

# What is (not) working well in European Social Fund (ESF) counterfactual impact evaluations (CIEs) and why?

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# European Social Fund (ESF)

- Objective: enhancing employment and social cohesion in the EU
- Current programming period (2021-2027): ESF+
  - Previously separated funds/programmes have been integrated into ESF
    - EU Fund for European Aid to the Most Deprived (FEAD)
    - EU Programme for Employment and Social Innovation (EaSI)
    - Youth Employment Initiative (YEI)
- Topics: (youth) unemployment, social inclusion, inequality, poverty
- Shared management approach

# Centre for Research on Impact Evaluation (CRIE)



- Joint initiative of
  - Directorate General for Employment, Social Affairs and Inclusion (**DG EMPL**)
  - Joint Research Centre (**JRC**)
- Established in June 2013
- Support to Member States (MS) and DG EMPL in preparation and implementation of **Counterfactual Impact Evaluations (CIE)** of **European Social Fund (ESF)** interventions

# CRIE services (selection, sources used today)



- **Quality Assurance Support (QAS)**
  - Helping MAs with scientific issues at any stage of the evaluation process
- **Community of Practice (CoP)**
  - Annual event since 2016 (2016 Ispra, ... , 2024 Sofia)
- **Joint evaluations with Member States (Evaluation Ready)**
  - 2024: Latvia (PES career guidance counselling for unemployed and other target groups), Cyprus (school and social inclusion actions, DRASE)
  - 2025: results on 2024 evaluations, new calls for applications
- **Meta-analysis of ESF CIE evaluations**
  - Analyzing CIE reports to draw *overall* conclusions about impact of ESF
    - Labour (published): 191 candidate studies, 111 included
    - Education (ongoing): 27 candidate studies

# Counterfactual Impact Evaluation

- Main goal is to **measure the causal effect** of a policy on an outcome of interest.
  - *Counterfactual:*  
*what would have happened to the person if (s)he had not participated in the policy?*
    - Cannot be observed in practice (only *one* outcome observed per person)
    - Solution: use other (similar) persons as comparison (control)
    - Issue: Selection into treatment. Treated are not *generally* comparable to all non-treated
- **Gold standard: randomized experiments.** In practice complicated:
  - Complex organization (pre-intervention)
  - Higher costs
  - Ethical & legal issues (remedies: phase-in, within-group randomization, encouragement design)
- Few (no) randomized controlled trials (RCTs) conducted to evaluate ESF

# CIE: quasi-experimental methods (I)

- We should ask ourselves:

*How can we use our data to reconstruct an experiment that did not take place?*

- Reconstructing an “**experiment**” with a treatment assignment that is as good as random.
  - Finding treated and control groups with comparable counterfactual outcomes
  - Credibly eliminate the sample selection bias.

# CIE: quasi-experimental methods (II)

- In the face of **non-random treatment** allocation we use quasi-experimental methods to find units whose **outcomes** can be suitable **counterfactuals** for the outcomes of the policy participants.
- How? Depends on the **assignment mechanism** of units into treatment.
- Key methods:
  - **Matching** (PSM, find counterfactual using numerous characteristics) (94% of ESF CIEs)
  - Difference-in-differences (exploiting longitudinal info) (10% of ESF CIEs)
  - Regression Discontinuity Design (RDD, selection rule)
  - Instrumental variable (IV, variable measuring treatment but not correlated with outcome)

