



Kanton Zürich
Volkswirtschaftsdirektion
Amt für Wirtschaft und Arbeit

Matching of client and counselor in counselling unemployed persons

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Outline

- Introduction/ Background
- Data
- Research Questions
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Introduction/ Background

- Amt für Wirtschaft und Arbeit (Office for Economics and Labour), Canton Zurich - Abteilung Arbeitsmarkt (Labour Market Department)
- Office of Economics and Labour / Labour Market Department runs 16 Regional Employment Agencies (RAV) in the canton and the Qualification for Job Seekers department (about 600 employees, ca. 30000 jobseekers/ unemployed)
- Evaluation of labour market data and the benefits of labour market programs
- What measures and programs should be implemented to improve our work and services?

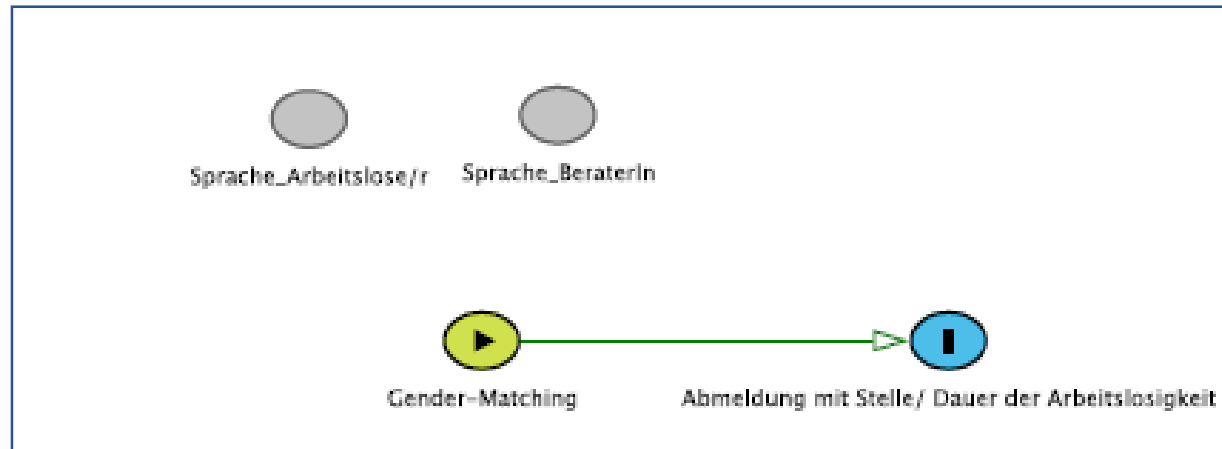
Data

- Survey of about 700 counselors in Eastern Switzerland, Zurich, Aargau and Zug (2018)
- All unemployed persons who signed off in the surveyed cantons in 2016 (approx. 120 000) were matched with their respective counsellors from the survey
- Final data set with 60 000 cases
- Information on sex, age and occupation of jobseeker and respective counselors
- Moreover information on the duration of job search and whether the person found a new job or not

Research Questions

- 1. Gender-matching:** Does the gender match between the counsellor and the person seeking employment has an effect on the success of the counselling?
- 2. Age-matching:** Does the age match between the counsellor and the person seeking employment has an effect on the success of the counselling?
- 3. Professional background:** Does the match of the professional background between the counsellor and the person seeking employment has an effect on the success of the counselling?

