

IZA DP No. 1202

## Approval of Equal Rights and Gender Differences in Well-Being

Rafael Lalive  
Alois Stutzer

July 2004

# Approval of Equal Rights and Gender Differences in Well-Being

**Rafael Lalive**

*University of Zurich  
and IZA Bonn*

**Alois Stutzer**

*University of Zurich  
and IZA Bonn*

Discussion Paper No. 1202  
July 2004

IZA

P.O. Box 7240  
53072 Bonn  
Germany

Phone: +49-228-3894-0

Fax: +49-228-3894-180

Email: [iza@iza.org](mailto:iza@iza.org)

Any opinions expressed here are those of the author(s) and not those of the institute. Research disseminated by IZA may include views on policy, but the institute itself takes no institutional policy positions.

The Institute for the Study of Labor (IZA) in Bonn is a local and virtual international research center and a place of communication between science, politics and business. IZA is an independent nonprofit company supported by Deutsche Post World Net. The center is associated with the University of Bonn and offers a stimulating research environment through its research networks, research support, and visitors and doctoral programs. IZA engages in (i) original and internationally competitive research in all fields of labor economics, (ii) development of policy concepts, and (iii) dissemination of research results and concepts to the interested public.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available on the IZA website ([www.iza.org](http://www.iza.org)) or directly from the author.

## ABSTRACT

### Approval of Equal Rights and Gender Differences in Well-Being\*

Women earn less than men but are not less satisfied with life. This paper argues that norms on the appropriate pay for women compared to men explain these findings. We take citizens' approval of an equal rights amendment to the Swiss constitution as a proxy for the norm that "women and men shall have the right to equal pay for work of equal value". We find that the gender wage gap narrows by one fifth due to an increase by one standard deviation in the approval. Rejecting an explanation in terms of discrimination, we find that employed women are less (not more) satisfied with life in liberal communities where the gender wage gap is smaller.

JEL Classification: I31, J16, J31, J70, Z13

Keywords: equal rights, gender discrimination, gender wage gap, social norms, subjective well-being

Corresponding author:

Alois Stutzer  
Institute for Empirical Research in Economics  
University of Zurich  
Bluemlisalpstrasse 10  
8006 Zurich  
Switzerland  
Email: [astutzer@iew.unizh.ch](mailto:astutzer@iew.unizh.ch)

---

\* We are grateful to George Akerlof, Bruno S. Frey, Ed Glaeser, Lorenz Götte, Andreas Kuhn, Audrey Light, Simon Lüchinger, Stephan Meier, Tuomas Pekkarinen, Dina Pomeranz, Josef Zweimüller and participants at the 1st International Panel User Conference in Switzerland and the IZA Workshop on "The Nature of Discrimination" for helpful comments and to Andreas Herzog for the use of mapresso. This study has been realized using the data collected by the Swiss Household-Panel, a project financed by the Swiss National Science Foundation Program, SPP, "Switzerland Towards the Future" (Grant no. 5004-53205).

# Approval of Equal Rights and Gender Differences in Well-Being

*“The generality of the male sex cannot yet tolerate the idea of living with an equal.”*  
-- John Stuart Mill (1869)

## 1 Introduction

It is a well-established statistical finding that women earn less than men on the labor market.<sup>1</sup> Nevertheless, women do not report significantly lower satisfaction with their life or their job and, in countries like the United States, Great Britain or Switzerland, they even report higher job satisfaction than men.<sup>2</sup> This is a puzzle. To the extent that the gender wage gap is thought to be due to active discrimination, one would expect women to experience lower well-being than men, *ceteris paribus*.

This paper argues that norms regarding appropriate pay of women compared to men are an important explanation for gender differences in wages and subjective well-being and explain the puzzle mentioned above. In particular, there are strong norms handed down from one generation to another that appropriate salaries for men are higher than for women.<sup>3</sup> They are rooted in traditional values favoring gender specific specialization, giving men priority on the labor market and women priority in the household. So, despite the gender wage gap, lower salary standards do not leave women feeling worse off.

We investigate the extent to which shared norms regarding equal rights are important on the labor market by studying a national referendum on an equal rights amendment to the Swiss constitution in 1981. A central proposition of the equal rights amendment was that “women and men shall have the right to equal pay for work of equal value”. This referendum thus provides a measure of the degree to which voters believe that the appropriate pay for a woman is identical to that of a man. This proxy measure enables us to identify communities where

---

<sup>1</sup> See, e.g., Blau and Kahn (2000), Stanley and Jarrell (1998) and Weichselbaumer and Winter-Ebmer (2003).

<sup>2</sup> See, e.g., Clark (1997) and Sousa-Poza and Sousa-Poza (2000).

<sup>3</sup> Intuitively, the view of male superiority leads to higher reference wages of men compared to women. We think of the reference wage as a cognitively relevant standard that affects how people evaluate their income (Kahneman and Tversky 1979). This reference wage affects wages in a bargaining setting, where one’s reference standard determines the initial offer, as well as the effort invested in negotiating a higher wage.

people challenge the traditional role model and where women demand equality. We find that, in communities where people strongly approved the constitutional amendment on equal rights (liberal communities), there is a smaller gender wage gap for workers than in traditional communities. This finding is consistent with women in liberal communities having higher reference standards of what is an appropriate salary. However, it is also possible that the large wage gap in traditional communities is due to active taste based or statistical discrimination.

In order to study the degree to which discrimination might play a role, the subjective well-being of women compared to men is analyzed. If the large gender wage gap in traditional communities is due to active discrimination, women are expected to report relatively lower subjective well-being than in liberal communities. However, our findings for working women and men indicate that women are less satisfied with their life in liberal rather than in traditional communities (while there are no significant differences for men across communities). Furthermore, perceived discrimination of women compared to men is also higher in liberal than in traditional communities.

Taken together, these findings indicate societal approval of equal rights playing a significant role in affecting the labor market success of women compared to men. Our interpretation is that no new ‘equilibrium’ has been reached yet. The progressive women still feel penalized and, e.g., that they are paid below their reference standard, although women who challenged the traditional entitlements gained substantially in terms of income.

The remainder of the paper is organized as follows: Section 2 discusses the nature of gender differences in salary entitlements and its consequences for wage bargaining and labor market outcomes. Section 3 proposes a new measure to capture spatial differences in people’s beliefs about women’s role on the labor market. The empirical relevance of shared beliefs about women having equal rights on the labor market are studied in sections 4 and 5. We analyze a set of important labor market outcomes, as well as four survey measures on reported subjective well-being and perceptions of discrimination. Section 6 offers concluding remarks.

## **2 Norms on the Appropriate Pay for Women and Men**

### ***2.1 Why Are There Gender Specific Norms Regarding Appropriate Pay?***

Salaries are a useful starting point for considering gender differences in labor market success. When market forces determine salaries so that they come close to marginal factor productivity, there is no room for norms on gender specific appropriate pay. However, the importance of bargaining in wage determination indicates that there is scope for other factors

in addition to productivity in determining salaries. While economic thinking has emphasized the role of the outside option in bargaining outcomes, there is ample evidence that social norms and fairness considerations also play an important role in wage setting (e.g. Bewley 1999, Fehr and Gächter 2000).

This paper argues that a particular social pay norm – the belief that women ought to earn as much as men for work of equal value – may affect the outcome of wage bargaining. This gender specific norm has developed over time. Historically, gender specific specialization has given men priority on the labor market and women in the household. Men were expected to keep a family and thus their appropriate salaries were higher than what they “needed” just for themselves. In contrast, female workers were not expected to keep a family and therefore “needed” less. The early literature in economics noted that

*“It is notorious that women get lower wages than men because women can live on less, or need less, or are helped out by home supplementation, or have their theatre tickets furnished them by their escorts.” (Davenport 1919)*

Gender specific specialization was associated with strong gender specific socialization and occupational segregation. While females were taught to behave in a cooperative, selfless and nurturing way, males were taught to behave in a competitive and selfish way.<sup>4</sup> These processes led to both sexes having systematically different expectations about what salary is appropriate for women’s and men’s work. This view is very succinctly expressed by a cotton-spinning mill owner:

*“[i]f men had from any cause to be employed in the work which women now do, they would undoubtedly get higher wages, though they might not do more or better work; the standard of their wages is higher” (cited in Webb 1891, p.641).*

