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Political Influence and the Demand for Publicly Provided Goods: The Interest Function Approach applied to Norwegian Local Governments

Abstract – The interest function approach to government behaviour, initiated by van Winden [1983], is used to investigate how demand for local public services differs among population groups and how the groups' political influence is shaped by numerical strength and the party composition of the local council. We improve upon earlier empirical applications of the interest function approach by clarifying the condition under which both taste and influence parameters can be identified. Moreover, the model is estimated in a situation in which the condition for identification is met.

Keywords - Demand for public services, population groups, political influence

JEL classification codes - D72, H42, H72

1. - *Introduction*

The so-called interest function approach to government decision-making, initiated by van Winden [1983], assumes that purely individual interests do not count in the political process. Decision-makers, politicians and bureaucrats, only take the preferences of representative individuals or social groups into account. The interest function approach has shown to be a fruitful approach to government decision-making. Van Winden and his collaborators have applied it to different government activities and to different levels of government, both theoretically and empirically. Examples include analyses of social security [VAN VELTHOVEN – VAN WINDEN, 1985; DRISSEN – VAN

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WINDEN, 1991], the level of taxation and government expenditure [RENAUD – VAN WINDEN, 1987, 1988], government budget deficits [VAN VELTHOVEN – VAN WINDEN, 1990], tax-reform [VAN VELTHOVEN – VAN WINDEN, 1991], and the behaviour of local governments and the interaction between the local and the central level [RENAUD, 1989; RENAUD – VAN WINDEN, 1990, 1991].

The empirical applications of the interest function approach have one serious weakness: They have not been able to separate taste parameters, representing differences in demand among social groups, and influence parameters, which capture how the relative political influence of a social group is affected by its numerical strength and the party composition of the legislature. Potters – van Winden [1996] discusses the problem: «A major problem with such an analysis is that in the composite utility function of equation (1) the parameters of the utility function of the groups interact with the power coefficients. As a consequence, it is difficult to disentangle (identify) in the estimates the effects which are due to preferences and those which are due to power».

The purpose of this paper is to apply the interest function approach to Norwegian local governments in order to investigate how demand for local public services differs among population groups and how the groups' political influence is shaped by numerical strength and the party composition of the local council. The model and the Norwegian institutional context are laid out in section 2. Section 3 derives the condition under which taste and influence parameters can be identified, while section 4 discusses data, estimation method and hypotheses. The estimation results are presented in section 5 and, finally, section 6 summarises the main findings of the paper.

2. – *A model of the local decision-making process*

When we apply the interest function approach to the decision-making process in Norwegian local governments, it is important to take into account the type of services provided as well as the centralised system of financing. First, the type of services provided by the local public sector is important in separating out the relevant voter groups. This study splits the total budget into the following six service sectors: Central administration, primary education, health care/care for the elderly, kindergartens, cultural services, and infrastructure. Their expenditure shares during the period under study are reported in Table 1. The trend is that central administration, health care, and kindergartens take an increasing share of the total budget at the expense of primary education and infrastructure.

Year	Administr. (1)	Education (2)	Health[2] (3)	Kindergt. (4)	Culture (5)	Infastr. (6)
1984	0.112	0.466	0.162	0.032	0.058	0.170
1985	0.112	0.458	0.169	0.034	0.059	0.167
1986	0.119	0.430	0.179	0.038	0.062	0.172
1987	0.124	0.422	0.180	0.045	0.062	0.167
1988	0.126	0.416	0.183	0.053	0.062	0.161
1989	0.126	0.411	0.182	0.060	0.063	0.158
1990	0.124	0.400	0.188	0.068	0.064	0.157

[1] Unweighted averages based on data for 442 (out of 448) local governments.
[2] Health-institutions are left out because of a shift in the functional responsibility between the counties and the local governments in 1988.
Source: *Local government accounts*, Statistics Norway.

Three sectors, primary education, care for the elderly, and kindergartens, take close to two-thirds of the total budget. These services are publicly provided private goods directed towards specific subgroups of the population, a factor that must be taken into account when the relevant voter groups are separated out. Four groups seem important: (i) parents with children eligible for kindergarten, (ii) parents with children eligible for primary education, (iii) the elderly, and (iv) the rest (hereafter denoted the reference group). The idea of constructing voter coalitions by use of public services differs from other applications of the interest function approach, which rely on type of occupation (government sector employees, private sector employees, capital owners and dependants).

