

LOCAL GOVERNMENT REORGANIZATION AND PUBLIC SERVICE PERFORMANCE: DOES THE PROCESS AFFECT THE PRODUCT?

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Abstract

Organization theory suggests that structural change has disruptive effects on managerial behaviour and organizational outcomes, and that these effects are likely to emerge in the period between the announcement and the commencement of the new structure. We evaluate the validity of this argument by analysing the performance of English county councils in the transition period preceding the voluntary restructuring of a set of these organizations. Disruptive effects are tested while controlling for a range of other variables, including the relative prosperity of the local population and the diversity of their service needs. The empirical results indicate that the performance of local authorities facing reorganization deteriorated prior to the onset of the new structures, and support the view that structural change has disruptive effects on organizational outcomes.

INTRODUCTION

Structural change in the public sector has a long history as a response to both perceived weaknesses in service provision and a desire to reap gains in efficiency (March and Olson, 1983). Although the putative benefits of such large-scale reforms are often touted by policy-makers and governments, very little is actually known about whether new structures ever realize these benefits and whether these outweigh any costs associated with reorganization (Pollitt, 2009). Theories of structural change suggest that any positive adaptive effects which accompany reorganization may take a considerable time to emerge in the face of disruption to existing management routines and practices (Hannan and Freeman, 1984; Zajac and Kratz, 1993). Short to medium term disruptive effects associated with change arguably include poor staff morale, loss of managerial expertise due to increased turnover, cost overruns, distraction from the core purpose of service provision, work overload, and service user disorientation and disaffection. In some cases, these effects may even be compounded by ‘serial restructuring’ (Pollitt 2007) – the negative consequences of earlier or concurrent structural changes which have yet to be fully worked through. Critically, such disruptive effects are likely to materialize as the change process begins to take shape some time prior to the formal establishment of new organizational arrangements.

The aim of this paper is to examine whether and to what extent the imminence of new structures disrupted the performance of a set of English local authorities prior to their eventual reorganization in 2009. In particular, we investigate the effects of the change process on their spending and service achievements. The 2006 Local Government White Paper for England (CLG 2006a), signalled the intention to invite councils in shire county areas to submit proposals for structural reorganization in a bid to ‘enhance strategic leadership, neighbourhood empowerment, value for money and equity in public services’ (ibid., p20). It set out a range of criteria against which unitary proposals were to be evaluated.

Following a process of selection, the Government approved the restructuring of seven of the existing thirty-four county councils. We seek to evaluate whether this change process led to the emergence of disruptive effects in the councils subject to reorganization, by comparing their performance with that of the remaining 27 county councils.

Does the relative level of expenditure rise as organizations seek to prepare for substantial structural change? Do service performance and value for money decline? We address these questions through statistical analyses of the relationship between the preparation for restructuring and performance, while holding constant the effects of other relevant variables such as deprivation and diversity of service needs. First, we review prior research on organizational change and performance, which suggests that new structures are likely to create disruptive effects. Second, we outline our statistical models and the measures of spending and performance used for the analysis. We then present our findings, discuss the statistically significant effects that emerge, and draw theoretical and policy conclusions from the tests that we have conducted.

STRUCTURAL CHANGE AND PUBLIC SERVICE PERFORMANCE

The theory that structural change is likely to be disruptive, rather than adaptive, stems from the literature on population ecology. Hannan and Freeman (1984) argue that a stable structure is highly valued by organizational stakeholders because they believe it provides reliability and accountability, features which may be especially important for public agencies. Structural change is likely to damage performance for two reasons: first, because managerial and production processes are destabilised, and secondly because relationships with other organizations are disturbed. Hannan and Freeman (1984, 149) argue that “exchange relations with other organizations constitute an investment that is not written off lightly...attempting radical structural change often threatens legitimacy; the loss of institutional support may be

devastating”. Again, this is likely to be an important consideration in the reorganization of contemporary local governments that are involved in partnerships with a variety of other organizations in the public, voluntary and private sectors. Structural change may introduce uncertainty not only within local authorities, but also in the networks in which they are embedded, and thereby lead to disruptive effects on performance.