The double standards in appropriate earnings were explicitly studied among 200 white adults in Baltimore (Jasso and Webster 1997). Based on the vignette technique, they find that women as well as men considered appropriate earnings to be lower for women than for men. The female/male ratio in the “fair” gender wage gap is estimated at 0.85 for men and 0.88 for women. These results are due to a lower base level of the fair salaries, as well as lower returns to schooling for women than for men. Complementary evidence is from survey studies with small samples drawn from the college student population. In one study (Major et al. 1984), 76 undergraduates had to determine what they thought would be a fair compensation for a fixed

---

<sup>4</sup> See Gneezy and Rustichini (2002) for an interesting experimental study on gender differences in competitive vs. non-competitive settings.

amount of work. The young women in the sample paid themselves less money than the young men did. In a second study by the same authors, 40 women and 40 men received a payment first and were then asked to do as much work as they thought appropriate for the amount they had received. Women worked longer, made fewer mistakes and had a higher output. Differences in pay standards were also found for 126 people who determined either their own salary or the salary of another person. Women paid themselves less than men did and even less than what they paid other women (Callahan-Levy and Messe 1979). In another study (Bylsma and Major 1992), 203 undergraduates indicated how much they deserved to be paid in nine different employment scenarios. The earnings women felt that they deserved were lower than men's earnings. It is also found that women's ratings of their performance and their pay satisfaction are more influenced by comparing themselves with other women than with men (Bylsma and Major 1994). The usually hypothetical nature of these studies leaves their validity in real life behavior open. At the very least, they strengthen the underlying hypothesis in our analysis.

The norms about women's and men's separate roles on the labor market and about appropriate salaries still hold today to some extent, and imply gender specific differences in compensation. However, there are many women who do not share the norms anymore and some of them have been active in the women's movement, have engaged in the introduction of equal rights legislation or have stood up for institutions that make job and family life compatible. There is also a rethinking occurring in the minds of men and some giving up of traditional roles and norms. Thus, the extent to which the traditional norms are shared varies substantially between people, but also between countries, regions and even small neighboring communities.

## ***2.2 What are the Consequences of Gender Specific Appropriate Pay Norms?***

To the extent that women as well as men think that women deserve lower pay, women can be expected to negotiate in a systematically different way than men do. In fact, there is now substantial evidence that women ask for less than men, or do not ask at all in pay negotiations (Babcock and Laschever 2003, Riley and McGinn 2002, Säve-Söderbergh 2003, see also Stuhlmacher and Walters 1999 for a meta-analysis on gender differences in negotiation outcomes). Babcock and Laschever, for example, report from a survey in the United States that 20 percent of women said they never negotiated. For most women, the most recent pay negotiation goes twice as far back as for most men. Women's reluctance to negotiate is reinforced by other parties in the bargaining process. Women who ask for more or promote

themselves often suffer social reprisals, because they violate the gender prescription of being modest (Rudman 1998, Wade 2001). These gender specific beliefs about appropriate behavior and payoffs are also found in laboratory experiments with stylized bargaining situations. In ultimatum games, it is found that both women and men offer less to women, and both women and men choose higher minimum acceptable offers when the proposer is a woman (Solnick 2001).

A straightforward prediction of women making lower initial offers in salary negotiations and negotiating less often is that they earn less than men for equal work.<sup>5</sup> There is a huge literature in labor economics studying gender differences in wages. A key difficulty in this research, however, is the identification of the causal mechanisms leading women to earn less than men for seemingly equal work (Altonji and Blank 1999). Many findings that are usually regarded as discrimination by employers, employees and customers, or as statistical discrimination, can be well understood in a framework of norms about gender specific appropriate salaries. Examples are findings about the gender wage gap under collective bargaining (e.g. Blau and Kahn 2003). In particular, as the position of female employees' in collective salary negotiations is strengthened, lower gender differences compared to individual bargaining might indicate that gender specific appropriate salaries are partly overcome. Another set of findings is about the effect of product market competition on the gender wage gap. In a study about the US banking sector, e.g., liberalization is argued to have reduced the possibilities for employer discrimination (Black and Strahan 2001). An alternative interpretation is that as the pot of money to be distributed among employees got smaller, it was no longer possible to satisfy men's relatively higher aspirations in negotiations about their compensation. However, the strength of social norms about gender differences in appropriate salaries is, as far as we are aware, never measured explicitly in order to be able to test such alternative explanations more closely.

### **3 Measuring Norms Regarding Appropriate Pay**

We propose measuring the norm that women's appropriate salaries are not different than men's using the voting outcome on an amendment to the Swiss constitution. In January 1975, the fourth national congress of women in Switzerland decided to launch a popular initiative postulating equal rights for women and men. Up till now, article 4 of the Swiss constitution

---

<sup>5</sup> Norms about women's and men's role on the labor market do not only affect the outcomes of salary negotiations, but also decisions about promotion (for related work on glass ceiling see, e.g., Albrecht et al. 2003) and advanced training or shared expectations about appropriate effort on the job.



held that “all human beings are equal before the law”. Skeptics suggested that legal practice only ensured that all women were equal and all men were equal, but no woman was a man’s equal in the eyes of the law. Note that Switzerland is quite conservative regarding women’s rights. For instance, the Swiss government did not ratify Charter 100 of the ILO, demanding equal rights for women and men, until 1972.

The initiative proposed amending the constitution by an article that listed in detail the specific areas and the respective rights that should be made law. In December 1975, the committee launching the popular initiative had collected the number of signatures required to force the Swiss government to schedule the initiative. The government decided to work out a counter proposal reading as follows:

*“Men and women have equal rights. Legislation shall ensure legal equality, particularly in the areas of family, education and work. Men and women shall have the right to equal pay for work of equal value.”*

The committee who launched the initiative decided to withdraw the original version of the amendment.

The constitutional amendment covers three important areas: Equality within the family was an essential ingredient to the cause of Swiss women, because the prevailing family law stipulated the husband as being the head of the family and being the sole actor to represent the family outside. Equality in education was deemed an important cause, because school curricula were reflecting the old view that girls should be taught the skills of running a household, as opposed to boys who should be able to support the household. Thus, from secondary school onwards, girls tended to be taught how to knit and cook, whereas boys perfected their skills in mathematics. The area of market work formed an essential pillar of the constitutional amendment, because women earned, on average, 30% less than men.<sup>6</sup> It is noteworthy that, in contrast to the general norms stipulated with respect to family and education, the amendment contains the explicit directive that women must earn the same money for work of equal value. Thus, this third requirement was the only one to improve the legal situation of women immediately after the vote had been cast.<sup>7</sup>

---

<sup>6</sup> This is the gender wage differential cited in the newspapers, discussing equal pay for women and men in 1981.

<sup>7</sup> It was understood at the time that primarily the private sector would be affected by this vote. The public sector had been covered by the ILO equal rights agreement No. 100 that the Swiss government had ratified in 1972, and by a federal law passed in 1977. The amendment did not directly invalidate all contracts between employers and workers that stipulated different pay for equal work. Instead, each contract had to be reviewed separately by the court in order to determine violation of the constitution (Neue Zürcher Zeitung, July 30, 1981).

The public debate in the newspapers focused mainly on two issues. “Will a ‘Yes’ to this amendment mean the end of the family?”<sup>8</sup> and “Equal work – but the wage is different”<sup>9</sup>. The issue of the implications for the family has to be seen against the backdrop of the 1968 revolution. Conservative thinkers argued that this amendment might be used to create the legal framework that would destroy the “main pillar of society”. The second issue of unequal pay was addressed in several ways. First, some newspapers focused on minimum wages in identical occupations. For instance, it was found that the minimum wage for a male sales clerk was 1900.- CHF / month, whereas a female sales clerk earned only 1640.- CHF / month. Second, a dissertation at the University of Berne investigating unequal pay between women and men got a lot of press coverage (Reis 1988). Relying on unusually rich data regarding work input, this dissertation found that women did indeed earn less than men, that the expected job duration of women was shorter, representation of women in unions was lower, and that discrimination might contribute to this differential pay for equal work. This shows that voters were indeed confronted with the issue that women were earning less than men.

On June 14, 1981, Swiss voters had to decide whether they would like to amend the Swiss constitution to reflect not only equality of human beings in general but equality of women and men in particular. A total of 707,702 voters (or 60.2% of the electorate) and 17 cantons voted in favor of the amendment, while 525,885 voters and 9 cantons opposed the amendment – the initiative proved to be successful.<sup>10</sup> In the exit poll, the main reasons in favor of the amendment were “Equal pay for work of equal value”, “Equal rights” and “Women are worth as much as men” reported by roughly 70% of the voters interviewed.