Second, the Norwegian system of financing is quite centralised. In principle local governments can choose tax rates within an interval for taxes on income, wealth and property. But since the late 1970s all local governments have used the maximum rates in income and wealth taxation. Through the grant system and by regulation of local taxes, the national government controls 85-90% of local revenue. Local governments' opportunity to influence current revenues is limited to property tax and user charges. The property tax is of little importance (2% of revenues), and user charges are regulated by national law and limited to cover costs. Following earlier studies of Norwegian local governments such as Borge - Rattsø [1993, 1995] and Borge *et al.* [1995], we assume that the centralised system of financing implies that the choice between private consumption and local public spending is taken at the central level. What is left for the local decision-making process is to allocate a fixed total budget among different service sectors.

Empirical applications of the interest function approach have typically assumed Cobb-Douglas preferences. The same formulation is chosen here, and the elementary interest function of group g is given by

$$U^g = \sum_{i=1}^{I} \alpha_i^g \log x_i \qquad \alpha_i^g > 0, \sum_{i=1}^{I} \alpha_i^g = 1 \qquad [1]$$

where x_i is the per capita service production of the ith of the $I = 6$ services. The normalisation $\sum_{i=1} \alpha_i^g = 1$, α_i^g can be interpreted as group g's desired expenditure share in sector i. The complex interest function (W) is defined as a political influence weighted average of the elementary interest functions:

$$W = \sum_{g=1}^{G} \pi^g U^g = \sum_{i=1}^{I} \sum_{g=1}^{G} \pi^g \alpha_i^g \log x_i \qquad \sum_{g=1}^{G} \pi^g = 1 \qquad [2]$$

denotes the relative political influence of group π^g. The outcome of the local decision-making process is described by maximisation of the complex interest function subject to the local government budget constraint

$$\sum_{i=1}^{n} p_i x_i = y \qquad [3]$$

where p_i is the unit cost (or price) of service i and y is total local government expenditure per capita. The outcome of the decision-making process can be described as

$$A_i \equiv \frac{p_i x_i}{y} = \sum_{g=1}^{G} \pi^g \alpha_i^g \qquad [4]$$

where a_i is the expenditure share of sector i. It follows that the actual expenditure share is a political influence weighted average of the groups' desired expenditure shares.

As can be seen from equation [4], the parameters of the utility function (the taste parameters α^g_i) interact with the influence weights (π^g) in the expression for the policy outcome. As a consequence, information on the actual expenditure shares is insufficient to identify both taste and influence parameters. If the influence weights were known, the taste differences among the groups could be identified (and viceversa). Usually neither taste nor influence parameters are known a priori. The route followed by empirical applications of the interest function approach is to use proxies for the influence weights in order to identify the taste parameters. Some applications [VAN VELTHOVEN - VAN WINDEN, 1985; RENAUD - VAN WINDEN, 1987] make the

a priori restriction that the relative political influence of a group is equal to its numerical strength, *i.e.* its share of the voting population. Then the taste parameters can be identified by using data on the actual expenditure shares and the relative size of the groups.

The assumption that influence equals numerical strength is very restrictive. It assumes that the impact of numerical strength is the same for all groups, and that the political compromise is independent of the political system in which it is worked out. Some applications of the interest function approach such as Renaud [1989] and Renaud – van Winden [1990, 1991], have used a less restrictive formulation. They assume that the influence weights are determined by the party composition of the local council as well as numerical strength. So far, the disadvantage of the less restrictive formulation has been the loss of the ability to identify the taste parameters. The purpose of this paper is to show that taste parameters can be identified even in this case. The modelling of political influence is given by

$$\pi^g = \beta^g_{soc} SOC + \beta^g_{cen} CEN + \beta^g_{con} CON + \gamma^g S^g \qquad g = 1,2,3 \qquad [5]$$

$$\pi^4 = 1 - \sum_{g=1}^{3} \pi^g \qquad [6]$$

where *SOC*, *CEN* and *CON* capture the party composition of the local council. *SOC* is the share of socialists in the local council, *CEN* is the share of representatives from the centre parties, and *CON* the share of conservatives. S^g measures the numerical strength of group g. As defined above, group 1 is parents with children eligible for kindergarten, group 2 is parents with children eligible for primary education, group 3 is the elderly, and group 4 is the reference group. The numerical strength of the three first groups is captured by the share of children below 7 years of age (S^1), the share of youths 7-15 years of age (S^2), and the share of elderly above 67 years of age (S^3). Of course, children and youth do not vote, but the share of voters with children eligible for kindergartens and primary education will be an increasing function of S^1 and S^2. Equation [5] models the political influence of groups 1-3, while equation [6] simply defines the influence of the reference group as one minus the influence of the three other groups.