Hannan and Freeman (1984) distinguish between changes in ‘peripheral’ and ‘core’ organizational characteristics, and argue that the former are less likely to be disruptive than the latter. The core of an organization comprises its identity, ownership, mission and strategy. As Lee and Alexander (199, 927) argue, “during core changes work groups are restructured, routines are revised, lines of communication are reshaped, and the mix of resources used by the organization is changed”. Peripheral characteristics are remote from the identity of the organization, and include structures that buffer it from environmental pressures or bridge it to other organizations. The structural change that we investigate in this paper, the consolidation and dissolution of local government units, is clearly a core change for the relevant organizations. Their identity and service mission is altered as they acquire new powers and service responsibilities. Indeed, local government restructuring goes beyond the notion of a core change, because it involves the formal disappearance of some units as separate legal entities, and their merger with, or takeover by, other units. Thus there is good reason to suppose that this constitutes a change in identity and mission, and is, following Hannan and Freeman’s (1984) theory of structural inertia, especially likely to be disruptive.

Although the adaptive and disruptive effects of structural change have been analysed extensively (especially in the private sector), the existing evidence is limited in several ways. First, studies of organizational change typically examine the net outcome of adaptation and disruption, and have not quantified the separate magnitudes of these counteracting forces (e.g., Amburgey et al., 1993; Haveman, 1992; Singh et al., 1986; Stoebrl et al., 1998). Thus

no benchmarks are available, from theory or from prior evidence, for predicting the size of the adaptive and disruptive effects that follow the replacement of one structure by another. Secondly, we have been unable to locate any systematic empirical studies of the disruptive effects of *preparing for* reorganization. Existing studies examine the disruptive effects of change after a new structure is set up, rather than in the period before the new structure is introduced (or ‘vesting day’, in the parlance of local government reorganization in England, which is the point where the new authority assumes the legal powers of its predecessors).

Thus our study of local government reorganization adds to the prior literature on structural change in two ways: we separate the counteracting consequences of adaptation and disruption by focussing on disruptive effects alone (on the assumption that adaptive effects cannot occur before the new organizations begin their work), and we provide the first evidence on the performance consequences of preparing to be reorganised. In sum, our analysis provides the first evidence on the ‘pure’ disruptive effects that may occur in the run-up to structural change.

In addition to the literature on structural change in general, there is a large body of research on the relative merits of different local government structures in particular (e.g. Ostrom, 1972; Dearlove, 1979; Dente and Kjellberg, 1988). To date, research on local government reorganization has almost exclusively concentrated on the issue of scale effects (Boyne, 1995, Newton, 1982), and the political and administrative processes of reorganization (Chisholm, 2002; Leach and Stoker, 1997). The disruptive effects of previous reorganizations for the politics and management of local authorities have been extensively documented in these literatures, and are believed to include: goal displacement as both councillors and officers are distracted from running the existing organization and instead spend their time steering the change process and jockeying for position in the new structure; excessive leadership turnover as some senior staff take early retirement and others, unsure of their

future position in the new organization, seek employment elsewhere, thereby producing a loss of organizational memory and management expertise; reductions in staff morale as a result of uncertainty about roles and responsibilities; ‘planning blight’ as strategic decisions are put on hold until the new organizations are established; and a waste of resources as councils that are about to be abolished seek to ‘lock in’ expenditures that benefit their current constituents. These arguments suggest that, in the transition period, expenditure will rise and service performance will fall.

Although there is an abundance of anecdotal evidence that local government reorganization has these disruptive effects, they have not been tested systematically. This reflects a wider absence of evidence on the effects of structural change in the public sector. Indeed, as Pollitt (2009, 289) argues, “the really hard scientific evidence is just not there. Our beliefs about the efficacy of structural reforms are more a matter of religious belief or gut feeling or rhetorical flourish”. Studies of local government structure have usually compared consolidated and fragmented structures at a point in time, and have not examined the *change* from one structure to another. Moreover, empirical analyses of different structures have largely focussed on the consequences for expenditure and taxation, and have not encompassed the effects on public service provision and value for money (Boyne, 1992). This neglect of the *performance* consequences of new structures is largely explained by the absence, until recently, of data that allow the link between reorganization and service outputs and outcomes to be tracked and tested. Thus little is yet known about the impact of alternative structures on service performance; still less about the effects of the transition period between the initiation of restructuring and the actual establishment of new organizations.

