Employing the unemployed of Marienthal: Evaluation of a guaranteed job program

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IWER Seminar
MIT Sloan, February 28, 2023

My research agenda: labor market policy and employment relations

1. **Employment**
   - Evaluation of a guaranteed job program
   - Reframing active labor market policy
   - Work sharing / short-time work during Covid-19

2. **Wages**
   - Labor market segmentation and wage growth
   - Labor union membership and firm performance
   - Oxford Supertracker: supertracker.spi.ox.ac.uk

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Motivation

Werner V., aged 60:
"After more than 600 job applications over three years, my wish for employment proved hopeless. Too old, too expensive, over-qualified, without long term prospects due to my age, with multiple university degrees seemingly over-qualified for service jobs..."

Resurgent interest on both sides of the Atlantic

The New York Times

The U.S. Economy Today | September Inflation Report | COLA: What to Know | Job Tren...

Should the Feds Guarantee You a Job?

Not long ago, the question was rarely asked. Now, politicians and economists of various stripes are willing to consider it.

The Guardian
News website of the year

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Money ▶ Property Pensions Savings Borrowing **Careers**

Opinion

🕐 This article is more than **4 years old**

The Guardian view on a job guarantee: a policy whose time has come
*Editorial*

The Marienthal job guarantee pilot

- October 2020 - April 2024 in Gramatneusiedl (Marienthal).

- Operated by *AMS Niederösterreich* (public employment service) and *it.works* (service provider).

- Budget: 7.4 Million Euro, which amounts to 29,841 Euro per participant/year.

- All longtime unemployed (>12 months) are eligible.

The Marienthal job guarantee pilot
Strong public interest
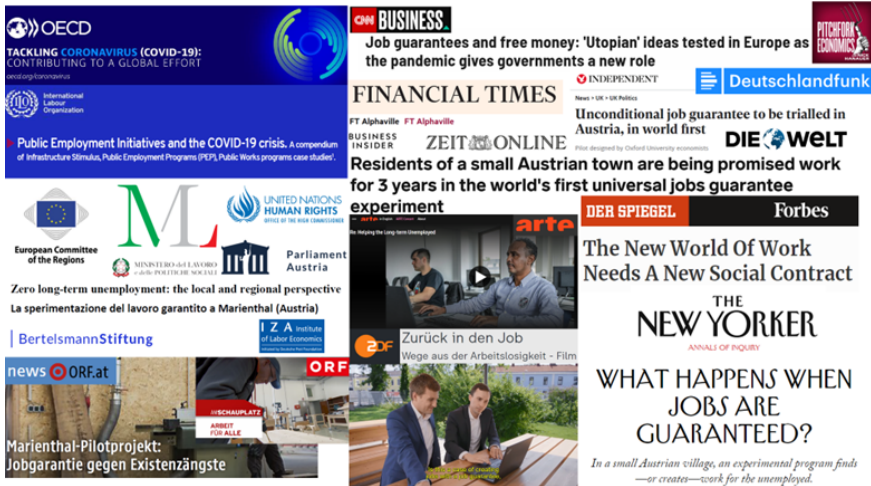
This paper: Evaluation of a guaranteed job program

Our contribution

- We evaluate a pilot job guarantee scheme in a *natural field experiment*.
- We document anticipation effects using a *second control group*.
- We observe spillover effects using a pre-registered *synthetic control*.

Preview of findings:

1. Positive effects on economic and social wellbeing. ↗
2. No effect on physical health and economic preferences. →
3. Anticipation effects for subjective wellbeing. ↗
4. Effects are largely persist over time. ↗
5. Large reduction of municipality-level unemployment. ↘

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What do we know?

1. Public employment programs are not effective for future **employment prospects**
   (Heckman et al., 1999; Kluve, 2010; Crépon & van den Berg, 2016; Card et al., 2010, 2018).
   - Literature mostly considers (market) employment and earnings.
   - By contrast, we are interested in **participant welfare**.

2. **Correlation** between **employment** and **wellbeing** is widely documented
   - Health (Avendano & Berkman, 2014),
   - Wellbeing (Clark & Oswald, 1994; Korpi, 1997; Young, 2012; Haushofer & Fehr, 2014).
   - Positive link extends to public employment programs.
     (Andersen, 2008; Breidahl & Clement, 2010; Fervers, 2018; Wang et al., 2021).
   - The **causal link** with employment remains contested.

3. Little evidence on impact of **job guarantee programs**, esp. for rich countries.

▸ Expectations ▸ Literature ▸ Examples

Latent and manifest benefits of employment

MARIENTHAL

The Sociography of an
Unemployed Community

Marie Jahoda, Paul F. Lazarsfeld,
and Hans Zeisel

Jahoda, Lazarsfeld & Zeisel (1933); Jahoda (1982):
Employment, with appropriate pay and working conditions, can have numerous benefits, economic and non-economic
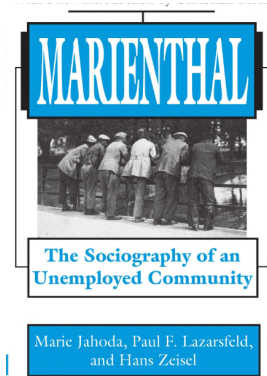
1. **Collective purpose:** Work as a source of meaning.

2. **Social inclusion:** Social interaction at work.

3. **Status:** Respect instead of social stigma.

4. **Activity:** Energy and involvement in life.

5. **Time structure:** Balance between work and spare time.

6. **Financial strain**: Income that allows for participation.

Possible advantages and disadvantages of guaranteed employment

- **Unconditional outside options**.
  - Improving the bargaining position of those worst off,
    in employment, towards bureaucracies, and (romantic) relationships.

- **Non-economic benefits** of employment:
  - Work as a source of meaning.
  - Social interactions in the workplace and beyond.
  - Social respect.

- Possible **disadvantages**:
  - Spillovers, crowding out of market employment.
  - Forced work – if participation is not voluntary.
  - Meaningless activities.
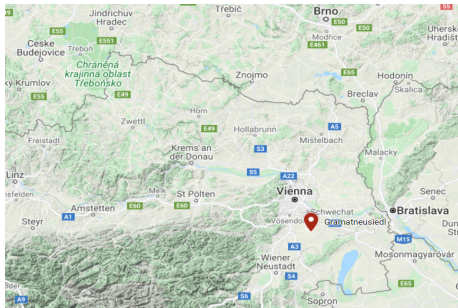
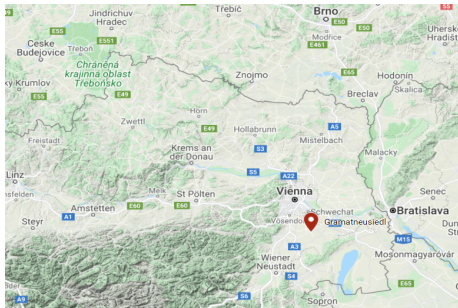# The Marienthal job guarantee pilot
Key characteristics

1. **Voluntary participation.**
   No sanctions for declining a job offer.

2. **Collectively bargained wage**
   (1.500 € / month for full-time).

3. **Meaningful employment** taking into account personal constraints.

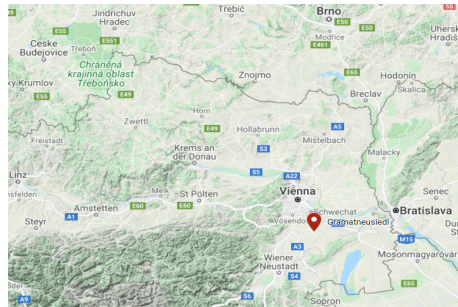# The Marienthal job guarantee pilot
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The Marienthal job guarantee pilot
Training, job-search and support are integral features

Employment

Preparatory phase for initial 2 months

| Health	Resources	Future	Action
Anamnesis	Soft skills	Project creation	Matching of competencies and tasks
Health trainings	Job-specific skills	Career planning	Job-specific support
Provision of courses	Job applications	Coffee talks	Job search & application
	IT skills		

Jobs are individually tailored. Options include:

- Jobs in a newly founded social enterprise (carpentry, renovation, gardening, support for elderly, ...).