If winning elections is one of the goals of a political party, the weight the party gives to a particular population group is unlikely to be constant. Instead it will be an increasing function of the size of the group. This is consistent with the probabilistic voting models of Lindbeck - Weibull [1987], and Coughlin *et al.* [1990]. These models predict that vote-maximising candidates choose a policy platform that gives most weight to the interests of large homogeneous groups. This is our motivation for making relative political in-

fluence a function of both the party composition of the local council and the numerical strength of the population groups. This interpretation becomes more explicit if we take into account that $SOC + CEN + CON = 1$, and rewrite equation [5] as follows:

$$\pi^g = (\beta^g_{soc} + \gamma^g S^g)SOC + (\beta^g_{cen} + \gamma^g S^g)CEN + (\beta^g_{cen} + \gamma^g S^g)CON \qquad [7]$$

Equation [7] clearly shows that the weight a party gives to group g is increasing with the numerical strength of group g (assuming $\gamma^g > 0$). In addition, the weight given to group g varies across the political parties[1].

The reduced form of the model, equation [8], is found by substituting [5] and [6] into [4] and using the identity $SOC + CEN + CON = 1$.

$$A_i = c_i + \sum_{g=1}^{3}(\beta^g_{soc} - \beta^g_{cen})(\alpha^g_i - \alpha^4_i)SOC + \sum_{g=1}^{3}(\beta^g_{con} - \beta^g_{cen})(\alpha^g_i - \alpha^4_i)CON + \sum_{g=1}^{3}\gamma^g(\alpha^g_i - \alpha^4_i)S^g \qquad [8]$$

The constant term of equation i (c_i) is given by:

$$c_i = \alpha^4_i + \sum_{g=1}^{3}\beta^g_{cen}(\alpha^g_i - \alpha^4_i) \qquad [9]$$

3. – *The identification properties of the model*

Earlier applications of the interest function approach that model political influence the same way as we have, have not been able to identify taste and influence parameters. They have relied on the reduced form coefficients. This solution is clearly unsatisfactory. The reduced form coefficient of party p (λ_{ip}) in the equation for A_i is given by:

$$\lambda_{ip} = \sum_{g=1}^{3}(\beta^g_p - \beta^g_{cen})(\alpha^g_i - \alpha^4_i) \quad p = soc, con \qquad [10]$$

[1] Our interpretation of the modelling of relative political influence differs from that of Renaud [1989] and Renaud – van Winden [1990, 1991]. They argue that the numerical strength of the voter groups capture their influence through 'extra-parliamentary' channels [RENAUD, 1989, p. 81].

$$\lambda_{ig} = \gamma^g(\alpha^g_i - \alpha^4_i) \qquad [11]$$

Suppose that λ_{ip} is positive, *i.e.* spending in sector i increases when the share of representatives from party p increases (at the expense of the centre parties). Although this is an interesting result in itself, it is not clear how it should be interpreted within the structural model. A first interpretation is that party p gives more weight than the centre parties to a group which has a high demand of services provided by sector i[2]. A second interpretation is that party p gives less weight than the centre parties to a group which has a low demand of services provided by sector i. By only relying on the reduced form coefficient, it is impossible to distinguish the one interpretation from the other. The reduced form coefficients of S^g are easier to interpret. The coefficient of S^g in the equation for A_i (λ_{ig}) is given by:

$$\lambda_{ig} = \gamma^g(\alpha^g_i - \alpha^4_i) \qquad [11]$$

Suppose that λ_{ig} is positive. As long as $\gamma^g > 0$, the only possible interpretation is that group g has a high demand for services provided by sector i. It is difficult, however, to distinguish the quantitative effects. Suppose that i.e. an increase in the numerical strength of group g by one percentage point increases the expenditure share of sector i by one percentage point. Within the structural model, this result can be interpreted in several ways. A first interpretation is that group g's desired expenditure share is 25 percentage points higher than that of the reference group ($\alpha^g_i - \alpha^4_i = 0.25$) and that the relative political influence of group g increases by four percentage points when the size of the group increases by one percentage point ($\gamma^g = 4$). A second interpretation is that group g's desired expenditure share is 40 percentage points higher than that of the reference group ($\alpha^g_i - \alpha^4_i = 0.40$) and that the relative political influence of group g increases by 2.5 percentage points when the size of the group increases by one percentage point ($\gamma^g = 2.5$). By only relying on the reduced form coefficient, it is impossible to distinguish the one possible interpretation from the other.

