

Stutzer, Alois; Lalive, Rafael

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Alois Stutzer
Rafael Lalive

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Alois Stutzer

University of Zurich and IZA Bonn

Rafael Lalive

University of Zurich and IZA Bonn

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IZA

P.O. Box 7240

D-53072 Bonn

Germany

Tel.: +49-228-3894-0

Fax: +49-228-3894-210

Email: iza@iza.org

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ABSTRACT

The Role of Social Work Norms in Job Searching and Subjective Well-Being*

Social norms are usually neglected in economics, because they are to a large extent enforced through non-market interactions and difficult to isolate empirically. In this paper, we offer a direct measure of the social norm to work and we show that this norm has important economic effects. The stronger the norm, the more quickly unemployed people find a new job. This behavior can be explained by utility differences, probably due to social pressure. Unemployed people are significantly less happy than employed people and their reduction in life satisfaction is the larger, the stronger the norm is.

JEL Classification: F22, J61

Keywords: job searching, social norms, subjective well-being, unemployment, duration of unemployment

Corresponding author:

Rafael Lalive
Institute for Empirical Research in Economics
University of Zurich
Bluemlisalpstr. 10
CH-8006 Zurich
Switzerland
Tel: +41-1 634 37 29/25
Fax: +41-1 634 4907
Email: rlalive@iew.unizh.ch

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*For even when we were with you, this we commanded you, that if any would not work, neither should he eat.
(2 Thess 3,10)*

1 Introduction

Economic analysis has so far neglected social norms, although they are important in explaining many social phenomena. On the labor market, for instance, unemployed people's behavior may be influenced by a social norm to work and a strong social work norm may inhibit the emergence of a welfare culture. Thus, social norms may contribute to the understanding of moral hazard in social insurance or the puzzle that unemployment rates display large unexplained regional variance.

In this paper, we analyze the role of a social norm to work in the individual duration of unemployment and in unemployed people's subjective well-being. In line with the literature, the social norm is defined as "a behavioral regularity; that is [...] based on a socially shared belief how one ought to behave; which triggers [...] the enforcement of the prescribed behavior by informal social sanctions" (Fehr and Gächter, 2000). Unemployed persons are supposed to be sanctioned by social pressure from other members of their community and feel internal pressure to comply with the norm to work. This norm is documented back at least to the apostle Paul's letter to the Thessalonians, quoted at the beginning of this section. More recently, Elster writes: "There is a social norm against living off other people and a corresponding normative pressure to earn one's income from work" (1989: 121).

The social norm to work is expected to affect individual behavior and well-being in a simple way. Individuals may differ with respect to their belief whether it is right or wrong to live off public funds, such as unemployment benefits. Suppose that communities are populated to a different extent with individuals holding the attitude that it is wrong to live off public funds. Thus, one may distinguish two extremes: 'weak norm' communities, in which a large proportion of the inhabitants believe that it is right to live off public funds and 'strong norm' communities, in which a large proportion of the inhabitants believe that it is wrong to live off public funds.

The main payoffs off unemployment are unemployment benefits and leisure time. Leisure time is not valued in itself, but is best viewed as an essential time input into the activities that can only be undertaken during non-working hours (Becker, 1965). Arguably, these leisure activities are to a large extent social. If individuals choose to undertake *less* social activities with people who violate their belief on how one ought to behave, unemployed people will not enjoy leisure to the same extent in strong norm communities as in weak norm communities. As a consequence, unemployed people's efforts at job searching, as well as the probability that they accept a regular job is higher in strong norm communities, when compared to weak norm communities - all else being equal. Moreover, unemployed people, who have not yet found a regular job, are systematically less satisfied with their life in strong norm communities than in weak norm communities.

While progress is being made in including social norms into economic models, systematic empirical evidence is still rare.¹ For an empirical analysis of the effects of norms, a measure of a person's beliefs about how one ought to behave is required. So far, research mainly relies on observed group behavior as a proxy for the group's norm. However, this is not satisfactory, because a group may behave in a similar way even in the complete absence of social norms. Moreover, the channel through which social interactions affect behavior is often unclear and it is not possible to distinguish between social pressure and alternative interaction like imitation, learning or getting help.

In this paper, a novel measure for the strength of the social norm to live off one's own income is applied that directly captures people's belief about appropriate working behavior. We consider citizens' beliefs as reflected in actual political decision-making in a country-wide referendum on the level of benefits to be paid out to unemployed persons in Switzerland. The public discussion that took place before the vote, and the quantitative analysis conducted after the vote, suggest that the proportion of voters in favor of reducing unemployment benefits in a community can be taken as a proxy for the strength of the belief that it is not right to live off public funds.

The voting measure of the strength of the social norm to work can be used to test whether social norms are a determinant of the duration of unemployment and subjective well-being,

¹ Social processes in terms of social norms, social customs or conformity enter into economic modeling, e.g., in the work of Akerlof (1980), Bernheim (1994), Besley and Coate (1992), Cole et al. (1992), Kandori (1992), Lindbeck et al. (1999), Solow (1990) and Young (1996). For a survey of the theoretical work, as well as the rare empirical research, see the edited volume of Durlauf and Young (2001).

along the lines outlined in the previous paragraphs. However, this inference is difficult, because social work norms are formed over time and are thus endogenous. In particular, there is the possibility of reversed causation: in structurally lagging regions, where poverty and high unemployment prevail, a weaker work norm may have developed. We address these possibilities of an endogenous social norm to work in a specific setting. Suppose that the strength of the prevailing social norm to work depends both on the state of the labor market in the region, as well as on individuals' work ethic. Differences across labor market regions in the voting proxy for the norm thus reflect both differences in labor market conditions and differences in the strength of the social norm to work. Cross-regional differences can therefore only be informative to a limited extent regarding the effect of social work norms on job searching. Therefore, we apply a stratification approach to control for *unobserved* regional differences in labor market prospects that might simultaneously affect citizens' voting behavior, as well as unemployed people's job opportunities. The stratification method can be implemented because the available dataset consists of all individuals entering unemployment in the period of 6 months after the referendum. After removing regional factors, variation in the proxy for the social norm is restricted to variation *within* regions. Here, we take this variation to reflect differences across communities with regard to the strength of the social norm to work. We find that the more people in a community who voted in favor of a reduction in unemployment benefits, the shorter is the duration of unemployment, given unobserved regional characteristics. However, one could suspect that across communities within regions, there are differences in the historical level of unemployment as well, for the same reasons that there are differences across regions. Thus results based on the stratification approach might to some extent still reflect reversed causality. We cannot find a good instrument to rule out this problem and have to leave it to future research.

In order to address whether the observed regularities in the transition rate to jobs are due to differences in individual's internalized work norms, rather than due to *social* interaction, the sensitivity of potential social norm effects is studied. We find that social norm effects are weaker in larger, and probably more anonymous communities, and for unemployed people for whom the local language is not their mother tongue. These interaction effects indicate that the correlation between the proposed measure for the social norm to work and duration of unemployment is, at least to some extent, due to social interaction.

Additionally, we study a proxy for unemployed people's utility, in order to assess whether a higher measure for the social norm mainly captures, for example, better access to job

information and more help from neighbors, or whether it captures stronger social sanctions within communities. Using reported subjective well-being as a proxy for utility, we find that the stronger the social norm to work in a community, the lower the unemployed people's subjective well-being (see Frey and Stutzer, 2002a, for a survey of this approach). This result is not consistent with an alternative interpretation that refers to social support. However, it is consistent with social interaction in the form of social pressure.

The paper proceeds as follows. Section 2 discusses the voting measure of the strength of the social norm to work. In section 3, the effect of the social work norm on the duration of unemployment is analyzed. Section 4 investigates the role of social norms in the subjective well-being of unemployed people. Section 5 draws conclusions.