- Some of these: Projects created by participants themselves (incl. planning a bike trail, book, topotheque).

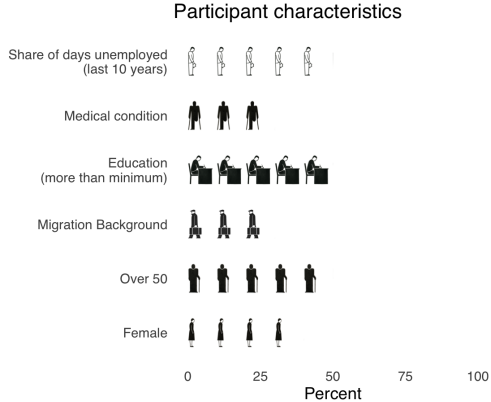- Subsidized jobs in the regular labor market.

▸ Occupations
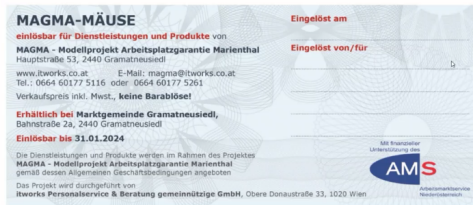
Data

We observe the

- employment history of every individual from social security data,

- benefit level and training participation from the AMS admin register,

- and link these to the annual survey responses.

Study design
Who are the "long-term unemployed"?

Participant characteristics

The graph draws on the "Isotype" system developed by Otto Neurath.

1. **Small sample size:**
   Pairwise randomization.
   Matching on a rich set of baseline characteristics.

2. **Anticipation effects:**
   Staggered rollout.
   Contrasting earlier to later participants, and to control town individuals.

3. **Equilibrium effects:**
   Cross-location comparisons.
   Pre-registered synthetic control municipalities.

Study design
Three evaluation challenges and possible solutions

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Study design

Three identification approaches:

1. Experimental control group based on pairwise matching and staggered roll-out
   ▸ Details

2. Comparison to non-experimental control group ▸ Details

3. Synthetic control comparison ▸ Details

▸ Formal framework ▸ Permutation inference ▸ Hawthorne effect considerations

Causal interpretation of various contrasts

1. Direct treatment effects.
2. Anticipation effects.
3. Spillover effects.

$$Y_i = g(D_i, D_i^{+1}, \overline{D}, \epsilon_i).$$

- Y_i: Outcome for individual i.
- D_i: Current eligibility for the job guarantee.
  D_i^{+1} : Future eligibility.
  $\overline{D}$: Share of long-term unemployed in the municipality currently eligible.
- ϵ_i: Unobserved individual characteristics.
- L_i: Indicator for unemployment > 9 months as of September 2020

Identified effects following loosely (Graham et al., 2010)

Contrast	Identified effect	Interpretation
	February 2021	
Group 1 vs. Group 2	$E[g(1, 1, \frac{1}{2}, \epsilon_i) - g(0, 1, \frac{1}{2}, \epsilon_i)|L_i = 1]$	Average direct effect on the treated
Group 2 vs. control town	$E[g(0, 1, \frac{1}{2}, \epsilon_i) - g(0, 0, 0, \epsilon_i)|L_i = 1]$	Average anticipation effect on the treated
	After April 2021	
Group 1 & 2 vs. control town	$E[g(1, 1, 1, \epsilon_i) - g(0, 0, 0, \epsilon_i)|L_i = 1]$	Average total effect on the treated
Gramatneusiedl vs. synth (short-term unemp)	$E[g(0, 0, 1, \epsilon_i) - g(0, 0, 0, \epsilon_i)|L_i = 0]$	Average spillover effect on the untreated
Gramatneusiedl vs. synth (total unemp)	$E[g(L_i, L_i, 1, \epsilon_i) - g(0, 0, 0, \epsilon_i)]$	Average total effect

Set up

- The design is pre-registered in the AEA RCT repository,

- and has received IRB approval.

- The code is public within a reproducible environment (*Docker container*).

Disclaimer: We receive no payment for the evaluation,
and will publish our findings independently from the implementation partners.

Findings overview

1. Positive effects on economic and social wellbeing. ↗ ▸ Disaggregated social outcomes

2. No effect on physical health and economic preferences. ⇢
   (time, risk, reciprocity, altruism, trust)

3. Anticipation effects for (subjective) wellbeing, social status, social inclusion. ↗
   ▸ Anticipation effects

4. Effects are largely persist over time. ↗ ▸ Economic wellbeing ▸ Social wellbeing

5. Large reduction of municipality-level unemployment. ↘ ▸ Unemployment ▸ Spillovers

▸ Case studies ▸ Participant voices

Pairwise matching and staggered roll-out:

1. Baseline covariates from admin sources (as of September 2020):
   Gender, age, migration background, education, disability,
   level of benefits, days unemployed in the last 10 years.
   $\Rightarrow$ Pairwise Mahalanobis distance.

2. Pairwise matching minimizing sum of distances within pairs.

3. Random assignment to one of two waves within pairs.

4. Start of employment for the two waves:
   1.: December 2020.
   2.: April 2021.

Study design: experimental control group
Matched pairs
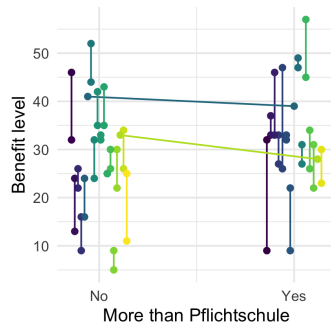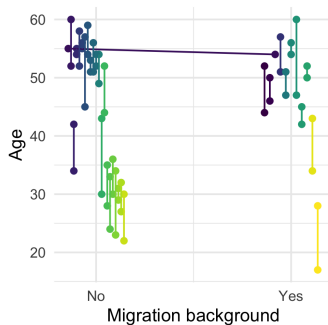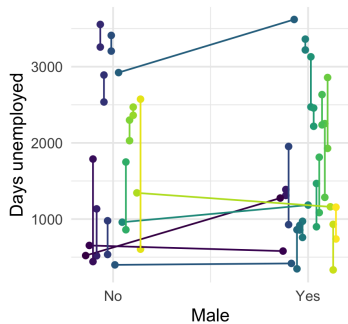
Measurement

- We conducted annual in-depth surveys among all participants (wave 1 and 2), and unemployed in control towns, and link them to social security records. ▸ Surveys

- Index construction:
  - Sign each variable so that higher is better.
  - Average all variables in each category.
  - Normalize index to range from 0 to 1.

- We control for the false discovery rate of multiple hypothesis using the Benjamini-Hochberg procedure.
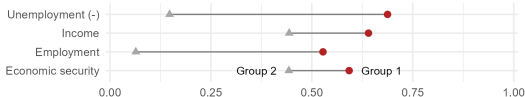
▸ Multiple hypothesis testing
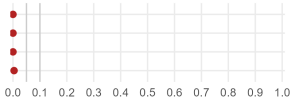
Experimental estimates with linear controls
Normalized index with each variable signed so that a higher value is better

Economic outcomes

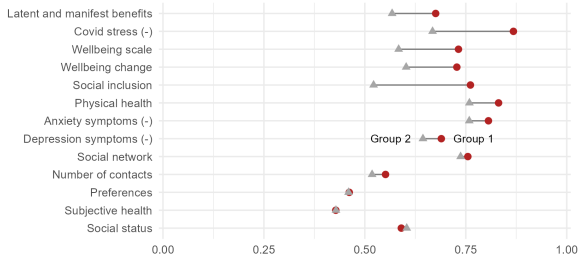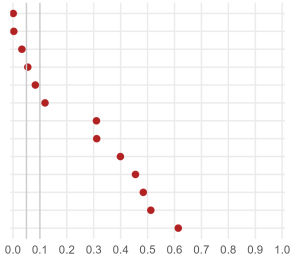Average outcomes for Group 1 (treated), and Group 2 (control).