The identification properties of the model depend on the number of voter groups (G), the number of parties (P) and the number of service sectors (I). Because of the budget constraint, only I-1 of the equations can be estimated. The structural coefficients $\alpha^g_i - \alpha^4_i$, $\beta^g_p - \beta^g_{cen}$ and γ^g must be identified from the reduced form coefficients of SOC, CON and S^g. The number of reduced form coefficients available for identifying the structural coeffi-

[2] A 'high demand' means higher demand than the reference group, and 'a low demand' means lower demand than the reference group.

cients is $(I-1)(G+P-2)$, and the number of structural coefficients is $(I-1+P)(G-1)$. The structural coefficients are then identified if condition [12] is fulfilled:[3]

$$I \geq 1 + \frac{P(G-1)}{P-1} \qquad [12]$$

It follows that the structural coefficients are identified if the number of sectors and the number of parties are 'large' compared to the number of voter groups. Condition [12] is fulfilled in our case in which G=4, P=3, and I=6. Consequently, we are able to identify how the demand for public services differs from that of the reference group (the taste parameters $\alpha_i^g - \alpha_i^4$) how political influence is affected by an increase in the share of socialists or conservatives at the expense of the centre parties (the influence parameters $\beta_p^g - \beta_{cen}^g$), and how political influence is affected by numerical strength (the influence parameters γ^g).

The desired expenditure shares of the reference group (α_i^4) and the weight that the centre parties give to the various groups (β_{cen}^g) appear in the constant terms given by equation [9]. When the $(\alpha_i^g - \alpha_i^4)$-terms are identified, [9] represents I equations in $I+G-1$ unknown structural coefficients. Consequently, neither α_i^4 nor β_{cen}^g can be identified. It is only possible to identify how the demand of group g differs from that of the reference group and how the weight party p gives to a certain group differs from the weight given by the centre parties.

Finally, it is worth pointing out that the identification property of the model is not conditioned on the centralised system of financing in the Norwegian institutional context. In a situation in which the choice between private consumption and local public spending is taken at the local level, the model must be modified as follows: (i) the utility functions must include private consumption, (ii) the budget constraint must cover both private consumption and local public services, (iii) total local government spending must be replaced by the sum of local government spending and private consumption, and, (iv) the expenditure shares must be redefined according to the new spending measure. These modifications produce only one difference: One extra service (private consumption) is introduced. The identifying condition [12] can then be applied directly.

[3] It is important to notice that of the $G+P-2$ adding up restrictions that follow from *SOC*, *CON* and S^g only $G-1$ are independent. These restrictions are needed for identifying the $G-1$ taste parameters that are introduced by the equation that is left out from the estimation.

4. - *Data and hypotheses*

The model is estimated using a combined cross-section and time-series data set covering 442 (out of 448) Norwegian local governments for the years 1984-90. The reduced form of the model is a system of equations in which the error terms are correlated across the equations because of the budget constraint. Moreover, the structural model imposes parameter restrictions across the equations. Consequently, the model should be estimated as a system instead of equation by equation to obtain efficient estimates. Since the parameter restrictions are non-linear, the Full Information Maximum Likelihood (FIML) method is applied. One of the equations must be left out of the estimation in order to avoid singular covariance matrix. The coefficients of the equation that is left out can be derived from the budget restriction and from the coefficients of the other equations. In the empirical analysis, cultural services are treated as the residual. However, when FIML is applied, the results are the same whatever equation is left out.

The model implemented is based on equation [8]. However, two modifications are made. First, each equation's constant term is allowed to shift from year to year to represent factors not included such as shifts in the functional responsibility between different levels of government. Second, two socio-demographic variables are included to capture structural differences among communities. These are the population size (*POP*) and the population density (*DE*) measured as the average travelling distance (in minutes) to the centre of the municipality. These variables have proved to be important in other Norwegian studies of local government spending. Furthermore, the model failed to converge when they were excluded.