# ESF CIEs: inhibiting factors

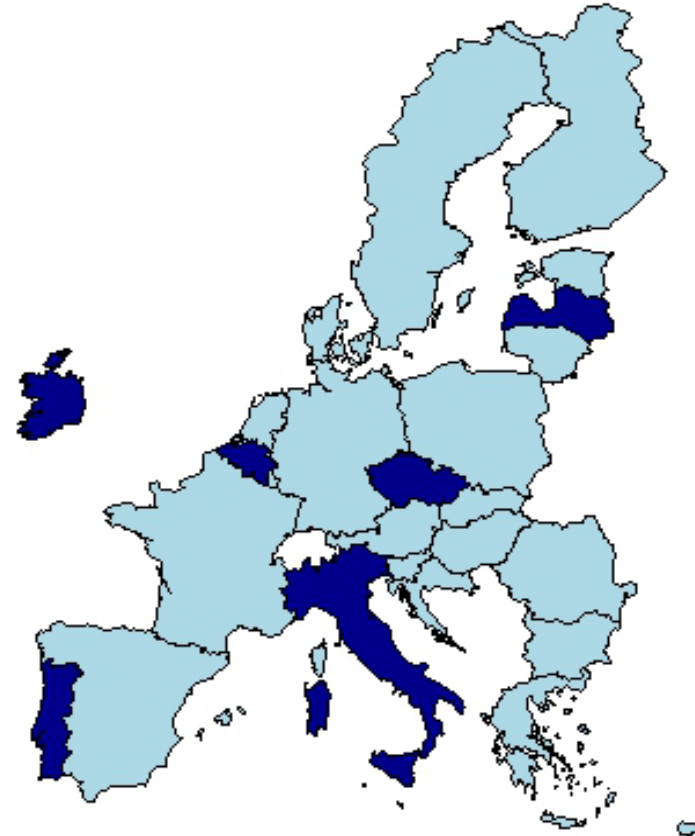


- Integration of policy design & evaluation
  - Evaluations conducted at the end of policy (no forward thinking about data/methods)
- Data availability
  - Coordination between implementing body & data holders, data linkage from different sources
  - Legal aspects (data protection)
  - Obtaining data on control group can be more complicated
- Scientific CIE expertise
  - Local technical expertise may be limited
  - Difficulties may increase as ESF topics widen (social inclusion, poverty, education, etc.)



# Past CRIE counterfactual impact evaluations

- [WELL \(Work Experience for Graduates\) programme](#) , Umbria , **Italy**
- [Vocational training programme implemented in Latvia under the Youth Guarantee](#), **Latvia**
- ["Work experience for Young Persons"](#)  
Flanders, **Belgium**
- ["JobsPlus"](#) programme, **Ireland**
- [Youth Employment Initiative \(YEI\)](#) , **Portugal**
- [Higher education grant system for less privileged students](#), **Portugal**
- [Support to Schools in Form of Simplified Reporting Projects -Templates for Nursery Schools and Primary Schools](#) **Czech Republic**



# Evaluation projects with Member States **Ireland**

## **JobsPlus Scheme**

- **Type:** Wage subsidy to employers (between 7.500 and 10.000 euros)
- **Objective:** to encourage employers and businesses to focus their recruitment efforts on those who have been out of work for long periods
- **Eligibility:** long-term unemployed jobseekers (12 of the previous 18 months, or 24 of the previous 30 months)
- **Duration:** 2 years
- **Financing source:** ESF & National budget
- **Participants:** >15,000 positions filled by long-term unemployed through scheme since mid-2013
- **Data:** linkage of (i) Department of Employment Affairs and Social Protection records, (ii) Earnings from the Revenue Commissioners, and (iii) Intervention data

# Evaluation projects with Member States **Ireland**

## **JobsPlus Scheme**

### **Methods:**

- **Matching** people who benefit from JobsPlus with a control group of people (i.e. people with similar characteristics) who did not benefit from the subsidy.
- Matching finds “statistical twins” of people (based on large sets of characteristics) who are not affected by the programme and use them as a counterfactual

### **Results:**

- Positive impact of 11.1 and 16.4 pp, equivalent to a **57% reduction in the likelihood of unemployment**
- 3 years after starting JobPlus, participants **work on average 14 weeks more** than the “matched” control group

# Evaluation projects with Member States **Portugal**

## **Higher education grant system for less privileged students**

- **Type:** Higher education scholarship for the less privileged students
- **Objective:** Favor **access to higher education** and increases **attendance success** for students with low income.
- **Eligibility:** The student's household does not have an adequate minimum level of financial resources (less than €7,000 per person)
- **Duration:** 2011-2018
- **Financing source:** ESF & National budget
- **Participants:** Since 2011 the grant supported around 70,000 students every year
- **Data:** linkage of (i) information on applicants and family characteristics from Directorate-General of Higher Education in Portugal (**DGES**) and (ii) Information of academic career from Directorate-General for Statistics on Education and Science (**DGEEC**).