2 The Voting Measure of the Social Norm to Work

In order to study the effect of the social norm to work on individual behavior and utility, we first need a measure of the strength of this social norm. The measure should capture the belief that unemployed people ought to live off their own income. In empirical studies of social norms, mainly observed group behavior is used as a proxy for the group's norm. For instance, in the analysis of neighborhood effects, an individual outcome is regressed on the average level of that outcome in a region or neighborhood.² This is problematic, because actual behavior does not necessarily capture a person's beliefs on how one ought to behave.³

The institutional structure of Switzerland helps to overcome the problem of obtaining a direct measure of the strength of the social work norm. Switzerland held a nation-wide referendum on the level of unemployment benefits that – as we will argue – captures the strength of the social norm to work. There are, of course, other motives that were expressed in the referendum too. The voting measure is therefore considered as endogenous in order to

² See Bertrand et al. (2000) and van der Klaauw and van Ours (2003) for recent studies that are based on this approach. An alternative method to investigate social interactions consists of calibrating theoretical models to fit observed labor market data (Krauth, 2001 and Topa, 2001). A problem with this approach is that there is not yet a consensus with respect to the appropriate theoretical model yet.

³ Alternatively, an independent measure of people's beliefs could be ascertained by a questionnaire study. However, surveys on work values are mostly only conducted among small samples of the population. As a consequence, it is difficult to obtain an estimate of the strength of a particular social norm at the community level. However, it is necessary to have such a local measure if one wants to test for the effects of social norms because, presumably, group influence is limited to a large extent by distance.

systematically think about the influence of labor market characteristics on the proxy measure for the social work norm.⁴

The federal structure of Switzerland provides a second necessary condition in order to study social norm effects: interaction within communities. Swiss communities are characterized by a large degree of autonomy vis-à-vis the central government⁵, and social contacts occur to a large extent within communities.⁶ Unemployed people have to register at the communal unemployment office. We know of no evidence for segregation between unemployed and employed people, probably because well integrated people were hit by the economic downturn in the early nineties.

Switzerland, which had basically not experienced unemployment in the post world war II period, reacted strongly to a substantial rise in unemployment from 0.5% in 1990 to 4.5% in 1993. The government doubled the maximum duration of benefit eligibility from 1 year to 2 years and introduced an ambitious active labor market program. Benefits are 70% of previous monthly earnings for those with previous earnings exceeding Sfr. 4,030 (about US \$ 2,500) and 80% of previous earnings for individuals with low income or individuals who have children to support. Benefits are the same all over the country.⁷ Not surprisingly, unemployment insurance funds experienced large deficits.⁸ To fight these deficits, the Swiss government cut unemployment benefits marginally as of January 1, 1997, by 3% for those with previously high earnings and by 1% for those with previously low earnings. In response, unions and a committee of unemployed people launched a nation-wide referendum, calling for direct approval or disapproval of a cut in benefits by the voters.

The vote was held on September 28, 1997. Until June 1997, public discussion in the main newspapers focused on financial issues. However, on June 10, 1997, the (former) vice president of the ministry of labor made a public statement that he believed that:

⁴ Swiss citizens are used to expressing their opinions at the poll. Direct democratic decision-making is very common in Switzerland, even at the national level. Citizens openly discuss how to vote and can rely on ample coverage by the media of the issue at stake. Newspapers, for example, publish statements and voting recommendations of political parties and opinion leaders. Bohnet and Frey (1994) and Frey (1994) discuss the role of public discussion in the process of direct democratic decision-making, with an emphasis on the Swiss experience.

⁵ Communities decide on their own income tax and spend about one third of total public expenditure.

⁶ Evidence for this can be taken from the fact that community sports clubs, musical societies and choirs are very important in Switzerland.

⁷ Unemployed job seekers are entitled to unemployment benefits if they are looking for work, contributed to unemployment insurance for at least 6 months in the two years prior to becoming unemployed, and meet job search requirements. Those entering from non-employment may be exempt from the contribution.

⁸ Unemployment insurance is funded via a uniform proportional tax on wages of 3%.

“At least two thirds of the unemployed are either drug addicts, alcoholics or work shy.”

This statement incited a heated debate on the true causes of unemployment in Switzerland, i.e. the degree to which unemployed people could find work if they wanted to.⁹

The committee launching the referendum won by a narrow margin of 50.8%. Thus, 49.2% of voters approved of the reduction in unemployment benefits.

Voter turnout was 41 %. This is about Swiss average and is actually surprisingly high, given the rather small savings in public expenditure that were to be expected from the marginal change in the benefit replacement rate.¹⁰ Thus, the ballot might be interpreted as expressing normative views more strongly than reflecting labor market considerations (see Brennan and Lomasky, 1993). This is consistent with the public discussion before the vote on unemployment benefits that focused on fraudulent behavior of the unemployed, as well as the exit poll: the three main reasons given in support of a reduction in benefits were (i) financial issues (29%), (ii) that the unemployed cost too much; that they free-ride on society; that the government must do all they can to push the unemployed back into work (25%), and (iii) that the law is necessary; that lowering benefits is good (21%) (Wisler et al., 1997: 18). While the first reason is not directly linked to social norms, the second and third reasons can be taken as support of our presumption that differences in votes capture to some extent voter’s attitudes toward unemployed people.

The view that the social norm towards work was an important determinant of voting behavior is further supported by Figure 1. The voting results in the referendum are compared with survey answers on individual work values. The horizontal axis shows the proportion of voters favoring a cut in unemployment benefits across cantons. The vertical axis shows the percentage of survey respondents in each canton that does not oppose the statement “An individual who does not live off his or her own income is useless”. Data on this statement was

⁹ For example, on July 3, 1997, the “Blick”, the newspaper with the highest circulation in Switzerland, featured “The ten slick tricks of the unemployed” (to commit fraud); or on July 9, 1997, the “Tages-Anzeiger”, one of the main newspapers in the area around Zurich, published an interview with an individual belonging to the Association of Swiss Artisans, stating that: “Society consists to a large extent of hedonists. Work annoys them; they would really like to get rid of it”; or on August 4, 1997, the “Berner Tagwacht”, one of the main papers in the Bern region, quoted an individual as saying: “There is not only a right to work, but also a duty to work. Otherwise, one part of society free-rides on the other part of the working society.” Finally, in a personal interview at the labor office, an unemployed woman stated: “I lost many friends because of unemployment. They think badly about anybody who doesn’t have a job and say: ‘If one wants to work, one will find work.’”

¹⁰ Even though the referendum is not representative of all eligible voters, voting results provide a correct picture of those individuals who cast their vote. Arguably, these people are also more likely to enforce the prevailing social work norm within the community.

obtained in a survey of about 6,000 residents of Switzerland (Cotter et al., 1995). Switzerland consists of 26 cantons. Our data user contract specifies that we omit 3 of these 26 cantons because there were less than 30 observations in the survey. The correlation between the two measures of the strength of the social norm to work is 0.55.¹¹ Clearly there is a strong positive correlation between these two measures of the strength of the social norm across cantons.

[Figure 1 about here]

In addition to expressing normative views, voting on unemployment insurance was, of course, to some extent *instrumental*. On the one hand, people take their own employment situation into account, e.g. the chances of losing their own job (see Hassler et al., 2000). On the other hand, people might be concerned as taxpayers. Depending on their views of the way the labor market and the economy work, they are more or less likely to approve a benefit reduction. For example, citizens who believe that the elasticity of the duration of unemployment with respect to benefits is high, are more likely to vote in favor of a reduction of unemployment benefits. Similarly, people who expect adverse labor market effects in the form of an increase in the proportional tax on wages that is levied to finance unemployment insurance, are more likely to vote for lower benefits. There are few reasons to expect that the two latter motives (capturing people's understanding of the economy) imply a systematic correlation of the voting measure with individual labor market outcomes, because the change in the benefit replacement rate was trivial and the financing of unemployment insurance is not dependent on the region. In contrast, people's fear of becoming unemployed can lead to a correlation between the voting measure of the social norm to work and labor market outcomes. Such a confounding correlation motivates an interpretation that is exactly the opposite of the basic hypothesis in this paper.