The main advantage of the present model is its ability to identify differences in demand among population groups. Hypotheses about these differences are as follows. First we expect the population groups to have a high demand for services provided by their 'own' sector. This means that parents with children eligible for kindergarten have a high demand for kindergartens ($\alpha_4^1 > \alpha_4^4$), that parents with children in school have a high demand for primary education ($\alpha_2^2 > \alpha_2^4$), and, finally, that elderly voters have a high demand for health care services for the elderly ($\alpha_3^3 > \alpha_3^4$)[4]. Second, because of the exogenous budget constraint, a group that has a high demand for services in one sector must have a low demand for services in at least one other sector. It seems reasonable that cutbacks in sectors that provide services directed towards other subgroups of the population hurt the least. Consequently, we

[4] The sectors are numbered in the same way as in Table 1.

expect that elderly voters have a low demand for education ($\alpha_2^3 < \alpha_2^4$) and kindergartens ($\alpha_4^3 < \alpha_4^4$), and that parents have a low demand for health care services for the elderly ($\alpha_3^1 < \alpha_3^4$ and $\alpha_3^2 < \alpha_3^4$).

Old people have grandchildren and parents have parents. Consequently, it is important to notice that the hypotheses developed above do not rule out two-sided altruism. The hypotheses do not imply that elderly want no spending at all on primary education and kindergartens, or that parents with children in school or kindergartens prefer zero spending on health care services for the elderly. The hypotheses only assume that two-sided altruism is not strong enough to neutralise the differences in intergenerational spending preferences.

The model allows the political parties to give different weights to different population groups. However, because of the centralised system of financing, precise hypotheses are difficult to develop. The traditional claim that socialists prefer a larger public sector than non-socialists gives no guidelines when total spending is decided at the national level. We follow Sørensen [1995] who proposes that socialist parties are the defenders of the welfare state, while conservative parties emphasize economic growth. The welfare state emphasises standardisation and equal access to services. During the period under study, there has been excess demand for health care services for the elderly and for kindergartens. Consequently, we expect that the socialist parties have given these sectors high priority in order to equalise access to these publicly provided private goods. Within our structural model this implies that socialist parties give a higher weight than the centre parties to parents with children eligible for kindergarten ($\beta_{soc}^1 > \beta_{cen}^1$) and to elderly voters ($\beta_{soc}^3 > \beta_{cen}^3$). Moreover, we expect that conservative parties defend the educational sector in order to promote long-term economic growth. As a consequence, we expect conservatives to give great weight to parents with children in school ($\beta_{con}^2 > \beta_{cen}^2$).

As discussed in section 3, we expect that the weight the parties give to a certain group increases with the group's numerical strength. The proxy nature of S^1 and S^2 will in principle create a scaling problem. How many voters do each children aged 0-7 and 7-15 represent, *i.e.* what is the parent-child ratio? By the end of 1990 families with children aged 0-17 had a parent-child ratio of 1.01. Moreover, children aged 0-15 made up 88% of children aged 0-17, implying that 1.15 represents an upper limit of the parent-child ratio[5]. Consequently, the proxy nature of S^1 and S^2 is not likely to create any serious scaling problem.

[5] The source of these figures is NOS, *Population Statistics*, 1991.

5. - *Estimation results*

The model explains a substantial part of the variation in local government spending pattern. R^2_{adj} varies from 0.25 in health care to 0.50 in central administration. The estimates of the structural coefficients are reported in Tables 2 and 3[6]. Table 2 shows the estimated differences in desired expenditure shares among the voter groups. It is clear that spending preferences differ significantly. Two-sided altruism may well play a role but, according to the estimates, it does not neutralise differences in intergenerational spending differences.

Table 2: *Estimated difference in desired expenditure shares compared to the reference group-FIML estimates (asymptotic t-value in parentheses)*

	Admin.	Education	Health	Kindergt.	Culture	Infrastr.
Parents – kindergartens	-0.044	-0.338	-0.048	0.010	0.071	0.349
$(\alpha_i^1 - \alpha_i^4)$	(-1.43)	(-4.39)	(-1.50)	(0.34)	(2.80)	(5.42)
Parents – education	-0.034	0.284	-0.004	-0.083	-0.054	-0.108
$(\alpha_i^2 - \alpha_i^4)$	(-7.29)	(18.03)	(-0.74)	(-13.96)	(-13.50)	(-14.58)
Elderly	0.013	-0.027	0.285	-0.267	-0.057	0.054
$(\alpha_i^3 - \alpha_i^4)$	(0.80)	(-0.70)	(9.91)	(-12.60)	(-4.02)	(1.92)

It appears that the three population groups have a high demand for services from their 'own' sector, and the effect is statistically significant for parents with children in school and elderly voters. Parents with children in school want to increase the school budget by 28.4 percentage points compared to the reference group, whereas elderly voters want to expand health care services by 28.8 percentage points. Moreover, the elderly have a low demand for primary education and kindergartens, and parents have a low demand for health care services for the elderly. The cross-effects are generally imprecisely estimated. The only significant result is that elderly have a low demand for kindergartens.

