

Meta-analysis of the European Social Fund counterfactual impact evaluations: Brief update with alternative measures

Highlights

- The European Social Fund (ESF) has effectively improved the employment rates of individuals participating in its programmes.
- The overall programme effect on employment probability from all ESF counterfactual impact evaluation (CIE) interventions covering the 2007–2013 and 2014–2020 programming periods published until November 2023 is 7.7 percentage points (pp).
- Using a balancing approach that selects only the most representative impacts from each evaluation, the balanced overall programme effect is 6.5 pp.
- Focusing only on the 2014–2020 programming period, the average effect is 7.9 pp, while the balanced average effect is 5.9 pp.
- There are notable differences between different intervention types: the (balanced) effects are highest for employment subsidy programmes (17.0 pp), while the lowest effects are obtained for public employment programmes (–7.4 pp).

Background

As one of the European Structural and Investment Funds, the ESF aims to enhance employment and social cohesion in the EU. To assess the impacts of its diverse programmes on participating individuals, CIEs have been implemented by managing authorities and researchers across the EU. CIEs use statistical techniques to examine the causal effects of an intervention. CIE methods generally compare two groups: a ‘treatment’ group of individuals who participate in the intervention and a suitable ‘comparison’ group of individuals not affected by the intervention who serve as counterfactuals. The programme effects of each ESF intervention can then be inferred as the difference in outcomes between these two groups. A recent publication commissioned by the European Commission has collected all CIE

estimates published in reports on the ESF and developed a methodology to conduct the first meta-analysis summarising the average impact of all ESF interventions (Pompili et al., 2022). This policy brief provides an update on the numbers in the previous study by covering all 110 CIE studies included in the metadatabase until November 2023 and also provides an alternative calculation method for average impacts.

European Social Fund policy impact measurements

Average impact versus balanced average impact

To ensure comparability between the different CIE evaluations of the ESF, the studies included in the meta-analysis focus on the most commonly analysed outcome: employment rates. This is the share of

people in an employment relationship within a specific group at a specific point in time. The ESF policy impact of each intervention is thus measured as the difference in the employment probability between programme participants and a suitable control group some time after the end of the intervention. To measure the average impact of all ESF CIE interventions on the employment probability, an average effect is calculated using all estimates presented in the published CIE studies that analyse the effectiveness of ESF interventions. These estimates can refer to the effect of the whole intervention or to the effect on subgroups by age and gender. The inclusion of estimates from these analyses by subgroups increases the overall sample of estimates that can be utilised, but also leads to a variation in the number of estimates included from each intervention depending on the number of subgroup results presented in each report.

This policy brief first presents updated numbers based on the methodology in Pompili et al. (2022) by adding more recent studies published between January 2022 and November 2023. Moreover, to address the issue of variation in the number of estimates provided in each report, it also implements a selection procedure that gives a more balanced weight to each intervention irrespective of the number of estimates provided in the respective study.

To calculate a balanced overall average impact of the ESF interventions on the employment probability of individuals, the following sequence of selection rules was implemented to identify one or several key estimates from each of the 171 interventions.

1. If an intervention provided only one estimate, this estimate was selected (41 interventions).
2. If an intervention provided several estimates, the estimates for participants of all ages that also covered both genders were selected (68 interventions).
3. If the above rule did not apply, the estimates with the largest sample size were selected (62 interventions).
4. If there were still several estimates from an intervention after applying the above rules, these estimates were given an equal weight so that their combined weight in the calculation of the overall average value was equal to 1.

Average European Social Fund impacts

Average impact in complete sample

The overall programme effect on the employment probability using the methodology adopted by Pompili

et al. (2022) and extending the sample to all studies included in the database until November 2023 is 7.7 pp. The employment rates of ESF programme participants are therefore substantially higher than those of comparable non-participants, which confirms the effectiveness of ESF measures.

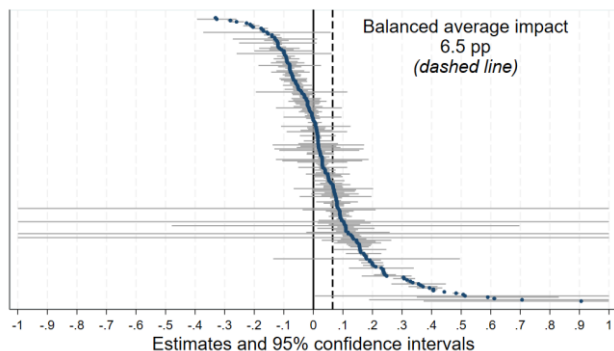
As in the previously published meta-analysis by Pompili et al. (2022), we also calculate impacts for six intervention types. In the current version of the database on employment rate outcomes, about one in four coefficients is on each of the four major intervention types: vocational training, other training, employment subsidies / financial aid and internships/traineeships. About one in five coefficients is from an intervention including mentoring / social support, while only about one in 15 is from a public employment programme. It should be noted that these types are not mutually exclusive. For example, a vocational training programme may additionally provide social support and mentoring to participants, and the impact estimated for this specific programme is then included in the calculation of the average impact of vocational training programmes as well as in the calculation of social support programme impacts.

