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# WHY DO PEOPLE JOIN TRADE UNIONS?

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## THE IMPACT OF WORKPLACE UNION DENSITY ON UNION RECRUITMENT

*By Jonas Toubøl and Carsten Strøby Jensen*

**ABSTRACT:** In this study the reasons for joining a trade union are analyzed statistically using high quality data from Statistics Denmark comprising the entire Danish workforce combined with European Social Survey data from rounds 1-3. These data enables measuring the effect of union density at the workplace level on union recruitment, which is not done before. Workplace union density is taken to measure the strength of the workplace's custom of being union member creating an instrumental incentive to join the union. Self-placement on a political left-right scale measures political attitude taken to be a value rational motive. The statistical results indicate that the most important predictor of joining the union is workplace union density and only in a secondary manner does political attitude matter. It is concluded that the normative pressure of one's colleagues is the dominating reason for joining a trade union.

**KEYWORDS:** Union recruitment, union density, social custom theory, political attitude, rational choice, value rationality, European Social Survey

### 1. INTRODUCTION

With the overall union decline in the western countries since the 1980's as background (Visser 2006), the question of why some wage earners are members of trade unions while others are not, has attracted considerable attention the last decades. In general, four approaches to the study of variation in union membership and density can be identified: 1) studies of structural and

institutional changes (Green 1992; Ebbinghaus & Visser 1999; Kjellberg 2011), 2) studies of differences between those who are union-members and those who are not (Parkes & Razavi 2004; Ibsen et al. 2011; Kirmanoğlu & Başlevent 2012), 3) studies of wage earners who leave the unions (Andrew & Naylor 1994; Groot & van den Berg 1994; Ibsen et al. 2012; Cregan 2013), and 4) studies of wage earners who join the unions (McCracken & Sanderson 2004; Cregan 2013).<sup>1</sup> This paper counts among the last kind, seeking to identify which factors that condition union recruitment and how they do so.

Focus will be on the possible significance of the workplace union density and political attitude for the likelihood that wage earners choose or choose-not to join the trade union. A very limited number of studies have in an empirical informed way examined the possible effect of union density on workplace level. This may seem paradoxical as the causes and effects of union density is a major subject of theoretical discussion and contentions. The reason for the small number of quantitative studies of the cause and effect of union density is that reliable data with information about union density at the workplace level as well as individual characteristics is rare.

In order to address this issue, the analysis of this paper utilizes rather unique data which provides information with regard to union membership status, union density at the workplace level and many other objective individual as well as company characteristics covering the entire Danish labour market in the period 2001-2007. In addition, we are also able to merge our data with European Social Survey data from rounds 1-3, providing variables measuring subjective views of the individuals for a subpopulation. Thus, in the same dataset on one hand we have high quality variables from Statistics Denmark providing information about a number of objective characteristics covering ca. 3.7 mio. individuals and ca. 150,000 workplaces in the period 2001-2007, and on the other hand we have variables from the European Social Survey rounds in 2002, 2004 and 2006 measuring a number of subjective views making up a subpopulation of 3,617 individuals. The register data and the data from European Social Survey are linked on an individual level using the Danish Central Personal Register. All data is handled anonymously. In that way we are for example able to combine register data for individuals regarding their education, employment, characteristics regarding the company where they are employed etc. with their statements in the European Social Survey (for example political attitude, work influence, attitude toward equality etc..)

In addition to the impact of workplace union density and political attitude on recruitment, other factors such as, job-mobility, income etc. will be included in the empirical analysis as well as the subsequent discussions. The results of the empirical analysis points to a number factors influencing the choice of the individuals with regard to union membership and in theoretical terms we find that

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<sup>1</sup> A fifth approach, maybe somewhat specific to Denmark, is studies of the competition and causes for individuals choice of either membership of a traditional 'red' union associated with the socialdemocratic labour movement or an ideological alternative 'yellow' trade union (Ibsen 2013, Høgeadahl 2013; Ibsen et al. 2012).membership of a traditional 'red' union associated with the socialdemocratic labour movement or an ideological alternative 'yellow' trade union (Ibsen 2013, Høgeadahl 2013; Ibsen et al. 2012).

both rational choice explanations as well as explanations stressing the importance of value rationality hold some validity.

Our case is that of Denmark. The Danish trade unions are relatively strong and 67 % of the labour force was organized in trade unions in 2007 (Jensen 2012). However, lately the union density among the traditional trade unions has dropped from 71% in 1995 to 61% in 2010 (Due & Madsen 2009; Due et al. 2010:84; Toubøl & Gielfeldt 2011:15pp). This development is most outspoken among the unions who organize skilled and unskilled labour (Jensen 2012: 67pp; Toubøl & Gielfeldt 2011:15pp). These developments indicate that Danish trade unions face the same problems with regard to recruitment as do most trade unions in the western world. In that light, this paper aims at investigating the general theoretical explanations of why people join trade unions.

In the following section 2 we will outline and discuss various theories about union membership and recruitment. In section 3 we present data and variables and some preliminary descriptive indications of the variables' relation to union recruitment. In section 4 we present our statistical model and the results of the analysis which subsequently in section 5 are discussed in relation to various theoretical explanations. In section 6 we conclude.

Overall our paper contributes to the analysis of why worker join the trade unions in three new ways. Firstly, we focus on the process of joining trade unions. On the individual level, we analyze what characterize those employees who join a trade union and compare them to those employees who do not join a trade union. Most other studies focus on the members that leave trade unions, or if the focus on the question of joining, data is very often limited (either qualitative or general accumulated data from national statistics that focus on structural factors). In our data we are able to identify those individuals who in a specific year have joined a trade union, and those individuals who have not joined a trade union. In that respect we can compare individuals who decided to become member of a trade union in a specific year with those individuals who decided not to become member. Secondly, we focus on how existing rates of organization on the workplace level influence the likelihood of an employee joins a trade union. This has not been done using data that enable us to control for a number of other factors like education, workplace characteristics etc.. Thirdly, we - by combining register data with survey data – are able to analyze if and how norms and subjective attitudes among employees influence their likelihood of joining a trade union taken a number of other factors into consideration.

