Subjective Evaluations of Wage Inequality and Preferences for Redistribution

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Preliminary draft

March 1, 2005

Abstract

This paper analyzes subjective evaluations of the wage distribution and preferences for redistribution using Swiss data from the International Social Survey Program. Preferences for redistribution are conceptualized and measured as the discrepancy between the perceived and the just level of wage inequality. The results suggest that there is both considerable support for equalisation of wages and at the same time broad acceptance of differences in wages due to different skill levels. Second, financial self–interest, social mobility, social norms about and perceptions of issues of distributive justice do influence individual preferences for redistribution. Additionally, it is argued that differences in the demand for redistribution may largely be explained by different evaluations of what ought to be and to a lesser extent by different perceptions of what actually is.

JEL classification: D31, D63, H50

Keywords: Subjective evaluations of inequality, Preferences for redistribution, Distributive justice

*Christian Bächle, Volker Bornschier, Mark Herkenrath, Rafael Lalive, Oliver Ruf and Stéphanie Zeier provided many helpful comments and suggestions. Authors' address: Andreas Kuhn, Institute for Empirical Research in Economics, Bluemlisalpstrasse 10, CH–8006 Zurich, email: kuhn@iew.unizh.ch

1 Introduction

Why do people favour or oppose redistribution of income? By how much would people like to decrease (or increase) inequality? What factors can explain the differences in the demand for income redistribution both between and within countries? Countries not only differ in their actual level of income inequality and in the impact of public redistributive policies on the distribution of income, i.e. in the difference between the distribution of market incomes and the distribution of disposable incomes. They also show considerable differences in individuals' perceptions of the income distribution and their evaluations of whether there should be more or less redistribution of incomes. Additionaly, there is strong empirical evidence that people also differ markedly both between and within countries in their beliefs about which factors should be important in determining individual incomes and in their perception of which factors are factually important in the allocation mechanism. Thus, people also differ in the level of redistribution they find appropriate.

Given the fact that income redistribution by means of public social transfer payments is of significant importance in all OECD–countries (see Oxley et al. (1997), for example), the answers to this questions are of quite some importance. The aim of this paper is to elaborate on this issue, using Swiss survey data from 1999. Specifically, I will examine the following two questions in this paper. *First*, I propose a new way of measuring individual evaluations of *wage inequality*, both for the perception of the factual as well as for the evaluation of the desired distribution of wages. These two variables (i.e. the discrepancy between them) are then used for measuring preferences for redistribution. This conceptualization recognizes that individuals might differ both in their perception of the factual distribution and in their beliefs about what distribution they find legitimate. Ultimately, it is the difference between these two evaluations measuring the extent to which redistribution is desired from the viewpoint of any individual. Demand for redistribution can only arise if the perceived level of inequality does not meet the evaluation of what distribution would be legitimate. *Second*, I will study (much in the spirit of Corneo and Grüner (2002) and Fong (2001)) the importance of various factors in explaining individual differences in the support for redistribution. Specifically, I will explore the question of whether and to what extent these differences can be attributed to either self–interest, to perceptions of and social norms over distributive justice, or to both of them. The main findings of this paper are the following: (1) The results show that there is considerable support for the redistribution of wages (i.e. support for equalisation of wages), resulting from the fact that the desired inequality is on average considerably lower than the perceived factual inequality. At the same time though, people do accept rather large differences in wages between professions (which differ in their prerequisites, associated responsibilities, and education). (2) Both self–interest and perceptions about the income distribution and social norms regarding distributive justice are important in explaining differences in the individual support for the redistribution of income. There is thus no evidence for an exact match between the position an individual holds (e.g. the expected gain or loss from redisributive measures which is associated with this position) and the norms and beliefs regarding distributive justice of this person.

There are several studies showing that there is considerable variation between different countries in their average level of desired income redistribution. Svallfors (1997) for example analyzes attitudes towards redistribution of income and legitimate income differences in different countries and finds significant differences between the average support for the redistribution of income, most notably between Anglo–American and European countries (higher support for redistribution in European countries). An analogous finding is also reported by Alesina et al. (2001), arguing that this might, at least in part, be explained by different mobility processes and the perception of these processes in Europe and the United States. Although I will not analyze any differences across countries, these results underline the potential differences in perceiving and judging issues of distributive justice and their importance in explaining any differences in the demand for redistribution.

There are basically two competing – but not necessarily mutually excluding – explanations for the individual demand for redistribution. *First*, financial self–interest (i.e. the expected gain or loss associated with redistributive policies) ist put forward as explaining the demand for income redistribution (this prediction will arise in simple median–voter models under linear tax schemes, for example). This would basically imply that the poor wil favor income redistribution because they will gain from it, and the rich will oppose it because they will lose from redistributive policies. In order to test this hypothesis, I will consider the effect of one's personal income on the support for income redistribution, since the individual financial gain (loss) due to redistribution is not known. But acknowledging the possibility of income mobility, the effect due to self–interest might depend upon one's expectation about future income (Alesina and La Ferrara, 2001). This might imply that poor people will not necessarily favor redistribution of income if they expect to upward mobile in the future and thus are expecting their income to rise. This might explain the observation that there is no uniform support for income redistribution among the poor, even if they would gain from such policies today. On the other hand, the risk or fear of downward mobility might lead some rich individuals to support income redistribution, if they are expecting their income to fall in the future (Piketty, 1995; Ravallion and Lokshin, 2000). Rich individuals might therefore vote for redistribution in order to insure themselves against negative income shocks. It is thus necessary to include a measure of social mobility. Additionally, I will use a variable which measures the percentage difference between the actual wage and the just wage of one's own occupation. This variable ist meant to capture the extent to which an individual thinks that his own pay is higher or lower than what it thinks would pe appropriate or legitimate. It might be plausible that it is not the absolute level of income per se which is relevant for the demand for redistribution (or at least, this effect might be mitigated by this evaluation about the appropriateness of one's own income), but the extent to which one is satisfied with one's own wage.

