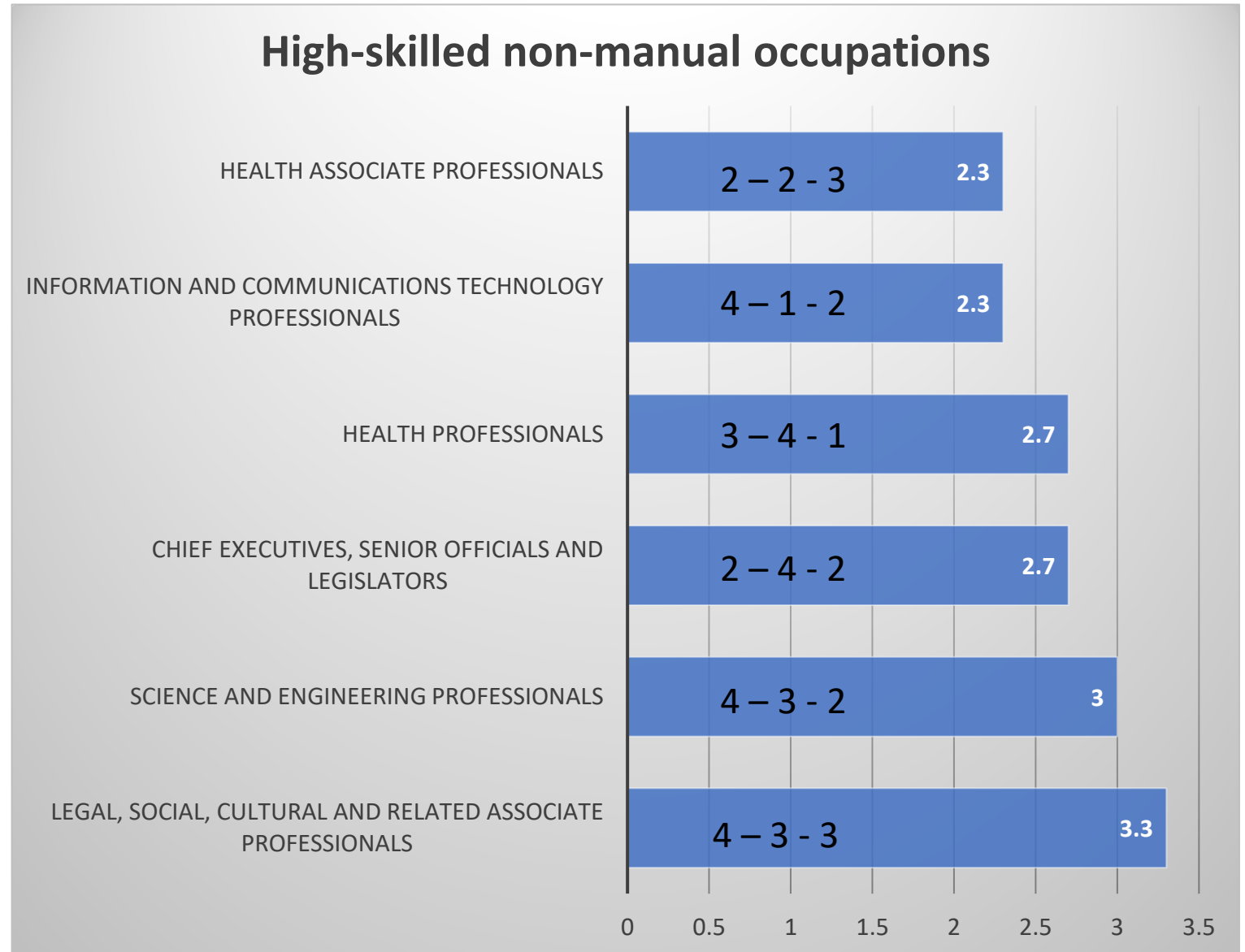


- Score from 1 to 4
- Equal weights
- Arithmetic average

- Estimated by skill level
- Extended to sectors

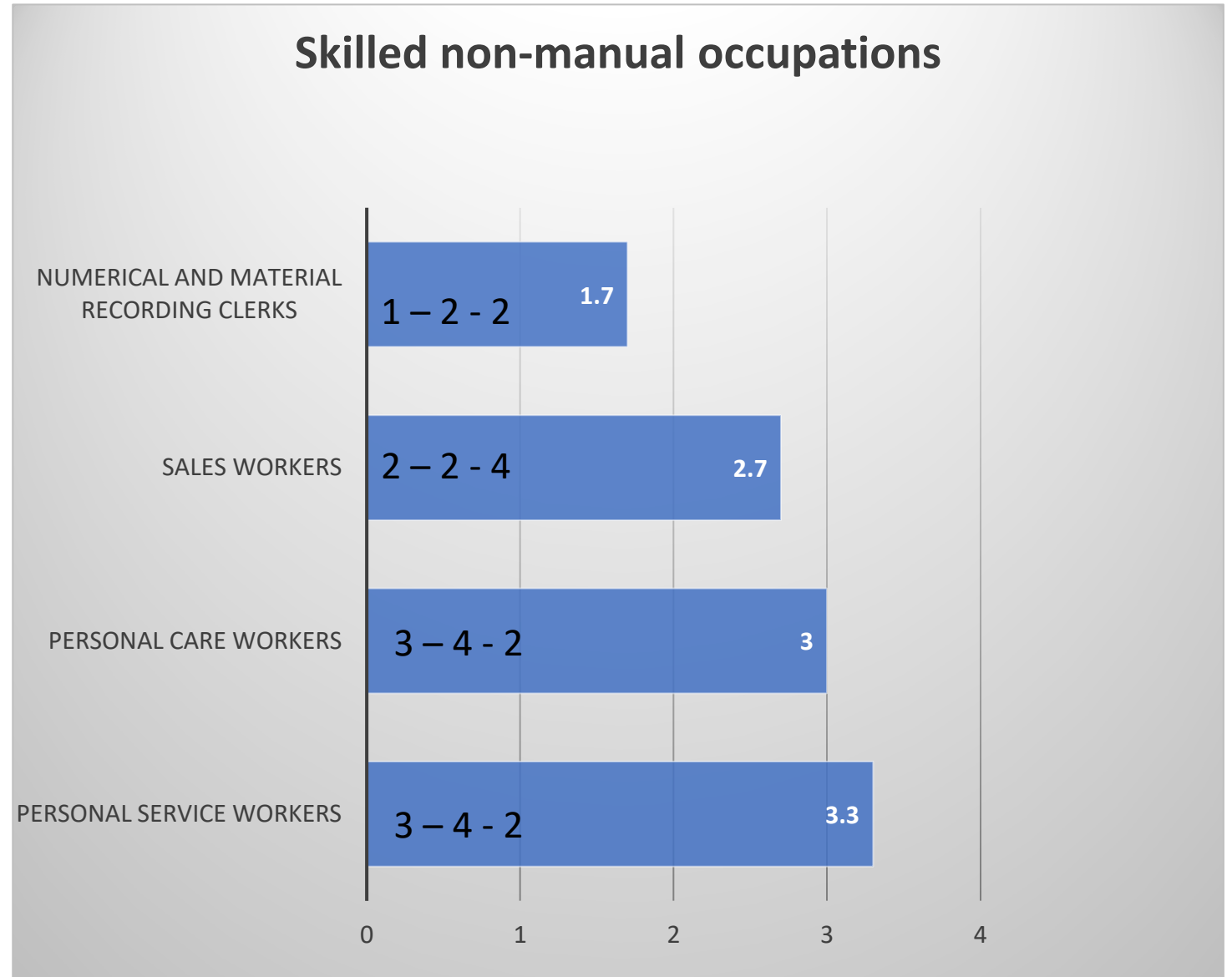
Future shortage indicator

- Twin transitions are due to create shortages
- Replacements need a careful design
- Future supply will suffice
- Employment becomes skills intensive