## 2. THEORIES ABOUT UNION RECRUITMENT AND UNION DENSITY

There exists an extensive literature about trade unions, trade union density and trade unions recruitment. In this context we will not try to discuss all of it, but will try to make an overall presentation of some of the dominant perspectives focusing on some of the aspects we analyze in this article.

Trade union density and shifts in density are usually explained with two overall frameworks of understanding. First, we have positions that focus especially on what could be called the structural determinants of trade union membership and density. Here, focus is on developments in the employment structure, the business cycles and other forms of macro structural change. Shifts in the employment structure from for example industry to service is used to explain changes (often declines) in trade unions density (Ebbinghaus & Visser 2000, Bryson et al. 2011). Within this overall framework we can also put positions that focus more on institutional characteristics on the labour market (Ebbinghaus & Visser 1999). That is for example the case in a number of studies that study the so-called Ghent effect on trade union membership (Scruggs 2002, Rie et al. 2011). They analyze how national institutions like the unemployment benefit system influence the likelihood of employees becoming members of trade unions. Other areas of focus within this institutional perspective could be on how changes in collective bargaining structures, changing employment conditions (contracts) etc. influence membership. Within these types of studies focus is mostly on different types of macro societal structures and how they influence membership recruitment and the trade unions density (Riley 1997).

The second overall framework for understanding trade union membership is focusing more specifically on the individual employee and on the individual's interest in joining or leaving a trade union (Schnabel & Wagner 2007, Fazekas 2011, Ebbinghaus et al. 2011). Individual characteristics related to the single employee are used to explain the likelihood of whether different groups are member of a trade union. Differences between men and women, between young and old, between skilled and unskilled etc. are used to explain trends in union membership development (Schnabel & Wagner 2007). This type of studies tends to focus more on micro oriented types of explanations. They focus on the motives for and interests in trade union membership and are often based on studies using individual-level data. As presented in the introduction to this article we also primarily use individual-level data in our analysis. Therefore we will shortly present some of the theories and lines of argument within these types of study more specifically in this context.

Micro-sociological theories regarding the questions of why employees join trade unions can all in all be divided in two types of explanations stressing respectively interest-based or norm-based motives (or reasons) for joining a trade union (Visser 2002). Employees join trade unions because they have an interest in joining. They gain some advantages by joining that they would not have if they had not joined. That could be higher wages, more job security etc.. This is the basic assumption within rational choice oriented types of theories. The rational choice theories often have Olson (1965) as a central point of reference and stress the free-rider problem. Other positions stress the importance of norms and values, and argue that they have an autonomous influence on employees' likelihood of joining a trade union. Some positions also argue – originally taking Coleman (1990) as a starting point – that the normative motives can be interpreted within a rational choice framework.

If we focus on the question about how trade union density on workplace level influence the employees decision on whether to join or not join a trade union, our expectation is that the

likelihood of joining will correlate with the level of union density at the workplace. The higher the density, the higher is the likelihood of non-organized employees will join the trade union. This can be explained within the theoretical frame of 'social costume theory' (Booth 1985, Visser 2002). Social costume theory argues that trade unions not only produces 'material goods' like high wages and security that can motivate employees to join a trade union. They also produce social norms stipulating that employees should be member of a trade union<sup>2</sup>. The norms put pressure on non-union members and make it rational for the non-union members to join the union in order to avoid the sanctions that follow from violating the norms. The higher the density is on workplace level, the stronger is the norm expected to be, and the lower are the costs among the union-members to sanction violation of the norm: Even "[p]eople who do not believe in the costume, may nevertheless refrain from disobedience because of the consequences of loss of reputation among the rest of the community" (Visser 2002: 407). The fact that we would expect that existing density will influence the likelihood of employees joining the trade unions says however nothing about how big this effect is compared to other types of factors influencing trade unions density. In this study we will be able to analyze the effects of work place density when controlling for a number of other factors.

Within the motivational oriented theories about trade union membership we can also identify some studies that stress the importance of the employees own normative and attitudinal characteristics (Riley 1997, Schnabel & Wagner 2007). Because trade unions are often connected with left wing policy development some studies have analyzed correlation between employees' political attitudes and the likelihood of them becoming members of a trade union. As pointed out by Riley: "... various studies on the relationship between left-wing ideology and union membership consistently showed a significant positive correlation between the two variables." (Riley 1997: 277). Attitudes and political orientation is also expected to influence the employees' willingness to join a trade union.

As outlined above it is possible to identify a number of different theories that tries to answer the question, 'why do employee join trade unions?'. We can make a distinction between more structural and more motivational oriented explanations, where the motivational theories focus on individual-level analysis and the structural analysis focus on macro societal characteristics. It should however be stressed that there in not necessarily a conflict between the two types of theory; they can be seen a supplementing each other. The actual choice of joining or not-joining a trade union is motivated by the interests and norm of the individual employees, but his or hers choice is influenced by and embedded in the overall institutional and structural settings of the given society. Certain institutional arrangements (like a Ghent system for unemployment benefit) will increase the advantages related to becoming a member of a trade union. In that sense it is possible to combine the macro and the micro oriented explanations presented before (Fazekas 2011).

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<sup>2</sup> The social costume theory can also be used to explain why employees chose not to free ride as it would have been expected by Olson (Visser 2002).

However, in this article the focus is on the motivational aspects of employees' decision making with regard to union membership. To narrow it down our focal interest is in *the relationship between the decision to join a union or not* and 1) *sanctioning norms creating social customs at the workplace* and 2) *general ideological and political attitudes*. However, in the empirical analysis of this decision making as well as the subsequent discussion the effect of a number of other variables will be included as well.

Union density is taken to create a number of external incentives for joining that can be conceptualized within a rational choice theoretical framework. From this perspective, the act of joining the union is an instrumental one motivated by the prospect of increased utility. The utility can come in various forms that create negative and positive incentives. A negative incentive is for instance the prospect of being relieved of the pain caused by the peer pressure created by the social custom of the workplace. The social custom and thereby the pain from the peer pressure, gains strength the higher the density is. A positive incentive could be to gain various goods that the union can offer, which is taken to grow as the union density increases thus increasing the union's bargaining power and ability to provide goods.