P-values

Other outcomes

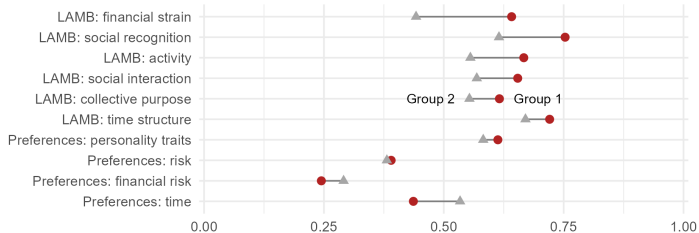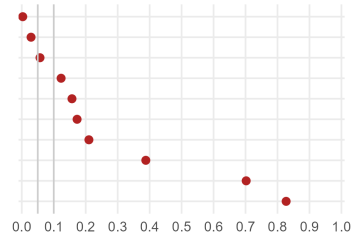Average outcomes for Group 1 (treated), and Group 2 (control).

P-values

Experimental estimates with linear controls
Disaggregated social outcomes

Average outcomes for Group 1 (treated), and Group 2 (control).   P-values

Participant views

Werner V., aged 60:

"After more than 600 job applications over three years, my wish for employment proved hopeless. Too old, too expensive, over-qualified, without long term prospects due to my age, with multiple university degrees seemingly over-qualified for service jobs... many obstacles seemed to exist. The job guarantee proved extremely valuable and useful for me. In cooperation with the municipality and the local museum, I am archiving and documenting the cultural, scientific and economic value of the historical site of Marienthal."

Case study: animal therapy

Two participants are employed with an association providing animal-assisted therapy for children with various conditions (e.g. autism, ADHD, disabilities, learning difficulties). By looking after the association's animals, house, and garden, they have enabled the centre to improve its services and care for more young people.

Individual-level comparison to control municipalities.

- Individuals in the three control municipalities with the largest weight: Ebreichsdorf, Zeillern, Rußbach.

- Selected based on eligibility criterion of MAGMA: 9 months of unemployment as of September 2020.

- Comparisons adjust for baseline covariates.

Control town comparisons with linear controls, economic outcomes
Normalized index with each variable signed so that a higher value is better

Outcomes for 2021
Group 1 (treated), Group 2 (control), and Control towns.

Outcomes for 2022
Marienthal (all treated), and Control towns.

Return
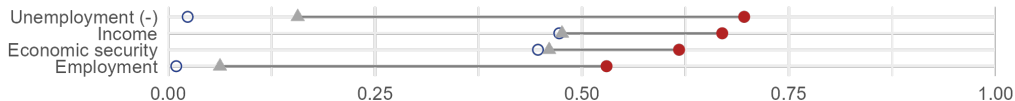
Control town comparisons with linear controls, other outcomes
Normalized index with each variable signed so that a higher value is better

Outcomes for 2021
Group 1 (treated), Group 2 (control), and Control towns.

Anticipation
Confidence intervals for contrast of Group 2 and control town individuals, February 2021

Johann G., aged 65:

"I live in Gramatneusiedl and worked for 38 years at a company in chemical industry that was located in Gramatneusiedl and closed down some years ago. I am now taking part in the job guarantee since 2020, which makes me feel comfortable. Under the scheme, I have worked in renovation and have been able to apply my skills in many ways. With the help of the job guarantee, I can start as a warehouse worker in a recycling company in October 2022."
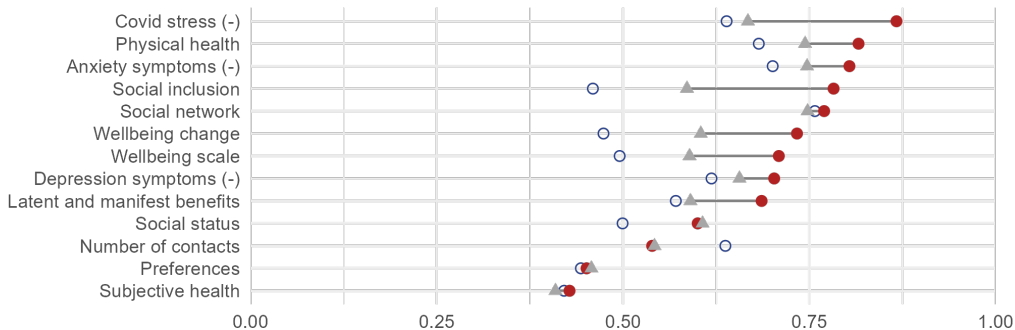
Control town comparisons with linear controls, other outcomes
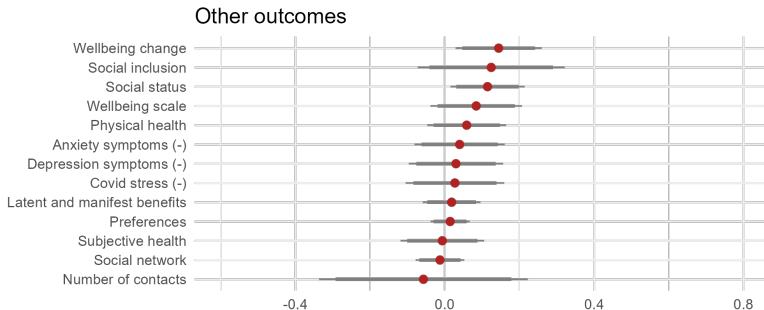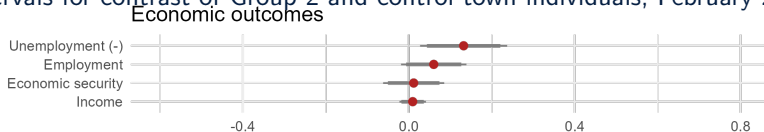Normalized index with each variable signed so that a higher value is better

Outcomes for 2022
Marienthal (all treated), and Control towns.
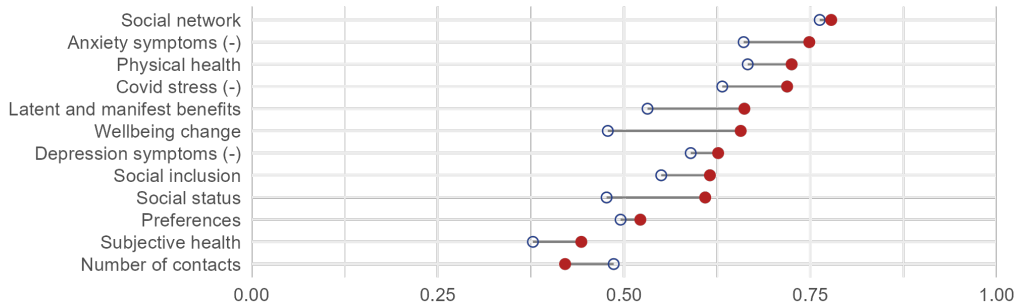
Findings so far

1. Positive effects on economic and social wellbeing. ↗

2. No effect on physical health and economic preferences. → (time, risk, reciprocity, altruism, trust)

3. Anticipation effects for (subjective) wellbeing, social status, social inclusion. ↗

4. Effects are largely persist over time. ↗

Study design: synth control
Synthetic control comparison

1. Multiple municipal-level data sources (as of December 2019):
   AMS Data Warehouse, AMS occupational-career monitoring,
   and the national statistical agency.

