Double Standards in Just Earnings for Men and Women. An Explanation

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Introduction

- As is well known, earnings of men and women still differ in most western societies.

- For example, in Switzerland women earn about 20% less than men on average (difference in median earnings for a full-time job).

- Part of the gender wage gap may be attributable to differential "productivity" (e.g. different levels of education and work experience).

- However, numerous studies indicate that a substantial part of the wage gap remains "unexplaind".

- The focus of our research is to investigate whether or not such a gender wage gap is supported by social norms about just earnings for men and women.

Measurement of Social Norms

- How can normative judgements about just earnings be measured?
- One approach is to use vignette analysis (a.k.a factorial survey; see Rossi 1979, Rossi and Nock 1982, Beck and Opp 2001):
  - ▶ Respondents are asked to judge short text descriptions of (fictional) individuals or situations (so called "vignettes").
  - ▶ Certain elements of the vignettes are varied at random.
  - ▶ For our research objective, we can use vignettes describing men and women with different jobs and earnings.
  - ▶ Based on a sample of vignettes, the effects of variations of the vignette factors on the judgements can be evaluated. These effects provide evidence about the social norms that are at play.

Measurement of Social Norms

- Example of a vignette:

> Imagine the following situation:
>
> *Ms. Meier, 32 years old, works as a commercial clerk. She is a single mother with two children. Financially, she barely makes ends meet. She works with great commitment and accomplishes her tasks and duties to perfect satisfaction of her employer. Her monthly gross income amounts to SFr. 4000.–.*
>
> How do you judge the income of the described person?
>
> | much too low | | | | | just right | | | | | much too high |
> |---|---|---|---|---|---|---|---|---|---|---|
> | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 |

# Measurement of Social Norms

- As long as assignment is randomized, vignette analysis shares the properties of a controlled experiment. That is, causal interpretation of the effects of the vignette factors is possible.

- However, keep in mind that vignettes are fictional and that opinions may differ in real situations. Also, vignette analysis is only about norms and opinions and does not say anything about actual behavior.

- Furthermore, judgements may be affected by social desirability bias.
  - If the variations of the vignette factors are obvious to the respondents, they may try to provide "politically correct" answers that do not reflect their true opinions.

- Therefore, we decided to use only one vignette per respondent in our research.