Political attitude is taken to measure a value rational incentive for joining the union. This incentive should be understood with reference to identity. If the individual understands itself as a leftist person who as a fundamental value holds that the employees of a workplace should unite in trade unions, then the act of joining the union is not an instrumental one, but a value rational one, because the act is part of the individual being itself. The act is not part in a more or less conscious calculus that aims at gaining some good or avoiding pain etc. For example, if the value rational incentive is strong enough, the individual would do the act of joining the union even though it knew that a prize to pay would follow in the form of for instance, discriminatory practices against unionized employees on the part of the employer.

### 3. DATA AND VARIABLES

Data stems from two sources: Statistics Denmark's register data and European Social Survey (ESS) data.<sup>3</sup> These data has, as mentioned, been merged on an individual level by the social security number (CPR-number). This enables us to add huge amounts of highly reliable information to what we already know about the individuals in the ESS. In the following we define the population and present the variables.

The research population is defined by five criteria's: 1) All actively employed persons in Denmark 2001-2007 except for private entrepreneurs and CEOs 2) who work at a workplace with 2 or more employed and 3) have an annual income between DKK 50,000 and 1,000,000 4) who participated in ESS rounds 1, 2 or 3, and 5) at the time they joined a trade union or participated in

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<sup>3</sup> Center for Survey and Survey/Register Data has prepared and delivered data. We are especially grateful to Leif Jensen who has been most helpful.

TABLE 1. DESCRIPTIVES FOR THE VARIABLES INCLUDED IN THE STATISTICAL MODEL

VARIABLE	OBSERVATIONS	MEAN	S.D.	25TH PERCENTILE	75TH PERCENTILE
Joined union? (0 no - 1 yes)	742	65.09	47.70	0	1
Workplace union density (0 - 100%)	742	66.74	26.59	50	88.65
Left-right scale (0 left - 10 right)	742	5.48	2.04	4	7
Workplace size (number of employees)	742	134.01	426.60	5	72
Sex (0 male - 1 female)	742	0.45	0.50	0	1
Age (Years)	742	36.68	12.69	25	47
Sector (0 private - 1 public)	742	0.31	0.46	0	1
Education (Years)	742	12.86	2.51	12	15
Income (DKK 1000)	742	183.35	99.06	117.67	223.80

ESS aged 16 to 65. This definition leaves us with a total 742 cases which are not missing on any of the variables included in the model.

### 3.1 DEPENDENT VARIABLES AND FOCAL VARIABLES

The purpose of the statistical analysis is to identify variables that increases or decreases the likelihood of employees becoming member of a trade union. Our dependent variable is in that respect whether an employee has joined or has not joined a trade union in the period 2001 to 2007.

The dependent variable, *Joined a union?*, is binary and measures whether the individual did join a union (1) or not (0). In Denmark, the union membership fee is tax deductible. Each year, the trade unions report the membership fees paid by their members to the tax authorities. Statistics Denmark has access to these records, and has generated variables telling us whether the individual paid any

TABLE 2. THE RELATIONSHIP BETWEEN WORKPLACE UNION DENSITY AND JOINING A UNION

WORKPLACE UNION DENSITY	JOINED UNION: NO		JOINED UNION: YES		TOTAL	
	n	Share	N	Share	n	Share
0-10 %	72	100.00%	0	0.00%	72	100%
11-20 %	5	55.56%	4	44.44%	9	100%
21-30 %	16	66.67%	8	33.33%	24	100%
31-40 %	32	49.23%	33	50.77%	65	100%
41-50 %	46	53.49%	40	46.51%	86	100%
51-60 %	22	45.83%	26	54.17%	48	100%
61-70 %	35	38.89%	55	61.11%	90	100%
71-80 %	46	30.67%	104	69.33%	150	100%
81-90 %	19	15.08%	107	84.92%	126	100%
91-100 %	10	5.78%	163	94.22%	173	100%
Total	303	35.94%	540	64.06%	742	100%

$\chi^2$ :	252.52	p-value :	0.000
Gamma :	0.6684	ASE :	0.030
Kendall's tau-b :	0.4461	ASE :	0.023

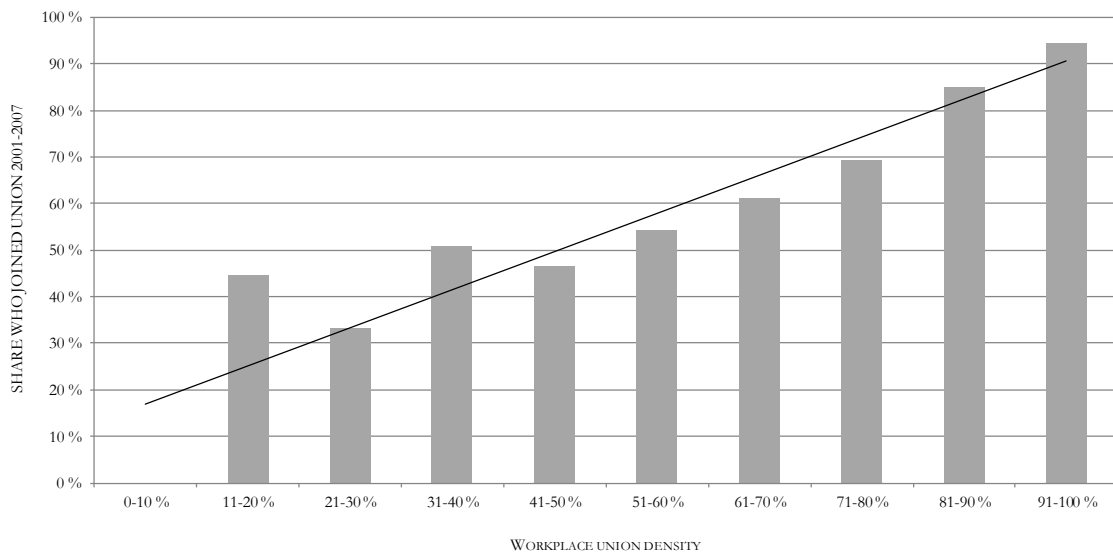


union membership fee or not each year. Because it is the trade unions who report this information to the authorities and not the individuals the information is considered highly reliable. If an individual did not pay any membership fee in year X but did in the following year Y we conclude that the individual joined a trade union in year Y. If the individual did not pay any membership fees in the period 2001-2007 the individual is considered a non-member.