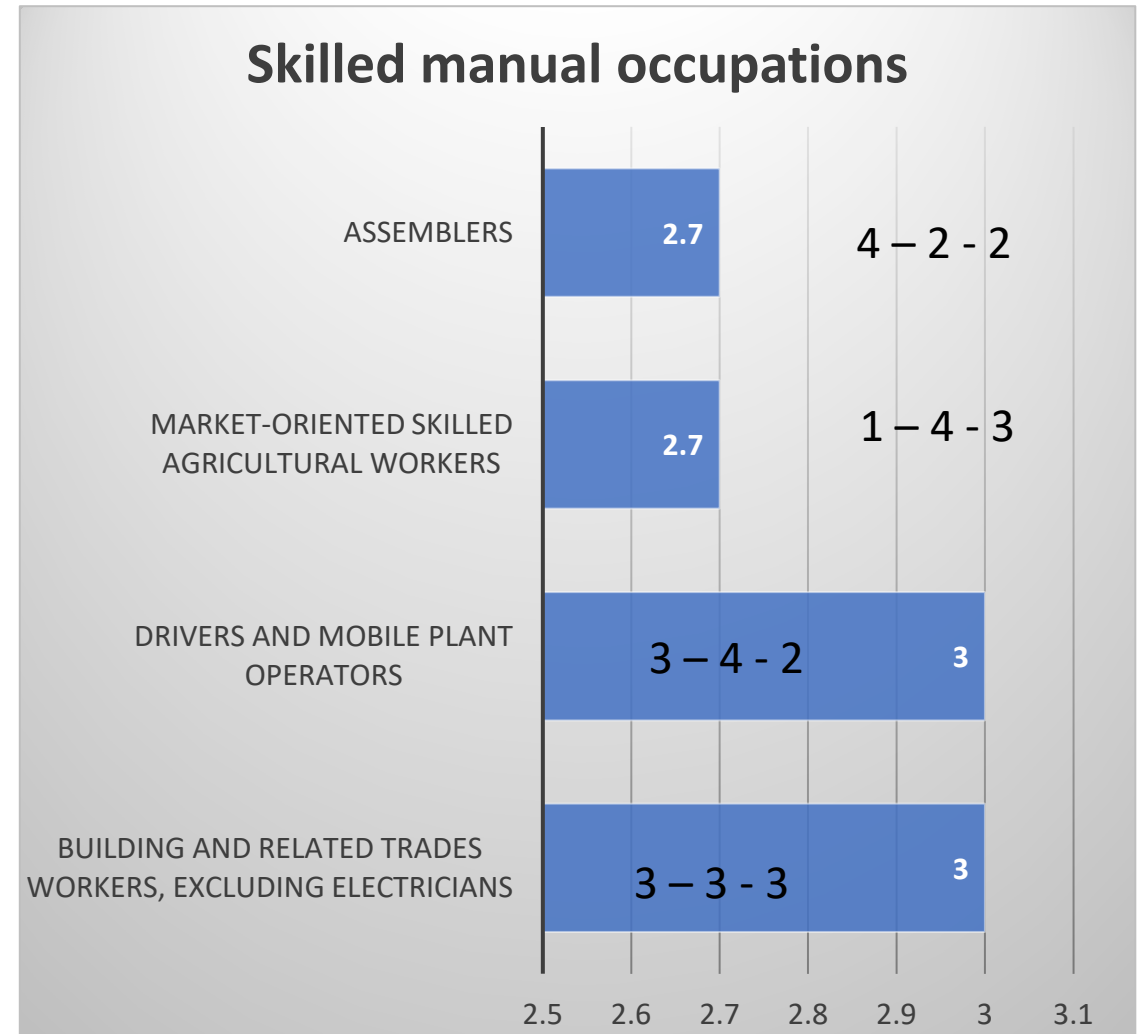
Future shortage indicator

- Strong impacts of technology
- Interpersonal skills not easily substituted



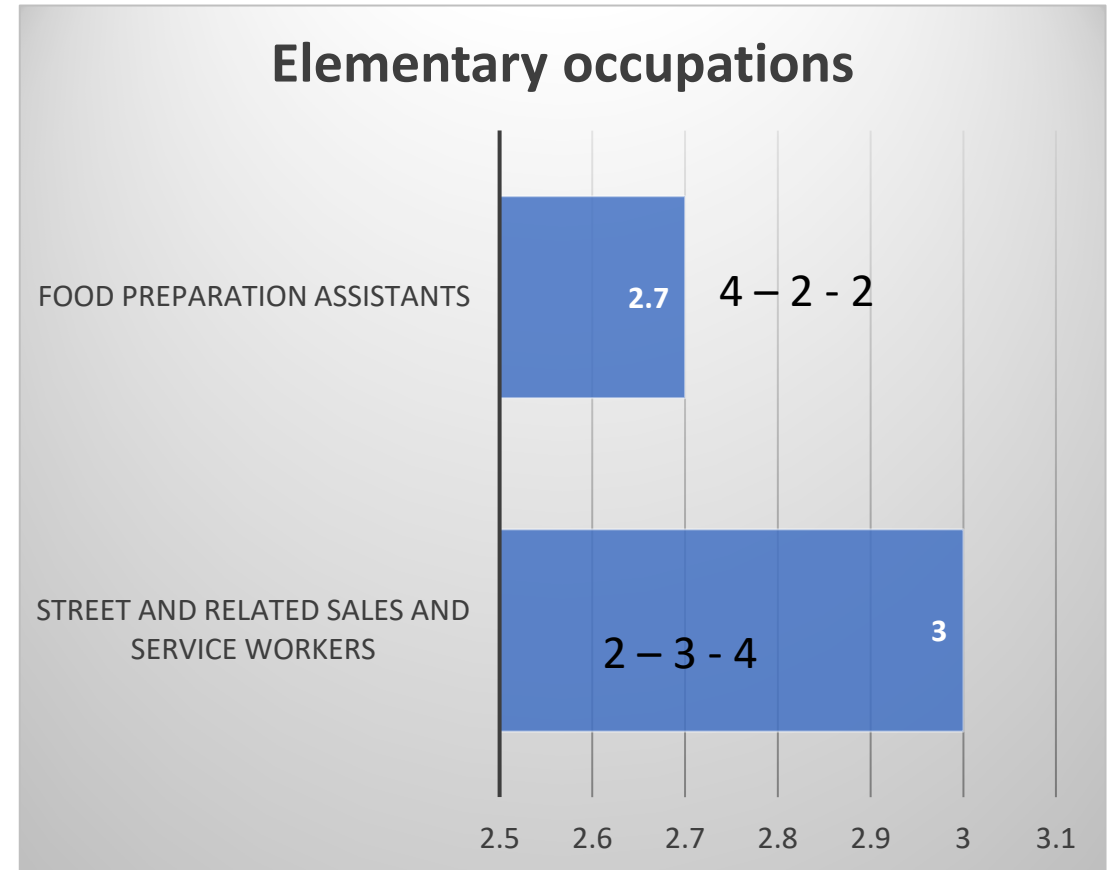
Future shortage indicator

- Technology as a substitute of labour
- Specialised knowledge needed