Previous Results

- In 2001 and 2006/2007 we conducted two vignette studies that yielded contradicting results.
- In the 2001 Study (mail survey, $N = 531$), the sex of the person in the vignette had a clear effect on the respondents' judgements.
  - For men, the given income was more likely to be judged as too low.
  - That is, according to the respondents' judgements, income for men should have been higher than for women.
  - This was true irrespective of the sex of the respondent!
  - Furthermore, the sex effect did not depend on the family situation of the described person (married without children vs. single mother/father with two children).
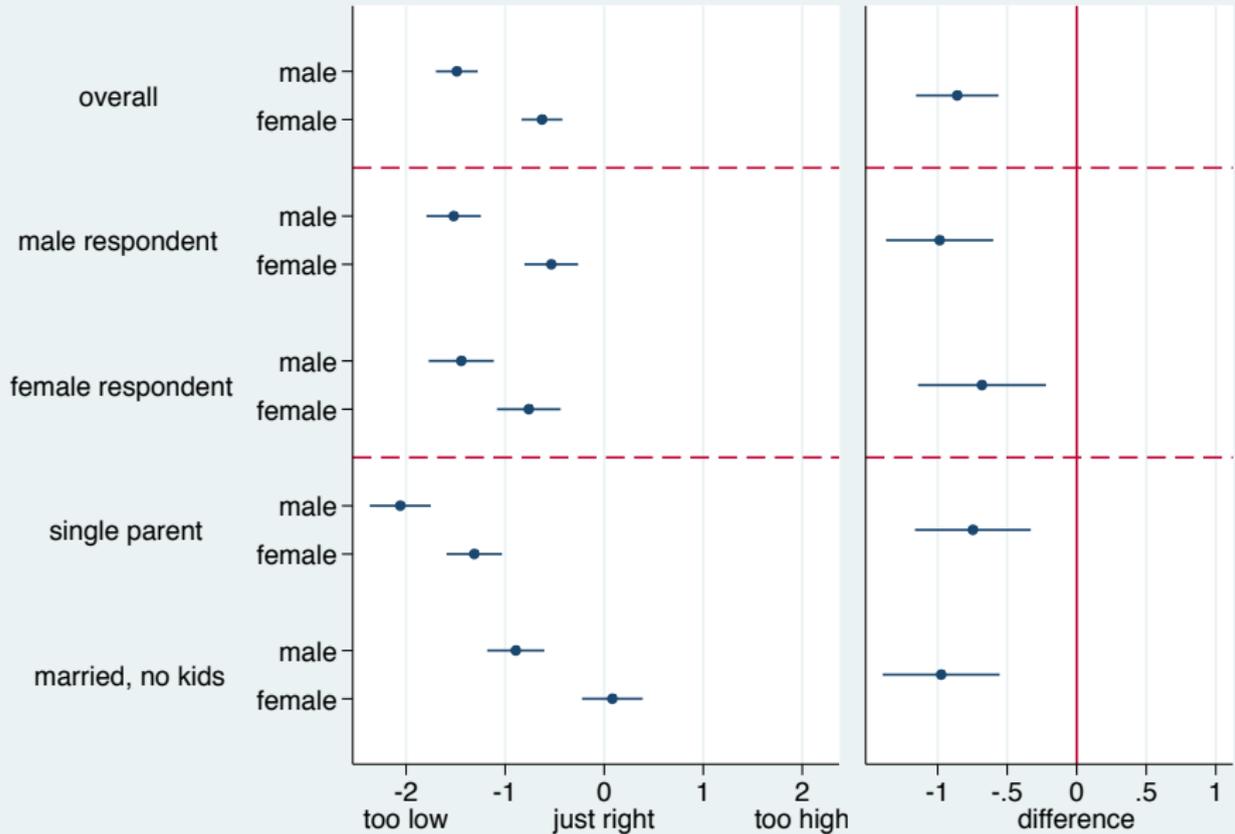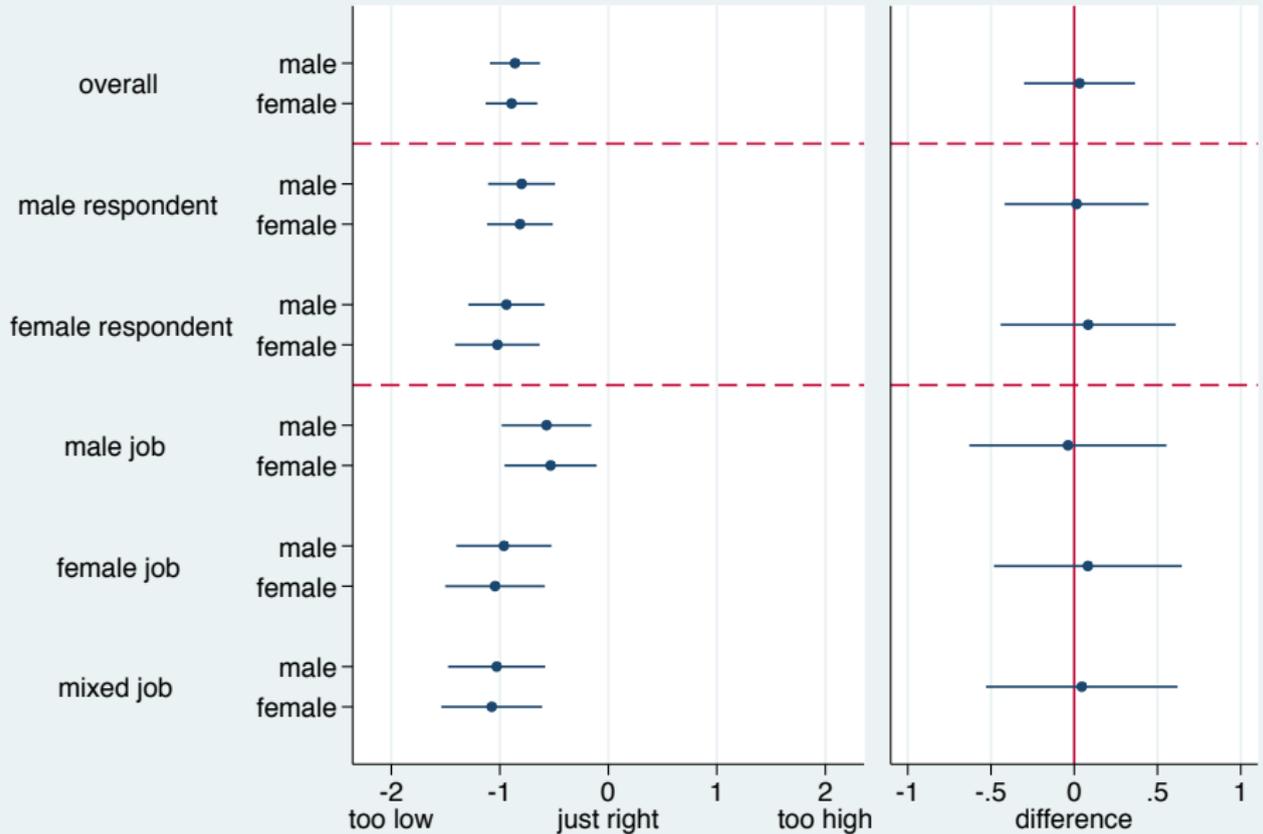
Previous Results

- In the 2006/2007 Study (mail survey, $N = 371$), however, the sex of the person in the vignette had no effect at all.
  - For men and women, the given income was equally likely to be judged as too low.
  - This was true for both, male and female respondents.
  - Furthermore, the sex effect did not depend on the type of job: predominantly male job (carpenter), predominantly female job (nurse), mixed job (journalist).