Our first focal variable is *Workplace union density* generated from Statistics Denmark register data. It is constructed by dividing the number union members identified by the tax records as described above by the total number of ordinary wage earners at each workplace (all employees minus owners and CEO's/private entrepreneurs). In this calculation all actively employed persons in Denmark are included, and not just those of the ESS population. This variable is a scale going from 0 and 100 %. We are able to measure the union density of the primary workplace each year.

The fact that workplace union density is not a constant during the period 2001-2007 has to be taken into consideration. The theoretical assumption is that the individual is influenced by the customs of the workplace. Workplace union density is taken to measure the strength of such a sanctioning custom creating an incentive for the individual to join the union: the higher the workplace union density, the stronger the incentive to join the union. Therefore, it does not make much sense to analyze the relation between the union density at time X and event of joining a union at time Y. These have to be synchronized. In order to handle this, the assigned workplace union density value is the one of the year the individual joined a union. If the individual did not join a union, we assign the workplace union density of the ESS interview year. This procedure is applied in all cases of variables measuring something that varies over time.

FIGURE 1. SHARE OF WAGE EARNERS WHO JOIN UNION BY WORKPLACE UNION DENSITY



A number of other studies have stressed the importance of trade union presence at workplace level for trade union recruitment. This has for example been done in a number of studies that have used European Social Survey data (Ebbinghaus et al. 2011, Schnabel & Wagner 2007). They are however not able to identify the actual rate of organization at workplace level. ESS data only makes it possible to evaluate whether there is trade union presence at a workplace. In these studies we do not know how many that are actually organized and how the level of organization correlate with the likelihood of employees joining of trade union. Workplace union density measures information at a higher level than the individual one, in this case the group level of the workplace. In that respect it provides a good example of how the combination of ESS and register data enables us to add group level information, rarely available in surveys.

Table 2 describes the relationship between *Workplace union density* and the *Joined a union?* variable. The relationship is positive in the sense that the higher union density the higher a proportion joins a union. This positive relationship is quite strong as indicated by the gamma-coefficient of 0.6684 and the two variables are not independent as indicated by the significant  $\chi^2$ -value.

The positive relationship between the two variables is depicted in figure 1, in which a linear trend line has been added. From this descriptive representation the relationship can be said to be roughly linear even though the relationship when union density is below 40 % is somewhat turbulent. Nonetheless, the descriptive analysis indicates a strong positive relationship between the variables as expected, giving us reason to proceed with more rigorous statistical testing of this apparent relationship.

It should be noticed that other studies (Schnabel & Wagner 2007) have also been focusing on the discussion about how trade unions at workplace level influence the probability of recruiting new

TABLE 3. THE RELATIONSHIP BETWEEN POLITICAL ATTITUDE AND JOINING A UNION

LEFT TO RIGHT SCALE	JOINED UNION: NO		JOINED UNION: YES		TOTAL	
	n	Share	n	Share	n	Share
0	2	16.67%	10	83.33%	12	100%
1	1	9.09%	10	90.91%	11	100%
2	12	27.27%	32	72.73%	44	100%
3	16	19.51%	66	80.49%	82	100%
4	21	24.71%	64	75.29%	85	100%
5	69	33.33%	138	66.67%	207	100%
6	47	46.53%	54	53.47%	101	100%
7	65	43.62%	84	56.38%	149	100%
8	56	50.00%	56	50.00%	112	100%
9	12	50.00%	12	50.00%	24	100%
10	2	12.50%	14	87.50%	16	100%
Total	303	35.94%	540	64.06%	843	100%

$\chi^2$ :	45.9376	p-value :	0.000
Gamma :	-0.2621	ASE :	0.045
Kendall's tau-b :	-0.1648	ASE :	0.029

members. In a study where the used ESS data, they show that ‘trade unions presence’ at workplace level correlate highly with density. As they say: “... the simulations show that in Austria, the probability of being a union member increases from 9.7 to 44.4 percent if there is a union on the workplace.” (Schnabel & Wagner 2007: 28-29). They are however not able to analyze the effects of existing levels of organizing at workplace level due to lack of data in the ESS dataset.

Our second focal variable is the ESS variable *Placement on left-right scale* variable going from 0 (left) to 10 (right). We treat this variable as a continuous scale. This variable is taken to measure any attitudinal or normative inclination to join a trade union. Trade unions have historically been strongly associated or even synonymous with the *left* and their ‘opponents’, the employers, have historically had the same relation with the *right*. Therefore, if the individuals’ normative inclination is a factor when deciding whether or not to join the union, it is reasonable to expect it to be measurable as peoples self-placement on the political left-right axis.

Table 3 describes the relationship between political attitude and joining a union. The picture is not as clear cut as in the case of workplace union density. However, a weak negative relationship is indicated by the gamma coefficient of -0.2621 meaning that the further to the right on scale the smaller the share of wage earners who join the union. The variables are not independent of each other as indicated by the significant  $\chi^2$ -value.

As can be seen from figure 2, the relationship is roughly linear with the major exception of those who place them self on the far right, grade 10, of the political spectrum. This group is the second most union joining one. However, the group only consists of 16 individuals meaning that