Figure 2 illustrates the expressive and instrumental aspects captured in our proxy for the strength of the social norm to work. It shows a map of Switzerland with the poll results across all Swiss communities. The darker the shading, the higher is the percentage of voters in a community that was in favor of reducing unemployment benefits.¹² Figure 2 shows that there are large differences between communities in the percentage in favor of a cut in benefits, both across Switzerland and within regions. There is an East-West differential in the percentage

¹¹ Note that the correlation between the survey responses and voting represents a lower bound of the correlation in the population because (random) survey sampling errors tend to increase the variance of the survey measure while leaving the covariance unaffected (Krueger and Summers, 1988).

¹² The heavy black lines indicate cantonal borders. Areas with white shading are lakes.

favoring a cut in benefits. This differential probably does not only reflect differences in the strength of the social norm, but also differences in labor market outcomes: at that time, the labor market in the Western part of Switzerland experienced, on average, higher unemployment than in the Eastern part of Switzerland. This observation is a further reason for adopting an approach that treats people's voting behavior as endogenous, e.g. to regional labor market conditions. Econometrically, this translates into a stratified estimation technique that focuses on and exploits the large differences in the poll results within closely defined regions visible in Figure 2. For instance, in the Eastern part of Switzerland, there are areas where adjacent communities have very different shading. Such variation in poll results within regions can be used to separate labor market effects from social norm effects, as we will discuss in the next section.¹³

[Figure 2 about here]

3 Social Work Norm and Job Searching

In this section, we first test whether there is a correlation between the proposed voting measure for the strength of the social norm to work and the duration of unemployment in a hazard rate analysis. Then we address two important lines of competing explanations. Finally, we report some simulations concerning the quantitative importance of the social norm effects.

Data on the duration of unemployment is from the national unemployment register. It covers the *entire inflow* of unemployment in Switzerland in the six months following the referendum on unemployment benefits. The inflow of unemployment from October 1997 to March 1998 is then observed for an average period of one and a half years, until May 1999. There are two main advantages to using this sample. First, all the unemployed individuals considered became unemployed *after* the referendum took place. Second, because we have access to the *population* of unemployment entrants, we have observations on duration of unemployment for more than 85% of Swiss communities.

The data contains detailed information on individual characteristics, previous job and recent unemployment experience. The sample selection procedure considers the fact that individuals

¹³ It is interesting to note that idiosyncratic variation in the voting measure of the social norm to work seems more prevalent in areas that are characterized by an uneven topography. This is consistent with evolutionary models of the formation of social norms (Young, 1996). These models predict uniformity within communities and heterogeneity across communities.

may choose to become unemployed. In order to rule out that the social norm affects inflow into unemployment, the analysis is restricted to unemployed people who did not quit their previous job. Additionally, we restricted the sample to unemployed Swiss and foreigners with permanent residence in Switzerland in order to grant equal benefit entitlement in the sample.

In order to analyze duration of unemployment, we use the Cox (1972) proportional hazard model. It focuses on the ‘hazard’, that is the probability that an individual changes from unemployment to a regular job as a function of the time spent in unemployment. The main assumption of the proportional hazard model is that covariates shift the hazard in a proportional manner, leading to the following specification for the hazard $\lambda(t|x_i)$

$$\lambda(t|x_i) = h(t) \exp(x_i \beta)$$

where t is elapsed duration, $h(t)$ is the baseline hazard, x_i is a vector of covariates, β is a vector of parameters of interest, and i indexes individual observations. An important advantage of using the Cox proportional hazard model is that there is *no need* to assume a parametric structure for the baseline hazard; a fact that ensures consistent estimation of β under a wide range of circumstances.

In all estimates, inference is based on robust standard errors that take into account that we are explaining individual outcomes with variables measured at the community level. This problem has been discussed in the regression context by Moulton (1990). Lin and Wei (1989) develop the robust variance estimator for the Cox Proportional Hazard model that we use in the present context. The robust variance estimator does not rely on independence across all spells of unemployment, but merely on independence across Swiss communities.

Table 1 contains the main results of the duration analyses. Panel A shows the effect of the proposed measure for the strength of the social norm to work on the transition rate from unemployment to a regular job for 76,770 unemployed people living in 2,550 communities. In the estimate, we control for a number of individual characteristics, as well as for average monthly unemployment inflow rate in the third quarter of 1997.¹⁴ The coefficient of the strength of the social work norm of 0.085 is to be interpreted such that unemployed people in communities with a social norm that is 10 percentage points stronger than average exhibit a

¹⁴ The unemployment inflow rate used is the average number of individuals that became unemployed between July and September 1997 as a percentage of the number of people in the work force in the municipality.

transition rate to jobs that is larger by a factor of $\exp(0.085)=1.088$ or by 8.8 %. Thus, the *stronger* the social work norm, the *higher* is the transition rate to jobs.

[Table 1 about here]

3.1 Correlated Interactions

The voting measure of the strength of the social work norm also reflects labor market conditions, as has been argued in section 2. Thus, the estimated effect of the social norm may be upwardly biased. It may be what Manski (1993) termed a ‘correlated effect’. This is the effect that individuals stemming from the same community behave similarly, not because of social interactions, but because they face the same environment. In order to test the sensitivity of the estimation results, characteristics of individuals’ environment have to be controlled for.

In Panel A, we show the effect of the social norm, controlling for the average unemployment inflow rate. Unemployment inflow is included in order to take the state of the labor market into consideration as it is observed by the citizens.¹⁵ The coefficient on the unemployment inflow rate is statistically significant and quantitatively important: a one percentage point increase in the unemployment incidence reduces the transition rates to jobs by 19.7%.

In a further test in Panel B, we display the estimated effect of the voting measure for the social norm, additionally controlling for five municipality characteristics, i.e. population in 1997, education and age structure, commuting behavior (latter values for 1990), and voting participation in the referendum.¹⁶ The first three characteristics are intended to capture differences across municipalities in labor supply. For example, the variables for the age structure at the community level measure differences in the propensity of people to enter or leave the labor market due to changes in labor market conditions. Community education

¹⁵ An alternative measure that reflects labor market conditions is the unemployment rate. However, there are two reasons for working with the inflow rate rather than the unemployment rate. The inflow rate more closely captures differences across communities in labor demand. Moreover, to the extent that social work norms affect unemployment outflow, it is preferable to find a measure of the labor market situation that does not contain information on the unemployment outflow in order to avoid ‘overcontrolling’. This is the case for the unemployment inflow rate, but it is not the case for the unemployment rate. Nevertheless, we investigated the sensitivity of our results with respect to the community unemployment rate. None of the results are affected at the qualitative level.

¹⁶ Education structure (two variables) captures the proportion of inhabitants with secondary and with tertiary education. Age structure (two variables) measures the proportion of people below 15 years of age and old age pensioners. Commuting behavior reflects the proportion of workers that does not work within the community.

structure is included in order to capture a major determinant of the transition rate to jobs that is missing in the individual data. The proportion of commuters is an indicator for the existence of an adequate number of jobs in the community in which people live, and thus for local labor demand. Finally, voting participation is taken into consideration, because there may be a correlation between the strength of the social norm to work and the probability that somebody expresses his or her opinion at the poll.

A comparison of the results in Table 1 Panel B with the results of Panel A reveals that the coefficient of the social work norm becomes slightly smaller if we control for additional features of the environment. However, the variable for the social work norm still has a statistically significant and quantitatively strong positive impact on the transition rate to jobs. A social work norm that is ten percentage points stronger increases the transition rate to jobs by 7.3%.