The average effects on employment probability obtained for the six main intervention types are 5.7 pp for vocational training, 5.4 pp for other training, 3.3 pp for mentoring / social support, 14 pp for employment subsidies / financial aid, 9.3 pp for internships/traineeships and -1.7 pp for public employment.

Balanced average impact in complete sample

The balanced overall programme effect on employment probability using the updated database and implementing the balancing methodology as outlined above is 6.5 pp (see Figure 1). Since this number is lower than the unbalanced average effect presented above, this implies that the reports providing more estimates in the current database have generally also been the ones providing larger effect sizes.

Figure 1 – Forest plot of balanced programme effects on employment probability



Source: JRC calculations. Displayed are estimates (blue dots) and their 95% confidence intervals (horizontal grey lines). The dashed vertical line indicates the average impact.

The balanced average effects for the intervention types are 4.7 pp for vocational training, 5.1 pp for other training, 2.9 pp for mentoring / social support, 17.0 pp for employment subsidies / financial aid, 6.2 pp for internships/traineeships and -7.4 pp for public employment (see Figure 2).

Average European Social Fund impacts in the 2014–2020 programming period

Average impact

Dividing the metadatabase into the two concluded programming periods 2007–2013 and 2014–2020 provides further insights into a possible variation of programme effects over time ⁽¹⁾. The overall programme effect on employment probability using the previously adopted methodology, extending the sample to all studies included in the database until November 2023 and then restricting the study sample to all reports focusing on the 2014–2020 programming period, is 7.9 pp.

Focusing on the different intervention types and restricting the sample to the interventions covering the 2014–2020 programming period, the following effect sizes are obtained: 6.9 pp for vocational training, 5.7 pp for other training, 3.8 pp for mentoring / social support, 11.9 pp for employment subsidies / financial aid, 9.5 pp for internships/traineeships and 0.1 pp for public employment.

Balanced average impact

The overall programme effect on employment probability when restricting the sample to the studies focusing on the 2014–2020 programming period and

implementing the balancing methodology as outlined above is 5.9 pp.

Restricting the sample to the interventions covering the 2014–2020 programming period and implementing the balancing methodology gives the following average effect size for each intervention type: 5.2 pp for vocational training, 4.9 pp for other training, 2.2 pp for mentoring / social support, 15.1 pp for employment subsidies / financial aid, 6.7 pp for internships/traineeships and -10.2 pp for public employment.

Concluding remarks

CIEs of the ESF have confirmed its effectiveness in improving the employment outcomes of the individuals participating in the diverse programmes. The average size of the impact of ESF programmes on employment probability at the meta level depends on the methodology adopted for the calculation of average impacts. The different methods presented in this policy brief show that the overall average effect on the employment probability of participating individuals falls into the range of 6.5–7.7 pp. For the 2014–2020 programming period, the range provided by the two calculation methods is 5.9–7.9 pp. Independent of the calculation method, there are notable differences between the programme types, with the highest impacts found for employment subsidy and financial aid programmes and the lowest (and, on average, negative) effect found for public employment programmes.

Related work

This policy brief has been prepared by the Centre for Research on Impact Evaluation (CRIE). CRIE is part of the [Competence Centre on Microeconomic Evaluation \(CC-ME\)](#) and provides scientific expertise and methodological support on Counterfactual Impact Evaluation (CIE) to the Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL) and Member States for the impact evaluations of interventions funded through instruments managed by DG EMPL, namely the European Social Fund (ESF).

More information can be found online: (<https://microeconomicvaluation.jrc.ec.europa.eu/crie>)

⁽¹⁾ While the 2014–2020 programming period has concluded, additional reports analysing the effects of its interventions may be published in the future.

Reference

Pompili, M., Kluge, J., Jessen, J., Seebauer, J., Gallassi, G. and Peruccacci, E. (2022), *Meta-analysis of the ESF counterfactual impact evaluations (VT/2020/052)*, Publications Office of the European Union, Luxembourg (<https://ec.europa.eu/social/main.jsp?catId=738&pubId=8512>).