This shows that the vote indeed reflects the extent to which voters agree with the norm that women should earn what men do if they do the same work.<sup>11</sup>

Figure 1 shows the cross-sectional distribution of approval of equal rights across 2896 Swiss communities, with lighter shading reflecting a higher proportion of people approving of equal rights. On the one hand, the west and the south-east parts of Switzerland, as well as the area around Zurich tended to favor the constitutional amendment very strongly. On the other hand,

---

<sup>8</sup> Headline of an article in the newspaper *Blick*, June 3, 1981.

<sup>9</sup> Headline of an article in the newspaper *Luzerner Neuste Nachrichten*, June 4, 1981.

<sup>10</sup> A constitutional amendment has to be accepted by both the majority of people and the majority of cantons.

<sup>11</sup> In reaction to the vote, the employer’s association printed a booklet to be distributed to its members containing, among other things, the reasons for unequal pay between women and men. “There is scientific proof that women are 30% (note that this figure coincides exactly with the gender wage differential at that time) less productive than men. This finding is based on studies that study the oxygen-intake capacity of male and female subjects.”

a dark belt of communities stretching from the south-west to the north-east of Switzerland expressed their strong disapproval of equal rights. There is a surprising number of communities in which not only men but also a significant proportion of women must have rejected equal rights. This suggests that not only one's own material well-being (instrumental voting), but rather the shared beliefs about the appropriate pay and position of women were important in the voting decision (expressive voting).

[Figure 1 about here]

In the empirical analysis below, we argue that the voting result measures the extent to which people share the view that women should have the same rights in all areas of life and the same entitlements on the labor market as men.<sup>12</sup> We rely on the vote as a proxy that captures the views of voters in 1981, which we then merge with information on labor market and subjective well-being outcomes at the end of the 20<sup>th</sup> century. This means that we can investigate both a direct channel that runs from individual values and norms to well-being (for the older cohorts) as well as an indirect inter-generational channel, whereby we study the role of the parents' views for the children's outcomes (for the younger cohorts). Of course, merging past information on norms with current information on outcomes implies measurement error and leads to lower bound estimates. However, it is likely that individuals, who were liberally minded 20 years ago, still tend to live in liberal communities. Moreover, choosing to live in communities where people share similar norms facilitates the analysis rather than hampers it.

For a social pay norm to be relevant in wage determination today, it is, of course, necessary that gender differences with respect to appropriate pay still exist. Based on the vignette technique<sup>13</sup>, Jann (2003) asks a random subset of a total of 531 survey respondents in Switzerland whether they think that 4000.- CHF / month (~2700 US\$) is too low or too high for Mrs. Smith (on an 11 point scale). A randomly chosen second set of survey respondents rate whether the same income is appropriate for Mr. Smith. Results indicate that survey respondents think that 4000.- CHF / month is much too low for Mr. Smith in comparison with

---

<sup>12</sup> Note that it is not possible to rely on different votes and / or survey results to find an equally convincing proxy for the social pay norm. Possible candidates for different votes include the national referendums on extending suffrage to women held in 1959 (rejection) and 1971 (approval). These referendums capture more generally than the present popular initiative the notion of political equality between men and women. Surveys tend to focus more directly on values. However, the problem with surveys is that it is not possible to rely on them to measure the norms that prevail *within* communities.

<sup>13</sup> Jann (2003) applies the same technique as used in the work by Jasso and Webster cited in section 2.1.

Mrs. Smith. Thus, there is still compelling evidence for gender specific differences in appropriate pay today.<sup>14</sup>

#### **4 Norms on Appropriate Pay and the Gender Wage Gap**

Social norms about women's role on the labor market and shared beliefs about their appropriate salaries are expected to be important determinants of actual wages. We study this claim based on our proxy measure for equal rights and a large data set about individuals' labor market outcomes. We rely on all available waves of the Swiss Labor Force Survey (SLFS). This rotating panel survey started in 1991. Interviews are conducted each year in springtime. The information gathered is primarily used to generate up-to-date information on the state of the Swiss labor market. Since the SLFS contains information on the community of residence, we can merge information on the percentage of voters who approved the equal rights amendment in 1981. In total, there are 2896 communities in Switzerland, ranging in size from several hundred inhabitants up to more than 300,000 inhabitants.

The analysis concentrates on all observations with valid information on income, contractual hours of work, and additional information concerning human capital and demographic information. This yields a total of 117,878 observations covering 73,526 individuals living in 2,498 different communities.

Figure 2 presents a kernel regression of the log of the hourly rate of pay on the approval of equal rights.<sup>15</sup> There are two striking features in this figure. First, women's wages tend to be much lower than men's wages. Second, there is a very marked increase in the wage rate of women in line with equal rights being approved. In contrast, the wage rate of men is much less sensitive to the voting outcome. This is consistent with women asking for much less than men (or vice versa) in conservative communities and women asking for not much less than men in liberal communities.

Table 1 presents additional descriptive evidence on the relevance of gender specific norms regarding the labor market position of women compared to men. In addition to the log of the hourly rate of pay, we concentrate on three labor market outcomes: years of schooling, years of actual experience, and years of tenure with the current employer. Actual experience is

---

<sup>14</sup> Previous research shows that the ratio of the earnings of women relative to men is lowest in Switzerland in comparison with the U.S. and six other OECD countries (Blau and Kahn 1992). The unexplained component of the wage differential is especially high for workers with low education (Bonjour and Gerfin 2001). Flückiger and Ramirez (2000) analyze the changes in the wage structure between men and women from 1994 to 1996.

<sup>15</sup> We use a gaussian kernel with default bandwidth in kernreg1.ado for STATA.

defined in the SLFS as the duration of employment since the last interruption in employment that lasted longer than 6 months. It is crucial to measure actual experience, since this human capital input measure reflects more adequately than potential experience (i.e. age minus time spent in education) the differential attachment to the labor market between women and men.

[Table 1 about here]

The first two columns in table 1 report gender differences in the weighted mean of the log of the hourly rate of pay.<sup>16</sup> Women who live in communities with approval rates below average (<60%) earn 30% ( $=(\exp(-.349)-1)*100$ ) less than men. The corresponding gender wage gap is 24% in communities with approval of equal rights above average (>60%). Thus, regional differences in approval of equal rights are correlated statistically and economically significantly with the gender wage differential. The higher the proportion of people voting in favor of equal rights in 1981, the lower is the wage gap between women and men in our sample from 1991-2003. Columns 3 to 8 in table 1 perform a similar analysis for the number of years of schooling, number of years of work experience, and number of years of tenure. The idea is, that in communities that hold the view that women should earn equal pay for equal work, women may have stronger incentives to invest in human capital. The descriptive evidence in table 1 weakly suggests that women tend to have a smaller educational disadvantage compared to men in communities with approval rates exceeding 60%. With respect to work experience, we find that women have 8 years less actual experience than men in conservative communities. The corresponding figure in liberal communities is only 6 years. Interestingly, this result does not originate primarily from higher investment of women in work experience, but also from weaker investment of men in liberal communities. The last outcome, the number of years of tenure with the current employer, is studied in columns 7 and 8. We find that women tend to have shorter tenure representing lower investments in specific human capital than men, and that this disadvantage tends to be much lower in liberal areas than in conservative areas. In contrast to the results for work experience, we find here that this effect originates primarily from differences in women's investments in specific human capital.