Second, perceptions of and social preferences associated with distributive justice might influence the demand for redistribution as well (Fong, 2001; Corneo and Grüner, 2002). Motives other than mere self–interest might lead to support of income redistribution, even among economically privileged individuals and even absent any income dynamics. This can be either be rationalized

under the hypothesis of reciprocity (Bowles and Gintis, 2000) or a more general desire for equity (Kluegel and Smith, 1981). In fact, many studies argue that people hold an array of different beliefs about inequality and about the causes of inequality. I will study the effects of two different principles regarding the assignment of incomes. A first principle is based upon the notion that the just allocation of resources should be made according to the needs of individuals. People who belief that income should be proportional to one's needs are expected to think positively about equalising incomes. On the other hand, individuals believing that skills and own effort should be determining income, are plausibly less prone to support income redistribution. I will call this the principle of effort. Another important factor in explaining variation in the individual support for redistribution are perceptions about the factual determinants. That is, individuals who belief that factors outside an individuals' control (e.g. ascribed factors like gender or nationality) are mainly important for getting a high income, are presumably more inclined in supporting (more) redistribution of incomes. On the other hand, individuals who strongly belief that individual effort and / or skills (e.g. aquired factors like education) are important for why people differ in their incomes, are less prone to support income redistribution. It may be that both the perception of the allocation mechanism and beliefs about which factors should be important in determining this allocation are solely determined by the individual's endowments. But most empirical studies in fact find that *both* financial self–interest and social norms are important in explaining preferences for income redistribution. As I will discuss below, the results in this paper lead to similar conclusions.

The rest of this paper is organized as follows. Section 2 shortly describes the data used in this paper and discusses in detail how I will measure subjective evaluations of wage inequality and individual preferences for redistribution. Descriptive statistics for these measures are also presented and discussed. Section 3 presents results for simple regression models evaluating the importance of several possible determinants of individual preferences for redistribution. Section 4 concludes.

2 Data and measurement

The data used in this paper come from the International Social Survey Program (ISSP)[1]. Specifically, I use the Swiss survey data collected in the context of the third module of the ISSP on the issue of 'Social Inequality' dating from 1999[2]. The questions in the survey primarily focus on the perception of the income distribution and the factors explaining individual incomes, issues of distributive justice as well as the role of the government regarding the distribution of incomes.

Although the data contain some questions which (try to) directly address the perception of the income distribution and the support for income redistribution, I will rely on data not specifically targeted at these issues in my analysis. The data contain a group of questions about the wages

[1]The ISSP is a continuing international collaboration, covering different themes (e.g. environment, work orientations) as the main topics of their surveys, which are undertaken on an annual basis. See the organizations homepage: www.issp.org.

[2]See Stamm et al. (2003) for details regarding the collection and an extensive descriptive discussion of these data.

of ten different professions, including the respondent's own profession. Individuals are both asked to estimate (i) what they thought to be the actual net wage per month in SFr. and (ii) and what they thought these professions should – in their view – earn net per month in SFr. I will loosely call these two estimates *actual wages* and *just wages* in what follows. These statements allow for examining indivudal differences between perceived and appropriate levels of compensation. Descriptive statistics for these wage–evaluations in the sample along with the respondents' own personal and household income are given in table 1. The first column shows the actual wage, the second column the just wage, and the difference between them (in means) is given in the third column.

Table 1

Perhaps the most notable feature in this table is the fact that individuals seem to accept, at least on average, rather large differences in wages between different professions, as can be seen from comparing the averages of the just wages[3]. Although there are considerable differences between actual and just wages, there is still a broad range in average just wages (the ratio of highest to lowest mean wage is reduced from about 10 ($= 31'460/3'003 = 10.48$) to about 6 ($= 23'339/3'862 = 6.04$)). Also note that the ranking of the professions varies between column 2 and 3.

At the same time, people are on average prone to equalise wages to some qualitatively important degree. As table 1 further shows, there is one group of professions (unskilled worker, skilled worker and salesman) for which there is a positive average difference between the two estimates and another group of professions (all other professions, leaving out one's own occupation) for which this difference is negative on average[4]. In what follows, the first group of professions will be referred to as the *low wage group* and the second is referred to as the *high wage group*, and the measurement of subjective evaluations of wage inequality will be based on the disctinction between these two groups. Also interesting is the fact that the percentage difference in the mean estimates relating to one's own profession is only about 3.7%, a remarkably small number (the average of individual differences is about 13.5%). Actually, about 36% of the individuals give the same estimate for the actual and the just wage for their coworkers[5].

Because the evaluation of distributive justice lies ultimately in the eye of the observer, it might then be reasonable to conceptualize preferences for redistribution as the discrepancy between the perception of the actual distribution ('what is') and the evaluation of the just distribution of wages ('what ought to be'), since people can potentially (and do actually) differ on both dimensions (**?**). This actually allows for the possibility that people differ in their support for redistriubution – even if they share the same perception of the factual inequality – if they differ in their evaluation of the

[3]In fact, there are only two individuals in the sample who give the same just wage for all professions, including the wage of their coworkers.

[4]These estimates are interesting in their own right, but I will not explore further on these numbers in this paper. See Stamm et al. (2003) for an extensive descriptive discussion of these data for the case of Switzerland. Interestingly, they point to the fact that average estimates of actual earnings are comparable to factual earnings of the respective professional groups. At least for the professions for which this comparison is possible. See also Kelley and Evans (1993) for an international comparison of similar data from an earlier module of the ISSP.