With respect to the community control variables, the transition rate to jobs is found to be the lower the larger the community is, the more people have tertiary education, and the larger the proportion of commuters is. Unemployment duration is shorter the higher the proportion of inhabitants below 15 years of age, the higher the proportion of individuals who have completed secondary education, and the higher the voter turnout.¹⁷

So far, correlated interaction for *observed* regional characteristics has been considered. However, duration of unemployment and voting behavior could also be systematically determined by *unobserved* regional properties. If poll results on unemployment benefits merely reflect regional job opportunities, the estimated correlation between the duration of unemployment and the voting proxy for the social norm may be spurious and reflect reverse causation. In order to control for a specific form of endogeneity, we allow differences in the proposed measure of the social norm to be driven by unobserved regional heterogeneity. With linear models, one would use region fixed effects to absorb unobserved regional differences. With data on duration, a stratified estimation technique can be applied that specifies the hazard rate in the following manner

$$\lambda_j(t|x_i) = h_j(t) \exp(x_i \beta_j)$$

¹⁷ Voting participation has turned out not to be systematically correlated with expressed approval or disapproval of the referendum. If the variable is excluded, a slightly larger coefficient for the social work norm of 0.070 is estimated.

where j indexes regions and $h_j(t)$ is a region specific baseline hazard rate. Thus, variation of the proposed measure of the social norm *within* a region identifies the effect of the social work norm. See Ridder and Tunali (1999) for an extended discussion of stratified hazard estimation.

Here, 147 public employment service (PES) regions are used as spatial units. There are two main reasons for this choice: first, the PES regions were originally created to represent local labor markets. Second, because PES staff handle *all* the administrative procedures (registering, monitoring, and sanctioning), we control for idiosyncratic management of the unemployment insurance system. PES regions are very narrowly defined labor markets, both with regard to the number of workers, covered as well as their spatial expansion. On average, a PES region consists of about 25,000 members of the labor force and covers an habitable area of about 170 square kilometers.

Panel C in Table 1 displays the results of the stratified estimation, controlling for endogeneity at the regional level in the voting measure. While the point estimate for the effect of the social work norm drops slightly from 0.070 to 0.053, it remains statistically significant at any conventional level of significance. This suggests that a strong social norm to work increases the transition rate to regular jobs. Note that the effects of unemployment incidence, age structure, and commuting behavior change even more than the effect of the social norm.

The hypothesis that the model controlling for unobserved characteristics affecting job chances (Table 1 Panel C) can be reduced to the model does not account for unobserved regional heterogeneity, i.e. endogeneity in the norm proxy (Table 1 Panel B) is rejected. This means that stratification indeed controls for relevant omitted factors that are correlated with the proposed measure for the social norm and other explanatory variables.

3.2 Contextual Interactions

It may be argued that differences in duration of unemployment merely reflect differences in unmeasured characteristics of the unemployed over and above the unobserved regional properties considered above: the findings might be due to internalized attitudes towards work rather than due to social interaction, like social sanctioning. People with strong work attitudes are likely to vote in favor of a reduction in unemployment benefits. Moreover, the

unemployed with a strong work ethic will search more intensively for a new job and be unemployed for a shorter period of time.

These two explanations are difficult to disentangle. First, it can be argued that a necessary precondition for the enforcement of social norms is that a proportion of the population has internalized the norm. Only then can the social dilemma of sanctioning norm deviating behavior be resolved. Thus, the working of a particular social norm relies to some extent on the fact that it becomes an internalized norm. Second, simple models of either internalized norms or social norms predict the same regularities in behavior.

In order to address whether *social* interaction rather than sorting with respect to the internalized *individual* work ethic generates the observed correlations, additional conditions have to be specified, under which the proposed measure for the social work norm has distinct effects on the duration of unemployment. Two propositions are put forward: (i) To the extent that it is easier for unemployed people to shield themselves from social sanctions in large municipalities, the effect of the social norm to work is expected to be the weaker the larger the municipality is. (ii) If social sanctioning happens to be largely verbal, the effect of the social work norm is expected to be the weaker the poorer unemployed people's skills in the local language are. The propositions are tested in Table 2. Technically, interaction terms are included in the estimation equation in Panel C of Table 1.

The results in Panel A of Table 2 show that the effect of the social norm to work is weaker the larger the community is. The main effect implies that the transition rate to jobs increases by 4.8% if the strength of the social norm increases by 10 percentage points.¹⁸ The negative interaction term shows that if municipality size is increased by 10,000 inhabitants, for instance, the effect of the social work norm on the transition rate to jobs decreases from 4.8% to 4.3%.

In Panel B, two interaction terms are included. The first term interacts the strength of the social work norm with the characteristic that the official language in the canton is not the mother tongue of the individual, but his or her second language.¹⁹ The second interaction term is for unemployed people who speak the local language neither as their mother tongue nor as their second language. The results show that the effects of the voting measure of the social

¹⁸ The main effect is calculated for an individual living in the municipality with median size.

¹⁹ The four official languages in Switzerland are German, French, Italian and Romansh.

work norm are smaller if an unemployed person's skills in the local language are lower. For the first interaction effect, the effect of the social norm is reduced from 10.8% to 2.2%. If the local language is neither the mother tongue nor the first foreign language, the net effect is even negative.²⁰ These results might indicate that norm enforcement is more difficult if verbal interaction is hampered by language problems. The results might also indicate that people who are less familiar with the local language are also less well integrated in the community and thus less exposed to social sanctions.

[Table 2 about here]

To sum up, the effects on the duration of unemployment of our proposed measure for the strength of the social norm to work are the smaller the larger the community in which the unemployed individuals live, and the weaker their command of the local language is. These results are consistent with social interactions within communities that have an influence on unemployed people's behavior on the labor market. This, however, still allows part of the overall effect to be from internalized work norms.

3.3 Quantitative importance

Table 3 contains simulations to assess the quantitative importance of the strength of the social work norm for the duration of unemployment. The simulations are based on the estimates presented in Table 1 Panel C. First, the expected change in duration of unemployment is reported that is due to a change in the indicator for the social work norm by one standard deviation for an individual with average characteristics. Second, in order to assess the relative size of the effect, simulations for the relation between the duration of unemployment and apprenticeship training, as well as the benefit replacement rate, are conducted.

The social norm to go about paid work reduces the duration of unemployment substantially. For instance, the average individual has a *10.9 days shorter* duration of unemployment due to an increase in the strength of the social norm by one standard deviation. Thus, for an increase of one standard deviation, the effect of the norm is about 8% of median duration of unemployment (140 days).

²⁰ The result that the effect of the social norm on the transition rate to jobs is lower for individuals who do not speak the local language as their mother tongue also holds in the subsample of the unemployed Swiss. This shows that the interaction terms do not merely capture differences among Swiss and foreign job seekers in their ability to find jobs.

[Table 3 about here]

At the bottom of Table 3, quantitative results for apprenticeship training and the benefit replacement rate are presented for an assessment of how large the effect of the social work norm is compared to two common policy prescriptions to reduce unemployment duration.²¹ With respect to apprenticeship training, simulation results show that unemployment duration is 51 days longer for individuals who have never done an apprenticeship, compared to individuals who have completed a long apprenticeship.²² Individuals who are granted 80% of the previous wage are expected to be unemployed 12.1 days longer than individuals with a replacement rate of 70%. This effect is somewhat larger than the findings in the literature that a 10 percentage point increase in the replacement rate increases the duration of unemployment by about one week (Atkinson and Micklewright, 1991). Thus, the social norm to work has less impact than apprenticeship training. However, a one standard deviation increase in the proposed measure of the social norm to work is just about as important in explaining unemployment duration as a 10 percentage point increase in the replacement rate.

4 Social Work Norm and Subjective Well-Being

The previous section shows that an increase in the proportion of people who voted in favor of a reduction in unemployment benefits is associated with a marked decrease in the duration of unemployment *ceteris paribus*. This empirical finding is interpreted in terms of a social work norm that is motivating unemployed people to take up work. However, the analysis of data on behavior provides little evidence on the kind of social interaction that influences the identified effect.