FIGURE 2. SHARE OF WAGE EARNERS WHO JOIN UNION BY POLITICAL LEFT-RIGHT SCALE

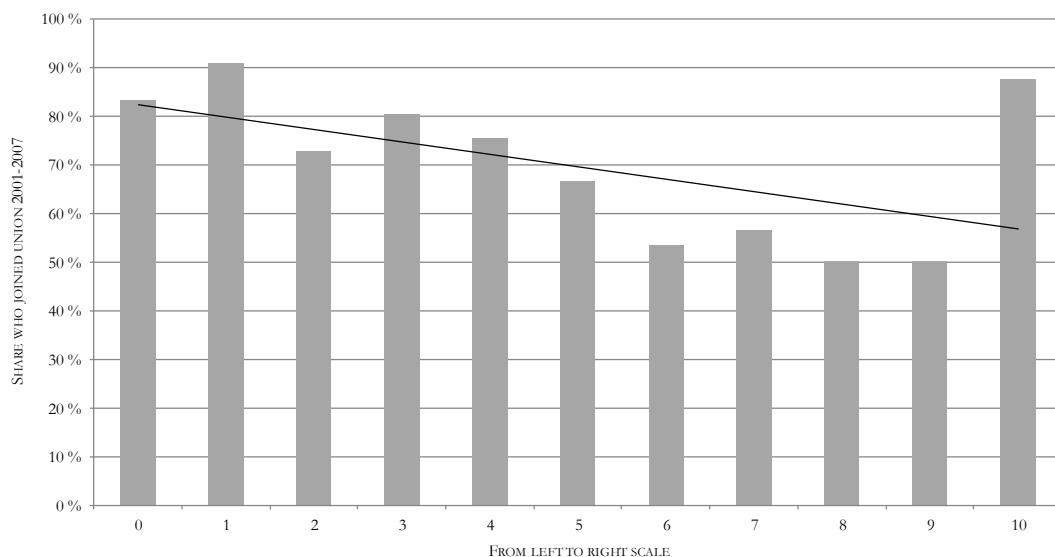


TABLE 4. THE RELATIONSHIP BETWEEN TRADE UNION DENSITY AND POLITICAL ATTITUDE

WORKPLACE UNION DENSITY	LEFT TO RIGHT POLITICAL SCALE					Total	
	1	2	3	4	5		
0-20 %	0.00%	8.51%	42.55%	42.55%	6.38%	47	100%
21-40 %	1.22%	10.98%	45.12%	34.15%	8.54%	82	100%
41-60 %	2.99%	14.18%	45.32%	32.09%	5.22%	134	100%
61-80 %	1.97%	17.24%	45.32%	31.53%	3.94%	203	100%
81-100 %	3.99%	17.03%	50.00%	25.72%	3.26%	276	100%
Total	2.70%	15.36%	46.90%	30.46%	4.58%	742	100%

$\chi^2$ :	17.9269	p-value :	0.328
Gamma :	-0.1593	ASE :	0.043
Kendall's tau-b :	-0.1115	ASE :	0.03

the possibility of this deviation from the general trend is due to sampling, is imminent. This suspicion gains strength by the fact that such a deviation cannot be detected if we consider the relationship between union membership and political attitude (see appendix 1). Here, the grade 10 group are the group with the smallest share of union members (62.71 % compared to the general mean of 74.03 % union members).

Nonetheless, the descriptive analysis indicates a weak negative relationship between the variables, confirming our theoretical expectation giving us reason to proceed with more rigorous statistical testing of whether this apparent relationship is a spurious one or not. However, we should bear in mind, that if the deviation from the general trend of the grade 10 group is due to sampling problems, the statistical model will tend to underestimate the actual effect of political attitude on the choice of joining the union.

Finally, we shall consider the relationship between the two focal variables. In this research design, they are taken to measure two different effects.

Theoretical, we distinguish between these two effects. But they could be intertwined. For instance, the social custom created by high union density could also involve being leftist in addition to being member of a union. If this is the case political attitude is not causing members to join, but is the cause of high union density.

In order to settle this question we have tested whether the two variables are independent from each other. Table 4 is the two-way table of workplace union density by quintiles and the political scale reduced to five categories. These reductions are done in order to be able to do valid statistical testing of the relationship between the variables. A weak negative relationship is indicated by the gamma coefficient meaning that the higher the union density the more leftist. However, this cannot be trusted, as the  $\chi^2$ -value is far from statistical significant. We therefore conclude that the two variables are independent of each other, and that high union density does not cause the individuals in our sample to be more leftist or rightist for that matter.

### 3.2 CONTROL VARIABLES

In addition to the focal variables a number of control variables are included. If we look upon the literature analyzing what characterize trade union members and trends in the density development a number of factors are usually stressed as important determinants for trade unions density. As mentioned in the review of the theories about trade unionism in section two, some of the factors used to explain differences in density are often macro oriented factors relating to institutional and structural characteristics. Other types of explanations are more oriented toward more individual characteristics relating directly to the employees. In this context we first and foremost focus on the later type of explanations partly because we use data relating to individuals, but also because we try to evaluate the factors that motivate the single employee to join or not join a trade union.

In order to analyze the specific effects of our two focal variables – level of union density at workplace level and political attitude (left-right wing orientation) – we control for a number of other factors that could be expected to influence employees likelihood of joining a trade union.

The control variables are *Workplace size* measured by as the number employees at the workplace, *Sector* (private or public), *Newly employed* at the workplace, *Gender*, *Age*, *Country of origin*, *Years of education* and *Income*. Our final model is a fixed-effect model in which we fixate the results across 10 *occupational categories* and 21 *industrial categories*. These are included as dummy variables but their model estimates are only reported in the appendix as they are only included to fixate whatever effect these variables may have on the dependent variable.

The choice of control variables are guided by what the literature has found to be central variables when it comes to explaining high or low level of trade union membership. We will comment a bit on the different control variables. Some of the control variables relate to personal and individual characteristics (gender, age etc), while others relate more to characteristics relating to the workplace (workplace size, sector, industry). Finally some control variable relates to the competence level of the employees and to the work experience (education, newly employed etc.).

Workplace size is often highlighted as one of the most important factors influencing the likelihood of seeing high or low levels of density in a company or at a workplace. Workplace size correlate positively with union density in a number of studies (Riley 1997). One explanation to this observation is that the costs of organizing is lower in big workplaces than in small workplaces, “We expect the probability of unions membership to rise with establishment size because unions costs of recruiting and organizing should be lower in larger units.” (Schnabel & Wagner 2007: 22).

Demographic factors like gender and age are often also used as variables in studies of trade unionism. And they are also included as control variables in our analysis. There seems however not to be any clear evidence of correlation (Riley 1997). Or maybe to be more precise, the correlation depends very much on other circumstances. The importance of gender and age are interrelated with other factors and the effects are dependent on the overall structure of the labour market. Women for example tends not to organize as much as men if they are working in the industrial periphery or secondary sector (Doeringer & Piore 1975; Reich et al. 1973), but when they work in the public

sector like in the Nordic countries they often have a higher likelihood of being member of a trade union than men as observed by Schnabel & Wagner (2007:24). If we look upon the membership profile of trade unions, young employees generally seems to be less organized than older employees. This is an observation stressed in many studies, although there seems to be no real longitudinal studies of cohort effects. Ebbinghaus et al. writes: “In general, the relation between *age* and unionization is expected to be concave: membership tends to be low among younger workers, increases with age and falls when employees exit from work.” (Ebbinghaus et al. 2011: 110).