[5]Another quesion directly asked "Do you think, that your wage corresponds to your effort and your skills?" More than 50% think that their wage is appropriate in this sense.

just inequality. On the other hand, individuals with different evaluatons of the just level of wage inequality may differ in their support for redistribution because they do have different perceptions about the factual distribution of wages. Support for redistribution may arguably only arise if these two evaluations differ from each other, but differences between individuals might either be driven by differences in perception or either by differences in the evaluation of what constitutes an appropriate compensation. One therefore needs some useful measure for both of these evaluations on the individual level. Since this kind of data is generally not available (see table 2), one might look for some useful approximations here. This is the basic idea I will put forward in what follows: I will use the estimated wages of the above mentioned professions as an approxmiation for the whole distribution of wages. Actually, I will base my approxmiation only on the distinction between the 'high wage' and the 'low wage' group, as explained below.

Table 2

Panel A in table 2 depicts the data one would ideally want for estimating individual evaluations of the earnings distribution. Note that this would theoretically require that every individual in a given sample of size n estimates n earnings (including his own earnings), giving a $n \times n$ matrix of estimated earnings. Every column of this matrix could then be used for an estimation of the earnings distribution, evaluated by individual i. The diagonal represents the data usually available in sample data, which suffices for estimating the actual earnings distribution in a given sample. Panel B below depicts the information available in the ISSP survey, and panel C shows the approximation I will actually use for constructing measures of subjective wage inequality and preferences for redistribution. One might think about the data in panel C as a rough (and partial) approximation to the data in panel A of size $2 \times n$. However, using either panel B or C as an approximation to the data in panel A induces a problem of appropriately weighting the different professions / groups.

I will thus use the answers about the wages of the above–mentioned professions (excluding the answers for one's own profession) for approximating the mean (actual and just respectively) wage of a high– and a low–wage group in the population[6]. Let $y_{i,j}$ denote the evaluation of the actual earnings of occupational group j by individual i and let $y'_{i,j}$ denote the evaluation of the just earnings of group j by individual i. I then compute for every individual i their evaluations of the actual wages of the low– and the high–wage group as simple means:

$$\overline{y}_{i,\text{low}} = \frac{1}{3} \cdot \left(y_{i,\text{salesman}} + y_{i,\text{unskilled worker}} + y_{i,\text{skilled worker}} \right) \quad (1)$$

$$\overline{y}_{i,\text{high}} = \frac{1}{6} \cdot \left(y_{i,\text{doctor}} + y_{i,\text{lawyer}} + y_{i,\text{fabric owner}} + y_{i,\text{minister}} + y_{i,\text{federal lawyer}} + y_{i,\text{member of adm. board}} \right) \quad (2)$$

[6]There are four reasons for collapsing the data to only two distinct groups and not using the profession–specific estimates. First, because I must make an additional assumption about the relative population shares of the involved groups, using only two groups is most easily done and perhaps more plausible than using all occupations, since some professions have obviously very low frequencey in the population (e.g. being a member of the Swiss Federal Council). Second, estimates for some professions may be largely off the mark for most people, but averaging several estimates might still give reliable perceptions of the earnings of larger groups. Third, the missing data can to some extent be lessened as it allows me to include individuals who at least gave one estimate for each of the two groups and thus increase the number of observations. Fourth, one might argue that people often implicitly do this differentiation between bottom vs. top, rather than between several professional groups.

Estimates for $\overline{y}'_{i,\text{low}}$ and $\overline{y}'_{i,\text{high}}$ (just wages) are estimated in the same way, using y' instead of y. Given these individual estimates for the mean wages, I can construct two variables measuring the perceived and the desired wage inequality in analogy the the gini coefficient if I am willing to make an assumption about the relative size of these two groups in the population. Given the 'nature' of the second group (the high wage group), I 'guesstimate' the fraction of this group as 10%, which will still be an overestimate if anything[7]. This group does represent individuals with both wages and prestige far above the average. As a rough guide, I take the fraction of people with a university degree which is 15.8% for people ages 25–64 in 2000 and correct this number somewhat downward, due to very low frequencies of some professions in the population. By assumption therefore, the relative shares of the two groups are guesstimated as follows[8]:

$$f_{\text{low}} = 0.90 \tag{3}$$

$$f_{\text{high}} = 0.10 \tag{4}$$

Given this assumption about the relative shares of the two groups, their relative wage shares can then be calculated as follows[9]:

$$q_{i,\text{low}} = \frac{\overline{y}_{i,\text{low}} \cdot f_{\text{low}}}{\overline{y}_{i,\text{low}} \cdot f_{\text{low}} + \overline{y}_{i,\text{high}} \cdot f_{\text{high}}} \tag{5}$$

$$q_{i,\text{high}} = \frac{\overline{y}_{i,\text{high}} \cdot f_{\text{high}}}{\overline{y}_{i,\text{low}} \cdot f_{\text{low}} + \overline{y}_{i,\text{high}} \cdot f_{\text{high}}} \tag{6}$$

Again, $q'_{i,\text{low}}$ and $q'_{i,\text{high}}$ (fractions in terms of just wages) are estimated analogously, using estimates for the just earnings $\overline{y}'_i$ instead of actual earnings $\overline{y}_i$.