# Evaluation projects with Member States **Portugal**

## **Higher education grant system for less privileged students**

### **Methods:**

- **Regression Discontinuity Design** comparing students who qualified to receive the scholarship by very little (a bit less than 7,000 euros) vs those who qualified by very little (a bit more than € 7,000 euros)
- Regression Discontinuity Design assumes that individuals very close to the eligibility threshold (around € 7,000) are very similar and comparable.

### **Results:**

- Higher enrolment rates (1.7 pp)
- Similar graduation rates but higher graduation on-time rates (5.6 pp)

# Evaluation projects with Member States **Latvia**

## Youth Guarantee Vocational Training Programme

- **Type:** vocational training to promote sustainable and quality employment
- **Objective:** increasing competitiveness of unemployed youth and promoting employability
- **Eligibility:** young people not in employment, education or training (NEETs) aged 15-29, priority to 15-25
- **Duration:** 2014-2020
- **Financing source:** ESF & Youth Employment Initiative (YEI) & State Budget
- **Participants:** 1,890 young unemployed registered within 2014
- **Data:** administrative data sources on intervention participation (State Employment Agency), employment status and income (State Revenue Service)

# Evaluation projects with Member States **Latvia**

## Youth Guarantee Vocational Training Programme

### Methods:

- **Regression Discontinuity Design** comparing students who are a bit younger than 25, with those who are a bit older than 25.
- Regression Discontinuity Design exploits that the intervention gave priority to unemployed youth younger than 25.

### Results:

- Estimated effects of the programme on employment and monthly income between 1 to 3 years after the completion of the training are positive but **not statistically significant**
- **Positive and statistically significant results by specific sub-groups** of participants in terms of finding a job: young males with more than secondary education and resident in urban areas (not rural area)

# Main take-aways

- EU consists of many countries and regions implementing different policies. This can be seen as a **big lab** (a large-scale **natural experiment**) where we can learn from each other.
- Counterfactual Impact Evaluation (CIEs) can help us identify **what works** (e.g. Job Plus programme ) but also what **does not work** (e.g. vocational training programme on the lower educated)
- Exchange platforms like **CRIE** can help **disseminate and exchange best evaluation practices and policies** that work the best.
- Overall question: Which employment ESF-funded policies are most effective?




# Meta-analysis: overview

- Examination of data from a number of independent studies on the same subject (ESF) in order to determine overall trends
- Active Labour Market Policy (ALMP) meta-analyses:
  - Card, Kluve, Weber (2010): global meta analysis of ALMP programmes (only sign/sign.)
  - Kluve (2010): subset of European ALMP studies (only sign/sign.)
  - Kluve et al. (2021): meta analysis of ESF/YEI (ALMP) CIEs (sign/sign. & coefficients)
- Current ESF labour meta-analysis results (constantly updated):
  - 1688 coefficients from 111 studies from 23 member states
  - Overall impact: 56% positive significant, 23% insignificant, 21% negative significant
  - Average effect on employment probability: 7.7 pp
- Current ESF education meta-analysis results (preliminary):
  - 137 coefficients from 8 studies from 5 member states
  - Comparability of outcomes/coefficients key issue

Reports in labour database	
Austria	2
Belgium	1
Bulgaria	3
Croatia	3
Cyprus	0
Czech Republic	1
Denmark	0
Estonia	1
Finland	1
France	5
Germany	9
Greece	0
Hungary	3
Ireland	7
Italy	29
Latvia	6
Lithuania	2
Luxembourg	1
Malta	0
Netherlands	0
Poland	5
Portugal	7
Romania	3
Slovakia	3
Slovenia	1
Spain	8
Sweden	2
United Kingdom	8
<b>Total</b>	<b>111</b>