EMPIRICAL CONTEXT, DATA AND METHODS

Prior to the most recent restructuring, four historical moments led to the foundation of distinct groups of English local governments with territorially defined responsibilities for delivering public services (Boyne and Cole, 1996, 1998). In 1888, county councils responsible for administering a range of public functions were first created across England and Wales, with further reforms sub-dividing these areas into lower-tier district councils during the 1890s. Beyond the shire county areas, 69 urban county boroughs were responsible for all local authority services. In 1965, the London county council area was replaced by a new Greater London Council area that contained 32 separate London borough councils. In 1974, almost 1400 local government units in England were consolidated into 410 units. The county boroughs were abolished and absorbed into a two-tier structure of 39 counties and 296 districts, and 36 metropolitan district councils were created to serve six large urban areas outside London. Then, in the 1990s, the two-tier system in some shires was replaced by 46 new unitary authorities, based on the boundaries of several large towns and smaller cities. Thus, since the mid-nineteenth century, the pendulum of local government structure in England has swung to the creation of unitary county boroughs responsible for all local services in 1888, their replacement by a two-tier structure in 1974, and their re-creation during the last decade.

The most recent round of reorganization began with the publication of the Local Government White Paper of October 2006, which announced plans for restructuring the remaining 34 two-tier areas in England on the basis of a nine month public debate. Alongside this announcement, UK central government invited two-tier areas to submit proposals to form unitary authorities (Communities and Local Government, 2006b). 26 proposals for unitary status were submitted from local authorities across England, of which 16 met the initial specified criteria and were put to a full, public consultation between March and June 2007.

Following this consultation and further assessment by officials and independent financial consultants, the Secretary of State for Communities and Local Government announced in December 2007 that proposals from five two-tier areas for consolidation were to proceed, along with a two-unitary option for one other area. Another proposal for a two-unitary option was subsequently approved in March 2008 and on 1 April 2009 nine new unitary councils were established. In five areas (Cornwall, Durham, Northumberland, Shropshire and Wiltshire) the districts were consolidated and merged with the county which became the new unitary authority. In two areas (Bedfordshire and Cheshire) the county was split in two, and each of the new unitaries absorbed its constituent districts.

To analyse the potentially disruptive effects of this restructuring process we first examine the performance of the population of 34 county councils in 2005, the year prior to the consultation period that presaged publication of the White Paper. This allows us to check whether performance differed between the counties that were subsequently reorganized and the other counties, in the baseline year before structural change was formally on the policy agenda. Next, we pool the data on the performance of these organizations between 2006 and 2008, the year immediately preceding the formal inauguration of the new authorities. We assess whether the process of restructuring prior to the formal establishment of new organizations resulted in statistically significant disruptive effects to the performance of those counties that submitted successful proposals for reorganization. To do so, we compare the expenditure and performance of these organizations with the remaining two-tier areas that were not subsequently reorganized. We now identify relevant measures that capture the performance of the organizations as a whole, and other explanatory variables that may influence expenditure and performance, such as socio-economic deprivation and demographic diversity.

Dependent Variables

Expenditure Theories of structural change suggest that the financial resources expended on services are especially susceptible to disruptive effects because extra costs are associated with preparing for the new structure while continuing to run the old. Any additional financial costs associated with managing the change process are likely to be apparent in the subsequent revenue outturn figures. Our first dependent variable is therefore total local authority expenditure per capita.