Given information about the earnings shares q_j and the relative population sizes f_j of different groups in the population (but no information about individual incomes), the gini coefficient can generally be calculated as follows:

$$gc = \left[\sum_{j=1}^{k}(F_{j-1} + F_j)q_j\right] - 1 \tag{7}$$

Where F_j is the accumulated relative population share and q_j is the relative attribute share of group j. If there are only two different groups under study (i.e. $k = 2$), equation (7) can easily be rearranged, resulting in the following expression for calculating the gini coefficient:

$$gc_i = f_{\text{low}} - q_{i,\text{low}} \tag{8}$$

[7] At the same time though, I will underestimate the average wage of the low–wage group, since this group also includes all middle–wage professions.

[8] The sensitivity of the results with respect to the assumption about the relative size of the two groups is taken up in section (B.1) below.

[9] One could also consider the possibility that people have different perceptions about the relative shares of these groups in the population as well. But since there is no direct information about this, I cannot consider this possibility here. As explained above, I also decided to calculate the mean wage per group for each individual who at least gives one statement per group. The calculation is adapted respectively. The sensitivity of the results with respect to this is taken up in section (B.2) below.

Since q is varying between the individuals (but f_{low} is fix), so is the estimated gini coefficient. Thus, all I need for calculating the gini coefficient in the case of only two groups is the relative wage and the relative population share of the low–wage group. These two are given by equation (3) and (5) respectively. I thus can estimate for every individual two different gini–like coefficients: one representing the perceived wage inequality and one representing the just wage inequality.

$$gc_{i,\text{actual}} = 0.9 - \left[\frac{\overline{y}_{i,\text{low}} \cdot 0.9}{\overline{y}_{i,\text{low}} \cdot 0.9 + \overline{y}_{i,\text{high}} \cdot 0.1} \right] \tag{9}$$

$$gc_{i,\text{just}} = 0.9 - \left[\frac{\overline{y}'_{i,\text{low}} \cdot 0.9}{\overline{y}'_{i,\text{low}} \cdot 0.9 + \overline{y}'_{i,\text{high}} \cdot 0.1} \right] \tag{10}$$

The percentage difference between the two measures is our proposed measure of preferences for redistribution:

$$pr_i = (-1) \cdot \left[\left(\frac{gc_{i,\text{just}}}{gc_{i,\text{actual}}} \right) - 1 \right] \cdot 100\% \tag{11}$$

This variable measures the extent to which people would like to decrease (or increase, eventually) the level of wage inequality, as a percentage of the perceived factual wage inequality. Descriptive statistics for these three variables are given in table 3.

Table 3

Table 3 shows descriptive statistics for the average estimates of the actual and the just wages of the *low wage group* and the *high wage group* respectively, as given by equations (1) and (2). Further, mean values for the two subjective evaluations of the wage distribution and of the preferences for redistribution are shown (equations 9–11). As already follows from table 1, the mean actual wage is lower the mean just wage for the low wage group. That is, on average people would like to increase the mean wage of this group. On the other hand, people would on average decrease the mean wage of the high wage group. The average person would like to decrease the ratio of the two mean wages from about 6.5 to about 4. It is further interesting to note that the variation relative to the mean decreases slightly for the low–wage group and does increase for the high–wage group (in both cases, it is about as three times as high for the high– as for the low–wage group). Actual wage inequality is estimated as 0.30 on average. Interestingly, this number is not too far off actual estimates of the income inequality, which is estimated to be 0.30 for the sample at hand. The estimated actual wage inequality is higher than the just wage inequality, which is about 0.19. The mean of the preferences for income redistribution must therefore be positive, as one might have expected. The mean desired reduction in wage inequality is estimated to be about 37%, a considerable number (note though the large standard deviation).

Figures 1 and 2

The investigate further on these measures, figure 1 and figure 2 show density estimates for the two subjevtive gini coefficients and a scatterplot showing the relation between the two variables.

Figure 1 show the distribution of the two wage inequality evaluations, showing both a shift of the distribution to the left as well as a change in shape. Whereas the distribution of the evaluations of the actual wages is quite symmetric, the distribution of the just wages is right–skewed. Perhaps most interestingly, figure 2 shows that almost all individuals desire a lower level of wage inequalty than what they actually perceive.

Figures 3 – 5

Not surprisingly though, figure 3 shows that most people have positive preferences for redistribution, i.e. most people would favour a more equal wage distribution. Figures 4 and 5 show the relations between preferences for wage redistribution and the two subjective gini coefficients. Interestingly, there is almost no correlation ($r = 0.0677$) between the perception of the actual wage distribution and preferences for redistribution. On the other hand, there is a clear negative correlation ($r = -0.6302$) between the evaluation of the desired wage inequality and preferences for redistribution. Both figures together do support the notion that the desire for redistribution of wages is primarily driven by the evaluation of the just distribution and to a lesser extent by the perception of the actual wage per se. This question is again taken up in the following section.

A final point worth mentioning is the relation between the three measures proposed in this paper and variables which directly address issues of distribution and which are usually used in similar studies.

Table 4

For exposition, only three such statements are used for comparison to the measures proposed in this paper: (i) "Income differences in Switzerland are too large", (ii) "Is is the responsibility of the government to reduce differences in income", and (iii) "My income corresponds to my skill level and my effort". Several points are woth mentioning. First and most importantly, people who indicate that they strongly disagree with these statemens nonetheless would decrease differences in wages to a considerable amount. This may indicate that such statements are to be treated with care if they are used for evaluating issues of redistribution. Second, preferences for redistribution and the evaluation of the just wage inequality seem to be more or less consistent with other measures, as their mean values are moving in the expected direction. Third, the perception of the factual wage inequality shows much less variation and a less consistent pattern over the different answer categories than do the other two measures. This may mean that responses to such statements are primarily driven by different evaluations of what people find appropriate and to a lesser extent by differences in their perceptions about the factual distribution of wages across individuals.