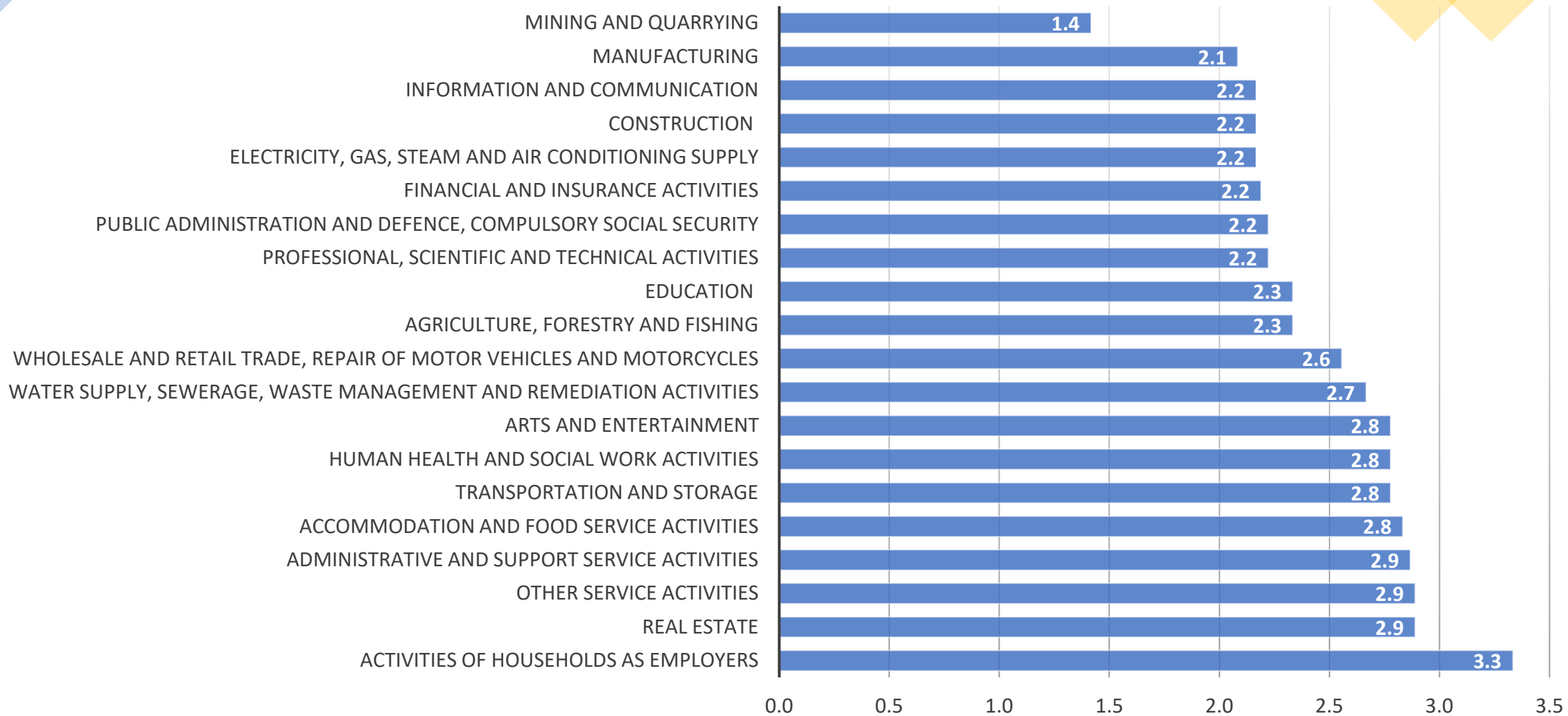


Future shortage indicator

- Strong future shortages
- But ... skill shortages?



Shortages in sectors





What drives recruitment difficulties? Evidence from the 2nd European Skills and Jobs Survey

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Skill shortages: poor HR or lacking skills?

77% of EU firms have at least some difficulties in finding employees with the right skills (26% large difficulties)

Retention/turnover difficulties are most important in explaining firms' skill shortages, alongside high skill needs.