Education and occupational position could also be expected to influence the likelihood of a given employee being member of a trade union. Therefore they are used as control variables in our analysis. In our model, the level of education is measured as the number of years of received education including elementary school. When we control the effects of occupational position we use however a fixed-effect model meaning that we don't estimate the direct effects of one occupation position compared to another position. We however neutralize the effects of occupational level in the overall statistical model. Generally we would expect that employees with low or very high levels of education would tend to be less organized than employees with medium level of education. This expectation is in line with observations in the literature. As stated by Ebbinghaus et al.: “Employees with low (less than secondary) or high (tertiary) education are often reported to be less unionized than those with medium-level (secondary) *education*.” (Ebbinghaus et al. 2011: 111). We also use income as a control variable in our analysis expecting that it measure some similar effects like education and occupational status.

### 3.3. STATISTICAL MODELS

The statistical tool is a multivariate logistic fixed-effect regression model which predicts the likelihood of joining a union. The final model has 2 focal variables (*workplace union density* and *political attitude*), 7 control variables and is fixed across 10 occupations and 21 industries which in the model figures as 31 dummy variables.<sup>4</sup>

In table 4 we list three different models which aims at predicting how likely it is that an individual will join a trade union. We start by comparing the models before we turn to a more in depth presentation of the estimated effects of first focal variables and then control variables.

*Model 1* only has two predictors; our focal variables. In both cases the estimated effect is statistical significant and the direction of the effect is as we would expect based on the descriptive analysis of the relation between the variables: Higher union density at workplace level increases the likelihood that the individual choose to join a trade union and the more rightist the political attitude the less likely it is that the individual joins a trade union. Considering the size of the coefficients, union density seems to be a much more important predictor than political attitude.

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<sup>4</sup> The dummy estimates are listed in table 6 in the appendix.

TABLE 4. MODELS OF FACTORS INFLUENCING THE LIKELIHOOD OF JOINING A TRADE UNION

<i>Dependent variable: Joined union?</i>						
PARAMETER	MODEL 1: FOCAL EXPLANATORY VARIABLES		MODEL 2: FOCAL EXPLANATORY VARIABLES INCLUDING CONTROLS		MODEL 3: FIXED EFFECTS OF OCCUPATION AND INDUSTRY	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Constant	-1.446***	0.376	1.276	0.987	-2.105	1.754
Workplace union density	4.664***	0.399	5.121***	0.483	5.677***	0.565
Political att. on left-right scale	-0.163***	0.462	-0.122*	0.050	-0.119*	0.054
Workpl size (1000 employees)	-	-	-0.077	0.226	0.051	0.259
Public sector	-	-	0.179	0.245	-0.638	0.381
Newly employed	-	-	-0.852***	0.218	-0.851***	0.232
Female	-	-	0.408*	0.207	0.509*	0.234
Age	-	-	-0.060***	0.010	-0.059***	0.011
Education (Years)	-	-	-0.015	0.042	0.012	0.049
Income (DKK 1000)	-	-	-0.003*	0.001	-0.003*	0.001
Test statistics						
Pseudo R <sup>2</sup>	0.225		0.320		0.360	
AIC	749.634		672.421		692.083	
BIC	763.462		718.515		871.847	
Log-likelihood	-371.817***		-326.211***		-307.041	
Degrees of freedom	3		10		39	
Number of observations	742		742		742	

In *Model 2* we add all the control variables. The picture with regard to our focal variables is the same as in model 1. Union density is the most powerful predictor but political attitude is still significant and predicts that the more rightist the less likely joining a union is.

*Model 3* is the fixed effects model in which the effects of occupation and industry are cancelled out by the inclusion of dummy variables (estimates not reported). The general picture is the same with a few exceptions.

The public sector estimate changes from positive to negative meaning that model 3 estimates that it is less likely for public sector employees to join the union than private sector employees which is the opposite of model 2. However, the estimate is uncertain and is not significant.

The estimated effect of union density increases and so does the effect of political attitude. Minor changes can be observed with regard to the control variables of which only the effect of being female should be mentioned, because the estimated effect in model 3 is no longer significant.

Otherwise, the introduction of the fixed effect dummies do not change much, which is also indicated by the change in log-likelihood not being significant meaning that the fixed effect model does not fit better than model 2.

