

# Employment Outcomes of Temporary Agents and Unemployed over the Business Cycle

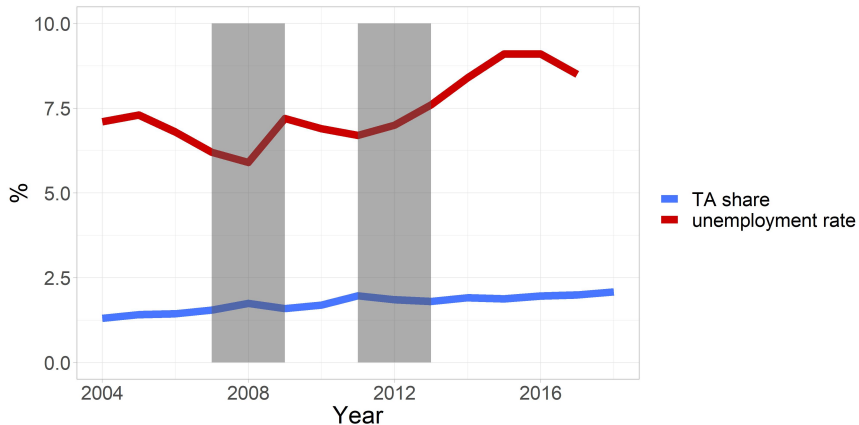
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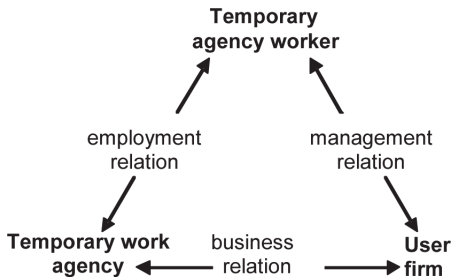


# TA and unemployment in Austria



Source: Statistics Austria (2019). The share of temporary agents is computed as a fraction of the annual total number of employed people, in Austria. Unemployment rate according to the national definition. The shaded areas denote recessions.

# Temporary Agency Work



Source: Hakansson et al., 2012.

- TA can help reduce asymmetric information and its costs (Abraham and Taylor, 1996).
- TA jobs can be used as a screening device (Jahn and Rosholm, 2018).
- Start a short-term employment with limited initial investment (Autor, 2009).
- Inability of finding and starting a regular job (Kvasnicka, 2009).

## Related Aspects

- Temporary agency employment is related to precariousness in terms of career perspectives, development of working relations, stability, and smaller earnings (Risak, 2019).
- Creation of a segmented labour market with low-wage, less stable TA jobs (Kvasnicka, 2009).
- High turnover and reduced investment in training (Autor, 2009).
- There is concern that temporary agency employment is exploitative (Autor, 2009, and Elcioglu, 2010).

# Research Questions

## 1 Are temporary agents better off than similar unemployed people?

2 views:

- dead-end: Crowding out of productive job search (Kvasnicka, 2009);
- stepping-stone: Acquisition of skills and contact with potential employers (Kvasnicka, 2009).

2 outcomes:

- annual gross earnings of the first and second year after TA/unemployment spell;
- duration until starting a regular job.

## 2 Does an effect of TA employment vary over the business cycle?

## 3 Is an effect of TA different for men and women?

# What We Know

*The empirical literature investigating whether agency employment is a bridge into regular jobs has not yet come to a consensus [...]. While some studies find evidence of agency employment acting as a springboard into regular jobs, other studies find opposite results. (Jahn and Rosholm, 2018)*

Jahn and Rosholm (2018) study the cyclical nature of TA employment:

- during economic upturns, TAs are less likely to start a regular job;
- during downturns, former TAs are more likely to start a regular job than similar unemployed workers;
- TAs have a considerable earnings advantage over the unemployed.
- The largest (+) effect with low unemployment.

# What We Do NOT Know

- This is the first assessment of the stepping-stone effect of TA employment in Austria.
- Why is this important? Growth of temporary agency and atypical employment vs regular employment.
- The debate on temporary agency work at EU level led to the introduction of the *principle of equal treatment* for TAs.
- BUT an evaluation of the policy is still missing.

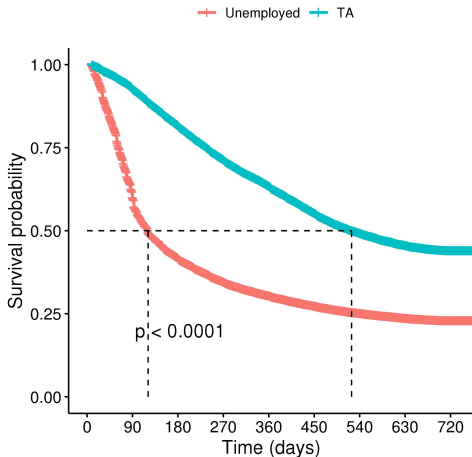
- Austrian Social Security Database, matched employer-employee data, (2000-2017).
- 3 samples (2005, 2010, and 2015).
- Previous 5 years used to construct LM history.
- Men and women aged 25-55, selected from inflow into TA job or unemployment.
- About 490,000 people in each year, approx. 10% of which are TAs.