At least two scenarios are possible: (i) The proposed measure for the social norm to work may reflect differences in availability of information on new jobs and help from other people in finding a job. Moreover, it may reflect the fact that imitation of successful job search strategies is more prevalent in high norm communities. (ii) In communities with a strong

²¹ Note that the majority of the Swiss labor force enters the labor market via an apprenticeship. There are short apprenticeships (less or equal to 2 years) and apprenticeships exceeding 2 years. University graduates are assigned the code for long apprenticeship.

²² Note that the apprenticeship variable measures the effects of both on-the-job training and education on the unemployment exit rate. This is because the data does not contain information on education.

norm to work, unemployed individuals may be subject to informal social sanctions because they deviate from the social norm.²³

It seems impossible to discriminate between these two explanations with data on behavior. However, with proxy data on utility, one could explore whether the identified correlation reflects information aspects of the labor market or social pressure. While the explanation based on social pressure implies that unemployed individuals will have lower utility in communities with a strong social work norm, the first scenario does not imply a systematic relationship between the proposed measure and utility (Lalive, 2001). We use data on self-reported subjective well-being to separate the two competing scenarios for the investigated effects on the duration of unemployment.²⁴ The question on subjective well-being was as follows: "How satisfied are you with your life as a whole these days?", with answers on a scale from one ("completely dissatisfied") to ten ("completely satisfied"). The data are part of a survey of over 6,000 residents in Switzerland, conducted by Leu, Burri and Priester (1997).²⁵

Measures of reported satisfaction with life and happiness have for decades been extensively studied in psychology and have contributed greatly to the understanding of individual well-being (see e.g. Diener et al. 1999 and Kahneman et al. 1999). Subjective well-being is generally assessed in large-scale surveys. In a number of studies, the validity of these survey measures has been documented. It has, for example, been shown that different measures of happiness correlate well with one another. Reliability studies have found that reported subjective well-being is moderately stable and sensitive to changing life circumstances. Consistency tests reveal that happy people are more often smiling during social interactions, are rated as happy by friends and family members, as well as by spouses, are less likely to commit suicide and that changes in brain electrical activity and heart rate account for substantial variance in reported negative affect (see Frey and Stutzer, 2002b for references). The existing state of research suggests that, for many reasons, reported subjective well-being

²³ While, according to the first explanation, policy may target information aspects of job search, the second one does not support any direct policy advice.

²⁴ The same approach of using data on reported subjective well-being to discriminate between competing models of behavior is applied to smoking by Gruber and Mullainathan (2002).

²⁵ The data were collected between 1992 and 1994 in order to investigate the problem of poverty in Switzerland. Information is from personal interviews and tax statistics. Additional information includes demographic characteristics, employment status and income situation of the household.

is a satisfactory empirical approximation to individual utility that can be applied in economic research (for surveys see e.g. Frey and Stutzer, 2002a and Oswald, 1997).

In the following econometric analysis, we apply weighted ordered probit models, because the dependent variable contains rank information on subjective well-being. We use a robust estimator of variance, as random disturbances are potentially correlated within the same community.²⁶

Table 4 presents the results. A positive coefficient indicates that the probability of stating higher life satisfaction increases. The marginal effect indicates the change in the percentage of persons belonging to a utility level of 9 or 10 when the independent variable increases by one standard deviation.²⁷ In the case of dummy variables, the marginal effect is evaluated with respect to the reference group. Applied to the effect of being unemployed, rather than being employed, the probability of a person stating a level of subjective well-being of 9 or 10 is 34.9 percentage points lower.²⁸

The first coefficient in Table 1 Panel A captures the effect of the social norm to work on life satisfaction for the employed. A small positive effect is estimated. Thus, work seems to contribute more to satisfaction with life where people share a stronger social norm to work. The difference in well-being between employed and unemployed people, due to variation in the strength of the social work norm, is revealed by the interaction term for strength of norm and individual unemployment. The coefficient of this interaction variable is statistically significantly negative. Thus, the higher the proportion of people in a community who are in favor of a cut in unemployment benefits, the lower the satisfaction with life of unemployed people living in the same community (compared to employed people). The reduction itself is massive. Estimating the marginal effect, a one standard deviation higher proportion of voters in favor of lower benefits reduces the probability of an unemployed person reporting a

²⁶ Ignoring the clustering in the estimation model is likely to produce downward biased standard errors, due to the effects of aggregate variables on individual data (Moulton, 1990). To get unbiased standard errors for the aggregate variables on social norms, the communities are used as units for clustering. Due to clustering and stratification in contrast to pure random sampling, weights are necessary to get unbiased point estimates. Weights are proportional to the inverse of the probability of being sampled. In addition, the weights are adjusted to the demographic structure in 1992.

²⁷ Alternatively, the marginal effect indicates the change in the probability of a single individual to belong to a utility level of 9 or 10 when the independent variable increases by one standard deviation.

²⁸ This fact has been documented by a number of studies for different countries. See, e.g. Clark and Oswald (1994) for Britain, Winkelmann and Winkelmann (1998) for Germany, Frey and Stutzer (1999) for Switzerland, and Di Tella, MacCulloch and Oswald (2001) for twelve European countries. For surveys on the links between unemployment and well-being, see, e.g., Murphy and Athanasou (1999) for a survey from the psychological perspective, or Darity and Goldsmith (1996) for a survey from the economic perspective.

happiness score of 9 or 10 by approximately 19.9 percentage points. This result favors the second scenario that social interaction is due to social pressure rather than an alternative explanation of the behavioral regularities based on differences in social support. However, it is not possible to rule out that differences in reported life satisfaction might also be due to differences in internalized work norms.

[Table 4 about here]

It may be argued that the effect of the variable “strength of social work norm” is spurious because the variable mainly measures the local unemployment situation. Or it may be claimed that the strength of the norm depends on the extent to which the members of a community actually adhere to it. Thus, when unemployed people suffer from reduced self-esteem, as they violate the norm to work, the reduction in subjective well-being is the smaller, the larger the percentage of other people living in the same community who do not adhere to the social norm (Clark, 2003).

Therefore, in panel B of Table 4, the variable for the strength of the work norm, as well as the local unemployment rate, are jointly included in the estimate. The coefficients show that the interaction effect for the social work norm hardly changes: it is slightly reduced from -0.05 to -0.04 . A stronger norm to work thus reduces the subjective well-being of unemployed people, even if the local unemployment situation is controlled for.

The local unemployment rate itself has a small, albeit statistically insignificant, positive effect on satisfaction with life for people looking for a job. A rise in unemployed people’s well-being, due to higher unemployment in their area of residence, has previously been interpreted as evidence for the effect of social norms (see Clark, 2003). The interpretation is that a weaker adherence to the norm to work eases the lot of unemployed people. However, if a direct measure of the strength of the social norm is controlled for, average behavior as a norm-proxy loses its explanatory power of unemployed individuals’ well-being.

5 Conclusions

Social norms are presumed to be an important determinant of behavior in situations that involve externalities. For instance, social norms may contribute to understanding the fact that unemployment rates show large unexplained regional variation. However, research on the empirical relevance of social norms is hampered because it is difficult to measure the degree to which social norms prevail within a group.

This paper applies a novel measure of the social norm to work: the percentage of citizens in a community who voted in favor of a reduction of unemployment benefits in a Swiss referendum. The main advantage of this measure is that it goes beyond average labor market behavior. It directly captures citizens' belief that people should live off their own income. The public discussion before the vote, and the exit poll after the vote, both suggest that the social norm to work has played an important role in voters' decision. As the proxy variable is also picking up regional labor market characteristics, the voting measure is treated as endogenous in the empirical analysis. Two main hypotheses are tested.

First, it is analyzed whether the voting measure of the strength of the social norm to work is an important determinant of unemployed people's behavior across communities. We find that the stronger the social norm to work, the shorter is the duration of unemployment. This result is from a stratified estimation that keeps unobserved regional variation, e.g. in labor market conditions, constant. The effect is stronger in small communities, and for unemployed people whose mother tongue is the local language. A one standard deviation increase in the strength of the social work norm translates, on average, into a reduction of unemployment duration by approximately 11 days.