# Main data source for meta-analysis reports: Info Regio website



The screenshot shows the top navigation bar of the InfoRegio website. It includes the European Commission logo, a language selector set to 'EN English', a 'Translate' button, and a search bar with the placeholder text 'Search the InfoRegio website' and a 'Search' button. Below the navigation bar is a breadcrumb trail: 'EU regional and urban development' > 'Home' > 'Policy' > '2021-2027' > 'Funding' > 'What's new' > 'In your country' > 'Projects' > 'Information sources'. The main heading is 'Evaluations by the Member States'. There are three filter sections: 'Keywords' with a text input field, 'Country' with a dropdown menu showing '--- All Countries ---', and 'Method' with a dropdown menu. A descriptive paragraph states: 'This library contains the evaluations carried out by Member States in the 2014-2020 period and the evaluations assessing the impact of investments from the 2007-2013 period, published since 2015. The underlying dataset is available on the Cohesion Open Data platform.'

European Commission

EN  
English

Translate

Search the InfoRegio website

Search

EU regional and urban development

Home | Policy | 2021-2027 | Funding | What's new | In your country | Projects | Information sources

Regional Policy > Policy > Evaluations > Evaluations by the Member States

## Evaluations by the Member States

Keywords \*

Country \*

Method

This library contains the evaluations carried out by Member States in the 2014-2020 period and the evaluations assessing the impact of investments from the 2007-2013 period, published since 2015. The underlying dataset is available on the Cohesion Open Data platform.

[https://ec.europa.eu/regional\\_policy/policy/evaluations/member-states\\_en](https://ec.europa.eu/regional_policy/policy/evaluations/member-states_en)

# Meta-analysis: (minimum!) inclusion criteria

1. Individual level data (firms/persons, not e.g. regional data)
2. Clearly distinguishable treatment & control group
  - e.g. not only a survey of participants
3. Application of some (quasi-)experimental method to account for potential selection bias and time trend
  - e.g. not only comparison of participants vs. (any) non-participants
4. Quantitative and objective outcome to measure programme effectiveness (thus comparable across studies)
  - e.g. not a survey asking teachers or school principals to evaluate (subjectively)
5. Clear and transparent indication of the direction of the effect



SCIENCE FOR POLICY BRIEF

## 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).

# Examples: min (UKE10) vs. max (ITE449)

5.108 The analysis revealed that assisted firms increased their number of employees by 9 per cent more than unassisted firms but this difference is not statistically significant. There were no significant differences in respect of changes in profit-per-employee or assets-per-employee.

Tabella 6.5 - Effetto percentuale per livello e materia sul punteggio medio normalizzato (scuole partecipanti al DAS vs scuole non partecipanti al DAS)

	II Primaria		V Primaria		III Media Inf.		II Media Sup.	
	Italiano	Matematica	Italiano	Matematica	Italiano	Matematica	Italiano	Matematica
2010-2011	6.9***	7.1***	6.7***	7***	5.5**	5.9**		
2011-2012	7.1***	7.1***	6.8***	7.2***	5.6**	6**	5.2*	5.5*
2012-2013	7.5**	8**	7.1**	7.5**	6***	6.5**	5.6**	5.6**
2013-2014	8*	8.2*	7.5*	7.8*	6.5**	6.8**	6.2**	5.9**

- What would be a “nice” standard amount of results in each report?

# Checklist/template for CIE reports

(details *that may be missing in some reports*)

## 1. Reporting of coefficients

- Coefficients reported, but no standard errors/no (in-)significance reported
- Insignificant coefficients not reported

## 2. Few analyses by (meaningful) subpopulations

- Basic subgroups: gender and age groups
- Possible additions: educational attainment, anything relevant to local programme context (e.g. migrants, minorities, etc.)

## 3. Standardization of outcomes

- Employment (Y/N) if possible (alternatives: days in employment, etc.)
- Outcomes measured but effect horizon not mentioned (or atypical)
- Objective measures preferable to subjective measures

## 4. Too many numbers presented

- Many different treatment measurements, unclear what are key results

## 5. Measuring intensity of treatment (e.g. hours in addition to overall number of months participating)

## 6. Cost-benefit analyses rarely conducted

- Few additional steps after policy impact has been estimated
- How many people did we bring into employment spending how much money?