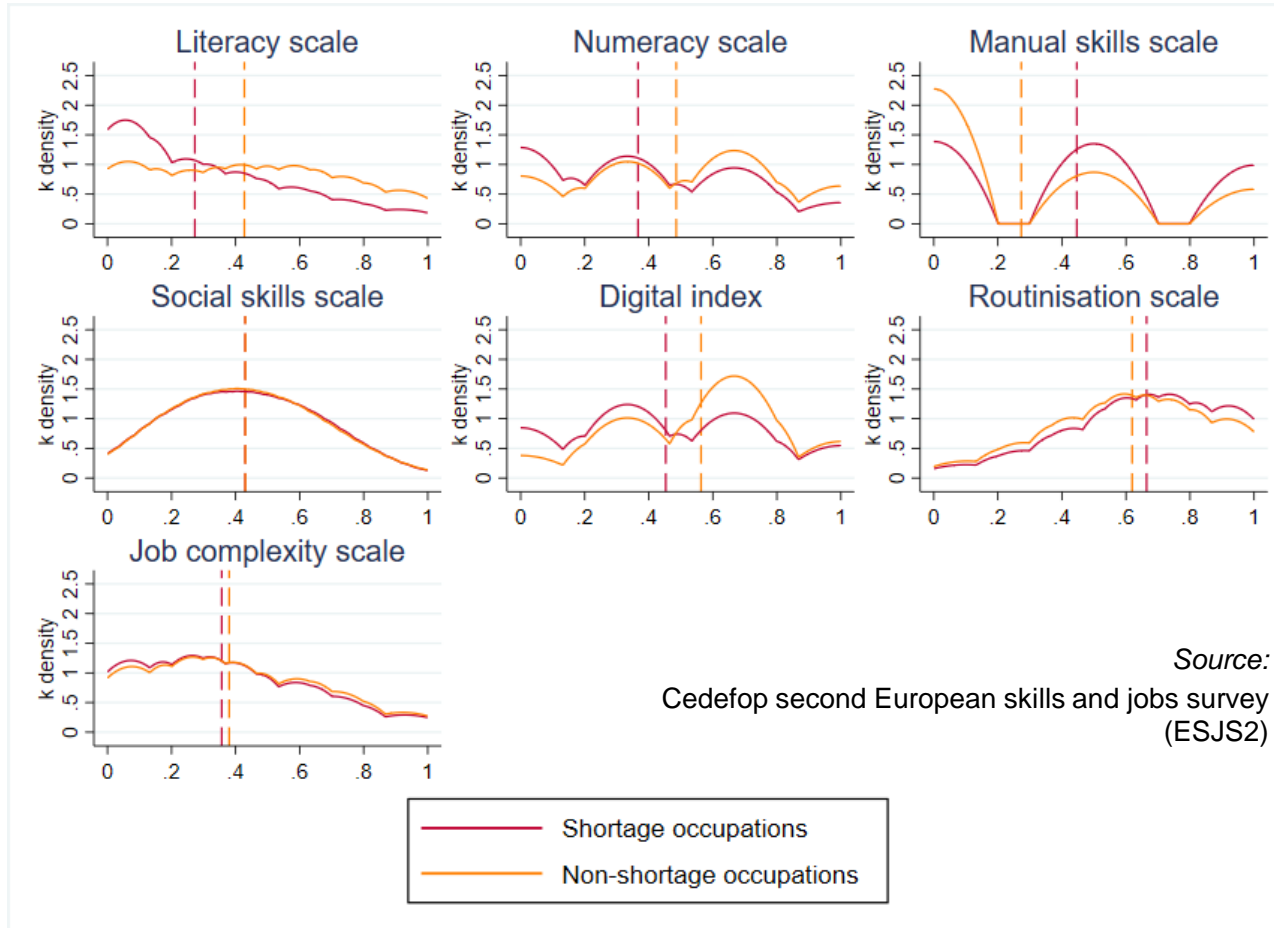
Probability of skill shortage, 2019, EU27+UK

	low	high
Difficulties in retaining employees	-13.7%	+14.2%
Workers in jobs offering continuous training	-1.1%	+1.1%
Workers in jobs in which there is no need to learn new skills	+1.3%	-1.4%
Importance of training for organizational goals (index)	-3.3%	+3.4%