3 Results

In order to assess the importance of different factors in explaining preferences for income redistribution, several linear regression models are estimated:

$$pr_i \quad = \quad x_i'\beta + y_i'\gamma + z_i'\delta + \epsilon_i$$

x_i is a column vector consisting of variables capturing the effect of self–interest, i.e. personal income, the income gap of one's own profession, and past social mobility. y_i is a column vector of perceptions of and norms about distributive justice, i.e. this vector contains the following variables: z_i is a vector of control variables. β, γ and δ are the corresponding vectors of coefficients. ϵ_i is an error term assumed to be i.i.d. and mean independent of all regressors. Several regression models are estimated, the results are shown in table 5. Since my interest focuses on the two groups of variables describing (i) financial self–interest towards income redistribution and (ii) social norms about distributive justice and perceptions of the income generating factors, I run separate regressions in which either only one group is included as regressors or either both are included. All models are estimated with and without additional control variables[10].

Table 5

In a first step, only variables describing self–interest for redistribution are included in the regression model, both with and without additional control variables. As expected, personal income is a significant determinant for the preference for income redistribution. The higher the individual income, the lower the support for income redistribution. The earnings gap of one's occupation also enters significantly and with the expected sign. The higher the perception of financial underreward, the higher are preferences for redistribution (and holding actual income constant). Personal mobility has, as expected, a negative effect, although this effect is only significant after controlling for additional variables.

In the second step, only variables describing social norms about distributive justice and perceptions of which factors are important in explaining differences in pay are included. Again, all variables enter with the expected sign. Individuals who stronlgy belief that income should correspond to needs more strongly favour redistribution of earnings. On the other hand do people with a strong belief in the principle of effort show significant less support for redistribution. The two variables capturing the effect of different perceptions of which factors are important in determining the allocation of resources also show the expeced sign and are significant, even after including several control variables.

Including all variables at once does not change the results in any important way, although some variables get statistically insignificant. This supports the view that neither financial self–interest nor perceptions and social norms are sufficient for explaining variaton in the support for income redistribution. In particular, the results presented here do not support the view that perceptions and social norms are unimportant, once self–interest in redistribution is controlled for. On the contrary, both sets of variables are important in explaining differences in the support for redistribution.

Table 6

Table 6 presents separate regression results for both preferences for redistribution (which is the same as the last column in table 5) and subjective evaluations of the earnings inequality. There are

[10]The following variables are included as controls: Age, age squared, education (highest attained level, in years), female dummy, foreign–born dummy, residence in the german speaking part of Switzerland, living in an urban area, dummy variables for unemployment and nonemployment, perception of conflicts, standard international occupational prestige scale and political orientation

some interesting results concerning the explanation of the subjective income inequalities. First, it seems to be much more difficult to explain differences in the perception of the income inequality than differences in the desired level of earnings inequality. Thus perceptions may be more idiosyncratic that evalutions; at least given the considered set of variables. The only variables enterning with a statistically significant coefficient are the two variables about the perception of which factors actually are important in getting ahead. The perception of the allocation mechanism is relevant a factor in explaining differences in the perception of the factual income inequality. On the other hand, almost all variables are statistically significant and with the expected sign in explaining the just level of earnings inequality (with the exception of the two perceptual variables).

4 Conclusions

I have proposed new measures for subjective evalutions of earnings inequality and preferences for redistribution, whereas preferences for redistribution are conceptualized intuitively as the discrepancy between the desired level and the perception of the factual level of earnings inequality. *First*, I find that people do basically accept differences in earnings between different occupations. At the same time though, there is on average broad support for equalising the earnings between different professions. The comparison between these measures and statments which are often asked in surveys and used in similar contexts do show consistency. But it was also shown that eventually care must be taken in using and interpreting these statements, as people strongly disagreeing with these statements still would support considerable redistribution. *Second*, regression results show that both financial self–interest and norms about and perceptionf of distributive justcie are important in explaining different support for redistribution between individuals. Most of these effects do not vanish if they are estimated simultaneously and / or if other control variables are included.

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A Definitions of variables

This section discusses the definitions of the variables not already explained in the main text, unless their measurement is obvious anyway (e.g. age).

Relative income: Relative income is defined as $\frac{y_i}{\overline{y}}$, where y_i is the net monthly income and $\overline{y}$ is the mean net monthly income in the sample.

Wage gap, own occupation: This variable is measured as $\frac{y_i^{'}}{y_i}$, where y_i denotes the actual net monthly income of one's own occupation, estimated by individual i and y_i' denotes the 'just' net monthly income for one's occupation.

Mobility The only information about individual mobility is contained in two questions about the self–perception of the position today and the position ten years age. Both are measured on a scale from 1 (bottem) to 10 (top). Mobility is then defined as the difference between the two scores (position today minus position ten years ago).

Needs This variable is constructed as an univariate scale from the following two questions about which factors should be important in determining one's pay: (i) having a family and (ii) having kids.

Effort This variable is constructed as an univariate scale from five questions about which factors should be important in determining pay: (i) the effort and time needed to aquire education, (ii) having to supervise others, (iii) how 'good' one does his job, and (iv) how much effort one exerts in his job.

Ascription: This question relates to the perception of individuals of which factors actually are important for getting ahead: (i) have a wealthy family, (ii) know the 'right' people.

Aquisition: This variable is the sum of over the two following questions: (i) people are paid according to their skills (ii) people are paid according to their effort.

SIOPS: This variable measures occupational prestige (Ganzeboom and Treiman, 1996).