2. Pick the 26 (5%) of municipalities in Lower Austria
   closest to Gramatneusiedl in terms of Mahalanobis distance.

3. Find the synthetic control (convex combination) of these municipalities
   closest to Gramatneusiedl in terms of baseline covariates
   and in terms of the trajectory of unemployment 2011-2020.

Both pairwise randomization and synthetic control were pre-registered!
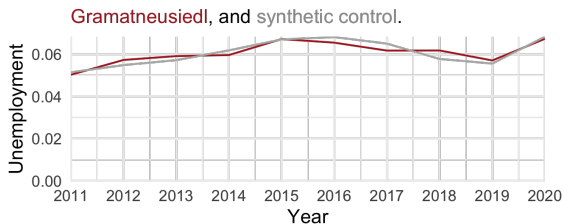
Study design: synth control
Variables used for the construction of the synthetic control

Variable	Definition
Working age pop	Working age population.
Long term unemp/pop	Number of long-term unemployed (> 1 year) as a share of working age pop.
Inactive/pop	Number of inactive persons in working age as a share of working age pop.
Mean age	Mean age in years of the total population.
Share small firms	Small firms (less than 10 employees) as a share of total firms.
Share mid firms	Medium sized firms (10-249 employees) as a share of total firms.
Share low edu	Persons with low education (ISCED 1-2) as a share of total pop.
Share mid edu	Persons with medium education (ISCED 3-4) as a share of total pop.
Share men	Male persons as a share of total pop.
Share migrant	Persons with a migrant background as a share of total pop.
Share care resp	Active persons with care responsibilities as a share of total pop.
Mean wage	Mean wage level.
Mean age unemp	Mean age in years of the unemployed.
Low edu/unemp	Unemployed with low education (ISCED 1-2) as a share of total unemployed.
Mid edu/unemp	Unemployed with medium education (ISCED 3-4) as a share of total unemployed.
Poor German/unemp	Unemployed with low German skills ($<$ A2 CEFR) as a share of total unemployed.
Men/unemp	Male unemployed as a share of total unemployed.
Migrant/unemp	Unemployed with a migrant background as a share of total unemployed.
Health cond/unemp	Unemployed with a medical condition limiting employment opportunities as a share of total unemployed.
Communal tax/pop	Communal tax per working age pop.

Study design: synth control
Synthetic control gap

Weight	Municipality
0.487	Ebreichsdorf
0.203	Zeillern
0.134	Rußbach
0.079	Leopoldsdorf im Marchfelde
0.046	Strasshof an der Nordbahn
0.024	Sieghartskirchen
0.023	Sollenau

Gramatneusiedl, and synthetic control.

Study design: synth control
Location of Gramatneusiedl (Marienthal) and control municipalities

- Gramatneusiedl
- Ebreichsdorf
- Zeillern
- Rußbach
- Leopoldsdorf im Marchfelde
- Strasshof an der Nordbahn
- Sieghartskirchen
- Sollenau
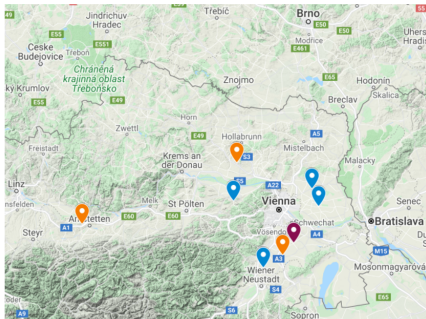
Red: Treated.
Orange: Control with larger weight.
Blue: Control with smaller weight.

Municipality comparison

Outcome levels
Gramatneusiedl, and synthetic control.
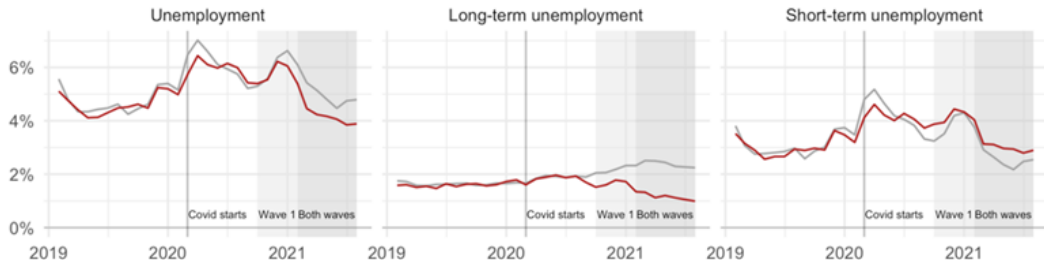
- Outcomes are measured at zip code level. Eligibility is at municipality level (a subset).

- That is why long-term unemployment is not reduced to 0,
  even though all long-term unemployed are eligible, and (almost) all accept.

Treatment effects

Gramatneusiedl minus control, and permuted comparisons.

Treatment effects
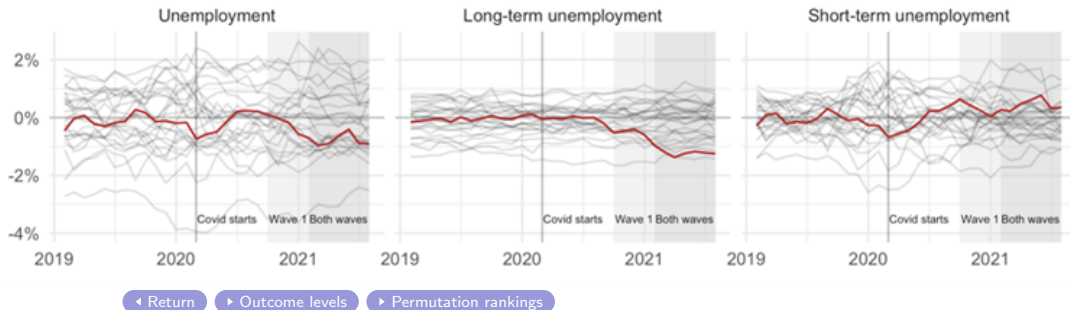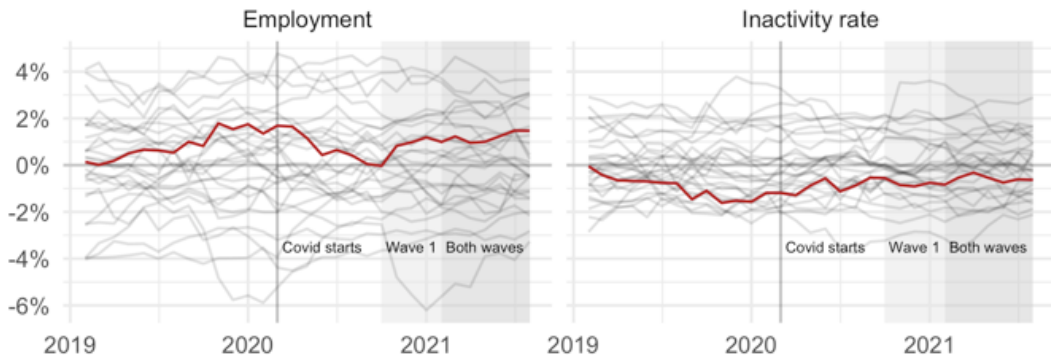
Gramatneusiedl minus control, and permuted comparisons.

Case study: public vegetable garden

The local mayor provided $250\,m^2$ of land which participants cultivate as a sustainable food garden. Herbs and vegetables can be picked free of charge and the garden is open year-round. The first harvest was in summer 2022.