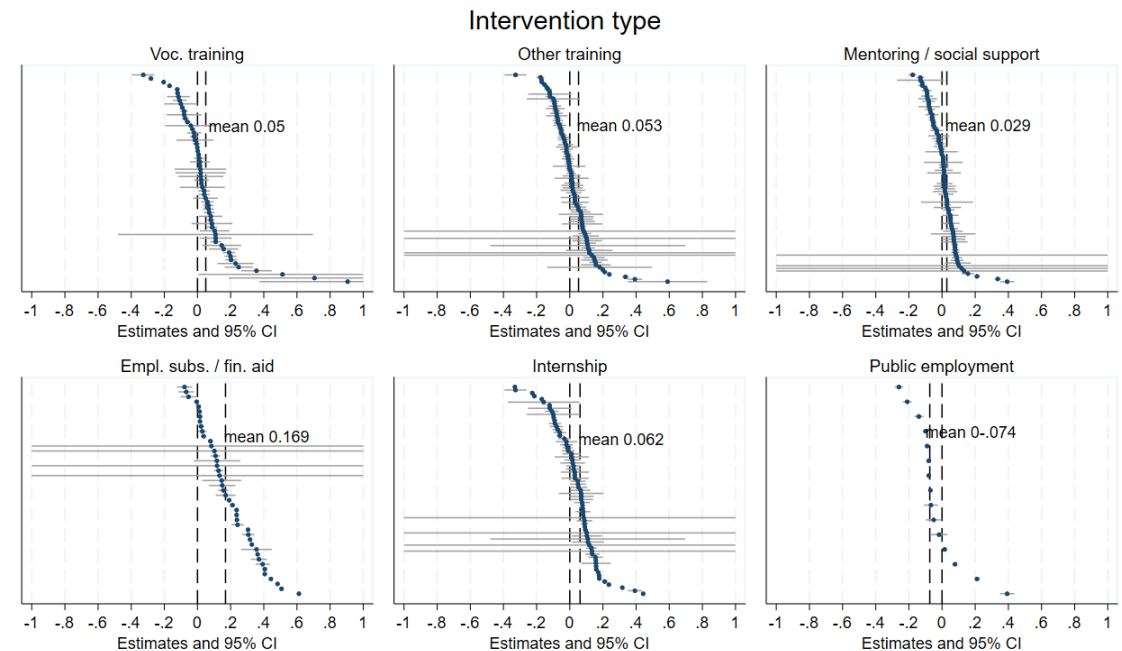
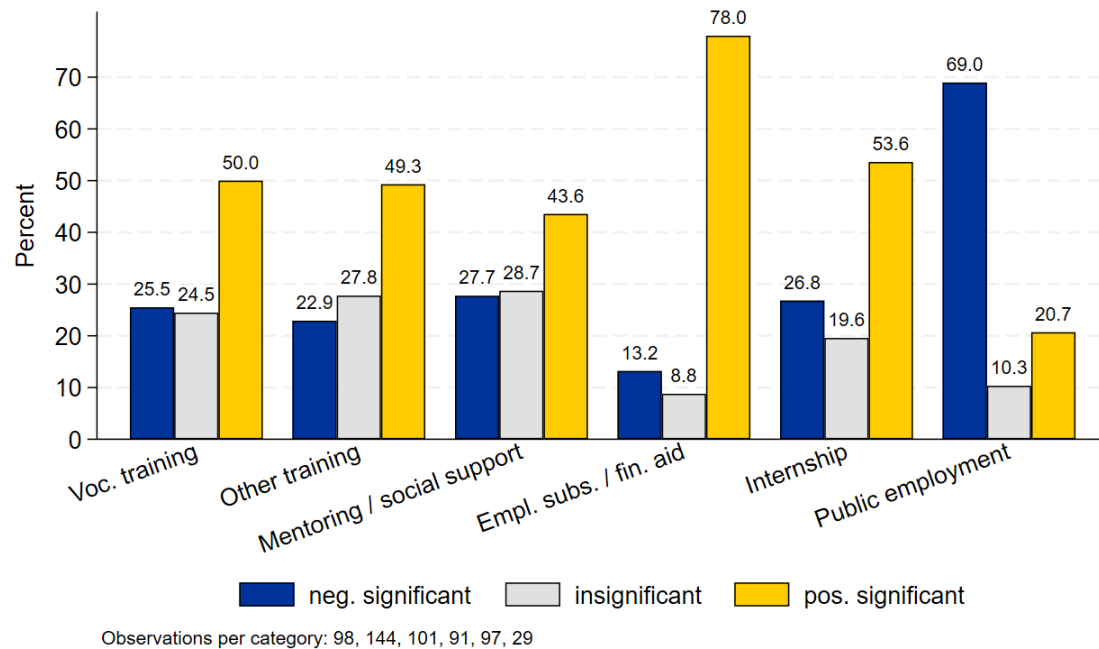
- $$\frac{\text{costs of the intervention}}{\text{additional people in work}}$$