- Note: Estimated percentage change in the likelihood of reporting difficulties in finding employees with the required skills.
- Source: Cedefop-Eurofound 2019 ECS

Source: Cedefop-Eurofound 2019 European Company Survey (ECS)

What are 'shortage' occupations? It's complicated



- Shortage occupations: lower basic and higher physical job-skill requirements.
- But Cedefop analysis shows that (compared to similar jobs):
 - Higher job complexity, i.e., non-cognitive skills of shortage occupations.
 - Different drivers across different occupations:

Attractiveness: females not attracted to manual occupations

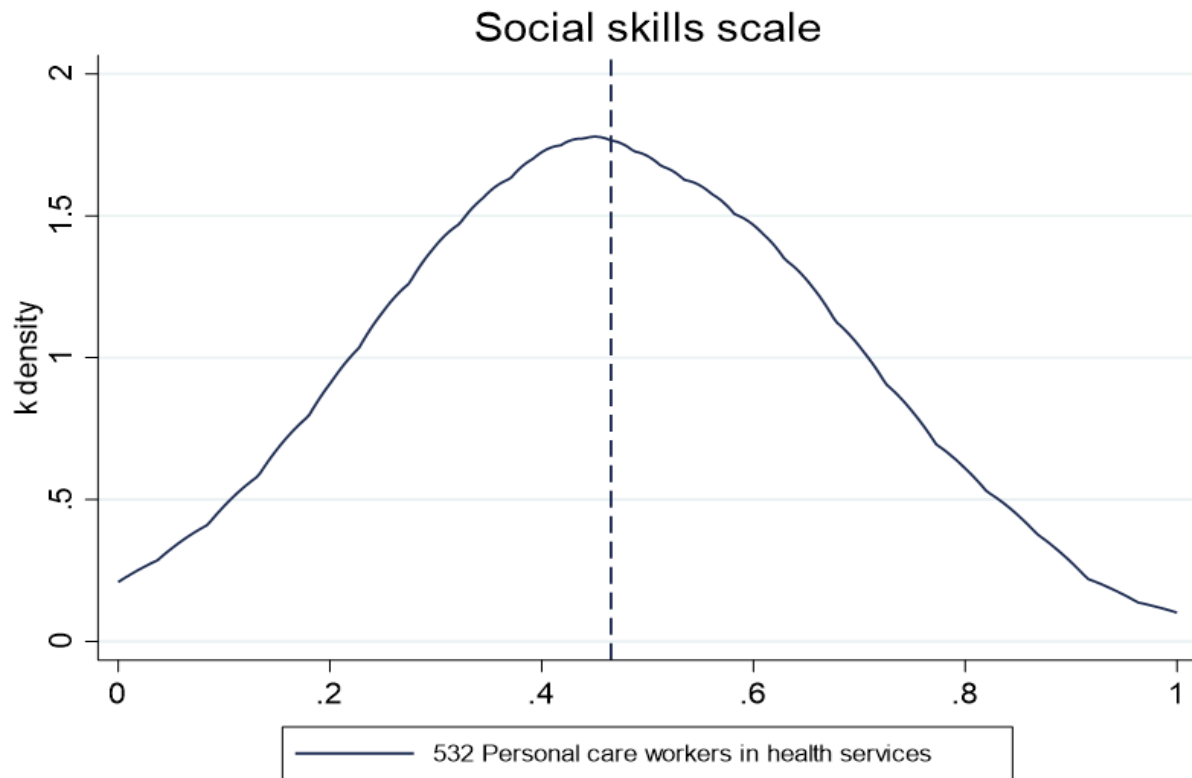
Retention: turnover and retention difficulties pronounced in semi-skilled occupations

Working conditions: some high-skilled (health professionals) and elementary jobs have lower pay and job satisfaction

Digital skills: some shortage (digital) occupations need high digital skills

Mobility: difficult to find some manual workers (e.g. drivers) due to geographical barriers.