## *Descriptive statistics*

- TA work is male-dominated (around 20% are women).
- The share of foreigners is greater in the TA samples.
- TAs are relatively better educated and younger.



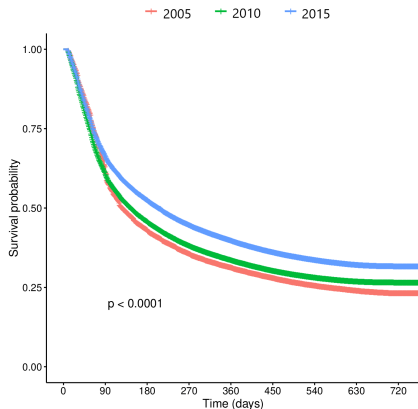
# Survival Probability to Regular Job, 2005



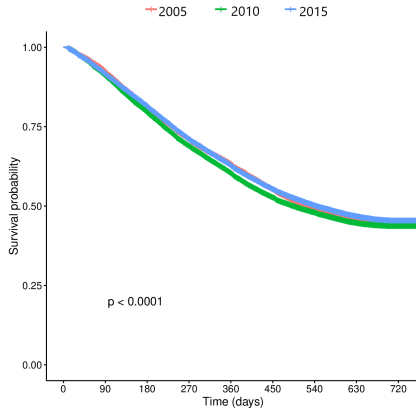
Note: Kaplan-Meier survival plot. The y-axis gives the probability of remaining in the status, by time (days).  $N$  TAs = 37,012.  
 $N$  unemployed = 482,776.

# Survival Probability to Regular Job

## Unemployed



## TA



Note: Unemployed  $N$  (2005) = 482,776;  $N$  (2010) = 399,390;  $N$  (2015) = 451,440. TA  $N$  (2005) = 37,012;  $N$  (2010) = 49,680;  $N$  (2015) = 43,932.

# The Model

I estimate a linear probability model (LPM) of the form,

$$y_i = \beta_0 + \beta_1 TA_i + \mathbf{X}_i^T \gamma + u_i,$$

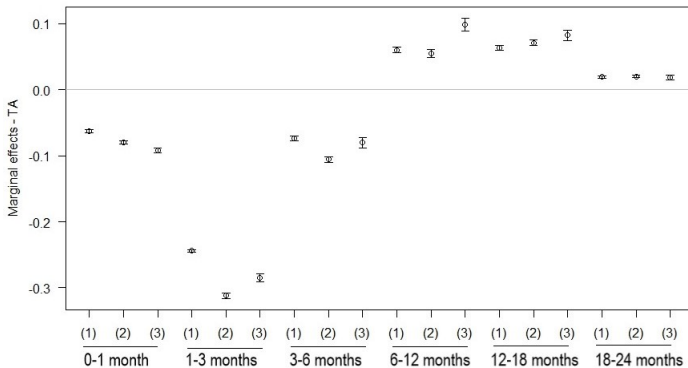
where  $y_i = 1$  if the individual  $i$  started a job within a certain duration.

$TA_i = 1$  if the person was a temporary agent in 2005, 2010 or 2015, and equal to 0 otherwise.

The matrix  $\mathbf{X}$  includes person  $i$ 's labour market history [t-5, t), demographic, and employment information.

I use six different  $y_i$ .

# Marginal Effect of TA Employment, 2005

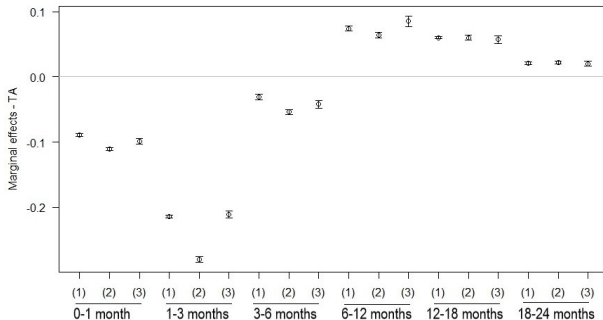


Note: circles represent the estimated difference between unemployed and TAs, the model specification is in parentheses. (1) univariate - full sample; (2) univariate - reduced sample; (3) multivariate - reduced sample. The whiskers delimit the 95% confidence interval.