Table 2 performs the same difference-in-differences analysis in a regression setting. All regressions control for nationality, marital status, part-time status, canton of residence effects, and time-effects. In addition, results for the wage rate include number of years of schooling,

---

<sup>16</sup> We use the inverse of the sampling probability as weights, because some waves of the SLFS tend to over-sample specific areas of Switzerland. Weighting effectively ensures that the results are representative at the national level.

number of years of work experience (and its square), and number of years of tenure (and its square) as control variables (see table A.1 in the appendix for results regarding the control variables). Robust standard errors are reported, adjusted for clustering within communities. The fraction approving of equal rights is standardized, i.e. demeaned and divided by the standard deviation. Thus, the coefficient for “Female” in column 1 of table 2 measures the gender wage differential in the community with average approval of equal rights (60%) and the coefficient for “Approval of equal rights” gives the change in the log of the hourly rate of pay associated with an increase by one standard deviation (8%) for men. Results show that, in the average community, there is a gender wage gap of about 13%. Wages for men are about 3.5% higher in communities with a one standard deviation higher approval of equal rights.<sup>17</sup> This may be due to the fact that approval of equal rights is low in rural areas (with relatively lower wages) and high in cities (with relatively higher wages). The interaction term “Female \* approval of equal rights” indicates that the wage rate of women tends to increase even more than for men in line with approval of equal rights. The coefficient is strongly significant in the statistical sense. More importantly, the result indicates that the mean gender wage gap is narrowed by as much as one fifth, due to an increase of one standard deviation in the approval of equal pay for equal work.<sup>18</sup>

[Table 2 about here]

The second column in table 2 reports results for number of years of schooling. In contrast to the descriptive evidence in table 1, we do not find a significant correlation of the gender gap in schooling with the approval of equal rights. However, for both work experience and tenure with the current employer, we find a significant and quantitatively important reduction in the female disadvantage associated with higher approval of equal rights. Results suggest that up to one sixth or .86 years (.39 years) of the average difference in work experience (tenure) of 4.83 years (2.16 years) between women and men disappears due to a one standard deviation increase in the approval of equal rights. In contrast to results for wages, there are no regional differences in work experience and tenure for men (coefficient for “Approval of equal rights”).

It is interesting to compare the whole narrowing of the gender wage gap across regions (when no productivity characteristics are taken into account) with the extent that the gender wage gap narrows, controlling for human capital, experience and tenure. In an unconditional

---

<sup>17</sup> This result is conditional on potential regional differences in schooling, work experience, and tenure.

<sup>18</sup> Differences in prices across communities do not invalidate this conclusion, since prices are identical for women and men across communities.

regression of the wage rate on canton effects and time effects (not shown), we find that the gender wage gap narrows by 4.9 percentage points. In contrast, the first column in table 2 shows that, conditional on observed characteristics, the gender wage gap narrows by 2.4 percentage points, due to an increase by one standard deviation in the approval rate. The total effect is thus about twice as strong as the conditional effect. This suggests that the social norm that women should earn as much as men may lead to an indirect increase in the wage rate (via gender differences in human capital investment) of about the same order of magnitude as the direct effect of this belief on wages (via gender differences in bargaining behavior).

Table 3 investigates the sensitivity of our result for wages in six sub-samples. Communities in Switzerland differ with respect to size and population density. Recent work on monopsony in labor market argues that, in rural areas, employers might have comparably more monopsony power than in areas with higher density of jobs, like in cities (Manning 2003). The monopsony wage is lower for groups who react less elastically to wages earned with the current employer. If separation elasticities are lower for women than for men<sup>19</sup>, women will earn less in rural areas than men compared to more densely populated areas.<sup>20</sup> Moreover, approval of equal rights is higher in cities than in rural areas. This suggests that the main result reported in table 2 might be spurious. Differences in wage settings with respect to the size of the community instead of the appropriate pay norm are driving the results. We address this *first* issue by performing a separate analysis for communities with a population of less than 20,000 inhabitants (in 1990) and communities with a population of 20,000 inhabitants or more. First, we find that women's wages tend to be lower than men's wages in both samples by a similar magnitude, the difference amounting to about .15 log points (columns 1 and 2 in table 3). Second, in the sample of large communities, there is a strong and statistically significant increase in the wages earned by women compared to the wages earned by men in more liberal communities. This means that the main result reported in table 2 cannot be rationalized via differences in wage settings across urban and rural communities.<sup>21</sup>

---

<sup>19</sup> See Ransom and Oaxaca (2004) for recent evidence on gender differences in the elasticity of separations with respect to the wage earned in the current job.

<sup>20</sup> A second argument in favor of contrasting rural areas with cities rests on the presumption that the fraction of jobs that is tailored entirely to men or women is higher in rural areas than in cities.

<sup>21</sup> The fact that the interaction term female \* approval of equal rights is larger for cities than for relatively small communities may indicate that place of work and place of residence coincides to a larger extent in the former than in the latter. Moreover, expressed norms in 1981 may be a less accurate proxy for norms to today in small communities due to differences in migration.

The *second* analysis contrasts cohorts born before 1960, who presumably voted in 1981, and cohorts born after 1960, who were not allowed to vote in 1981.<sup>22</sup> This split in the sample allows for the study of the inter-generational transmission of social norms. People in the younger cohorts have not directly affected the voting outcome. For them, we capture only the effect of being raised in a liberal community as opposed to being raised in a conservative community. At first glance, it seems that, in younger cohorts, there are smaller norm effects than in older cohorts.<sup>23</sup> The interaction term “Female \* approval of equal rights” is much smaller in younger cohorts than in older cohorts. However, in relation to the gender wage gap in the average community, the norm effect is of the same relative magnitude across cohorts. A one standard deviation increase in the approval of equal rights is estimated to decrease the gender wage gap by one sixth. This suggests that social norms regarding appropriate pay for women compared to men are also relevant in cohorts that have entered the labor market only recently and matter even to the same relative extent.

The *third* comparison distinguishes the private service sector from the public sector (education and public administration). Comparing these two sectors is motivated by the fact that wage bargaining is less common in the public sector, and that the public sector was covered by legislation writing down the equality of pay between women and men as early as 1977.<sup>24</sup> In contrast, it proved to be very difficult to actually substantiate the claim that equal pay for equal work was violated in the private service sector. First, in comparison with the public sector, it is less common in the private sector that women and men work the same jobs. Second, salary levels are almost public knowledge in the public sector, whereas in the private sector the wage policy is kept secret more often than not.

Results for the private sector indicate that the gender wage gap in the average community amounts to almost 14% and that the gender wage gap is lower in communities that have voted more strongly in favor of the equal rights amendment (column 3 in table 4). In contrast, the gender wage gap in the public sector is much smaller (about 6.1%) and this gap is independent of the approval of equal rights. This result is in line with standardized

---

<sup>22</sup> The minimum age for voting at the national level was 20 in 1981.

<sup>23</sup> Alternatively, it is likely that individuals, who were relatively old in 1981, are more likely to still be living in the same community than younger individuals. Thus, the voting proxy for the social norms regarding the position of women on the labor market may be better for older cohorts than for younger cohorts.

<sup>24</sup> On October 12, 1977, the Swiss federal court ruled that female teachers in the canton of Neuchâtel have to be granted the same salary scale as their male colleagues.



compensation rules and legislation equalizing relative pay between women and men across communities, irrespective of the prevailing social pay norm.<sup>25</sup>

In sum, this section shows that there are not only strong differences in labor market outcomes between women and men on average, but also that the female disadvantage tends to be lower in communities that have voted more in favor of an equal rights amendment to the Swiss constitution in 1981. Specifically, the gender wage gap is significantly smaller in more liberal communities. If differences in outcomes actually reflect causal effects of social norms on economic well-being, why don't all women move to liberal areas? There are two possible reasons. First, we argue that the respective social norms are internalized, learnt by the individuals during the formative years at home or at school. It is not possible to get rid of such views just by moving. This implies that even if women did move to more liberal areas, we should not see objective measures of well-being improve. Second, it is not clear how the individual perceives her or his own situation on the labor market. If the internalized norm prescribes that women will have lower moral entitlements on the labor market, women who share this norm, and experience the implications of this norm, might not be worse off than women who do not share this norm and hold positions which are more on a par with men's positions.

## **5 Norms on Appropriate Pay and Subjective Well-Being**

Subjective measures of people's well-being offer a complementary possibility for studying the consequences of social norms about the role of women on the labor market. Moreover, information about subjective well-being helps to assess the validity of conflicting alternative explanations. Most important in the current setting is the question whether our variable in fact proxies shared norms about appropriate salaries for women rather than some active discrimination in traditional communities that makes for the large gender wage gap in these areas.