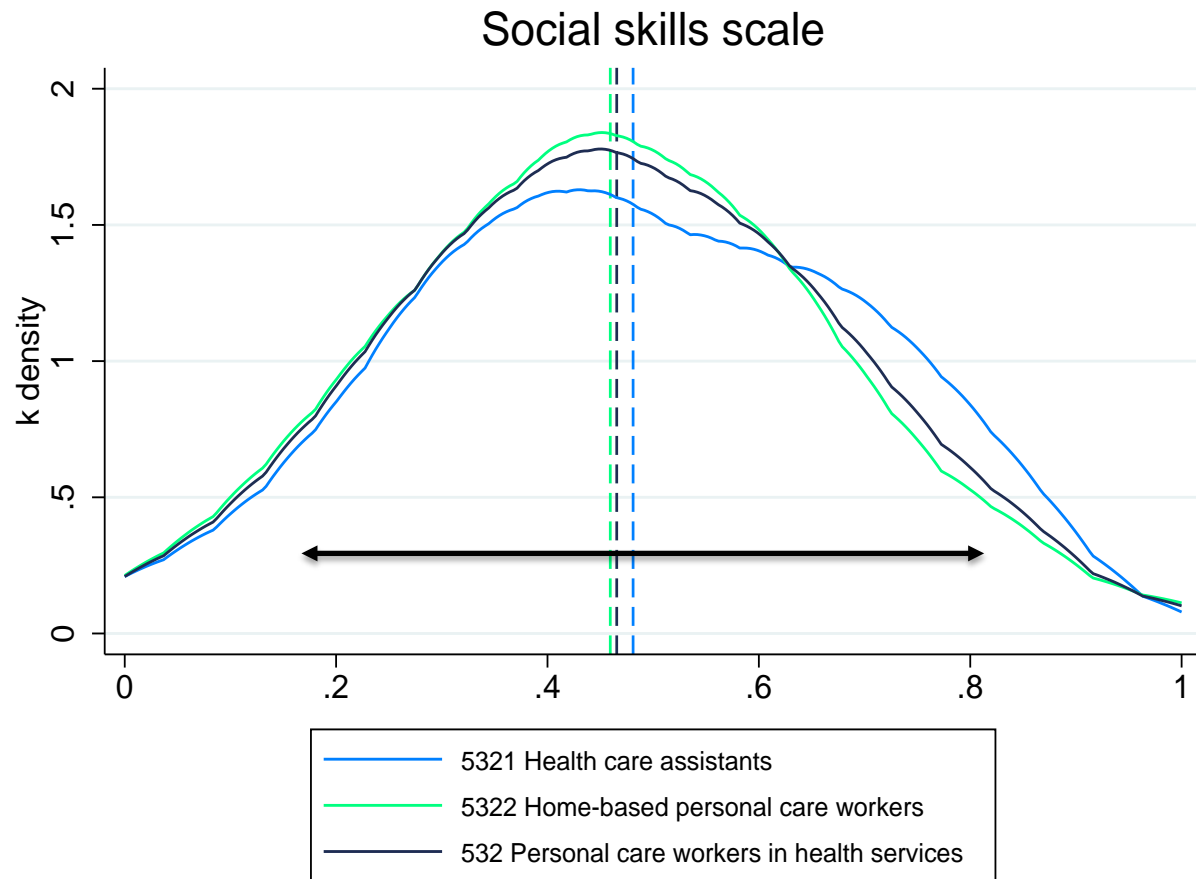
Why do we need **tailor-made skill shortage policy**?



- Care workers in health services: high **(future) shortages** but also **variation** in (core) skill needs.
- Different skill demands reflecting **firms' product market and HR strategy**.
- Different job profiles in shortage occupations need different **policy responses**.

Source: Cedefop second European skills and jobs survey (ESJS2)

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Thank you



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