- Key issue: costs difficult to measure at specific intervention level
- CBA example ITE435:

**Tabella 5. Indicazioni di costo-efficacia. Il costo in euro di un posto di lavoro aggiuntivo (esistente a 18 mesi dal termine della formazione) favorito dalla formazione professionale. Persone qualificate nel 2019.**

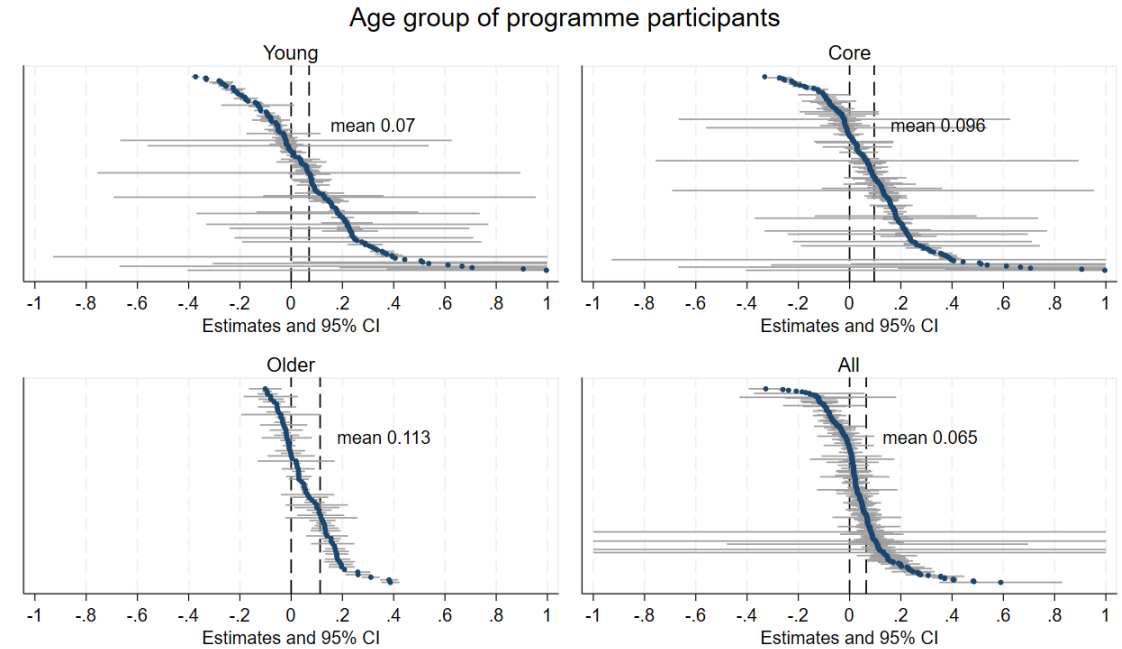
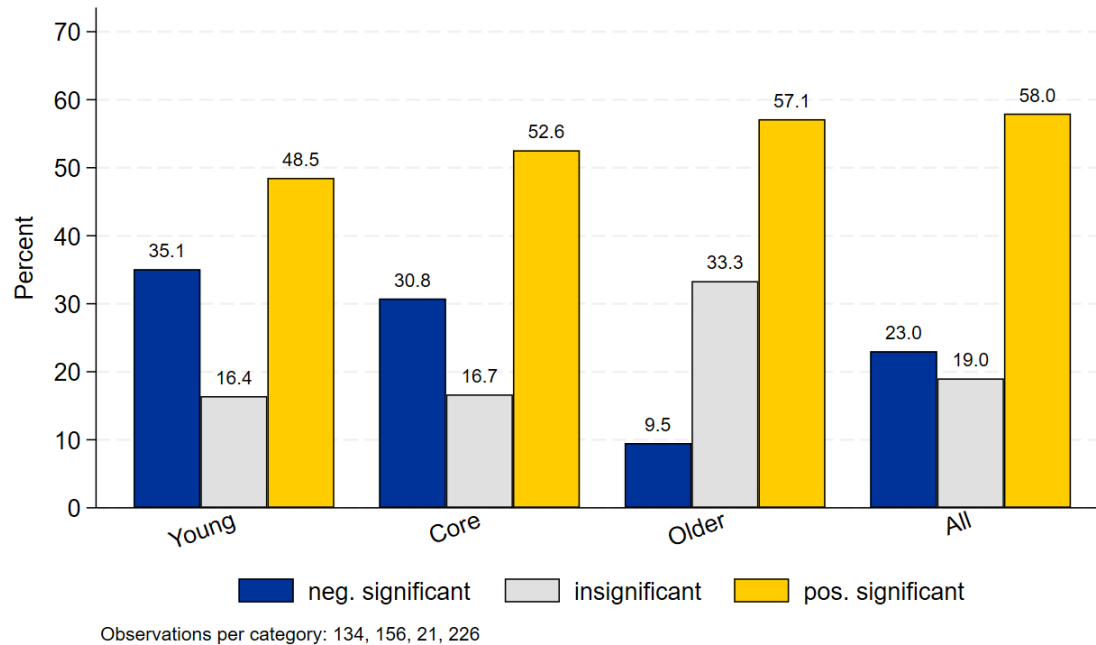
Numero di persone	Tasso di occupazione (trattati)	Numero di persone occupate (trattati)	Tasso di occupazione (controllo)	Numero di persone occupate (controllo)	Occupazione aggiuntiva	Costo complessivo	Il costo di un posto di lavoro aggiuntivo (costo-efficacia)
1.535	45,3%	695	38,2%	586	109	8.544.200	78.398