Service performance In England, central government performance classifications are important (though contestable) means for assessing the achievements of local governments. Central government provides the majority of their funding and monitors administrative accountability on behalf of citizens. A local government function classified as ‘poor’ may be externalized, new management imposed or stricter regulation introduced. By contrast, those regarded as ‘excellent’ may benefit from ‘lighter-touch’ inspections and freedom from some central controls (Downe & Martin 2007). Although such classifications are arguably susceptible to political bias (Bache, 2003), the subjective element within them is typically small because they rely on audited performance indicators, minimizing the potential for external interference in the inspection process. Moreover, they are the measures that matter to local governments themselves (see Laffin 2008), and influence the tenure of both senior managers (Boyne et al., 2010a) and councillors (Boyne et al., 2010b).

Upper tier local governments were subject to Comprehensive Performance Assessments (CPA) undertaken by the Audit Commission, which categorise them principally on the basis of their achievements on statutory performance indicators. We take the core service performance element of CPA in 2005, 2006, 2007 and 2008 as a measure of service performance for our analysis. Based on their achievements on performance indicators and

inspection results, four key county council services (children and young people, adult social care, environment, libraries and leisure) were graded 1 (lowest) to 4 (highest) (Audit Commission 2002). Each service score was then weighted by the Audit Commission to reflect its relative importance and the budget of the service (children and young people and adult social care = 4; environment = 2; libraries and leisure and management of resources = 1). These weighted scores are then summed to provide an overall service performance judgement, ranging from 12 to 48.

Value for Money To measure this dimension of performance we standardized the service performance measure by taking z-scores and divided these figures by standardized service expenditure figures. Five was added to both standardized measures prior to division to ensure that two positive scores were used to create a “value for money” (VFM) ratio. The standardized measures give equal weight to the cost and service performance components of this ratio, which indicates the financial cost of producing a unit of service performance (Ostroff and Schmitt 1993), and is therefore a very useful proxy for the overall VFM of local service provision.

Independent variables

New unitary The primary question to be addressed by the analysis is whether the performance of authorities that were granted new unitary status changed, and to what extent it differed from that of other two-tier areas in the period prior to reorganization. To assess this we create a dichotomous variable, coding the county councils that became new unitary authorities 1 and all other county councils 0.

Control variables

External context In order to accurately estimate the influence of structural change on levels of performance it is necessary to control for the influence of other relevant variables. In particular, a favourable external context is likely to facilitate achievement of better performance for comparatively lower cost, while a tough context will make it harder to achieve (Andrews et al, 2005). Seven measures were selected to control for the impact of the operating environment on local service performance.

We measure three dimensions of demographic diversity: ethnicity, age and social class. The proportions of the various sub-groups within each of these categories identified in the 2001 national census within a local authority were squared and then the sum of the squares of these proportions was subtracted from 10,000. The measures give a proxy for ‘fractionalization’ within a local authority area, with a high level of diversity or mix reflected in a high score on the index (Trawick and Howsen 2006).

The prosperity of local residents was measured using two proxies for the capacity of local citizens to co-produce services. First, the average ward score on the index of multiple deprivation in 2004 in each local authority; pressures of time and money in more deprived areas are likely to impede positive contributions to service provision (Williams 2003). Second, net population growth in 2001. New residents in areas of population growth are likely to be economically skilled and socially enterprising (Armstrong and Taylor, 2000).

Economies of scale may arise from spreading fixed costs over more units of output (see Boyne 1996). Our analysis controls for organizational size by using figures for each local government area drawn from the UK national census in 2001. These population figures were then divided by the area of each local authority in square kilometres to give a measure of density – councils operating in densely populated areas might reap economies of scope (Grosskopf and Yaisawamg 1990).

Past expenditure/performance Public organizations alter only incrementally through time (O'Toole & Meier 1999). This indicates that performance in one period is strongly influenced by performance in the past. To ensure that the coefficients for performance are not biased, we enter expenditure, core service performance and value for money in the previous year in our analysis of disruptive effects. The inclusion of autoregressive terms in our models means that the coefficients for the independent variables show how they have affected changes in performance that have occurred since the baseline year. The descriptive statistics and data sources for all our variables are listed in Table 1. Skewness tests revealed that all of the independent variables were distributed normally.