Summary and conclusion I
Study design

1. Matched random assignment
     to increase precision.

2. Staggered roll-out
     to separate out anticipation effects.

3. Synthetic controls
     to estimate spillovers / equilibrium effects.

4. Control-town individuals
     to estimate long-term effects.

5. Pre-registered design
     to tie our hands.

6. Randomization inference
     for finite sample validity.

Summary and conclusion II
Findings

1. Positive effects on economic and social wellbeing.
   - Income, income security, employment. ↗
   - Time structure, activity, social contacts, collective purpose, social status. ↗

2. No effect on physical health and economic preferences.
   (time, risk, reciprocity, altruism, trust) ⇒

3. Similar effects when comparing to individuals in control towns.
   Some anticipation effects. ↗

4. Effects persist over time. ↗

5. Large reduction of municipality-level unemployment.
   - Near-elimination of long-term unemployment. ↘
   - Small increase of short-term unemployment. ↗

Die Arbeitslosen vom Marienthal	**Employing the unemployed of Marienthal**
Classification	Causality
No control group	Several contrasts for causal inference
Historical macro event	Micro policy intervention
Capture heterogeneity	Balance out heterogeneity
Estimate = estimand	Sample $\neq$ population
No uncertainty quantification	Standard errors, confidence intervals
Methodologically open-ended	Fully pre-registered

A historical arc:

- Jahoda elaborated the non-monetary benefits of employment.
- We find the most significant effects on LAMB, building on her work. ▸ Survey measures

While the job guarantee debate (re-)started in the US, it is gaining traction in Europe.

Evaluation

- Currently analyzing data up to end of 2022.
- Third survey round underway with module on labor relations and job quality.

Recent events

- Recent calls for larger roll out in Austria.
- European Union CoR SEDEC adopted call for 750 million Euros in European funds to be earmarked for local job guarantee initiatives.
- Related initiatives in France, Belgium and the Netherlands are underway.
- Further interest from six countries in implementing job guarantee programs.

Thank you!

References I

Altmann, S., Falk, A., Jäger, S., & Zimmermann, F. (2018). Learning about job search: A field experiment with job seekers in Germany. *Journal of Public Economics*, *164*, 33–49.

Andersen, S. H. (2008, May). The Short- and Long-Term Effects of Government Training on Subjective Well-being. *European Sociological Review*, *24*(4), 451–462. doi: doi: 10.1093/esr/jcn005

Avendano, M., & Berkman, L. F. (2014, July). Labor Markets, Employment Policies, and Health. In L. F. Berkman, I. Kawachi, & M. M. Glymour (Eds.), *Social Epidemiology* (pp. 182–233). Oxford University Press. doi: doi: 10.1093/med/9780195377903.003.0006

Banerjee, A., Duflo, E., Imbert, C., Mathew, S., & Pande, R. (2020). E-governance, Accountability, and Leakage in Public Programs: Experimental Evidence from a Financial Management Reform in India. *American Economic Journal: Applied Economics*, *12*(4), 39–72.

Beegle, K., Galasso, E., & Goldberg, J. (2017, September). Direct and indirect effects of Malawi's public works program on food security. *Journal of Development Economics*, *128*, 1–23. doi: doi: 10.1016/j.jdeveco.2017.04.004

Behaghel, L., Crépon, B., & Gurgand, M. (2014, October). Private and Public Provision of Counseling to Job Seekers: Evidence from a Large Controlled Experiment. *American Economic Journal: Applied Economics*, *6*(4), 142–174. doi: doi: 10.1257/app.6.4.142

Bertrand, M., Crépon, B., Marguerie, A., & Premand, P. (2017, May). Contemporaneous and Post-Program Impacts of a Public Works Program. *Working Paper*. doi: doi: 10.1596/28460

Böheim, R., Eppel, R., & Mahringer, H. (2022). More Caseworkers Shorten Unemployment Durations and Save Costs. Results from a Field Experiment in an Austrian Public Employment Office. *Working Paper*.

Breidahl, K. N., & Clement, S. L. (2010, December). Does Active Labour Market Policy have an Impact on Social Marginalization?: Does Active Labour Market Policy have an Impact on Social Marginalization? *Social Policy & Administration*, *44*(7), 845–864. doi: doi: 10.1111/j.1467-9515.2010.00747.x

Card, D., & Hyslop, D. R. (2005, November). Estimating the Effects of a Time-Limited Earnings Subsidy for Welfare-Leavers. *Econometrica*, *73*(6), 1723–1770. doi: doi: 10.1111/j.1468-0262.2005.00637.x

Card, D., Kluve, J., & Weber, A. (2010). Active labour market policy evaluations: A meta-analysis. *The Economic Journal*, *120*(548), F452–F477.

Card, D., Kluve, J., & Weber, A. (2018). What works? A meta analysis of recent active labor market program evaluations. *Journal of the European Economic Association*, *16*(3), 894–931.

Clark, A. E., & Oswald, A. J. (1994, May). Unhappiness and Unemployment. *The Economic Journal*, *104*(424), 648. doi: doi: 10.2307/2234639

Crépon, B., Duflo, E., Gurgand, M., Rathelot, R., & Zamora, P. (2013, May). Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment *. *The Quarterly Journal of Economics*, *128*(2), 531–580. doi: doi: 10.1093/qje/qjt001

Crépon, B., & van den Berg, G. J. (2016, October). Active Labor Market Policies. *Annual Review of Economics*, *8*(1), 521–546. doi: doi: 10.1146/annurev-economics-080614-115738

Fervers, L. (2018, August). Can public employment schemes break the negative spiral of long-term unemployment, social exclusion and loss of skills? Evidence from Germany. *Journal of Economic Psychology*, *67*, 18–33. doi: doi: 10.1016/j.joep.2018.05.001

References II

Gelber, A., Isen, A., & Kessler, J. B. (2016, February). The Effects of Youth Employment: Evidence from New York City Lotteries. *The Quarterly Journal of Economics*, *131*(1), 423–460. doi: doi: 10.1093/qje/qjv034

Graham, B., Imbens, G., & Ridder, G. (2010, October). *Measuring the Effects of Segregation in the Presence of Social Spillovers: A Nonparametric Approach* (No. w16499). Cambridge, MA: National Bureau of Economic Research. doi: doi: 10.3386/w16499

Guardian, T. (2020). The Guardian view on a job guarantee: A policy whose time has come. Editorial. *The Guardian. Editorial*.

Haushofer, J., & Fehr, E. (2014, May). On the psychology of poverty. *Science*, *344*(6186), 862–867. doi: doi: 10.1126/science.1232491

Heckman, J. J., Lalonde, R. J., & Smith, J. A. (1999). The Economics and Econometrics of Active Labor Market Programs. In *Handbook of Labor Economics* (Vol. 3, pp. 1865–2097). Elsevier. doi: doi: 10.1016/S1573-4463(99)03012-6

Huber, M., & Steinmayr, A. (2021). A framework for separating individual-level treatment effects from spillover effects. *Journal of Business & Economic Statistics*, *39*(2), 422–436.

ILO. (2021). *Public Employment Initiatives and the COVID-19 crisis* (Tech. Rep.). Geneva: International Labour Organization (ILO).

Jahoda, M. (1982). *Employment and unemployment : A social-psychological analysis*. Cambridge: Cambridge University Press.

Jahoda, M., Lazarsfeld, P. F., & Zeisel, H. (1933). *Marienthal: The sociography of an unemployed community*. Reprint, New Brunswick, U.S.A: Transaction Publishers, 2017.

Khera, R. (Ed.). (2011). *Battle for employment guarantee*. Delhi Oxford: Oxford University Press.