Subjective well-being is captured by measures of reported happiness, satisfaction with life, or satisfaction with particular life domains, like one's job. These measures of reported subjective well-being passed a series of validation exercises and seem to significantly correlate with true

---

<sup>25</sup> The fact that women are, on average, paid less than men in the public sector suggests that unmeasured productive characteristics are important. However, note that while unobserved heterogeneity may rationalize the main result in table 2 by way of sorting of less productive women into more conservative areas, such a story is at odds with the differences across sectors observed here. If women are indeed less productive than men in conservative areas, we would expect to see this effect both in the private and in the public sector.

positive inner feelings (see Frey and Stutzer 2002a,b for introductions to the economics of happiness and references to the validation literature). Thus, measures of reported subjective well-being offer new opportunities for understanding the effect of social norms on individual well-being.<sup>26</sup> Moreover, they allow a direct empirical analysis of two related issues:

First, in the context of discrimination, it is misleading to only look at the outcomes in order to make welfare judgments. It is most likely that discrimination per se, i.e. how women are treated, has negative effects on women's subjective well-being.<sup>27</sup>

Second, subjective well-being may be affected by reference standards. According to standard economics, income enters individuals' utility function in an absolute sense. Consistent with the important role of standards of appropriate salaries in negotiation behavior, however, reference standards also affect the subjective evaluation of labor market outcomes. People judge their situation relative to their aspirations or some reference standard and it is the discrepancy between this reference standard and the actual outcome that determines people's subjective well-being. In a direct test of this concept of relative utility, higher income aspirations are related to lower life satisfaction *ceteris paribus* (Stutzer 2004).<sup>28</sup> Norms prescribing females' wages to be lower than men's wages can thus be expected to positively affect women's subjective well-being, because their lower salary standards reduce the gap between expected and actual income (Clark 1997). This mechanism could explain the finding mentioned in the introduction that, in most countries, women do not report lower subjective well-being than men, despite gender wage gaps persisting.

We approach the question using a second data set: the Swiss Household Panel (SHP). We use the first three available waves from 1999 to 2001. The SHP is a representative survey for Switzerland and contains roughly 7,000 individual observations per wave from roughly 1,000 different communities. In addition to standard socio-economic characteristics, it includes a question about job satisfaction in 1999, a question about satisfaction with life in the years 2000 and 2001, as well as questions about perceived general and individual penalization by the opposite sex in the years 2000 and 2001. The concrete question wording is as follows:

---

<sup>26</sup> In a previous study, the role of the social norm to live by one's own earnings in unemployed people's life satisfaction has been analyzed. It has been found that the stronger the social norm to work, the less satisfied unemployed people are with their life (Stutzer and Lalive 2004).

<sup>27</sup> This can be understood as procedural disutility (see Frey et al. 2004 for the concept of procedural utility) that affects women's well-being beyond narrow economic outcomes such as wages.

<sup>28</sup> In a study of 5,000 British workers, Clark and Oswald (1996) formed the reference income as the average income of persons with the same labor market characteristics. They conclude that the higher the income of the reference group, the less satisfied people are with their job.

- *In general, how satisfied are you with your life if 0 means "not at all satisfied" and 10 means "completely satisfied"?*
- *On a scale from 0 "not at all satisfied" to 10 "completely satisfied" can you indicate your degree of satisfaction for your job generally?*
- *Do you have the feeling that in Switzerland women are penalized compared with men in certain areas, if 0 means "not at all penalized" and 10 "strongly penalized"?*
- *Do you, in your everyday life, feel penalized compared with the opposite sex, if 0 means "not at all penalized" and 10 "strongly penalized"?*

Answers to these questions are merged with data on the approval of equal rights at the community level.

We assess the possible correlations between our proxy measure for social norms about women's role on the labor market and their subjective well-being in two steps. In a descriptive analysis (presented in table 4), raw correlations are assessed. They include potentially important correlated variation in individual socio-demographic characteristics, such as education. Partial correlations are shown in table 5.

We first discuss the results for reported satisfaction with life, based on a sample of salaried women and men. Descriptive statistics indicate that there is no significant difference in life satisfaction between women and men in communities where a large number of the citizens approved the equal rights amendment (approval rate > 60%). In contrast, women are significantly more satisfied with their lives than men in conservative communities (approval rate < 60%). This results in a negative difference-in-differences estimation for being a woman and living in a high approval rather than in a low approval community. In table 5, these findings are replicated in a multiple regression controlling for a large number of individual characteristics (the full estimation results are presented in table A.2 in the appendix). Robust standard errors are reported adjusted for clustering within communities. Like in the previous sub-section, the variable measuring the approval of equal rights is standardized to mean zero and standard deviation 1. Results show that employed women, on average, are more satisfied than men, reporting a 0.15 higher score of subjective well-being than employed men.<sup>29</sup> The coefficient for "Approval of equal rights" indicates that salaried men are equally satisfied with their life across communities, independent of differences in the social norms for the role of women on the labor market. However, as captured by the interaction term "Female \* approval

---

<sup>29</sup> The gender effect is measured at the sample mean of the variable capturing social pay norms.

of equal rights “, employed women are statistically significantly less satisfied with their life in communities where a larger percentage of the population approved equal rights. If the approval rate is increased from one standard deviation below the mean to one standard deviation above the mean, average life satisfaction is reduced by 0.19 units on the 10-point scale. This is a large negative effect, equivalent to having an incomplete compulsory school education rather than having served an apprenticeship, or equal to one seventh of the negative effect of unemployment on life satisfaction.<sup>30</sup>

[Table 4 and 5 about here]

This result runs contrary to an interpretation of the wage results in the previous section, in terms of discrimination in traditional communities. It is important to note that earned income is not included in the estimation function and thus the correlation between the norm proxy and life satisfaction does not capture a possible trade-off between living in a liberal community (with for some reason low quality of life) and earning a higher salary.

Before we provide possible interpretations of the findings for the gender wage gap and the life satisfaction gap in more and less liberal communities, we present additional results for women’s and men’s subjective evaluation of their living situation. As in previous studies, we find higher job satisfaction for women than for men (coefficient for “Female”=0.16). However, we have too small a sample to be able to statistically precisely estimate a partial correlation between the approval of equal rights and regional variation in job satisfaction. So far, a negative coefficient for the interaction variable is estimated that is of similar magnitude (absolute and relative to the gender gap) to the coefficient in the life satisfaction equation.

Tables 4 and 5 include two questions about people’s perception of gender discrimination. Contrary to the evidence about the gender wage gap, which is smaller in communities where equal rights have been broadly approved than where there was a lot of opposition, women feel more penalized in more liberal communities than in traditional communities. This result is found in the descriptive statistics, as well as in the partial correlations. Moreover, the questions are posed whether people think that women are penalized generally, as well as personally, compared to the opposite sex. Not surprisingly, for both measures women report higher ratings of being penalized.

A useful unifying framework to understand our results is gender identity (Akerlof and Kranton, 2000). Gender is one of the most important social categories. There exist strong

---

<sup>30</sup> Estimation results including the partial correlation between unemployment and life satisfaction in the SHP can be obtained from the authors on request.

gender specific behavioral prescriptions. As we argue in this paper, an important one for women is to be cooperative, selfless and modest. On the labor market, this is reflected in lower appropriate wages and reluctance in wage bargaining. Accordingly, utility not only reflects one's own outcomes (i.e. income) but also identity – that is, the extent to which individuals conform to the behavioral prescription of their gender. The identity framework makes predictions that are different from the standard framework in at least two important respects. First, women and men behave differently, in our context, women ask for lower wages than men. Second, gender differences in outcomes need not reflect gender differences in utility.

In this paper, we provide evidence that (i) prescriptions about women's behavior on the labor market differ across space, (ii) outcomes vary according to gender prescriptions – gender wage differences are lower in areas favoring prescriptions for equal pay, and (iii) self-reported subjective well-being not only depends on outcomes but also on prescriptions for equal pay. These results are in line with a framework stressing gender identity as the source of gender differences in outcomes and seemingly conflicting gender differences in well-being.

There are, of course, alternative explanations to the negative correlation between the approval of equal rights and women's satisfaction with life. First, women in liberal communities might just be the precursors of a movement that tries to change traditional norms about women's restricted role on the labor market. This "revolt" may have some gains in terms of higher salaries, but might result in even higher costs due to the social sanctions of traditional women and men. Second, it might well be that equality at the work place has developed substantially in more liberal communities, as reflected by the lower gender wage gap. However, working women may still have to carry most of the burden of doing the housework. In fact, we find that women not participating on the labor market are not less satisfied with their life in more liberal communities (results not shown). This would suggest that women's emancipation is restricted to the work place.

## **6 Concluding Remarks**

It is well known that women earn less than men. However, women are not less satisfied with their jobs or with their lives than men. This paper argues that the extent to which women and men believe that a woman's appropriate salary is equal to a man's salary may be important in understanding this puzzle. Historically, women and men tended to specialize in different areas of life, with men being responsible for the family income and women being responsible for the well-being of the family.