Second, evidence is put forward that sheds light on the working of the social norm. One would expect that unemployed people's utility is the lower, the stronger the social norm to work, if it captures social pressure. On the contrary, if the proposed measure for the social norm captures imitation, learning or social support, one would not expect such a relationship. We find that the stronger the social norm to work, the lower is reported satisfaction with life of unemployed people. A social norm to work that is one standard deviation stronger than average reduces the probability of high satisfaction scores by 17.1 percentage points. The proxy for the social work norm used in this paper is thus suggested to reflect the extent to which unemployed individuals are subject to informal social sanctions.

One implication of these results is that, for given funds, a stronger social norm to work allows unemployed people to be financed for longer or with higher unemployment benefits.

Showing the large effect of a strong norm to work raises the question of the institutional determinants of this norm. Possible answers are a worthwhile topic for future research. Till now, there is scarce systematic empirical evidence on the emergence of social norms. It is to be hoped that the results presented in this study are replicated and that they are supplemented with studies on the effects of social norms on total employment, self-employment and entrepreneurship.

References

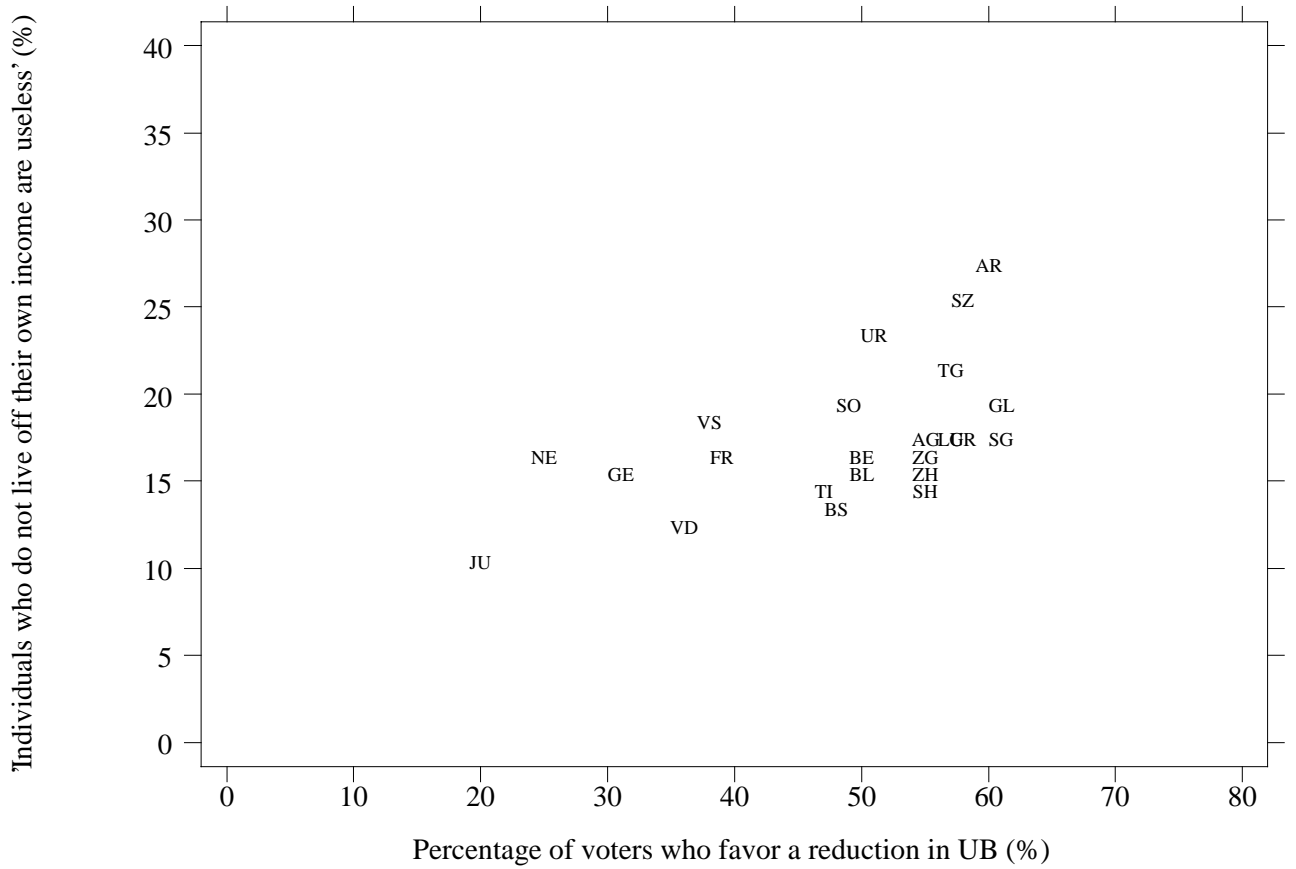
- Akerlof, George A. (1980). A Theory of Social Custom, of Which Unemployment May Be One Consequence. *Quarterly Journal of Economics* 94(4): 749-775.
- Atkinson, Anthony B. and Micklewright, John (1991). Unemployment Compensation and Labor Market Transitions: A Critical Review. *Journal of Economic Literature* 29(4): 1679-1727.
- Becker, Gary S. (1965). A Theory of the Allocation of Time. *Economic Journal* 75: 493-517.
- Bernheim, B. Douglas (1994). A Theory of Conformity. *Journal of Political Economy* 102(5): 841-877.
- Bertrand, Marianne, Luttmer, Erzo F. P. and Mullainathan, Sendhil (2000). Network Effects and Welfare Cultures. *Quarterly Journal of Economics* 115(3): 1019-55.
- Besley, Timothy and Coate, Stephen (1992). Understanding Welfare Stigma: Taxpayer Resentment and Statistical Discrimination. *Journal of Public Economics* 48(2): 165-183.
- Bohnet, Iris and Frey, Bruno S. (1994). Direct-Democratic Rules: The Role of Discussion. *Kyklos* 47(3): 341-354.
- Brennan, Geoffrey and Lomasky, Loren (1993). *Democracy and Decision: The Pure Theory of Electoral Preference*. Cambridge, New York and Melbourne: Cambridge University Press.
- Clark, Andrew E. (2003). Unemployment as a Social Norm: Psychological Evidence from Panel Data. *Journal of Labor Economics* 21(2): 323-351.
- Clark, Andrew E. and Oswald, Andrew J. (1994). Unhappiness and Unemployment. *Economic Journal* 104(424): 648-659.
- Cole, Harold, Mailath, George and Postlewaite, Andrew (1992). Social Norms, Savings Behavior, and Growth. *Journal of Political Economy* 100(6): 1092-1125.
- Cotter, Stéphane, Buscher, Marco, Baumgartner, Doris, Fux, Beat, Sauvain-Dugerdil Claudine and Gabadinho, Alex (1995). *Familie, Lebensverlauf und Geburtshäufigkeit – 1995* [maschinenlesbarer Datensatz]. Produktion: Bundesamt für Statistik –BfS, Abteilung Bevölkerung und Beschäftigung, Neuchâtel; Universität Zürich, Soziologisches Institut; Université de Genève, Laboratoire de démographie économique et sociale. Verteilt durch SIDOS, Schweizerischer Informations- und Daten-Archivdienst für die Sozialwissenschaften, Neuchâtel.
- Cox, D. R. (1972). Regression Models and Life-Tables (with discussion). *Journal of the Royal Statistical Society, Series B* 34: 187-220.
- Darity, William and Goldsmith, Arthur H. (1996). Social Psychology, Unemployment and Macroeconomics. *Journal of Economic Perspectives* 10(1): 121-140.