We find it rather surprising that parents with children eligible for kindergarten want to reduce spending on education, and that parents with children in school want to cut back on kindergartens. First, the considerable overlapping between the two groups should lead to the opposite effect. Second,

[6] The coefficients of the year dummies and the structural characteristics are not reported, but are available from the author upon request.

children eligible for kindergarten will in a few years become pupils. Given the inertia of the adjustment process documented by Borge - Rattsø [1993, 1995] and Borge *et al.* [1995], current reductions in educational spending are likely to hit both present and future pupils.

Table 2: *The determinants of political influence – FIML estimates (asymptotic t-value in parentheses)*

	Parents - kindergt.	Parents – education	Elderly
$\beta^g_{soc} - \beta^g_{cen}$	0.050	-0.148	-0.027
	(2.60)	(-3.29)	(-2.04)
$\beta^g_{con} - \beta^g_{cen}$	0.084	-0.236	-0.080
	(2.69)	(-3.29)	(-3.49)
γ^g	1.483	7.767	1.035
	(9.19)	(32.85)	(21.47)

When there is conflict of interests among population groups, the determinants of political influence are important for the outcome of the local decision-making process. These results are reported in Table 3, and it is evident that the parties give different weight to the voter groups. It appears that the hypotheses developed in the previous section receive little support. The estimates suggest that, compared to the centre parties, conservatives and socialists give great weight to parents with children eligible for kindergarten and low weight to parents with children in school and to elderly voters. The small difference between socialists and conservatives is a striking result. At the national level socialists and conservatives stand out as major opponents [STRØM - LEIPART, 1993], while our results indicate that they constitute a 'grand coalition' at the local level. The explanation may well be that socialists and conservatives, first and foremost, disagree about the size of the public sector, an issue which is not on the local agenda.

The result that the party composition of the local council is an important determinant seems contrary to the conclusion in the Dutch studies of Renaud [1989, ch. 8-9], and Renaud – van Winden [1990, 1991]. They conclude that party composition has no systematic impact on local government spending patterns, *i.e.* that the reduced form coefficients λ_{ip} are insignificant. However, the insignificance of the reduced form coefficients does not necessarily mean that party composition has no impact on relative political influence. Suppose that $\lambda_{ip} = 0$, *i.e.* a change in the share of representatives from party p has no impact on the expenditure share in sector i. This is consistent with a situation in which party p gives more weight

than the centre parties to a group which has a high demand for services provided by sector i, and at the same time more weight than the centre parties to a group that has a low demand for services provided by sector i. The appropriate test must be carried out directly on the structural coefficients.

Numerical strength seems to be an important determinant of relative political influence. For all three groups the estimate of γ^g is positive and statistically significant, indicating that the political parties give more weight to large groups than to small groups. The impact of numerical strength is strongest for parents with children in school, a result that holds even if we take the potential scaling problem into account. Our findings are in line with Renaud [1989, ch. 8-9] and Renaud - van Winden [1990, 1991] who also find population shares to be important to the outcome of the local decision-making process.

6. – *Concluding remarks*

The interest function approach, initiated by van Winden [1983], is used to investigate how demand for local public services differs among population groups and how their political influence is shaped by numerical strength and the party composition of the local council. The paper's main contribution is to show that taste and influence parameters can be identified in the case in which political influence depends on the party composition of the local council as well as the numerical strength of the groups. Moreover, the model is applied to Norwegian local governments and is estimated in a situation where the condition for identification is met.

The estimation results are quite supportive of the underlying structural model. We find that both the elderly and parents with children in school have a high demand for services provided by their 'own' sectors. Moreover, the elderly have a low demand for primary education and kindergartens. The weight given to the groups varies across political parties, but quite surprisingly, there seems to be little difference between socialist parties and conservative parties. The reason may well be that the main disagreement between these two groups of parties relates to the proper size of the public sector, an issue which is not on the local agenda. Finally, the results support the hypothesis that the weight the political parties attach to a particular group increases with the size of the group. This effect is particularly strong for parents with children in school.

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