Kluve, J. (2010, December). The effectiveness of European active labor market programs. *Labour Economics*, *17*(6), 904–918. doi: doi: 10.1016/j.labeco.2010.02.004

Korpi, T. (1997, June). Is utility related to employment status? Employment, unemployment, labor market policies and subjective well-being among Swedish youth. *Labour Economics*, *4*(2), 125–147. doi: doi: 10.1016/S0927-5371(97)00002-X

Lalive, R., Landais, C., & Zweimüller, J. (2015, December). Market externalities of large unemployment insurance extension programs. *American Economic Review*, *105*(12), 3564-96. Retrieved from https://www.aeaweb.org/articles?id=10.1257/aer.20131273 doi: doi: 10.1257/aer.20131273

Lowrey, A. (2017, May). Should the Government Guarantee Everyone a Job? - The Atlantic. *The Atlantic*.

Muralidharan, K., Niehaus, P., & Sukhtankar, S. (2017, September). *General Equilibrium Effects of (Improving) Public Employment Programs: Experimental Evidence from India* (Tech. Rep. No. w23838). Cambridge, MA: National Bureau of Economic Research. doi: doi: 10.3386/w23838

Nunn, R., O'Donnell, J., & Shambaugh, J. (2018). Labor Market Considerations for a National Job Guarantee. *Brookings. The Hamilton Project*, Framing Paper, 37.

OECD. (2021). *OECD Economic Surveys: Austria 2021*. Paris: Author. doi: doi: 10.1787/eaf9ec79-en

Paul, M., Darity, W., & Hamilton, D. (2018). The Federal Job Guarantee—A Policy to Achieve Permanent Full Employment. *Center on Budget and Policy Priorities (CBPP)*.

Schochet, P. Z., Burghardt, J., & McConnell, S. (2008, November). Does Job Corps Work? Impact Findings from the National Job Corps Study. *American Economic Review, 98*(5), 1864–1886. doi: doi: 10.1257/aer.98.5.1864

Tanden, N., Martin, C., Jarsulic, M., Duke, B., Olinsky, B., Boteach, M., . . . Teixeira, R. (2017). Toward a Marshall Plan for America. *Center for American Progress*.

van den Berg, G. J., Hofmann, B., Stephan, G., & Uhlendorff, A. (2021). Mandatory Integration Agreements for Unemployed Job Seekers: A Randomized Controlled Field Experiment in Germany. *Working Paper (SSRN Electronic Journal)*. doi: doi: 10.2139/ssrn.3762896

Wang, S., Coutts, A., Burchell, B., Kamerāde, D., & Balderson, U. (2021). Can Active Labour Market Programmes Emulate the Mental Health Benefits of Regular Paid Employment? Longitudinal Evidence from the United Kingdom. *Work, Employment and Society, 35*(3), 545–565.

Young, C. (2012, December). Losing a Job: The Nonpecuniary Cost of Unemployment in the United States. *Social Forces, 91*(2), 609–634. doi: doi: 10.1093/sf/sos071

Appendix

Related literature

- **Experimental ALMP evaluations** are rare in German-speaking countries, recent exceptions: (Altmann et al., 2018; van den Berg et al., 2021; Böheim et al., 2022), but more common in US (Card & Hyslop, 2005; Schochet et al., 2008; Gelber et al., 2016), and France (Crépon et al., 2013; Behaghel et al., 2014).

- **Spillovers** in experiments deserve more attention (Crépon et al., 2013; Lalive et al., 2015).

- **Public employment schemes** have recently been evaluated in experimental studies in developing countries, including India (Khera, 2011; Muralidharan et al., 2017; Banerjee et al., 2020), Ivory Coast (Bertrand et al., 2017), and Malawi (Beegle et al., 2017).

◂ Return

Job guarantee examples

- Some projects in that direction have been taking place already:
  - United States: **Works Progress Administration** 1935-1943
  - India: **National Rural Employment Guarantee Scheme** since 2005
  - France: **Territoires Zéro Chômeur de Longue Durée** since 2017

- Little evidence on the impact of such programs, in particular for rich countries.

Expectations of a job guarantee

- **Unconditional outside options**
  Improving the bargaining position of those worst off,
  in employment, bureaucracies, and (romantic) relationships.

- **Covering uncovered populations**
  Dropping conditionalities and means-testing,
  diminishing problems of benefit non-take-up.

- **Automatic stabilizers**
  Smoothing business cycles and individual consumption
  by stabilizing disposable income.

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◂ Return

The Marienthal job guarantee pilot
Jobs created

non-market sector

- 13 Carpenters
- 7 Tailors
- 6 Gardeners
- 5 Renovation workers
- 3 Registrars
- 3 Cleaners
- 1 Driver, counselor

market sector

- 6 Office clerks
- 2 Warehouse workers
- 2 Assistant electricians
- 1 Care home assistant, technical sales assistant, facility manager, construction worker, salesperson, construction forman, taxi driver, hospitality assistant, carpenter, marketing, municipal building yard worker assistant, farm worker, nursery worker, call centre agent, lift technician, assistant cook, forklift driver, accounting clerk, HR consultant

Study design: experimental control group
Covariate balance for our matched pair design

Covariate	Mean wave 1	Mean wave 2	Difference	T-statistic	P-value
Male	0.581	0.581	0.000	0.000	1.000
Age	44.452	44.935	-0.484	-0.165	0.869
Migration Background	0.323	0.355	-0.032	-0.264	0.793
Education	0.452	0.452	0.000	0.000	1.000
Health condition	0.290	0.323	-0.032	-0.271	0.787
Benefit level	29.839	29.839	0.000	0.000	1.000
Days unemployed	1721.871	1600.839	121.032	0.483	0.631

Weight	Municipality	Identifier
0.487	Ebreichsdorf	30607
0.203	Zeillern	30544
0.134	Rußbach	31224
0.079	Leopoldsdorf im Marchfelde	30831
0.046	Strasshof an der Nordbahn	30856
0.024	Sieghartskirchen	32131
0.023	Sollenau	32327

Gramatneusiedl, and control municipalities.
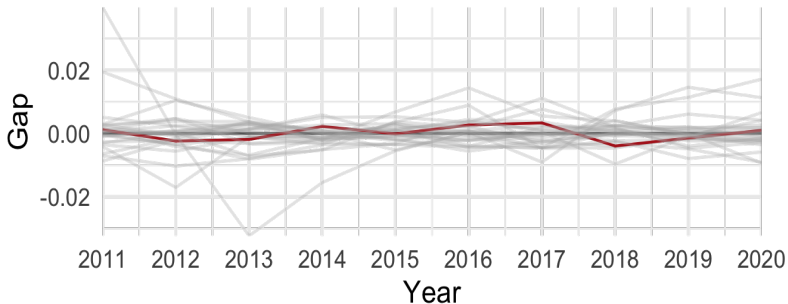
Covariate balance for the individuals in our control town sample

Covariate	Gramatneusiedl	Control towns	Difference	T-statistic	P-value
Male	0.581	0.535	-0.045	0.523	0.602
Age	44.694	49.634	4.940	-2.496	0.014
Migration Background	0.339	0.310	-0.029	0.352	0.726
Education	0.452	0.535	0.084	-0.958	0.340
Medical condition	0.306	0.338	0.032	-0.386	0.700
Benefit level	29.839	34.535	4.697	-2.600	0.011
Days unemployed	1661.355	1638.521	-22.834	0.136	0.892

Identifying averages

Group 1, Feb 21	$E[g(1, 1, \frac{1}{2}, \epsilon_i)|L_i = 1]$
Group 2, Feb 21	$E[g(0, 1, \frac{1}{2}, \epsilon_i)|L_i = 1]$
Both groups, after April 21	$E[g(1, 1, 1, \epsilon_i)|L_i = 1]$
Control town individuals	$E[g(0, 0, 0, \epsilon_i)|L_i = 1]$
Short-term unemp, GN, after April 21	$E[g(0, 0, 1, \epsilon_i)|L_i = 0]$
Short-term unemp, synthetic control	$E[g(0, 0, 0, \epsilon_i)|L_i = 0]$
Total unemp, GN, after April 21	$E[g(L_i, L_i, 1, \epsilon_i)]$
Total unemp, synthetic control	$E[g(0, 0, 0, \epsilon_i)]$

◄ Return

Randomization / permutation inference

- Consider the null hypothesis that $Y_i^1 = Y_i^0$ for all i in the sample.