- Di Tella, Rafael, MacCulloch, Robert J. and Oswald, Andrew J. (2001). Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness. *American Economic Review* 91(1): 335-341.
- Diener, Ed, Suh, Eunkook M., Lucas, Richard E. and Smith, Heidi L. (1999). Subjective Well-Being: Three Decades of Progress. *Psychological Bulletin* 125(2): 276-303.
- Durlauf, Steven N. and Peyton Young (eds) (2001). *Social Dynamics*. Cambridge, MA: MIT Press.
- Elster, Jon (1989). *The Cement of Society: A Study of Social Order*. Cambridge, UK: Cambridge University Press.
- Fehr, Ernst and Gächter, Simon (2000). Fairness and Retaliation: The Economics of Reciprocity. *Journal of Economic Perspectives* 14(3): 159-181.
- Frey, Bruno S. (1994). Direct Democracy: Politico-Economic Lessons from Swiss Experience. *American Economic Review* 84(2): 338-348.
- Frey, Bruno S. and Stutzer, Alois (1999). Measuring Preferences by Subjective Well-Being. *Journal of Institutional and Theoretical Economics* 155(4): 755-778.
- Frey, Bruno S. and Stutzer, Alois (2002a). *Happiness and Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton: Princeton University Press.
- Frey, Bruno S. and Stutzer, Alois (2002b). What Can Economists Learn from Happiness Research. *Journal of Economic Literature* 40(2): 402-435.
- Gruber, Jonathan and Mullainathan, Sendhil (2002). Do Cigarette Taxes Make Smokers Happier? NBER Working Paper No. 8872. Cambridge, MA: National Bureau of Economic Research.
- Hassler, John, Rodríguez Mora, José V., Storesletten, Kjetil and Zilibotti, Fabrizio (2000). Equilibrium Unemployment Insurance. CEPR Discussion Paper no. 2126. London: CEPR.
- Kahneman, Daniel, Diener, Ed and Schwarz, Norbert (eds) (1999). *Well-Being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.
- Kandori, Michihiro (1992). Social Norms and Community Enforcement. *Review of Economic Studies* 59(1): 63-80.
- Krauth, Brian (2001). Social Interactions, Thresholds, and Unemployment in Neighborhoods. Mimeo, San Francisco University.
- Krueger, Alan B. and Lawrence H. Summers (1988). Efficiency Wages and the Inter-Industry Wage Structure. *Econometrica* 56(2): 259-293.
- Lalive, Rafael (2001). The Duration of Unemployment: Institutions, Labor Market Programs, and Social Interactions. Ph.D. Thesis, University of Zurich.
- Leu, Robert E., Burri, Stefan and Priester, Tom (1997). *Lebensqualität und Armut in der Schweiz*. Bern: Haupt.

- Lindbeck, Assar, Nyberg, Sten and Weibull, Jörgen W. (1999). Social Norms and Economic Incentives in the Welfare State. *Quarterly Journal of Economics* 114(1): 1-35.
- Lin, D. Y. and Wei, L. J. (1989). The Robust Inference for the Cox Proportional Hazards Model. *Journal of the American Statistical Association* 84(408): 1074-1078.
- Manski, Charles F. (1993). Identification of Endogenous Social Effects: The Reflection Problem. *Review of Economic Studies* 60(3): 531-542.
- Moulton, Brent R. (1990). An Illustration of a Pitfall in Estimating the Effects of Aggregate Variables on Micro Units. *Review of Economics and Statistics* 72(2): 334-338.
- Murphy, Gregory C. and Athanasou, James A. (1999). The Effect of Unemployment on Mental Health. *Journal of Occupational and Organizational Psychology* 72(1): 83-99.
- Oswald, Andrew J. (1997). Happiness and Economic Performance. *Economic Journal* 107(445): 1815-1831.
- Ridder, Geert and Tunali, Insan (1999). Stratified Partial Likelihood Estimation. *Journal of Econometrics* 92(2) 193-232.
- Solow, Robert M. (1990). *The Labor Market as a Social Institution*. Cambridge, MA and Oxford: Blackwell.
- Swiss Association of Cities (various years). *Statistik der Schweizer Städte*. Bern and Zurich: Swiss Association of Cities.
- Topa, Giorgio (2001). Social Interactions, Local Spillovers and Unemployment. *Review of Economic Studies* 68 (2): 261-295.
- van der Klaauw, Bas and van Ours, Jan C. (2003). From Welfare to Work: Does the Neighbourhood Matter? *Journal of Public Economics* 87 (5-6), 957-985.
- Winkelmann, Liliana and Winkelmann, Rainer (1998). Why Are the Unemployed So Unhappy? Evidence from Panel Data. *Economica* 65(257): 1-15.
- Wisler, Dominique, Maquis, Lionel and Bergman, Max (1997). Analyse der eidg. Abstimmungen vom 28. September 1997. *VOX Nr. 62*. Zurich: GfS and DSP.
- Young, H. Peyton (1996). The Economics of Convention. *Journal of Economic Perspectives* 10(2): 105-122.

Figure 1.

Correlation between the voting measure of the strength of the social norm and a survey measure of this norm.

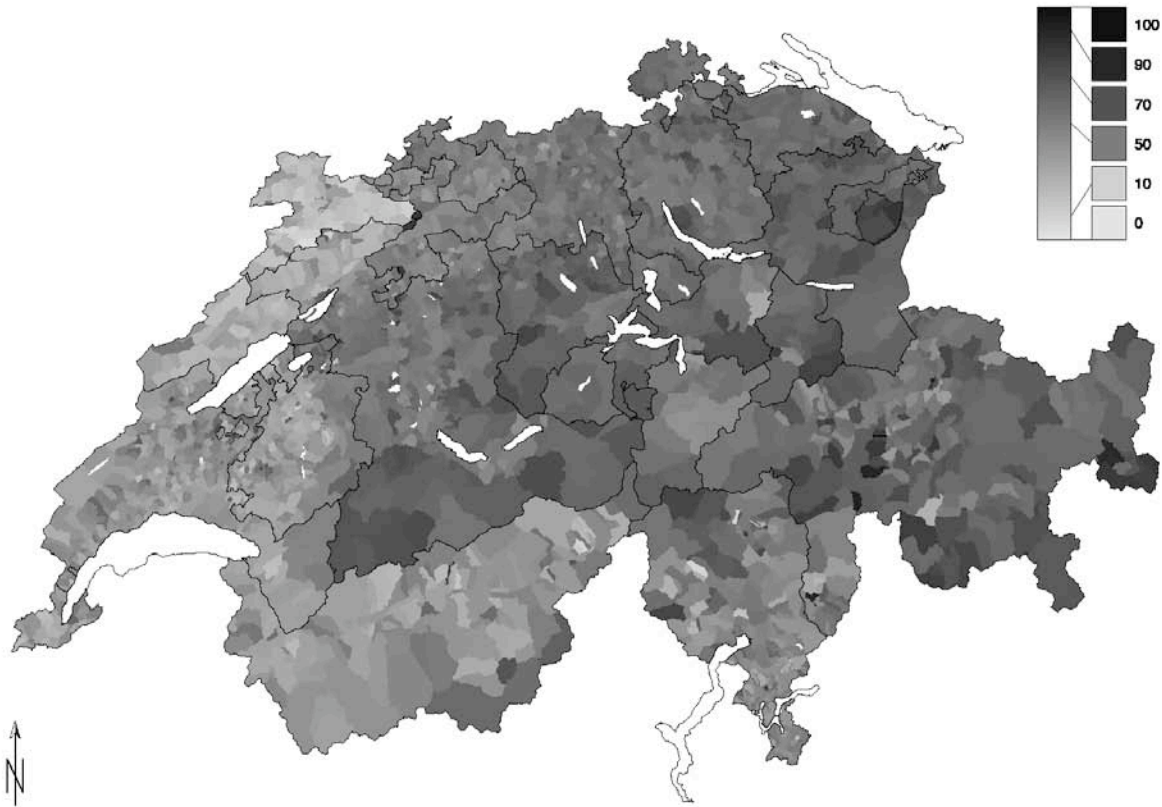


Notes: The horizontal axis shows the percentage of voters in a canton favoring a reduction in unemployment benefits (UB) in the Swiss national referendum held in September 1997. The vertical axis shows the percentage of survey respondents in a canton not opposing the statement "Individuals who do not live off their own income are useless." This survey is documented in Cotter et al. (1995). It is restricted to cantons with more than 30 observations in the survey due to data security restrictions.