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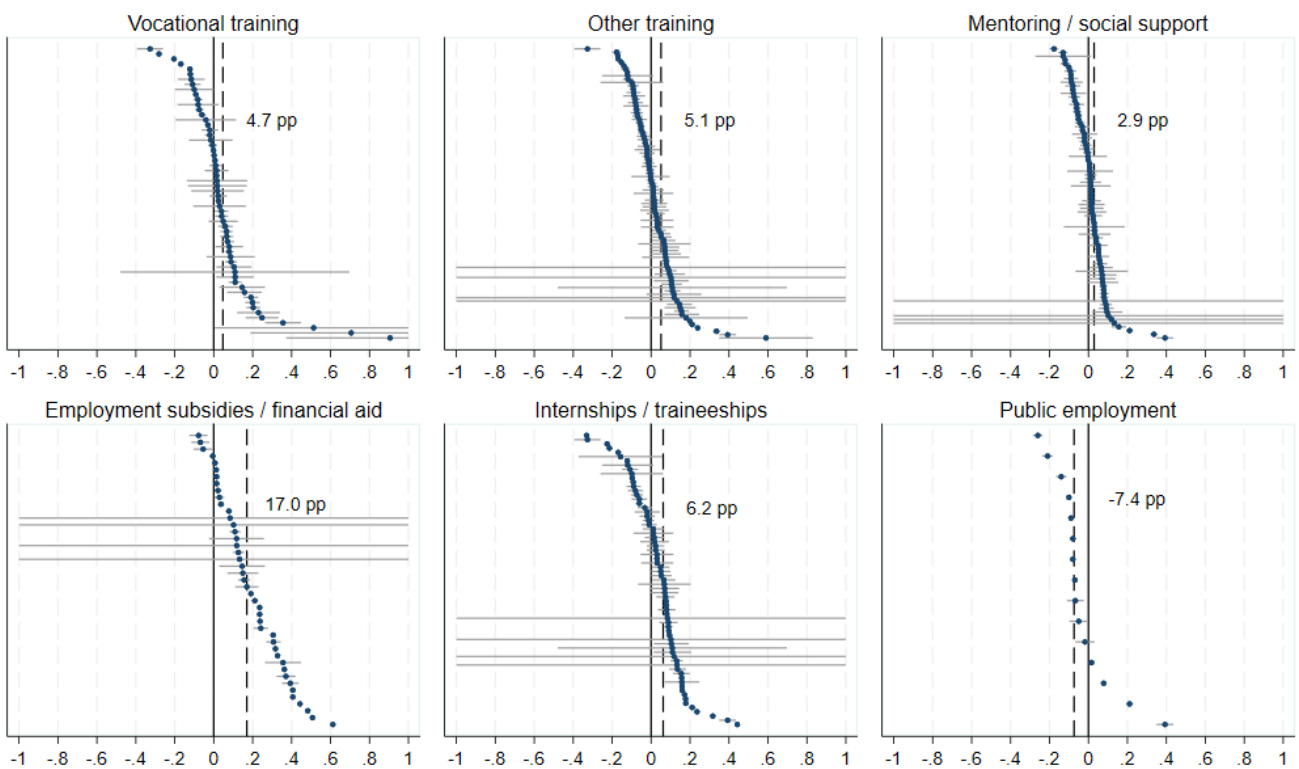
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Figure 2 – Forest plot of balanced programme effects on employment probability by intervention type



Source: JRC calculations. Displayed are estimates (blue dots) and their 95% confidence intervals (horizontal grey lines). The dashed vertical line indicates the average effect size in each intervention subsample.

Quick guide

The data used in the policy brief are the estimates provided in counterfactual impact evaluation (CIE) reports on European Social Fund (ESF) interventions carried out in the 27 EU Member States and the United Kingdom during the 2007–2013 and 2014–2020 programming periods that have been published up to November 2023. The list of the reports can be retrieved from the [Cohesion Open Data platform](#). The CIEs in these reports provide estimates of the effects of the various ESF policy interventions. The estimates, analysing either the complete evaluation sample or subgroups defined by age and gender, and relevant background information have been compiled in a metadatabase (see Pompili et al., 2022). The most recent published version of this metadatabase includes 94 publications with CIEs on employment outcomes up to January 2022. The current version of the database employed for this policy brief includes an additional 16 studies on employment outcomes published between February 2022 and November 2023 and serves to provide a brief interim update on the results derived from the database prior to an extensive future publication. The 89 studies providing estimates on the outcome employment probability utilised in this policy brief are from the following Member States (plus the United Kingdom): Austria (1), Belgium (1), Bulgaria (2), Croatia (3), France (4), Germany (9), Hungary (2), Ireland (6), Italy (26), Latvia (4), Luxemburg (1), Poland (4), Portugal (5), Romania (2), Slovakia (3), Slovenia (1), Spain (7), Sweden (1) and the United Kingdom (7).

Contact information

JRC-CRIE@ec.europa.eu



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Joint-research-centre.ec.europa.eu