- $\Rightarrow$ We can calculate test-statistics for any counterfactual treatment assignment.

- Randomization inference: Randomly reassign treatment.
  Re-calculate test-statistics.

- Fisher p-value: Share of times the re-calculated test-statistic
  is bigger than the actually realized one.

- Permutation inference: Similar idea for synthetic control.
  For each of our control municipalities, pretend it is the treated one.
  Re-calculate synthetic control estimates for this municipality.

Multiple testing corrections

- Multiple outcomes of interest.

- Benjamini-Hochberg procedure to control the **false discovery rate** (share of rejected hypotheses which in fact hold true).

- Sort the p-values, for each of m hypotheses resulting in ordered values $P_{(j)}$.

- For a critical value α, find the largest value k such that

$$P_{(k)} \leq \frac{k}{m}\alpha.$$

- Reject the null hypothesis for all $i = 1, \ldots, k$.

Considerations on possible observer effects

To account for the Hawthorne effect (Levitt and List, 2011), we

- compare the experimental control group to a second control group.

- compare preferences with wellbeing outcomes.

- collect data at multiple points in time independently of program provider and assure anonymity.

To limit social desirability bias in survey responses, we

- combine administrative data with surveys,

- apply a range of direct and indirect measures,

- rely on a questionnaire without a human interviewer.

Surveys

- Surveys are conducted annually to capture effects over time.

- The questionnaire is available in 15 languages to ensure representativeness.

- Participants can respond online via Qualtrics or on paper. The questionnaire is optimised for PC, smartphone and tablet.

- We contact individuals at their workplace, via email, telephone, or post.

- We rely mainly on validated survey questions.

Survey: Latent and Manifest Benefits (components)

Please select whether you agree or disagree with the following statements.

	Agree strongly	Agree	Agree somewhat	Neither agree, nor disagree	Disagree somewhat	Disagree	Disagree strongly
There is usually not enough spare time in my day.	○	○	○	○	○	○	○
I often have nothing to do.	○	○	○	○	○	○	○
I usually have a lot of opportunities to mix with people.	○	○	○	○	○	○	○
I seldom meet new people.	○	○	○	○	○	○	○
	Agree strongly	Agree	Agree somewhat	Neither agree, nor disagree	Disagree somewhat	Disagree	Disagree strongly
I rarely feel that I make a meaningful contribution to society.	○	○	○	○	○	○	○
I often feel a valuable part of society.	○	○	○	○	○	○	○
My days are usually well organized.	○	○	○	○	○	○	○
I rarely catch up with the things I need to do.	○	○	○	○	○	○	○

Survey: Subjective social status (component)

Think of this Ladder representing where people stand

Best off: most money, most education, most respected jobs

Worst off: least money, least education, least respected jobs or no job

Imagine a ladder showing where people stand in the society. At the top are the people who are the best off — those who have the most money, the most education, and the most respected jobs. At the bottom are the people who are the worst off — those who have the least money, the least education, and the least respected jobs or no job. Where would you place yourself on this ladder?

- O 10. Top of the ladder
- O 9.
- O 8.
- O 7.
- O 6.
- O 5.
- O 4.
- O 3.
- O 2.
- O 1. Bottom of the ladder

Survey: Social Network (component)

Social Network

From time to time, most people discuss work-related and job-search issues with other people. Looking back over the last 6 months, who are the people with whom you discussed work-related and job-search issues with?

In the boxes below, please list the FIRST NAME and LAST NAME INITIAL of the people with whom you discuss important matters. E.g., Maria Maier would be recorded as "Maria M".

Please list only one name per box. If two people on your list share the same first name and last initial, use numbers to distinguish them (e.g., "Maria M" and "Maria M2").

If you don't discuss important matters with anyone, just leave the fields blank.

Person 1   [_____]
Person 2   [_____]
Person 3   [_____]
Person 4   [_____]

Findings individual level
Experimental estimates with pair controls

Economic outcomes
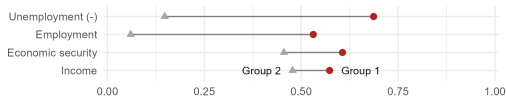
Average outcomes for Group 1 (treated), and Group 2 (control).
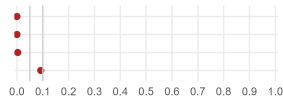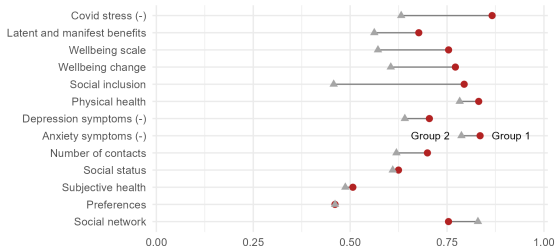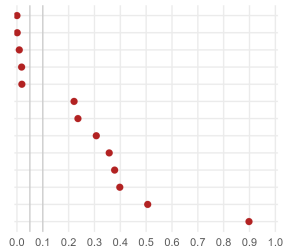
P-values

Other outcomes

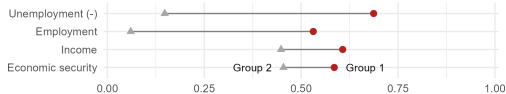Average outcomes for Group 1 (treated), and Group 2 (control).
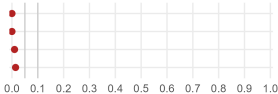
P-values

Findings individual level
Experimental estimates with no controls

Economic outcomes
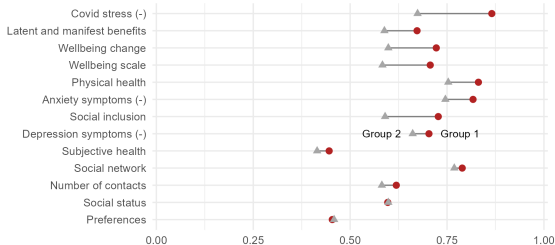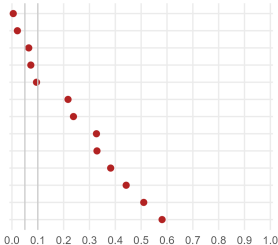Average outcomes for Group 1 (treated), and Group 2 (control).

P-values

Unemployment (-)	
Employment	
Income	
Economic security	Group 2 — Group 1

0.00 0.25 0.50 0.75 1.00

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

Other outcomes
Average outcomes for Group 1 (treated), and Group 2 (control).