Conflict perception: This variable measures the perception of conflicts. Included items are questions about the existence of conflicts between: (i) rich and poor people, (ii) blue– and white–collar workers, (iii) managers and subordinates, (iv) young and old people, (v) people at the top and at the bottom.

Political scale: This variable measures the self–rated position on a scale between 0 and 10, where 0 indicates 'left' and 10 'right'.

B Sensitivity analysis

t.b.d.

B.1 Sensitivity with respect to the relative population shares

B.2 Sensitivity with respect to sample selection

C Figures

Figure 1: Actual and Just Earnings Inequality, Kernel Density Estimates

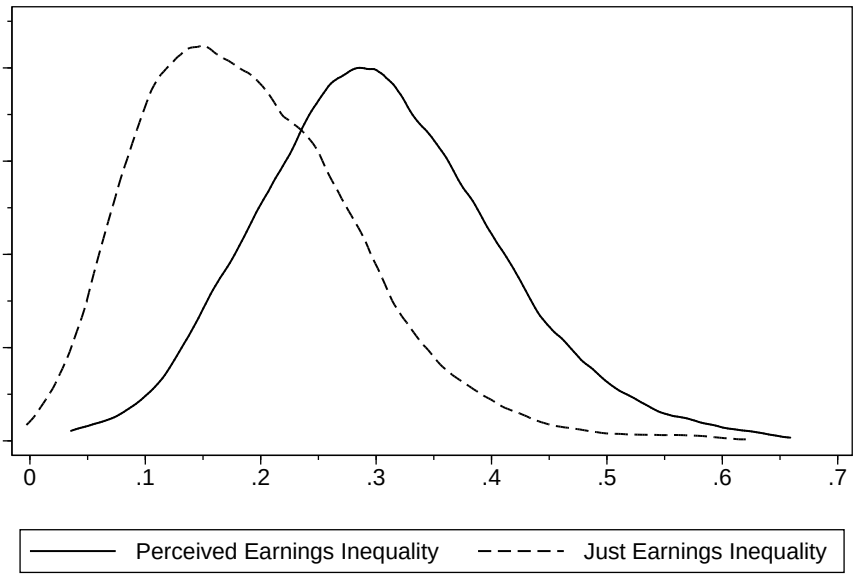


Figure 2: Actual versus Just Earnings Inequality

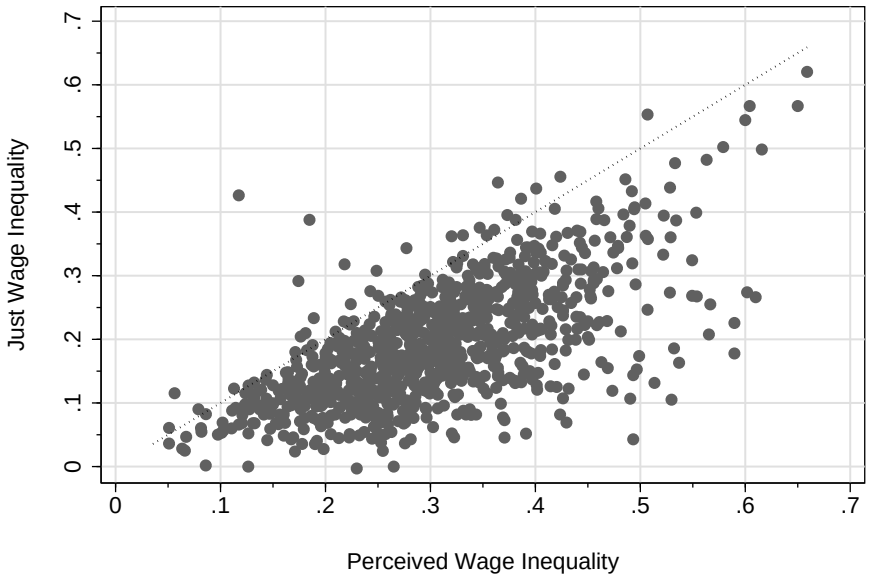
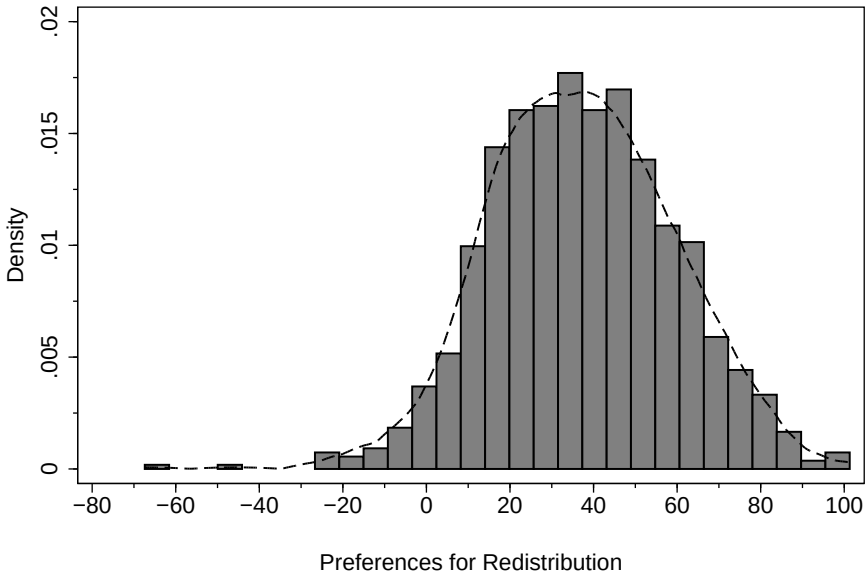


Figure 3: Preferences for Redistribution, Kernel Density Estimate



Note: Three observations (with preferences for redistribution lower than −100) are excluded in drawing the graph.