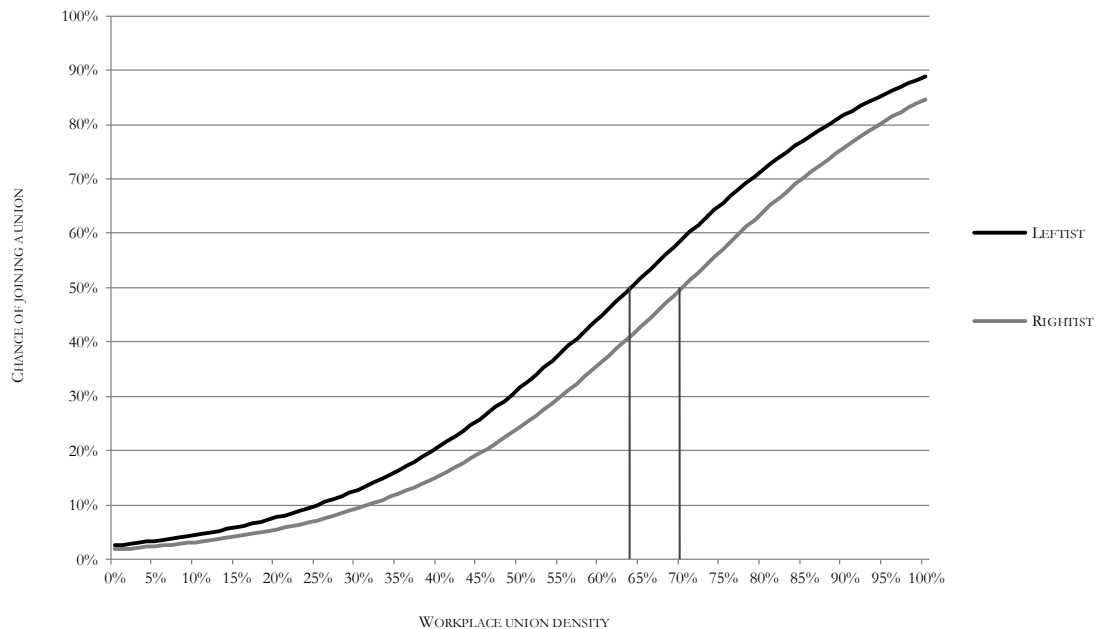
#### 4. DISCUSSION OF THE RESULTS

The most powerful statistical significant predictor is workplace union density that is one of our focal variables. In all three models the coefficient expressing the estimated difference between 0 % and 100 % density is very large. This confirms the initial descriptive analysis of the relationship between the focal variables and dependent variable. However, political attitude is also statistical significant and is quite powerful. The coefficient expresses the change caused by one step to the right on the 11 point scale measuring political attitude. This is interesting because in a cross-national study by Schnabel & Wagner (2007) utilizing ESS data the correlation between political attitude and trade union membership was not confirmed and found to be significant for the majority of the analyzed countries.

Figure 3 provides a graphical representation of the effects of workplace union density and political attitude as predicted by model 3 that may further the understanding their relative importance. As accounted for earlier, the two variables are statistically independent.

We have constructed a standard person (see notes of figure 3 for details) whose likelihood of

FIGURE 3. PREDICTED CHANCE OF JOINING A UNION BY WORKPLACE UNION DENSITY AND POLITICAL ATTITUDE



Note: The standard person is a man of age 36.68 who has received 12.86 years of education and has an income of DKK 183,350 pr. year. He is a craftsman working at a private sector workplace with 134 employees in the construction industry. *Leftist* is assigned the 25 percentile score of 4 on a political left-right scale with a minimum of 0 and a maximum of 11. *Rightist* is assigned the 75 percentile score of 7.



joining a union only varies by union density and political attitude. Union density is measured by the horizontal axis and likelihood of joining a trade union is measured by the vertical axis. The two logistic regression lines are a leftist standard person and a rightist standard person. The *leftist* has been assigned the 25 percentile score of 4 on the political left-right and the *rightist* has been assigned the 75 percentile score of 7. The gap between the two lines thus expresses a 3-point change on the political attitude scale going from 0 to 10.

The first overall observation concerns the effect of union density on the likelihood of joining a union. The modeled effect is accelerating. At the lower end of the union density axis the increase in likelihood of joining a union as density rises is very modest but the slope gets increasingly steeper as the union density increases and it only flattens slightly at the top.

The second observation concerns the effect of political attitude. The two drop lines illustrate the difference in workplace union density between the points where the two standard persons reach 50 % likelihood of joining a union. The leftist standard person has a 50 % likelihood of joining a trade union around the point of 64 % union density and for the rightist this point is 70 %. Thus, the difference on the horizontal axis is ca. 6 %-points. This example illustrates that even though the effect of workplace union density dominates, the effect of political attitude should not be neglected.

Considering the control variables the first interesting finding is that workplace size measured by the number of employees is not significant. This is contrary to the findings of many other studies (Riley 1997; Schnabel & Wagner 2007). However, another major study of the factors determining union membership using Danish data also finds, that workplace size does not play a role (Ibsen et al. 2011:16).

Secondly we also observe an insignificant sector dummy. This is surprising as the union density as well as the recruitment rate is much higher in the public sector than in the private sector: within our study population 78.41 % of the public sector workers joined a union compared to 59.22 % of the private sector workers. However, this result is consistent with prior studies (Ibsen et al. 2011:16; Ibsen et al. 2012:159). We will point to two primary explanations. First of all, it might simply be that workplace union density in itself produce the high level of union density and union recruitment in the public sector. That is to say, there is nothing special about the public sector that affects a higher union recruitment rate, but the fact that the preexisting workplace union density is higher than in the private sector affects a higher union recruitment rate. Second, gender may help to explain this. Model 2 as well as model 3 estimates that women to a greater extent than men join unions. These estimates are statistically significant. The proportion of women within the public sector is much bigger than in the private sector. In 2007, 68 % percent of the employees in the public sector were women compared to 37 % in the private sector. The observed higher recruitment rate in the public sector might therefore in part be due to the high proportion of women and not due to some special property of the public sector.

Third, in our analysis we observe that that younger people are more likely to join the union than older people. This is contrary to most studies of union members vs. non-members, which consistently find that older people more often are members than young people. However, our study

is focused on the situation of decision making with regard to union-membership or not. In this light, the result actually makes good sense, simply because you are young when you enter the labor market and for the first time are faced with the decision whether to join the union. Then, if you at the beginning of your work life do not choose to join a union it probably becomes more and more unlikely that you are going to change this decision as you grow older.

Finally and fourth our results shows that education does not play any role, no matter whether the occupation controls are included as in model 3 or not as in model 2. This is surprising if we compare with results from the international literature (Ebbinghaus et. al. 2011). We would expect bigger differences between different groups on the labour market. However, income has a significant effect in both model 2 and 3 predicting that, the higher the income the lower the likelihood of joining a union. This result is in line with other studies of union membership which finds that the highest incomes are less likely to join the union than the middle incomes (Ibsen et al. 2012).

## CONCLUSION

In this article our focus has primarily been on the motivational aspects of employees' decision making with regard to union membership. We have been interested in analyzing the factors that influence decision making in relation to employee's willingness to join or not to join a union. Our overall focus have theoretically been on analyzing if joining a trade union can be seen as a result of – on the one side - social custom at workplace level or whether it is – on the other side - a result of political or ideological values. These two focal points we see as related to the classical weberian sociological discussion about whether social action is driven by instrumental or value rational forms of action. We have tried to establish an analytical and statistical framework, that allow us to analyze these different types of motives controlling for a number of other factors usually mentioned in the literature about trade unionism. We have used data from the Statistics Denmark allowing us to use register data, which among other things supply us with the union density at workplace level. These data have been combined with European Social Survey data measuring subjective values and political attitudes among union and non-union members. We have been able to combine these dataset on micro level focusing on individuals.