[Position of TABLE 1]

We use seemingly unrelated regression (SUR) to control for the possibility that the error terms are correlated across separate regression models for different dimensions of performance. In the context of our analysis, the error terms from three separate equations (for expenditure, service performance and value for money) are likely to be correlated for a variety of reasons, such as unmeasured explanatory variables or data imperfections. Moreover, the VFM measure contains the other two dependent variables. Thus, as Martin and Smith (2005, p.605) argue, “there is obvious prima facie relevance of methods to estimate systems of equations with correlated disturbance terms when analysing organizations that produce multiple outputs”. We therefore checked the correlations between the residuals from the separate equations for the 2006-08 period and found the following: a very high positive correlation between the models of service performance and value for

money (.92), a small positive correlation between service performance and expenditure (.11), and a negative correlation between value for money and expenditure (-.22).

In such circumstances, Ordinary Least Squares (OLS) is inefficient as separate estimations are unable to utilize relevant information present in the cross-regression error correlations (Zellner 1962). SUR remedies this by determining the parameters for all relevant equations in a single iterative procedure (Greene 2000). It transforms the standard errors so that they all have the same variance and are no longer correlated, before applying this transformation to all the variables in each equation with a form of Cochrane-Orchutt correction and then applying Generalized Least Squares (GLS) to these transformed variables. At the same time, Cochrane-Orchutt estimation also corrects for serial correlation in the standard errors, thereby reducing the potential for residual autocorrelation to bias the regression estimates (Cochrane and Orchutt 1949). Seemingly unrelated regressions therefore give us coefficients for the independent variables in each separate equation that are purged of any association with the tendency of an organization that does well on one dimension of performance to do well on another. They also offer a correction for the residual autocorrelation that can bias estimates in regression models that incorporate lagged dependent variables (Keele and Kelly 2006). We have, in effect, a “pure” model of each local authority’s achievements on expenditure, service performance, and value for money.

STATISTICAL RESULTS

We present the results of our SUR regressions in the following sequence. Similar results to those presented in Tables 2 and 3 were derived when using separate OLS and GLS regression estimates with random effects. Three models are presented in table 2: model 1 regresses the new unitary measure and the external constraint variables on to service expenditure in 2005, model 2 regresses the same variables on to our service performance measure, and model 3 on

to the value for money measure. Table 3 presents the results of our empirical exploration of the effects of the structural change process, repeating the same pattern as for Table 2, pooling the data for the time period 2006 to 2008, adding the past expenditure/performance variable and dummy variables for the first two years of the pooled analysis to reduce the possibility of within panel autocorrelation. The average Variance Inflation Factor (VIF) score for the independent variables in models 1-3 is about 3.9, with no measure exceeding 10. These VIF scores suggest the results in table 2 are not likely to be distorted by multicollinearity (Bowerman and O'Connell 1990). Similar VIF scores were observed for the pooled SUR analysis.

The results in table 2 indicate that although some of the control variables have the expected signs, only a few are statistically significant. In particular, expenditure, service performance and value for money are all autoregressive, but some variables which have been shown to be significant predictors of local authority achievements in previous studies (such as local prosperity, Andrews et al, 2005) appear to be having little effect. It is likely that, on this occasion, the past expenditure and performance variables have captured much of the impact of these constraints, especially as we are dealing with a small sample of organizations.

[Position of TABLE 2]

We now turn to the results for the impact of structural change. The 'baseline' tests in Table 2 indicate that the performance of the reorganized authorities differed from that of other county councils in the period preceding the invitation to reorganize: the sign on the new unitary coefficient is insignificant in the expenditure model, but is positive and statistically significant for the service performance and value for money variables. Indeed, an f-test revealed that the dummy variable for new unitary makes a small but statistically significant

difference to the explanatory power of the SUR model (F ratio = 6.32, $p < .10$). These results suggest that the councils accorded new unitary status were performing better than their counterparts prior to the announcement that two-tier areas were to be given the opportunity to restructure. Thus the counties selected for reorganization are not simply a random sample of all 34 counties: when their size and socio-economic characteristics are taken into account, they emerge as a group as above-average performers, at least on the CSP and the associated measure of VFM. Thus it is especially important to control for baseline performance when estimating the consequences of imminent restructuring on performance change, in order to take account of the potentially distorting effects of ‘regression to the mean’ in the service standards and VFM achieved by this group of counties.