Figure 4: Preferences versus Perceived Earnings Inequality

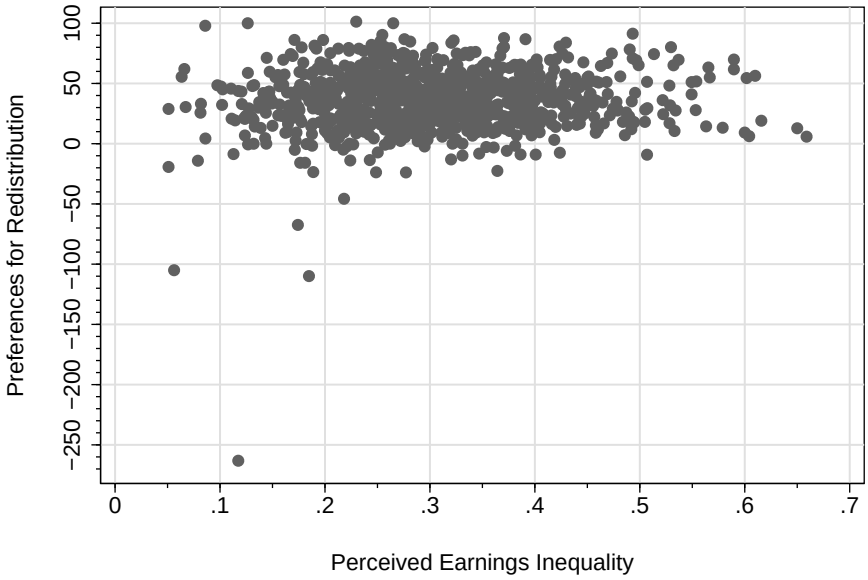
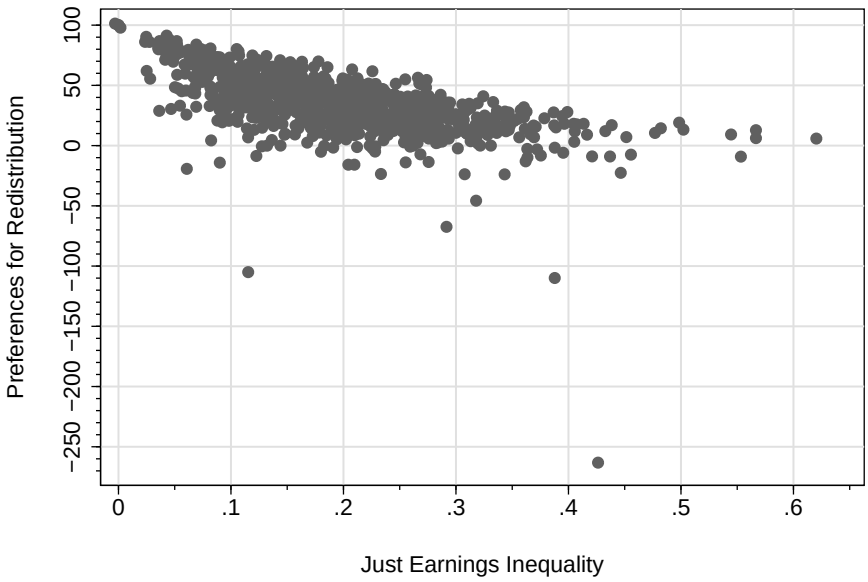


Figure 5: Preferences versus Just Earnings Inequality



D Tables

Table 1: Statements about actual and just wages

Profession	Actual	Just	Difference
Low Wage Group:			
Unskilled Worker	3′096.03	3′862.49	766.46
	(619.49)	(722.91)	(24.76)
Skilled Worker	4′197.11	4′968.47	771.36
	(833.66)	(927.07)	(18.38)
Salesman	3′003.10	3′980.95	977.85
	(593.32)	(738.75)	(32.56)
High Wage Group:			
Doctor	16′647.94	13′322.54	−3′325.40
	(10′104.42)	(8′234.77)	(−19.97)
Member of a administrative board	24′248.26	16′321.23	−7′927.03
	(16394.10)	(11906.79)	(−32.69)
Lawyer	18′517.50	13′100.33	−5′417.17
	(11′828.72)	(8′485.91)	(−29.25)
Owner of a factory	31′459.70	23′338.74	−8′120.96
	(20′960.57)	(16′606.83)	(−25.81)
Federal judge	19′726.24	15′367.67	−4′358.57
	(10′365.18)	(8′615.79)	(−22.10)
Member of the Swiss Federal Council	23′431.22	18′520.60	−4′910.62
	(13′522.22)	(11′876.42)	(−20.96)
Own Profession:			
Coworkers	6′257.16	6′488.05	230.89
	(6′268.77)	(4′579.51)	(3.69)
Own Personal Income	4′484.36	–	–
	(2′708.42)		
Own Household Income	6′549.78	–	–
	(3′608.63)		

Notes: Estimations of net monthly wages in SFr. Standard deviations in parentheses (first and second column), percentage difference (between mean values) in parentheses (third column). The number of non–missing observations is varying between different cells, from a high of 1'118 (household income) to a low of 812 (just income, own profession).