Data Source: Swiss Federal Statistical Office and Cotter et al. (1995).

Figure 2.

Referendum on the reduction of unemployment benefits in Switzerland
Poll results across communities, September 28, 1997



Notes: Shading indicates the percentage of citizens voting in favor of a reduction of unemployment benefits. Dark lines indicate cantonal borders. White shading indicates lakes.
Data source: Swiss Federal Statistical Office.

Table 1.
The role of the social work norm in job searching
Dependent variable: transition rate to jobs

Variable	A		B		C	
	Coefficient	z-Value	Coefficient	z-Value	Coefficient	z-Value
COMMUNITY CHARACTERISTICS						
Strength of social work norm (% /10)	0.086	7.09	0.070	8.37	0.053	3.87
Unemployment inflow rate (%)	-0.220	-3.71	-0.148	-3.23	-0.079	-2.22
Number of inhabitants (/100000)			-0.077	-4.30	-0.051	-1.70
Proportion of population with						
secondary education			0.381	2.38	0.344	2.38
tertiary education			-0.932	-5.43	-0.289	-1.56
age <= 15			2.050	6.12	1.027	3.02
age > 65			0.067	0.22	0.344	1.26
Proportion of commuters			-0.346	-5.40	-0.122	-1.90
Voting participation in referendum			0.420	2.88	-0.207	-1.39
INDIVIDUAL CHARACTERISTICS						
Stratified	Yes	<input type="checkbox"/>	Yes	<input type="checkbox"/>	Yes	<input type="checkbox"/>
Number of strata	No	<input type="checkbox"/>	No	<input type="checkbox"/>	147	
Stratification test, Chi ² (58)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	218.1***	<input type="checkbox"/>
log Likelihood	-498064.5		-497675.3		-270982.7	
Number of communities	2550		2550		2550	
Number of individuals	76770		76770		76770	

Notes: Asymptotic z-value based on robust standard errors that are adjusted for clustering at the community level (Lin and Wei, 1989). Strength of social norm = percentage in favor of reducing unemployment benefits. Unemployment inflow rate is the average number of individuals who entered unemployment in July to September 1997 as a percentage of the labor force in the community. Individual characteristics are age, family situation, nationality, apprenticeship training, employability, replacement rate, previous wage, the previous labor market state, industry, occupation, mobility, knowledge of the local language and dummies for inflow period.
Data sources: State Secretariat of Economic Affairs, Switzerland and data service of the Swiss Federal Statistical Office.

Table 2.
Sensitivity analysis: Community size and knowledge of the local language
Dependent variable: transition rate to jobs

Variable	A		□	B	
	Coefficient	z-Value		Coefficient	z-Value
COMMUNITY CHARACTERISTICS					
Strength of social work norm (% /10)	0.047	3.09		0.102	8.91
x number of inhabitants (/100'000)	-0.052	-2.43			
x local language is second language				-0.079	-6.33
x local language is neither second language nor mother tongue				-0.154	-13.55
Unemployment inflow rate (%)	-0.074	-2.57		-0.068	-2.49
Number of inhabitants (/100000)	-0.115	-3.10		-0.047	-1.83
Proportion of population with					
secondary education	0.362	2.72		0.406	3.13
tertiary education	-0.286	-1.79		-0.395	-2.42
age <= 15	0.926	3.35		0.875	3.26
age > 65	0.357	1.59		0.279	1.29
Proportion of commuters	-0.128	-2.82		-0.124	-2.80
Voting participation in referendum	-0.176	-1.45		-0.165	-1.37
SELECTED INDIVIDUAL CHARACTERISTICS					
Command of the local language (mother tongue)					
second language	-0.119	-6.69		-0.127	-7.26
neither mother tongue nor second language	-0.227	-12.55		-0.218	-12.16
OTHER INDIVIDUAL CHARACTERISTICS					
Stratified	Yes	□	□	Yes	□
log Likelihood	-270979.8			-270886.9	
Number of communities	2550			2550	
Number of individuals	76770		□	76770	

Notes: Asymptotic z-value based on robust standard errors that are adjusted for clustering at the community level (Lin and Wei, 1989). Strength of social norm = percentage in favor of reducing unemployment benefits. See Table 1 for additional notes.

Data sources: State Secretariat of Economic Affairs, Switzerland and data service of the Swiss Federal Statistical Office.

Table 3.
 Simulations of the quantitative importance of the
 social work norm for the duration of unemployment

	Coefficient	Std. dev.	Change in the duration of unemployment (days)
COMMUNITY CHARACTERISTIC			
Strength of social work norm (% /10)	0.053	1.13	-10.94
INDIVIDUAL CHARACTERISTICS			
Apprenticeship > 2 years	Reference group		
Apprenticeship <= 2 years	-0.234	-	43.17
No apprenticeship	-0.280	-	51.62
Benefit replacement rate 70%	Reference group		
Benefit replacement rate 80%	-0.066	-	12.14

Notes: Strength of social norm = percentage in favor of reducing unemployment benefits. Simulations refer to the individual with average characteristics; coefficient estimates are taken from Panel C in Table 1.

Data sources: State Secretariat of Economic Affairs, Switzerland and data service of the Swiss Federal Statistical Office.

Table 4.

The role of the social work norm in life satisfaction of employed and unemployed people

Dependent variable: satisfaction with life

Variable	A			B		
	Coefficient	z-value	ME (score 9-10)	Coefficient	z-value	ME (score 9-10)
COMMUNITY CHARACTERISTICS						
Strength of social work norm (% /10)	0.011	1.96	4.75	0.012	2.06	5.54
Unemployment rate in community				0.014	0.46	1.19
CHARACTERISTICS OF UNEMPLOYED						
Unemployed (U)	-1.214	-6.26	-34.91	-1.258	-6.69	-35.60
Strength of social work norm x U	-0.045	-3.03	-19.89	-0.039	-2.07	-17.06
Unemployment rate x U				0.042	0.54	3.59
Duration of unemployment (years)	-0.275	-2.90	-3.14	-0.276	-3.09	-3.15
INDIVIDUAL CHARACTERISTICS						
	Yes			Yes		
Number of communities	125			125		
Number of subjects	1397			1397		
lnL	-2358.83			- 2358.45		

Notes: Weighted ordered probit estimation. White estimator for variance. Asymptotic z-values are based on robust standard errors that are adjusted to clustering on 125 communities. Marginal effects are for one standard deviation or change from 0 to 1 in case of dummy variables. Strength of social norm = percentage in favor of reducing unemployment benefits. Control variables (not shown) are for age (age 30-39, age 40-49, age 50-59, age 60-69), sex (female), nationality (foreigner), educational level (average education, high education), household situation (single woman, single man, couple with children, single parent, other private household, collective household), employment status (self-employed people), household income (equivalence income per month Sfr. 2,000-3,000, Sfr. 3,000-4,000, Sfr. 4,000-5,000, Sfr. 5000 and more), social contacts (frequent social contacts), participation in club activities, year of interview (1993, 1994) and region (French and Italian speaking cantons). In the reference group are 'employed people', 'people younger than 30', 'men', 'Swiss', 'people with low education', 'couples', 'people with a lower equivalence income per month than Sfr. 2,000', 'people with few contacts', 'people with no club activities', 'interview in 1992', 'German speaking canton'.

Data sources: Leu, Burri and Priester (1997), Swiss Association of Cities (various years) and data service of the Swiss Federal Statistical Office.

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