[Position of TABLE 3]

Table 3 presents the SUR model for the restructuring period. The coefficient for new unitary status is positive and statistically significant for the expenditure model. The counties scheduled for reorganization, which had a level of expenditure insignificantly different from their peers before the reorganization process began, subsequently raised their spending by about £13 per capita more than other counties during the years 2006 to 2008. Although this is only 1% of the average county spend per capita, it translates into an estimated total ‘cost of preparing for reorganization’ of £40m across the counties subject to reorganization (with a combined population of 3.1 million inhabitants). On the basis of the standard error on the new unitary coefficient, with a 95% confidence interval, the cost of the preparation phase is estimated to range from £17m to £64m.

The results in table 3 suggest not only that reorganization was associated with higher expenditure during this period, but also that it led to lower service performance and poorer

VFM. The coefficient for the new unitary variable in the service performance model suggests that preparing for reorganization cost this group of authorities around 2 points on their CSP score, which is a drop of around 5% on the average CSP of 34 achieved by the counties prior to the start of the reorganization process. Correspondingly, the coefficient for the effect of new unitary on VFM is significantly negative, which simply reflects that expenditure went up while service performance went down. An F-test showed that inclusion of the new unitary measure made a statistically significant difference to the explanatory power of the SUR model (F ratio = 9.82, $p < .05$).

Thus, the process of restructuring local government appears to be affecting the product. Our evidence provides the first estimates of the direction and magnitude of the effects of preparing for structural change. We find no evidence that the performance of authorities is invigorated by the prospect of change, or that net adaptive effects begin prior to the formal establishment of the new organizational structures. Rather, the process of preparing to reorganize seems to have disruptive effects on expenditure, service performance and value for money in local service provision. Our findings provide a benchmark for the performance gain that will be required by the new unitaries to wipe out the disruptive effects of preparing for structural change, let alone to deliver net benefits from the introduction of the reformed structures.

CONCLUSION

The idea that structural change will lead to worse performance in the period preceding the actual inauguration of new organizations is an important one, but has not hitherto been tested empirically. In this paper we have provided the first systematic analysis of the extent of the disruptive effects that occur in the period prior to local government reorganization. The focus on the transition process has allowed us to separate disruptive from adaptive effects, because

the latter seem very unlikely to occur before the new organizational structures exist. In addition, whereas previous empirical studies of local government structure have been largely cross-sectional and have examined only fiscal variables, we have broadened the analysis to include changes over time in spending, service performance and value for money.

Our findings suggest that the short-term consequences of restructuring are negative; in this case, leading to a sharp deterioration in the performance of a group of restructuring organizations. This supports theoretical arguments about the disruptive effects of organizational change in general and structural change in particular, and highlights the importance of taking into account the whole process of restructuring, not simply the 'post-reorganization' effects. Our evidence suggests that structural change incurs short-run costs, not only in extra expenditure but also in lower performance. Whether the medium-term or long-run gains are sufficient to compensate for the losses associated with this specific reorganization remain to be tested in the years ahead.