This paper captures the extent to which such gender specific norms still apply today with the voting outcome regarding an equal rights amendment to the Swiss constitution in 1981. The approval rate for the equal rights amendment, prescribing “equal pay for equal work”, varies very strongly across communities. Thus, it is possible to assess the relevance of gender specific pay norms for the relative success of women and men on the labor market by linking the gender wage gap measured for the years 1991-2003 to the voting outcome. Results indicate that the mean gender wage gap is narrowed by as much as one fifth, due to an increase of one standard deviation in the approval of equal rights. Moreover, there is no corresponding effect in the public sector, which applies standardized compensation rules and was covered by non-discriminatory legislation as early as 1977.

As wage differences may not capture the full extent to which women’s lives are affected by gender specific pay norms and prescriptions about appropriate behavior on the labor market, we study self-reported subjective well-being for 2000/01. Results indicate that, in contrast to an explanation based on active discrimination, women in conservative areas (with strong disapproval of equal rights and a large gender wage gap) are more (not less) satisfied with their life than men. There is no corresponding difference between women and men in liberal areas. This result reinforces the interpretation based on gender specific identity and internalized norms regarding appropriate pay for women compared to men.

The explanation, based on the social norms of differential labor market success of women and men, implies that changing the outcomes for women will take a long time. Understanding the dynamics at work seems an interesting topic for future research. Primarily, we shall address how anti-discrimination law affects women’s behavior and well-being, given their varying liberal views and how their actual beliefs are affected.

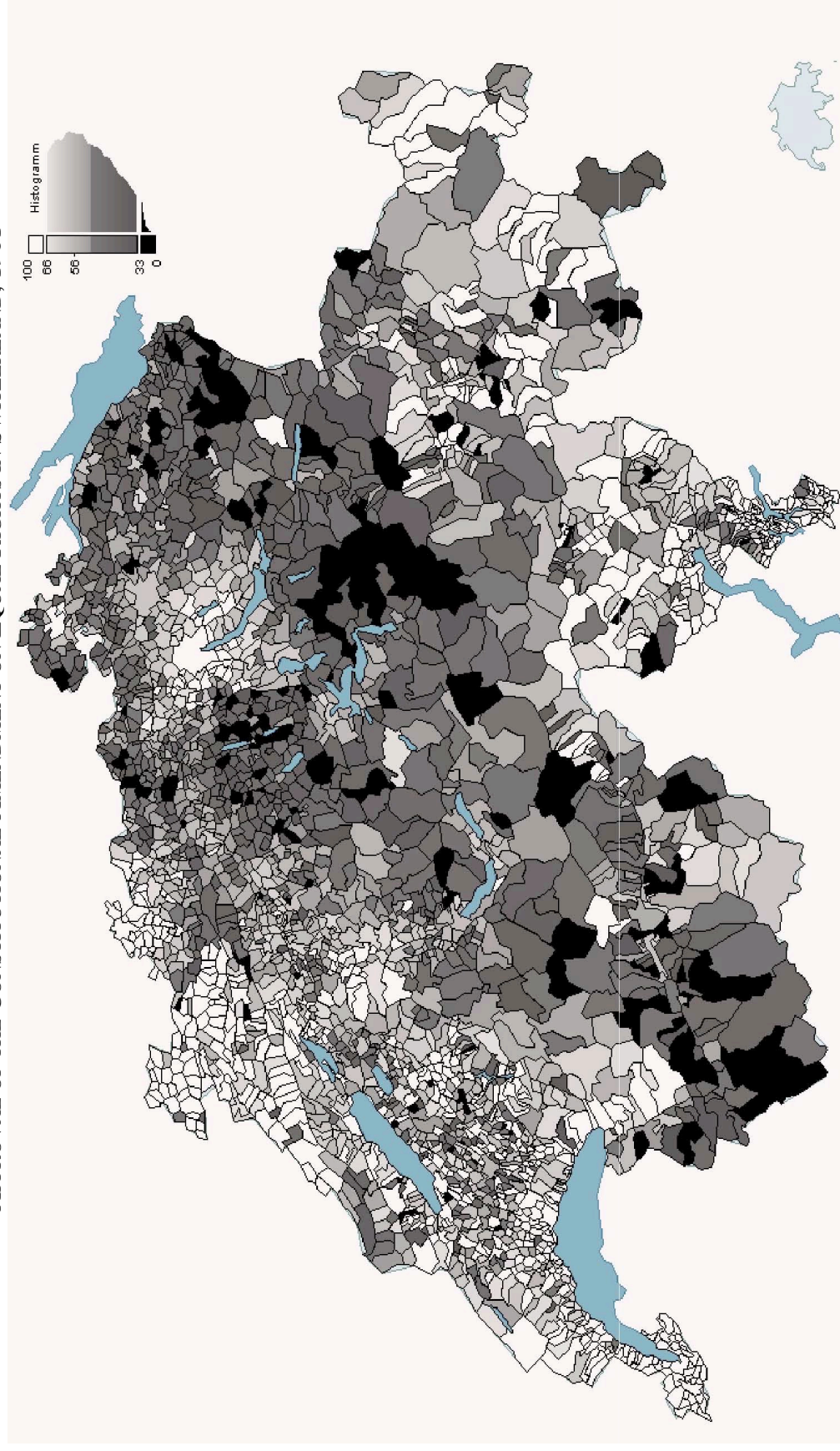
## References

- Akerlof, George A. and Rachel E. Kranton (2000). Economics and Identity. *Quarterly Journal of Economics* 115(3): 715-753.
- Albrecht, James, Anders Bjorklund and Susan Vroman (2003). Is There a Glass Ceiling in Sweden? *Journal of Labor Economics* 21(1): 145-77.
- Altonji, Joseph G. und Rebecca M. Blank (1999). Race and Gender in the Labor Market. In: Orley Ashenfelter and David Card (eds). *Handbook of Labor Economics*. Volume 3C. Amsterdam; New York and Oxford: Elsevier Science, North-Holland: 3143-3259.
- Babcock, Linda and Laschever, Sara (2003). *Women Don't Ask. Negotiation and the Gender Divide*. Princeton: Princeton University Press.
- Bewley, Truman E. (1999). *Why Wages Don't Fall During a Recession*. Cambridge and London: Harvard University Press.
- Black, Sandra E. and Philip E. Strahan (2001). The Division of Spoils: Rent-Sharing and Discrimination in a Regulated Industry. *American Economic Review* 91(4): 814-31.
- Blau, Francine D. and Lawrence M. Kahn (1992). The Gender Earnings Gap: Learning from International Comparisons, *American Economic Review* 82(2): 533-538.
- Blau, Francine D. and Lawrence M. Kahn (2000). Gender Differences in Pay. *Journal of Economic Perspectives* 14(4): 75-99.
- Blau, Francine D. and Lawrence M. Kahn (2003). Understanding International Differences in the Gender Pay Gap. *Journal of Labor Economics* 21(1): 106-144.
- Bonjour, Dorothe and Michael Gerfin (2001). The Unequal Distribution of Unequal Pay - An Empirical Analysis of the Gender Wage Gap in Switzerland. *Empirical Economics* 26(2): 407-428.
- Bylsma, Wayne H. and Brenda Major (1992). Two Routes to Eliminating Gender Differences in Personal Entitlement: Social Comparisons and Performance Evaluations. *Psychology of Women Quarterly* 16(2): 193-200.
- Bylsma, Wayne H. and Brenda Major (1994). Social Comparisons and Contentment: Exploring the Psychological Costs of the Gender Wage Gap. *Psychology of Women Quarterly* 18(2): 241-249.
- Callahan-Levy, Charlene M. and Lawrence A. Messe (1979). Sex Differences in the Allocation of Pay. *Journal of Personality and Social Psychology* 37(3): 433-446.
- Clark, Andrew E. (1997). Job Satisfaction and Gender: Why Are Women So Happy at Work? *Labour Economics* 4(4): 341-372.
- Clark, Andrew E. and Andrew J. Oswald (1996). Satisfaction and Comparison Income. *Journal of Public Economics* 61(3): 359-81.
- Davenport, Herbert J. (1919). Wage Theory and Theories. *Quarterly Journal of Economics* 33(2): 256-297.
- Fehr, Ernst and Gächter, Simon (2000). Fairness and Retaliation: The Economics of Reciprocity. *Journal of Economic Perspectives* 14(3): 159-181.
- Flückiger, Yves and José Ramirez (2000). *Auf dem Weg zur Lohngleichheit?* Bern: Eidgenössisches Büro für die Gleichstellung für Mann und Frau.
- Frey, Bruno S. and Alois Stutzer (2002a). *Happiness and Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton: Princeton University Press.
- Frey, Bruno S. and Alois Stutzer (2002b). What Can Economists Learn from Happiness Research? *Journal of Economic Literature* 40(2): 402-435.