Table 2: Measuring objective and subjective wage inequality

Panel A: 'Ideal' data

Observed Person j	Observing Person i				
	1	...	i	...	n
1	y_{11}	...	y_{1i}	...	y_{1n}
⋮	⋮		⋮		⋮
j	y_{j1}	...	y_{ji}	...	y_{jn}
⋮	⋮		⋮		⋮
n	y_{n1}	...	y_{ni}	...	y_{nn}
	gc_1	...	gc_i	...	gc_n

Panel B: Information available from ISSP data

Observed Profession j	Observing Person i				
Salesman	y_{11}	...	y_{1i}	...	y_{1n}
⋮	⋮		⋮		⋮
Lawyer	y_{11}	...	y_{1i}	...	y_{1n}
⋮	⋮		⋮		⋮
Owner of a factory	y_{11}	...	y_{1i}	...	y_{1n}
	gc_1	...	gc_i	...	gc_n

Panel C: Information as used in the analysis

Observed Group j	Observing Person i				
	1	...	i	...	n
High wage group	y_{11}	...	y_{1i}	...	y_{1n}
Low wage group	y_{11}	...	y_{1i}	...	y_{1n}
	gc_1	...	gc_i	...	gc_n

Table 3: Individual preferences for redistribution and their constituents

	Mean	Standard Deviation	# Observations
Mean Actual Wages			
Low Wage Group	3′436.32	559.70	1014
High Wage Group	22′315.65	10′553.30	984
Mean Just Wages			
Low Wage Group	4′275.36	676.08	985
High Wage Group	16′751.77	9′042.88	952
Wage Inequality			
Actual Wage Inequality	0.30	0.10	983
Just Wage Inequality	0.19	0.09	949
Factual Income Inequality	0.32	–	1′043
Redistribution			
Preferences for redistribution	36.54	25.05	935

Table 4: Comparison between Different Measures

	Strongly agree	Agree	Partly agree	Disagree	Strongly disagree
"Income differences are too large"	45.585	41.558	30.559	21.485	23.244
	0.316	0.306	0.292	0.315	0.319
	0.164	0.182	0.202	0.250	0.237
"Government should reduce inequality"	45.888	42.338	35.446	28.873	22.562
	0.315	0.307	0.298	0.299	0.310
	0.164	0.177	0.193	0.209	0.246
"Income corresponds to effort"	44.230	38.010	36.443	42.461	–
	0.302	0.285	0.304	0.290	–
	0.164	0.178	0.193	0.165	–

Notes: Preferences for redistribution (first row), actual wage inequality (second row), and just wage inequality (third row). There is only one person who strongly disagrees on the on the third statement and is left out.

Table 5: The Demand for Redistribution, Main Results (OLS)

Dependent Variable:	Preferences for Redistribution					
Personal income	−7.059***	−6.457***			−5.978***	−6.092***
	(1.284)	(1.614)			(1.290)	(1.645)
Wage gap	6.185***	6.363***			5.086**	5.576**
	(2.340)	(2.375)			(2.166)	(2.225)
Mobility	−0.575	−1.169**			−0.289	−0.898
	(0.586)	(0.586)			(0.583)	(0.591)
Needs			3.306***	2.304**	2.190**	1.562
			(0.956)	(1.030)	(0.983)	(1.042)
Effort			−8.532***	−5.869***	−8.260***	−5.374***
			(1.823)	(1.989)	(1.809)	(1.966)
Ascription			2.084*	2.326*	2.053*	2.279*
			(1.228)	(1.203)	(1.230)	(1.195)
Aquisition			−4.405***	−3.196**	−3.696***	−2.799**
			(1.422)	(1.473)	(1.387)	(1.411)
Control Variables	No	Yes	No	Yes	No	Yes
Observations	581	581	581	581	581	581
R-squared	0.064	0.164	0.081	0.157	0.121	0.192

Notes: Unstandardized coefficients, robust standard errors in parentheses. *,**,*** denote statistical significance at the 10%, 5%, 1% level respectively. Included control variables are: Age, age squared, conflict, education (in years), employed, female, foreign, german, nonemployed, pscale, siops.

Table 6: Subjective wage inequality and preferences for redistribution

Dependent variable:	Preferences	Actual Ineq.	Just Ineq.
Personal income	−6.092***	0.004	0.023***
	(1.658)	(0.008)	(0.007)
Wage gap	5.576**	−0.017	−0.030**
	(2.730)	(0.013)	(0.012)
Mobility	−0.898*	0.000	0.003
	(0.535)	(0.003)	(0.002)
Needs	1.562*	−0.004	−0.008**
	(0.893)	(0.004)	(0.004)
Effort	−5.374***	−0.001	0.021**
	(1.900)	(0.009)	(0.008)
Ascription	2.279**	0.014***	0.001
	(1.095)	(0.005)	(0.005)
Aquisition	−2.799**	−0.015**	−0.001
	(1.426)	(0.007)	(0.006)
Control variables	Yes	Yes	Yes
Observations	581	581	581
R–squared	0.192	0.102	0.188

Notes: Unstandardized coefficients, robust standard errors in parentheses. *, **, *** denote statistical significance at the 10%, 5%, 1% level respectively. See table **??** for included control variables.

E Appendix

Table E.1: Descriptive Statistics: Independent Variables

Variable	Mean	Standard deviation	# Observations
Personal income	4′467.163	2′717.407	1′043
Wage gap, own occupation	0.135	0.346	802
Mobility	0.415	1.629	1′223
Needs	3.338	0.987	1′211
Effort	3.834	0.457	1′195
Ascription	2.984	0.753	1′248
Aquisition	3.311	0.639	1′236
SIOPS	44.521	12.039	1′191
Employed	0.674	0.469	1′258
Nonemployed	0.297	0.457	1′258
Age	45.151	14.824	1′258
Female	0.544	0.498	1′258
Education (years)	12.855	2.610	1′256
Urban	0.659	0.474	1′258
German	0.712	0.453	1′258
Foreign	0.156	0.363	1′258
Political scale	4.856	1.660	1′083
Conflict scale	2.378	0.519	1′231