Previous Results

- What might be the reason for the differing results?
  - ▸ Different population?
    - ⋆ In both studies a random sample from the population in the german part of Switzerland was used.
  - ▸ Change over time?
    - ⋆ Probably not.
  - ▸ Family context?
    - ⋆ The design of the two studies was very similar. However, there was one major difference: The family context.
    - ⋆ In Study 1, the described person was either "married without children" or a "single mother/father with two children".
    - ⋆ In Study 2, the described person was "single without children".

A Possible Explanation for the Differing Results

- When judging earnings, respondents take into account whether there is a partner who likely contributes to the household income.

- Such a partner's contribution may be presents in case of married persons and also in case of single parents (alimony) as in Study 1, but is less likely in case of single persons as in Study 2.

- In accordance with existing gender roles in our society, a partner's contribution is expected to be larger if the partner is male than if the partner is female.

- That is, in Study 1 respondents implicitly "add" an extra component to the household income that differs by sex of the described person. Therefore, we would expect a sex effect in Study 1, but not in Study 2.

New Study

- To test whether this hypothesis provides a valid explanation for the results observed in Studies 1 and 2, we conducted a third experiment in which married and singles were compared.

- Implemented in fall 2010 as part of a follow-up survey of the "Swiss Environmental Survey 2007".

  - Mail survey among a random sample of the Swiss population ($N = 1945$). Written questionnaire in German, French and Italian.

  - $2 \times 2 \times 2 \times 3$ design using the following vignette factors:
    - male vs. female
    - single without children vs. married without children
    - average work effort vs. above-average work effort
    - income levels: 5000 CHF, 5500 CHF, 6000 CHF

The Vignette

In letzter Zeit wird viel über die Höhe von Löhnen in verschiedenen Berufen gesprochen. Wir interessieren uns für Ihre persönliche Einschätzung zu diesem Thema.

Stellen Sie sich die folgende Situation vor:

{Herr | Frau} Müller, 25-jährig, {allein stehend und ohne Kinder | verheiratet in kinderloser Ehe}, arbeitet als kaufmännische{r|} Angestellte{r|} im Rechnungswesen eines mittleren Dienstleistungsbetriebs und erbringt dort {überdurchschnittliche | durchschnittliche} Leistungen. {Sein | Ihr} monatliches Bruttoeinkommen beträgt {5'000 | 5'500 | 6'000} Franken.

Wie bewerten Sie das Einkommen dieser Person? Ist das Einkommen Ihrer Meinung nach gerecht oder ist es ungerechterweise zu hoch oder zu niedrig?

viel zu niedrig					gerecht					viel zu hoch
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

Expressing Results in Swiss Francs

```
. regress rating vinc i.(vmale vmarried veffort)
```

Source	SS	df	MS			Number of obs =	1912
						F(4, 1907) =	76.35
Model	704.263364	4	176.065841			Prob > F =	0.0000
Residual	4397.79678	1907	2.3061336			R-squared =	0.1380
						Adj R-squared =	0.1362
Total	5102.06015	1911	2.66983786			Root MSE =	1.5186

rating	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
vinc	1.090478	.0843404	12.93	0.000	.9250683	1.255887
1.vmale	-.307526	.0694779	-4.43	0.000	-.4437866	-.1712654
1.vmarried	-.1840268	.0694702	-2.65	0.008	-.3202725	-.0477812
1.veffort	-.7215018	.069471	-10.39	0.000	-.8577489	-.5852547
_cons	1.092952	.0692489	15.78	0.000	.95714	1.228763

```
. di "One point on the scale is equialent to about " 1/_b[vinc]*1000 " CHF"
One point on the scale is equialent to about 917.02945 CHF
```