- Frey, Bruno S., Matthias Benz and Alois Stutzer (2004). Procedural Utility: Not Only What, but Also How Matters. Forthcoming in *Journal of Institutional and Theoretical Economics*.
- Gneezy, Uri and Aldo Rustichini (2002). Gender and Competition at a Young Age. Working Paper, GSB Chicago.
- Jann, Ben (2003). Lohngerechtigkeit und Geschlechterdiskriminierung: Experimentelle Evidenz. Mimeo, ETH Zurich.
- Jasso, Guillermina and Murray Webster Jr. (1997). Double Standards in Just Earnings for Male and Female Workers. *Social Psychology Quarterly* 60(1): 66-78.
- Kahneman, Daniel and Amos Tversky (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica* 47(2): 263-291.
- Major, Brenda, Dean B. McFarlin and Diana Gagnon (1984). Overworked and Underpaid: On the Nature of Gender Differences in Personal Entitlement. *Journal of Personality and Social Psychology* 47(6): 1399-1412.
- Manning, Alan (2003). The Real Thin Theory: Monopsony in Modern Labour Markets. *Labour Economics* 10(2): 105-31.
- Ransom, Michael and Ronald Oaxaca (2004). New Market Power Models and Sex Differences in Pay. Paper presented at the IZA Workshop: The Nature of Discrimination, IZA, Bonn, Germany
- Reis, Hans (1988). Die Lohndifferenzen zwischen Männern und Frauen in der Schweiz. Bern: Peter Lang.
- Riley, Hannah and Kathleen L. McGinn (2002). When Does Gender Matter in Negotiation? John F. Kennedy School of Government, Harvard University, Faculty Research Working Paper No. 36.
- Säve-Söderbergh, Jenny (2003). Are Women Asking for Low Wages? Individual Wage Bargaining and Gender Wage Differentials. Working Paper, Stockholm University.
- Solnick, Sara J. (2001). Gender Differences in the Ultimatum Game. *Economic Inquiry* 39(2): 189-200.
- Sousa-Poza, Alfonso and Andrés A. Sousa-Poza (2000). Taking Another Look at the Gender/Job-Satisfaction Paradox. *Kyklos* 53(2): 135-152.
- Stanley, T. D. and Stephen B. Jarrell (1998). Gender Wage Discrimination Bias? A Meta-regression Analysis. *Journal of Human Resources* 33(4): 947-73.
- Stuhlmacher, Alice F. and Amy E. Walters (1999). Gender Differences in Negotiation Outcome: A Meta-Analysis. *Personnel Psychology* 52(3): 653-677.
- Stutzer, Alois (2004). The Role of Income Aspirations in Individual Happiness. Forthcoming in the *Journal of Economic Behavior and Organization*.
- Stutzer, Alois and Rafael Lalive (2004). The Role of Social Work Norms in Job Searching and Subjective Well-Being. Forthcoming in the *Journal of the European Economic Association*.
- Wade, Mary E. (2001). Women and Salary Negotiation: The Costs of Self-Advocacy. *Psychology of Women Quarterly* 25(1): 65-76.
- Webb, Sidney (1891). The Alleged Differences in the Wages Paid to Men and to Women for Similar Work. *Economic Journal* 1(4): 635-662.
- Weichselbaumer Doris and Rudolf Winter-Ebmer (2003). A Meta-Analysis of the International Gender Wage Gap. IZA Discussion Paper No. 906, Bonn.



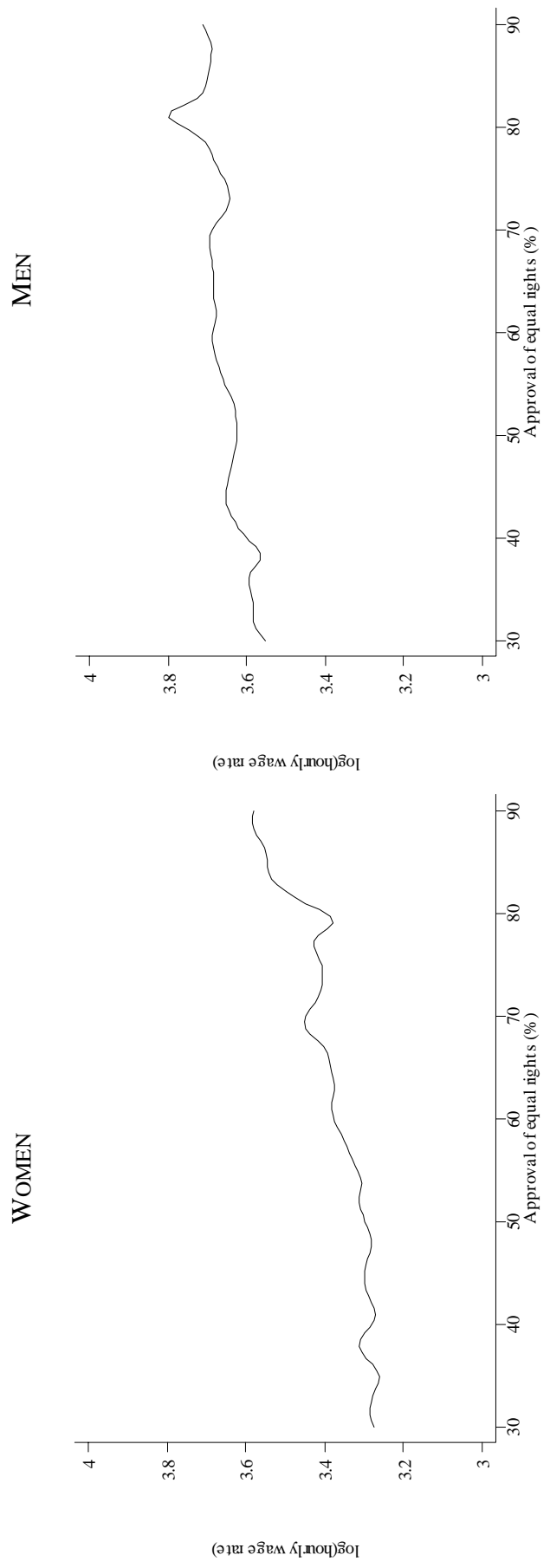
FIGURE 1  
APPROVAL OF THE CONSTITUTIONAL AMENDMENT ON EQUAL RIGHTS IN SWITZERLAND, 1981



*Notes:* Lighter shading indicates a higher percentage of voters in favor of adding an equal rights amendment to the Swiss constitution in 1981. Results are across 2896 communities.

*Source:* Statistics Switzerland, map produced with mapresso.

FIGURE 2  
APPROVAL OF EQUAL RIGHTS AND WAGES



*Note:* Kernel regressions (gaussian kernel).  
*Source:* Swiss Labor Force Survey, 1991-2003, own calculations.

TABLE 1  
 APPROVAL OF EQUAL RIGHTS AND LABOR MARKET OUTCOMES, SWITZERLAND 1991-2003  
 DESCRIPTIVE STATISTICS

Approval of equal rights	Log (wage rate)		Years of schooling		Years of actual experience		Years of tenure	
	low	high	low	high	low	high	low	high
Women	3.248 {21186}	3.360 {32748}	11.736 {21186}	12.170 {32748}	11.991 {21186}	12.629 {32748}	6.652 {21186}	6.988 {32748}
Men	3.598 {27286}	3.637 {36658}	12.768 {27286}	13.148 {36658}	20.028 {27286}	18.866 {36658}	10.388 {27286}	10.054 {36658}
Gender gap (women-men)	-0.349 (0.005)	-0.277 (0.004)	-1.032 (0.020)	-0.978 (0.021)	-8.037 (0.105)	-6.237 (0.091)	-3.737 (0.081)	-3.066 (0.067)
Difference-in-difference (high-low)		0.072 (0.006)***		0.054 (0.029)*		1.800 (0.139)***		0.671 (0.105)***

*Notes:* Weighted (by the inverse of the sampling probability) means. Standard errors in parentheses, number of observations in curly brackets.  
 \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

*Source:* Swiss Labor Force Survey, 1991-2003, own calculations.