All in all our conclusion in this paper is quite clear. The most important factor that motivates non-union members to become union member is whether his or hers colleagues at the workplace are members of a trade union. If the level of trade unions membership is high on workplace level the likelihood of a non-union member becoming a member is very high. The existing level of trade union membership on workplace level has a thorough influence on membership commitment.

Our analysis also indicates, that political attitude plays a role when non-union members decide if they should join a trade union. Leftist tends to join a trade union more often than non-leftist, also when we take a number of other factors into consideration. In that respect the analysis confirms our overall theoretical expectations.

However, the instrumental motives created by among other things social customs at the workplace associated with the union density variable seem to carry more weight compared to value rational motives when employees decide whether or not to join the union. Therefore, answering the overall question of the paper - *why do people join trade unions?* - we can conclude that they primarily do so because it is expected of them by their colleagues, and to a secondary and more limited extend because they identify with the ideals and values of the trade unions.

## APPENDIX

TABLE 5. THE RELATIONSHIP BETWEEN POLITICAL ATTITUDE AND TRADE UNION MEMBERSHIP

LEFT TO RIGHT SCALE	MEMBER OF TRADE UNION: NO		MEMBER OF TRADE UNION: YES		TOTAL	
	n	%	n	%	n	%
0	15	27.27%	40	72.73%	55	100%
1	11	18.97%	47	81.03%	58	100%
2	34	21.66%	123	78.34%	157	100%
3	81	26.13%	229	73.87%	310	100%
4	85	21.68%	307	78.32%	392	100%
5	207	22.65%	707	77.35%	914	100%
6	118	27.83%	306	72.17%	424	100%
7	151	26.54%	418	73.46%	569	100%
8	142	34.30%	272	65.70%	414	100%
9	26	31.33%	57	68.67%	83	100%
10	22	37.29%	37	62.71%	59	100%
Total	892	25.97%	2543	74.03%	3435	100%

$\chi^2$ : 33.0158                      p-value: 0.000  
 Gamma: -0.1151                      ASE: 0.026  
 Kendall's tau-b: -0.066                      ASE: 0.015

FIGURE 4. SHARE OF TRADE UNION MEMBERS BY POLITICAL LEFT-RIGHT SCALE

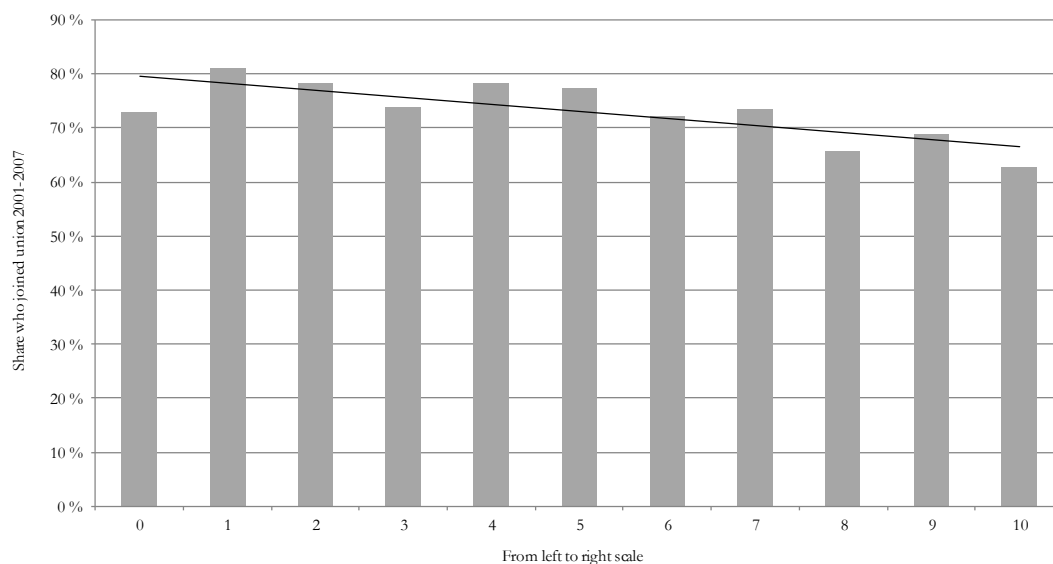


TABLE 6. PARAMETER ESTIMATES OF MODEL 3'S FIXED EFFECT DUMMIES

*Fixed effect parameter estimates*

INDUSTRY			OCCUPATION		
Category	Coefficient	S.E.	Category	Coefficient	S.E.
Agriculture, fishing, mining	Reference		Managers	Reference	
Mfr. of food, beverages & tobacco	-0.567	1.398	Professionals	-0.210	0.674
Mfr. of textiles, wood prod. & printing	0.552	1.250	Technicians & associate prof.	-0.199	0.643
Mfr. of chemicals, plastic & mineral prod.	-0.312	1.235	Clerical support workers	-0.469	0.697
Mfr. of basic metals and fabr. metal prod.	0.412	1.168	Service and sales workers	0.086	0.710
Mfr. of furniture; manufacturing n.e.c.	1.669	1.179	Agriculture & fishery workers	-0.182	1.677
Construction, electr., gas & water supply	0.585	1.225	Craft & related trades workers	0.939	0.732
Sale and rep. of motor vehides. sale of fuel	0.390	1.267	Plant & machine operators	0.434	0.818
Wholesale except of motor vehides	0.687	1.155	Elementary occupations	0.150	0.713
Re. trade and repair work exc. of m. vehic.	0.956	1.170	Unknown occupation	0.513	0.652
Hotels and restaurants	0.830	1.244			
Transport	0.852	1.215			
Post and telecommunications	1.704	1.352			
Finance and insurance	0.561	1.217			
Letting and sale of real estate	0.862	1.342			
Business activities	0.762	1.139			
Public administration	2.408	1.322			
Education	2.005	1.229			
Human health activities	1.556	1.224			
Social institutions etc.	1.321	1.203			
Associations, culture and refuse disposal	2.484*	1.222			

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