

Forecasting the demand for workers in VET occupations

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The idea

- ▶ Increase labour market matching
- ▶ For vocational schools to propose new courses of study
- ▶ Supporting local governments in planning vocational education
- ▶ For country and NUTS2 regions
- ▶ Annual
- ▶ Lists of industries and occupations for which we forecast significant or moderate demand for workers

Consequences

- ▶ Differentiating the subsidy for local government units determined for vocational education students
- ▶ The subsidy for one adolescent vocational education student is 10,000 PLN instead of 8,000 PLN
- ▶ Vocational schools may open a new course study without acceptance of the regional labour market council
- ▶ Supports local governments in preparation of annual lists of occupations for which reimbursement may be made for the professional preparation of young employees

Research questions

- ▶ What are the trends in labour demand for VET occupations?
- ▶ Which industries and occupations will be the most demanded in the next 3-5 years?
- ▶ What are the needs of the national economy and regional economies to support sustainable development, taking into account their advantages?
- ▶ Which fields of study should be pursued?
- ▶ Which qualifications and skills development should be supported at national and regional level?

Approach

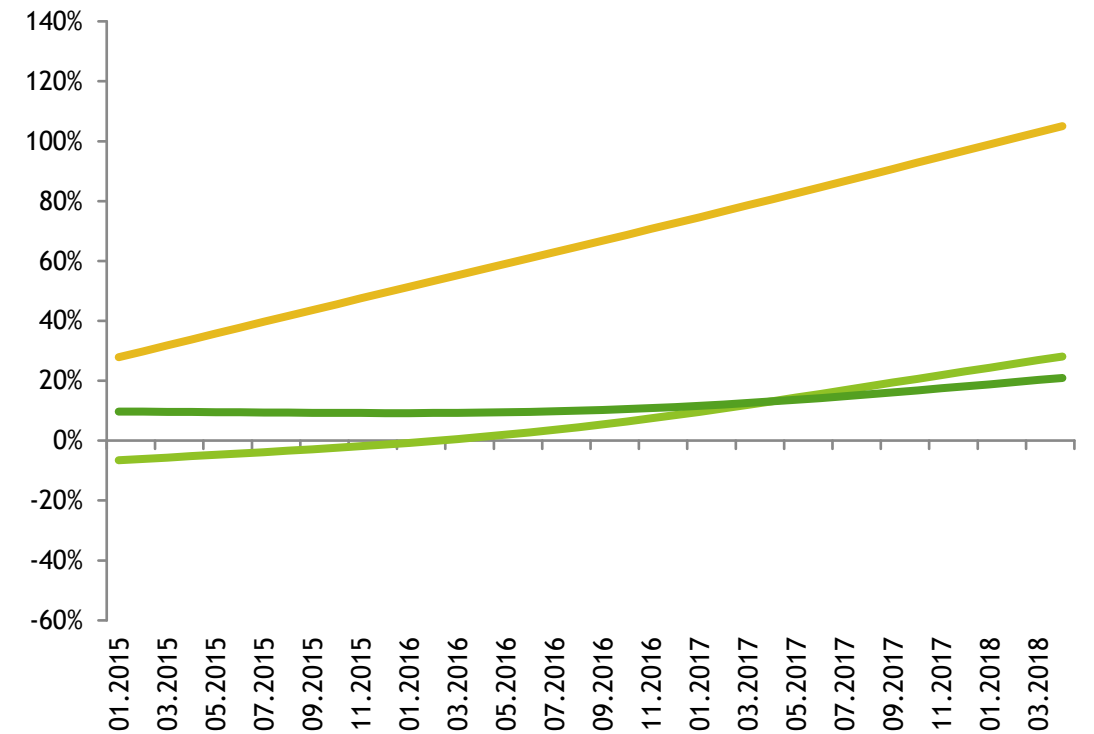


Areas of forecast



Data requirements

- ▶ National and NUTS2 regions
- ▶ 6-digit ESCO occupations
- ▶ Enabling long-run trends analysis
- ▶ Qualifications - changes in occupations
- ▶ Skills - information from the market about new developments
- ▶ Available by October for the previous year



Special data sources

- ▶ Labour market demand for workers by occupation (Statistics Poland Z-15 survey)
- ▶ Own research of online job offers
- ▶ Own Delphi survey
- ▶ Focus groups for special topics (like COVID-19 pandemic)
- ▶ Newest data on vocational education students (from September current year)

Own research of online and admin job offers

- ▶ Data from all employment offices
- ▶ Data from chosen online job boards
- ▶ Inferring job vacancies from online job ads (Beręsewicz and Pater 2020), and estimating population of vacancies solely based on online and admin data (Beręsewicz et al. 2021b)
- ▶ Decreasing selection bias in online data using model-assisted calibration (Beręsewicz et al. 2021a)
- ▶ Decreasing under-response and non-response in JVS data (Beręsewicz et al. 2021b)
- ▶ 6-digit ESCO classification of occupations (Pater et al. 2021)
- ▶ Analysing skills and qualifications classified with ESCO (Pater et al. 2019, 2021)
- ▶ Analysing demand and mismatch for occupations, qualifications, and skills (transversal and job-specific, Pater et al. 2021)
- ▶ Modelling relations with polarization patterns (Arendt et al. 2020a, 2020b)

Own Delphi survey

- ▶ Stakeholders
 - ▶ Sectoral experts (17 sectoral competence councils, other sectors)
 - ▶ Regional experts (16 regional employment offices, 16 regional labour market councils, 16 social dialogue councils)
 - ▶ Ministries
 - ▶ Market experts (for example HR specialists)
- ▶ Rating sectors within NUTS2 regions
- ▶ Two stages (each lasting 10 days)
 - ▶ Stage 1: voting for sectors
 - ▶ Stage 2: voting for occupations (within agreed sectors)
- ▶ Additional information
 - ▶ Emerging occupations
 - ▶ Changes in qualifications

Recommendations

- ▶ Share in demand
 - Baseline criterion
- ▶ Dynamics analysis
 - Long-run trends
- ▶ Importance for economic development
 - National and regional intelligent specializations and policies (occupations supporting economic development)
- ▶ Learning needs
 - For example, in the field of specialized equipment - not only the size of the demand matters!
- ▶ To create an impulse for student candidates and schools
 - How many students are educated in each occupation; where is too little of them?
- ▶ Including occupations, but also qualifications and skills
 - Responding to the needs of companies and the society

Thank you!

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