TABLE 2  
APPROVAL OF EQUAL RIGHTS AND LABOR MARKET OUTCOMES, SWITZERLAND 1991-2003  
PARTIAL CORRELATIONS

	Log (wage rate)	Years of schooling	Years of actual Experience	Years of tenure
Female	-0.138 (0.006)***	-0.950 (0.039)***	-4.828 (0.218)***	-2.164 (0.120)***
Approval of equal rights <sup>a</sup>	0.035 (0.006)***	0.296 (0.045)***	-0.012 (0.163)	0.078 (0.115)
Female * approval of equal rights	0.024 (0.006)***	0.008 (0.036)	0.864 (0.175)***	0.392 (0.120)***
Individual characteristics	Yes	Yes	Yes	Yes
Observations	117878	117878	117878	117878
R-squared	0.30	0.07	0.15	0.09

*Notes:* Weighted (by the inverse of the sampling probability) ordinary least squares estimations. Robust standard errors in parentheses (adjusted for clustering within communities). \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.  
<sup>a</sup> The approval rate of the equal rights amendment is standardized with a mean of zero and standard deviation equal to one. Individual characteristics are: years of schooling, years of actual experience (and its square), years of tenure (and its square), nationality, marital status, part-time employment status, canton and time dummies for results regarding the wage rate. Years of schooling, years of actual experience, and years of tenure are omitted from the three remaining estimates.

*Source:* Swiss Labor Force Survey, 1991-2003, own calculations.

TABLE 3  
 APPROVAL OF EQUAL RIGHTS AND WAGES, SWITZERLAND 1991-2003  
 PARTIAL CORRELATIONS FOR FOUR SUB-SAMPLES

	Population in Community less than 20,000		Cohorts born		Services	
	greater than 20,000		before 1960	after 1960	Private Sector	Public Sector
Female	-0.149 (0.008)***	-0.135 (0.012)***	-0.228 (0.012)***	-0.091 (0.007)***	-0.149 (0.007)***	-0.063 (0.021)***
Approval of equal rights <sup>a</sup>	0.039 (0.006)***	0.025 (0.012)**	0.04 (0.008)***	0.026 (0.006)***	0.011 -0.007	0.017 -0.014
Female * approval of equal rights	0.011 (0.006)*	0.041 (0.012)***	0.038 (0.009)***	0.015 (0.006)**	0.032 (0.008)***	0 -0.017
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Observations	76185	41693	58396	59482	72609	12904
R-squared	0.31	0.29	0.28	0.29	0.31	0.26

Notes: Weighted (by the inverse of the sampling probability) ordinary least squares estimations. Robust standard errors in parentheses (adjusted for clustering within communities). \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

<sup>a</sup> The approval rate of the equal rights amendment is standardized with a mean of zero and standard deviation equal to one.

Individual characteristics are: years of schooling, years of actual experience (and its square), years of tenure (and its square), nationality, marital status, part-time employment status, canton and time dummies for results regarding the wage rate.

Source: Swiss Labor Force Survey, 1991-2003, own calculations.

TABLE 4  
 APPROVAL OF EQUAL RIGHTS AND WOMEN'S SUBJECTIVE WELL-BEING, SWITZERLAND 1999-2001  
 DESCRIPTIVE STATISTICS

	Satisfaction with life		Job satisfaction		Feeling that women are penalized (compared to men)		Feeling personally penalized (compared to the opposite sex)	
	low	high	low	high	low	high	low	high
Approval of equal rights								
Women	8.243 {1494}	7.962 {1965}	8.227 {849}	8.076 {1091}	5.499 {1473}	6.168 {1946}	2.065 {1489}	2.576 {1955}
Men	8.132 {1681}	7.951 {1941}	8.111 {957}	7.981 {1080}	5.205 {1675}	5.541 {1919}	0.452 {1638}	0.586 {1894}
Gender gap (women-men)	0.111 (0.047)**	0.011 (0.046)	0.117 (0.079)	0.096 (0.076)	0.294 (0.092)***	0.627 (0.085)***	1.613 (0.076)***	1.991 (0.079)***
Difference-in-difference (high-low)		-0.100 (0.066)		-0.021 (0.110)		0.333 (0.126)***		0.378 (0.112)***

*Notes:* Standard errors in parentheses, number of observations in curly brackets. Sample is restricted to salaried workers. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

*Source:* Swiss Household Panel, own calculations.

TABLE 5  
 APPROVAL OF EQUAL RIGHTS AND WOMEN'S SUBJECTIVE WELL-BEING, SWITZERLAND 1999-2001  
 PARTIAL CORRELATIONS

	Satisfaction with life	Job satisfaction	Feeling that women are penalized (compared to men)	Feeling personally penalized (compared to the opposite sex)
Female	0.154 (0.048)***	0.160 (0.078)**	0.420 (0.096)***	1.782 (0.092)***
Approval of equal rights <sup>a</sup>	-0.005 (0.032)	-0.042 (-0.047)	0.055 (0.058)	-0.05 (0.035)
Female * approval of equal rights	-0.095 (0.038)**	-0.090 (0.061)	0.145 (0.079)*	0.225 (0.073)***
Individual characteristics	Yes	Yes	Yes	Yes
Observations	6224	3265	6170	6134
R-squared	0.06	0.04	0.06	0.16

*Notes:* Ordinary least squares estimations. Sample is restricted to salaried workers. Robust standard errors in parentheses (adjusted for clustering within communities). <sup>a</sup> The approval rate of the equal rights amendment is standardized with a mean of zero and standard deviation equal to one. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

*Source:* Swiss Household Panel, own calculations.

## Appendix

TABLE A.1  
APPROVAL OF EQUAL RIGHTS AND WAGES, SWITZERLAND 1991-2003

Dependent variable: log (hourly wage rate)	
Female	-0.138 (0.006)***
Approval of equal rights <sup>a</sup>	0.035 (0.006)***
Female * approval of equal rights	0.024 (0.006)***
Schooling (in years)	0.070 (0.002)***
Work experience (in years)	0.024 (0.001)***
Work experience squared / 100	-0.040 (0.002)***
Tenure (in years)	0.012 (0.001)***
Tenure squared / 100	-0.020 (0.002)***
Non-Swiss	-0.098 (0.007)***
Married	0.080 (0.006)***
Part-time	-0.043 (0.008)***
Canton effects	Yes
Year effects	Yes
Observations	117878
R-squared	0.30

*Notes:* <sup>a</sup> The approval rate of the equal rights amendment is standardized with a mean of zero and standard deviation equal to one. Results are not shown for year dummy, dummies indicating that work income or the level of education is not known and dummies for interview language.

Robust standard errors adjusted for clustering within communities.

*Source:* Swiss Labor Force Survey, own calculations.



TABLE A.2  
APPROVAL OF EQUAL RIGHTS AND LIFE SATISFACTION, SWITZERLAND 2000-2001  
Dependent variable: satisfaction with life

	OLS		Ordered Probit	
	Coef.	Robust s.e.	Coef.	Robust s.e.
Female	0.154	0.048	0.137	0.037
Approval of equal rights <sup>a</sup>	-0.005	0.032	-0.005	0.025
Female * approval of equal rights	-0.095	0.038	-0.069	0.029
Age	-0.079	0.013	-0.065	0.011
Age squ. / 100	0.095	0.016	0.080	0.013
Compulsory schooling		Reference group		
Incomplete compulsory schooling	-0.117	0.649	0.115	0.403
Apprenticeship	0.115	0.082	0.052	0.061
Maturity / High school	0.165	0.090	0.082	0.070
Vocational high school	0.234	0.096	0.139	0.075
University of applied sciences	0.252	0.111	0.143	0.086
University	0.249	0.087	0.140	0.067
Single		Reference group		
Married	0.297	0.067	0.246	0.055
Separated	-0.381	0.198	-0.239	0.142
Divorced	-0.220	0.101	-0.136	0.075
Widowed	0.000	0.199	-0.005	0.170
National		Reference group		
Foreigner	-0.364	0.067	-0.262	0.051
Full-time employment		Reference group		
Part-time employment	-0.079	0.060	-0.059	0.045
Household income contributed by other household members	0.009	0.005	0.006	0.004
Household size, square root	0.063	0.065	0.047	0.052
Constant	9.227	0.273		
Number of observations	6996		6996	
R-squared / Pseudo R-squared	0.06		0.02	

*Notes:* <sup>a</sup> The approval rate of the equal rights amendment is standardized with a mean of zero and standard deviation equal to one. Results are not shown for year dummy, dummies indicating that work income or the level of education is not known and dummies for interview language.

*Source:* Swiss Household Panel, own calculations.