P-values

Covid stress (-)	
Latent and manifest benefits	
Wellbeing change	
Wellbeing scale	
Physical health	
Anxiety symptoms (-)	
Social inclusion	
Depression symptoms (-)	Group 2 — Group 1
Subjective health	
Social network	
Number of contacts	
Social status	
Preferences	

0.00 0.25 0.50 0.75 1.00

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

◂ Return

Findings individual level
Experimental estimates with pair controls, disaggregated

Average outcomes for Group 1 (treated), and Group 2 (control).   P-values
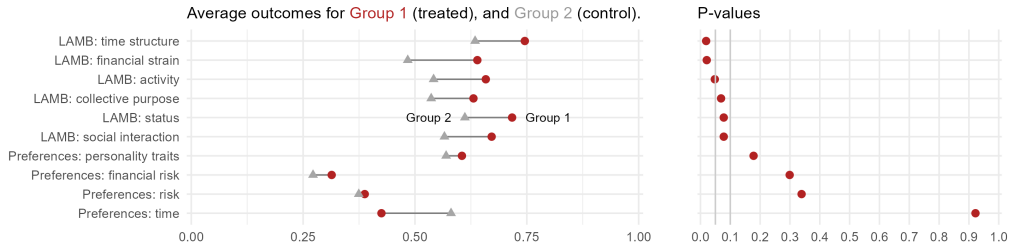
Findings individual level
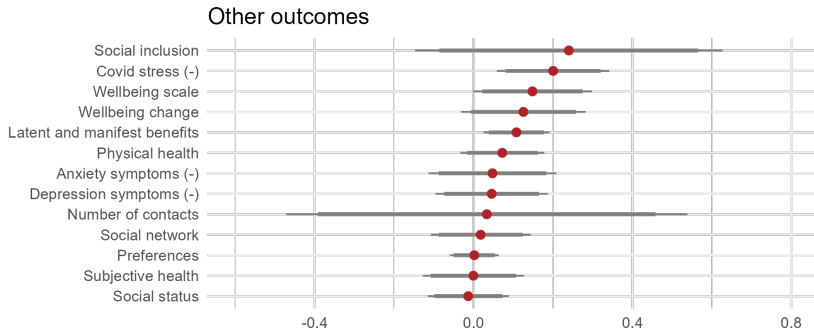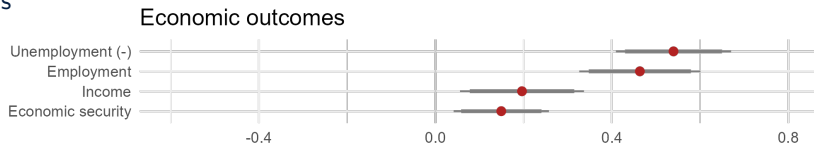## Experimental estimates with no controls, disaggregated

Average outcomes for Group 1 (treated), and Group 2 (control).   P-values
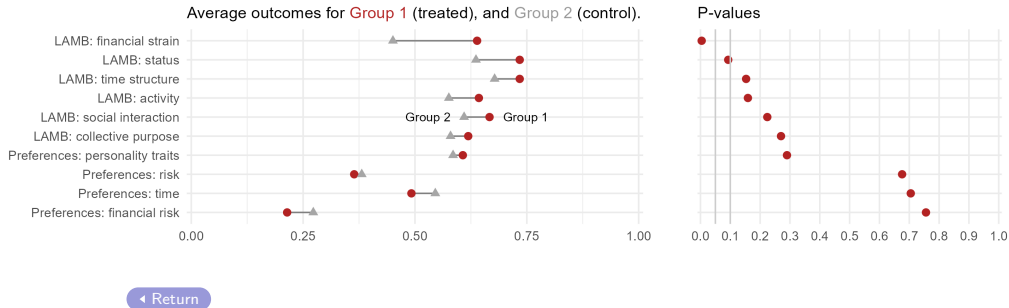
◀ Return

Findings - Confidence intervals for experimental comparison in February 2021

linear controls

Economic outcomes

Other outcomes

Outcome levels
Gramatneusiedl, and synthetic control.

Findings municipal level
Synthetic control - permutation ranking

Rank among permutations
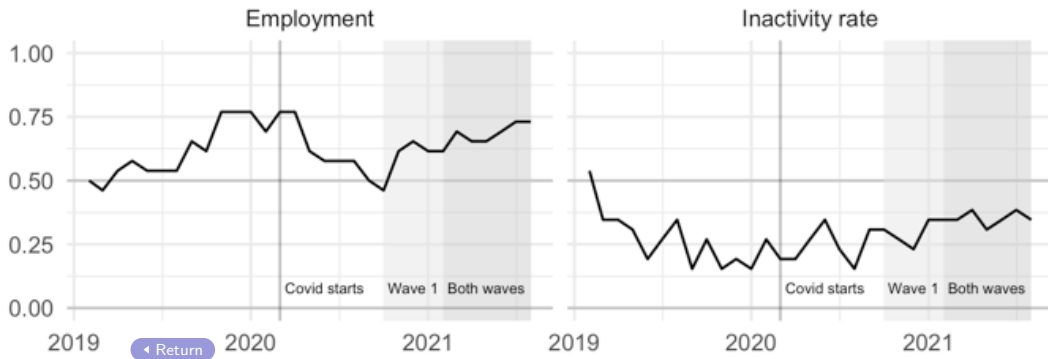
Outcome levels
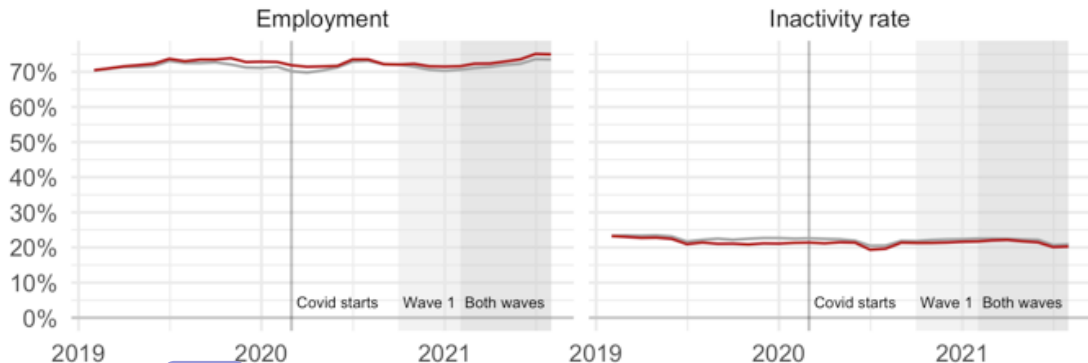
Gramatneusiedl, **and** synthetic control.

Rank among permutations

Participant views

Werner V., aged 60:
"After more than 600 job applications over three years, my wish for employment proved hopeless. Too old, too expensive, over-qualified, without long term prospects due to my age, with multiple university degrees seemingly over-qualified for service jobs. . . many obstacles seemed to exist. The job guarantee proved extremely valuable and useful for me. In cooperation with the municipality and the local museum, I am archiving and documenting the cultural, scientific and economic value of the historical site of Marienthal."

Mohamad A., aged 44:
"I am from Syria and live here in the village with my family - my wife and my 4 children, some of whom are already at school. I recently had a job offer, the company wanted to hire me full time but due to the current Corona situation they changed their minds and offered only a marginal employment contract. By contrast, the job guarantee scheme provides an opportunity to work [full-time], which suits me because we can work every day and learn something new. I'd also like to use the time to improve my German language skills so that I can later catch up on my general qualification for university entrance and perhaps study at a university of applied sciences. I'm grateful for the help the job guarantee offers; it is important for me."

Johann G., aged 65:
"I live in Gramatneusiedl and worked for 38 years at a company in chemical industry that was located in Gramatneusiedl and closed down some years ago. I am now taking part in the job guarantee since 2020, which makes me feel comfortable. Under the scheme, I have worked in renovation and have been able to apply my skills in many ways. With the help of the job guarantee, I can start as a warehouse worker in a recycling company in October 2022."

◂ Return

Case studies (summary)

Public vegetable garden:
The local mayor provided $250 m^2$ of land which participants cultivate as a sustainable food garden. Herbs and vegetables can be picked free of charge and the garden is open year-round. The first harvest was in summer 2022.

Animal therapy:
Two participants are employed with an association providing animal-assisted therapy for children with various conditions (e.g. autism, ADHD, disabilities, learning difficulties). By looking after the association's animals, house, and garden, they have enabled the centre to improve its services and care for more young people.

Funeral urns:
During participant Michaela P.'s (paid) internship doing office work at a funeral parlour, her employer noticed her talent for painting. Her internship turned into permanent employment in spring 2022 and, in addition to office work, she now paints urns – a new business venture for the parlour. Before Michaela became unemployed, she worked in a canteen and never thought she would be able to include her hobby in her job.