# Labour meta-analysis: key results (I)



- Interventions providing employment subsidies generally provide most positive/impactful results (16.9 pp)
- Public employment programmes least positive/impactful (-7.4 pp)

# Labour meta-analysis: key results (II)



- In addition to these results by intervention type & participant age, further results by intervention *duration*, *gender*, *effect horizon*:

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>).



# Education meta-analysis: template (work-in-progress)

Gain understanding of how ESF+ education interventions work in terms of:

- *Target groups*: students, teachers, parents, etc.
- *Intervention types*: subject training, mentoring, financial aid, etc.
- *Outcomes*: local language, mathematics, passing of exams, etc.
- *School levels*: primary, secondary, tertiary, etc.
- *Intervention duration*: school year vs. shorter/longer
- *Outcome horizon*: <1 year, 1 year, >1 year

# ESF CIE issues: summary

- *Before* implementation of evaluation
  - Integration of intervention design & evaluation, data, scientific expertise
- *During* evaluation: methods
  - No RCTs, many methodologically similar studies using matching (PSM) on ALMP (labour) topics
- *After evaluation*, i.e. publication of findings
  - Wide variety of elements included (or not) in reports
    - Significance tests, atypical outcomes (limited comparability), limited analyses by subpopulations, few cost-benefit analyses etc.

# Way forward

- Improve **technical capacity** of MS for counterfactual impact evaluation
  - CRIE offers capacity building and technical support to Member states
- Facilitate access to **administrative data**
  - Increasing number of countries offer access to anonymized admin data for the research and evaluation community
- Insights **feed into design and implementation of future** evaluations
  - Design/implementation may include some level of randomization (e.g. via pilot-projects in specific regions, etc.)

# Thank you



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