# Main Findings

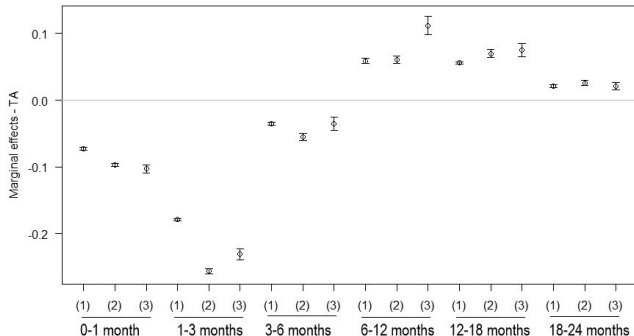
- TAs are less likely than the unemployed to start a regular job within 6 months.
- After 6 months, they are more likely than the unemployed to start a regular job.
- Results are robust to changes in sample size and to the inclusion of covariates.

# Marginal Effect of TA Employment, 2010



*Note: circles represent the estimated difference between unemployed and TAs, the model specification is in parentheses. (1) univariate - full sample; (2) univariate - reduced sample; (3) multivariate - reduced sample. The whiskers delimit the 95% confidence interval.*

# Marginal Effect of TA Employment, 2015



Note: circles represent the estimated difference between unemployed and TAs, the model specification is in parentheses. (1) univariate - full sample; (2) univariate - reduced sample; (3) multivariate - reduced sample. The whiskers delimit the 95% confidence interval.

## Other results

<b>Gender</b>	Men	reference
	Women	less likely
<b>TA</b>	2005	less likely
	2010	less likely
	2015	reference

*Note: N Events = 578,654*

- Women are less likely than men to start a regular job
- TAs are more likely to start a regular job during economic downturns



# Results

- The probability of starting a regular job is the lowest between 1-3 months for TAs.
- Up to 6 months women are less likely to start a regular job than men (1 to 7 percentage points).
- There are no relevant gender differences for TAs with regard to the probability of starting a regular job.
- The negative marginal effects for TAs are the largest in 2005 (in absolute terms).
- The results are robust to sample definition and inclusion of covariates.
- The lock-in effect is only temporary, after 6 months TAs have a greater probability of starting a regular job.

# Annual Gross Earnings Model

I estimate the log-linear model of gross earnings:

$$\log(y_{it+j}) = \beta_0 + \beta_1 TA_{it} + \beta_2 TA_{it+j} + \mathbf{X}_{it+j}^T \gamma + u_{it+j},$$

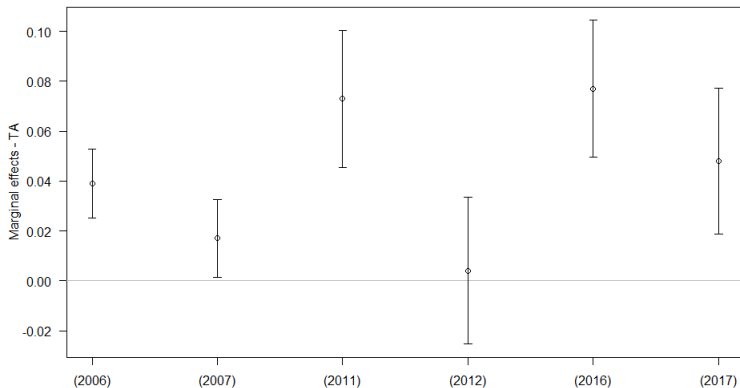
where  $y_{it+j}$  are the annual gross earnings of person  $i$  at time  $t+j$ .

$t = 2005, 2010$  or  $2015, j = 1$  or  $2$ .

$\beta_1$  = earnings differential between a  $TA$  and a person from the *unemployed* group.

$\mathbf{X}$  includes demographic variables as gender, education, marital status, age, and nationality. Indicators for industry and region of employment are also comprised.

# Marginal effects, TA - earnings



*Note: circles represent the estimated difference between unemployed and TAs, multivariate model. The whiskers delimit the 95% confidence interval*

# Results

- The TA-effect varies with the inclusion of demographic, LM variables.
- The marginal effect is not constant over the BC, i.e., it is greatest during downturns.
- On average, TAs earn 2 to 8% more than similar unemployed people.
- On average, TA women earn more than similar unemployed women (10 to 20%).
- BUT, as I do not observe the number of hours worked, it is not possible to conclude that this is due to a temporary agency job.

# Conclusion

**1** Are TAs better off than the unemployed?

They have longer duration until a regular job (and fewer start a regular job).

TAs earn more than similar unemployed in the first and second year after the TA/unemployment spell.

**2** Variation over the BC?

Yes, the stepping-stone effect is greater during periods of higher unemployment.

**3** Differences between men and women?

Yes, but small and varying over time.

Temporary agency work is non-random. Alternative models to control for self-selection include

- matching models,
- panel regressions with person's FE.

Qualitative analysis (job satisfaction, search-related stress, etc.)

Impact assessment of the introduction of the principle of equal treatment in the Austrian legislation (2013).

## (Main) References



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[Risak, 2019]

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[Zweimüller et al., 2009]

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