Gender-Matching I



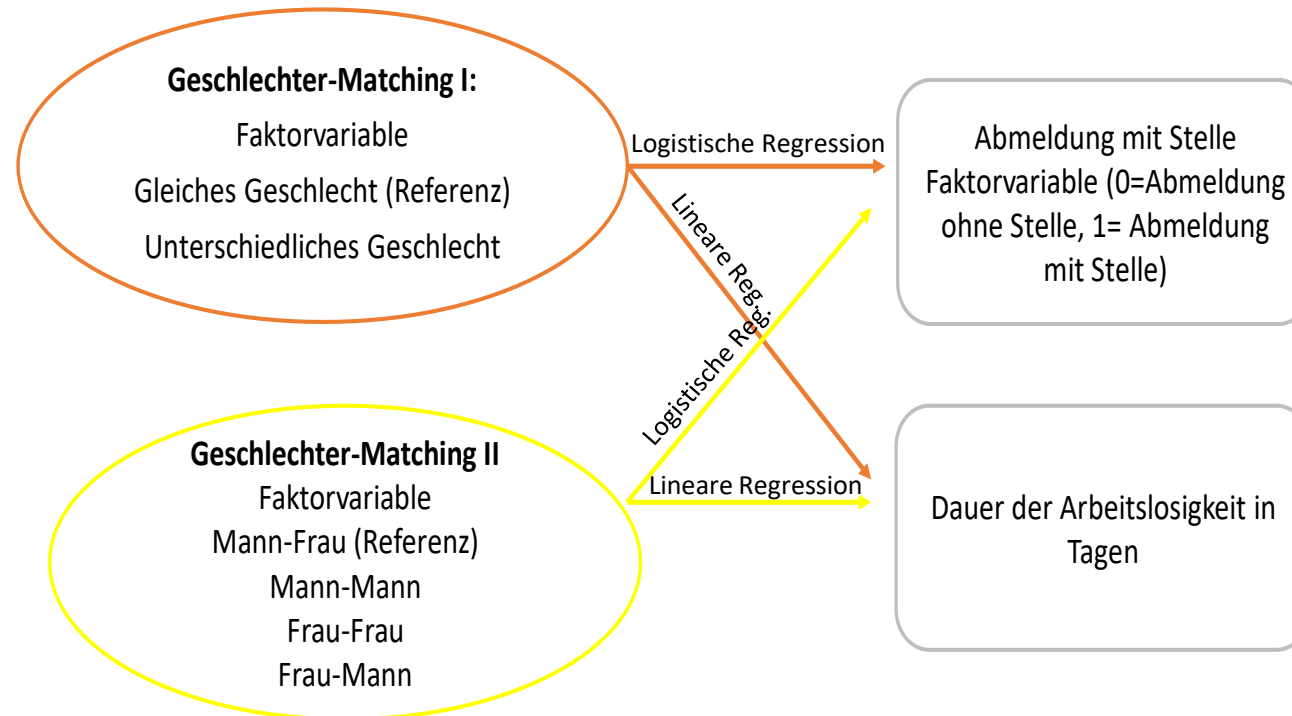
Variable
Gender-Matching I

	Gleiches Geschlecht	Unterschiedliches Geschlecht	
	31022	27271	58293
	53%	47%	100%

Variable
Gender-Matching II

	Personalberater Männlich/ Arbeitslose Person Weiblich	Personalberater Männlich/ Arbeitslose Person Männlich	Personalberater Weiblich/ Arbeitslose Person Weiblich	Personalberater Weiblich/ Arbeitslose Person Männlich	
	10761	16227	14007	15881	56876
	19%	29%	25%	28%	100%

Gender-Matching II



First Fit Gender-Matching I

```
Call:
lm(formula = dauerStellensuche ~ Geschlechter_Matching_I, data = d.2016_subset)
Residuals:
    Min       1Q   Median       3Q      Max
-282.0 -196.8  -98.0  124.2 5107.0

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    283.017     1.574   179.8 < 2e-16 ***
Unterschiedliches Geschlecht -9.200     2.300    -4.0 6.34e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 273.7 on 56874 degrees of freedom
Multiple R-squared:  0.0002812,    Adjusted R-squared:  0.0002637
F-statistic:    16 on 1 and 56874 DF,  p-value: 6.344e-05
```

Deregistration with job ~ Gender Matching I
(same sex: yes or no)

Logistic regression:
nothing significant

Duration of unemployment ~ Gender
Matching I (same sex: yes or no)

Linear Regression:
Different sex-constellation is significantly
reducing duration of unemployment

First fits Gender-Matching II

```
Call:
glm(formula = AbmeldungmitStelle ~ Geschlechter_Matching_II, family = binomial,
     data = d.2016_subset)
```

```
Deviance Residuals:
    Min       1Q   Median       3Q      Max
-1.365 -1.328  1.001  1.034  1.039
```

```
Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept)  0.34709   0.01957  17.735 < 2e-16 ***
Ber. M/Arb. M  0.08381   0.02532   3.310 0.000933 ***
Ber. W/Arb. W -0.01260   0.02601  -0.484 0.628072
Ber. W/Arb. M  0.03779   0.02538   1.489 0.136521
```

```
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Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

(Dispersion parameter for binomial family taken to be 1)

```
Null deviance: 76848 on 56875 degrees of freedom
Residual deviance: 76828 on 56872 degrees of freedom
AIC: 76836
```

Number of Fisher Scoring iterations: 4

```
Call:
lm(formula = dauerStellensuche ~ Geschlechter_Matching_II, data = d.2016_subset_SEX_ohne0_ohne
NA)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-290.4 -196.4  -98.2  123.8 5098.6
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  273.2709   2.6381 103.587 < 2e-16 ***
Ber. M/Arb. M   2.4773   3.4022   0.728   0.467
Ber. W/Arb. W  18.1677   3.5080   5.179 2.24e-07 ***
Ber. W/Arb. M   0.9168   3.4169   0.268   0.788
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 273.7 on 56872 degrees of freedom
Multiple R-squared:  0.0007167, Adjusted R-squared:  0.000664
F-statistic: 13.6 on 3 and 56872 DF, p-value: 7.293e-09
```

Deregistration with Job ~ Gender Matching II (4 combinations)

Logitstic regression:

Combination male/male is significant and seems to support deregistration with job in comparison to male/female (actually a slight contradiction to model 2, where the different sexes were better)

Duration of unemployment ~ Gender Matching II (4 combinations)

Linear Regression:

Female-Female significantly prolongs the duration of unemployment compared to the other combinations