Expressing Results in Swiss Francs

```
. margins, dydx(vmale vmarried veffort) expression(xb()/-_b[vinc]*1000)

Average marginal effects                        Number of obs   =       1912
Model VCE    : OLS

Expression   : xb()/-_b[vinc]*1000
dy/dx w.r.t. : 1.vmale 1.vmarried 1.veffort
```
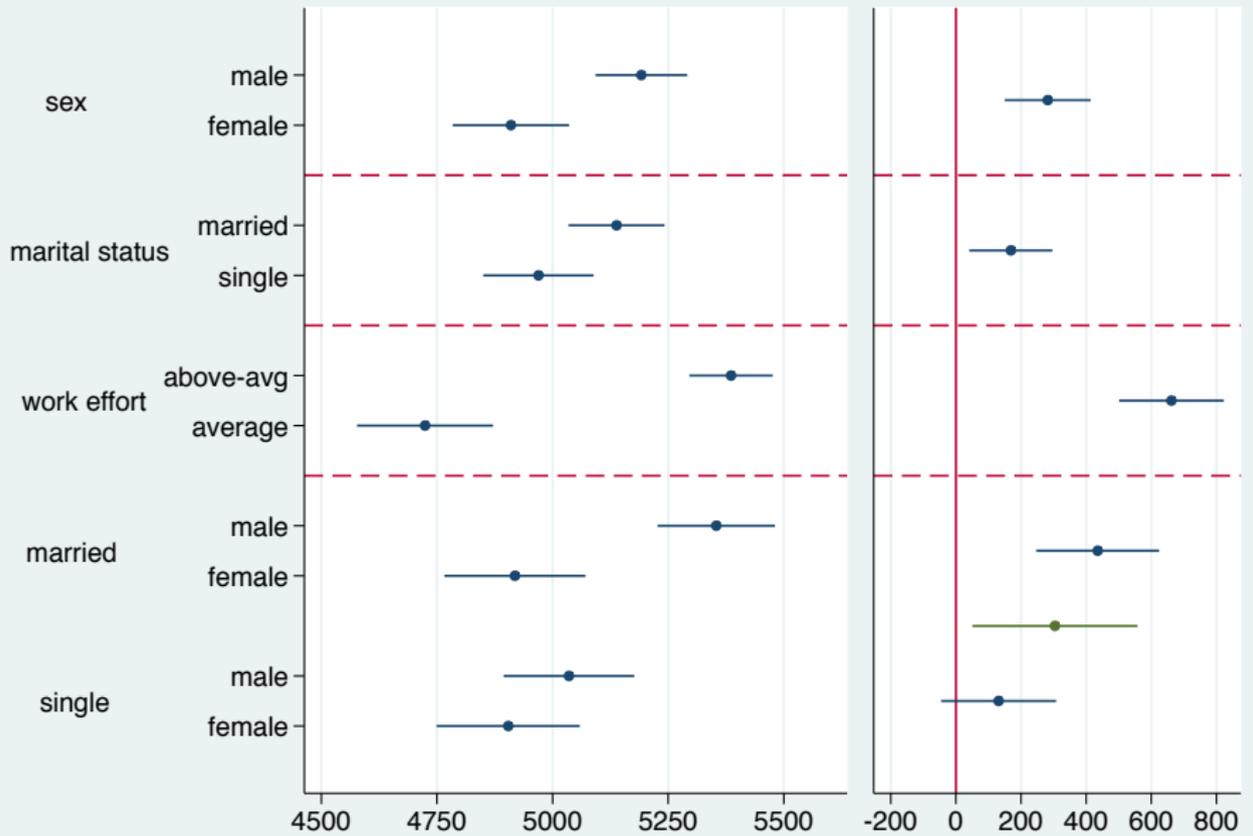
	dy/dx	Delta-method Std. Err.	z	P>|z|	[95% Conf. Interval]	
1.vmale	282.0104	67.30184	4.19	0.000	150.1012	413.9196
1.vmarried	168.758	65.13499	2.59	0.010	41.0958	296.4203
1.veffort	661.6384	81.99312	8.07	0.000	500.9349	822.342

```
Note: dy/dx for factor levels is the discrete change from the base level.
```

	Levels	Differences

sex: male, female

marital status: married, single

work effort: above-avg, average

married: male, female

single: male, female

Levels axis: 4500 4750 5000 5250 5500

Differences axis: -200 0 200 400 600 800

Conclusions

- The results of the new study confirm the hypothesis that the family context mediates the effect of sex on just earnings.
    - For single men and single women there is no difference in just earnings.
    - For married men just earnings are higher than for married women.
- The precise mechanism, however, appears to be slightly different than hypothesized.
    - Just earnings for women are not affected by marital status. So the assertion that the presence of a partner reduces just earning for women seems to be wrong.
- It is men whose just income increases if they are married.
    - That is, there seems to be a marriage premium for men.
    - This is in accordance with the traditional view of the man as the bread-winner.

References

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