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TABLE 1 *Descriptive statistics*

	Mean	Min	Max	S.D.
Expenditure per capita	1104.76	951.23	1324.69	73.37
Service performance	34.00	24.00	40.00	4.35
Value for money	1.04	.42	1.96	.31
New unitary	.15	.00	1.00	.36
<i>External constraints</i>				
Age diversity 2001	8724.51	8686.67	8777.05	26.77
Social class diversity 2001	8773.38	8683.65	8855.91	39.61
Ethnic diversity 2001	1053.46	377.25	2294.98	549.44
Indices of Multiple Deprivation	15.51	7.56	28.47	4.58
Population growth 2001	.83	.26	1.85	.39
Population 2001	675574.79	283173	1329718	275262.06
Population density 2001	256.58	61.68	642.81	140.66
<i>Data sources</i>				
Service expenditure	CIPFA (2007) <i>CIPFA Finance and General Statistics</i> . CIPFA: London.			
Service performance	Audit Commission (2004) <i>Comprehensive Performance Assessment</i> . London: Audit Commission.			
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	Audit Commission (2008) <i>Comprehensive Performance Assessment</i> . London: Audit Commission.			
Age diversity, ethnic diversity, population growth, population, population density, social class diversity	Office for National Statistics (2003) <i>Census 2001, National Report for England and Wales</i> . London: ONS. Age diversity comprised 12 groups: 0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-44, 45-59, 60-64, 65-74, 75-84, 85+. Ethnic diversity comprised 16 groups: White British, Irish, Other White, White and Black Caribbean, White and Black African, White and Asian, Other Mixed, Indian, Pakistani, Bangladeshi, Other Asian, Caribbean, African, Other Black, Chinese, Other Ethnic Group. Social class diversity comprised 12 Socio-Economic Classifications: Large Employers and Higher Managerial Occupations, Higher Professional Occupations, Lower Managerial and Professional Occupations, Intermediate Occupations, Small Employers and Own Account Workers, Lower Supervisory and Technical Occupations, Semi-Routine Occupations, Routine Occupations, Never Worked, Long-Term Unemployed, Full-time Students, Non-Classifiable.			
Deprivation	Office of the Deputy Prime Minister (2004) <i>The English indices of deprivation 2004</i> . London: ODPM.			

TABLE 2 *County council performance 2005*

Variable	Expenditure		Service performance		Value for Money	
	β	z-score	β	z-score	β	z-score
New unitary	18.034	.68	5.039	2.35*	22.388	2.13*
Age diversity	-.081	-.17	.010	.26	-.139	-.74
Ethnic diversity	.127	4.29**	-.006	-1.87+	-.027	-1.78+
Social class diversity	-.644	-2.51*	.038	1.57	.119	1.01
Deprivation	11.023	4.33**	-.294	-1.08	-1.915	-1.45
Population growth	-96.673	-2.94**	.378	.13	-1.055	-.07
Population	.0001	1.37	.0000004	.09	.00002	1.01
Population density	-.353	-2.59**	.021	1.75+	.063	1.05
Constant	7276.125	1.37	-383.549	-.82	561.403	.25
Chi ² statistic	58.32**		15.74+		65.13**	
R-squared	.63		.31		.67	

Notes: number of observations = 34. + $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$ (two-tailed tests).

TABLE 3 *County council performance 2006-08*

Variable	Expenditure		Service performance		Value for Money	
	β	z-score	β	z-score	B	z-score
New unitary	13.051	1.71+	-2.010	-2.24*	-13.022	-2.37*
Age diversity	-.060	-.44	.038	2.33*	.213	2.14*
Ethnic diversity	.016	1.71+	-.001	-.71	-.007	-1.06
Social class diversity	-.129	-1.67+	.012	1.37	.094	1.68+
Deprivation	1.448	1.84+	-.195	-2.30*	-1.333	-2.46*
Population growth	-14.886	-1.49	-2.782	-2.53*	-11.091	-1.64+
Population	.000003	.21	-.000002	-1.41	-.00001	-1.35
Population density	-.026	-.65	-.001	-.27	-.001	-.04
Past expenditure/ performance	.845	22.14**	.723	18.89**	.846	21.54**
2006	-17.206	-2.52*	.968	1.52	10.929	2.77**
2007	3.573	.61	-.041	-.06	-.691	-.18
Constant	1871.331	1.19	-421.081	-2.24*	-2618.991	-2.28*
Chi ² statistic	1603.01**		421.84**		678.50**	
R-squared	.94		.50		.75	

Notes: number of observations = 102. + $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$ (two-tailed tests).