# Concerns among local government facility managers

Arnt Ove Hopland Sturla F. Kvamsdal

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by

Arnt Ove Hopland Sturla F. Kvamsdal

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Concerns among local government facility managers

Arnt Ove Hopland

Department of Business and Management Science, NHH Norwegian School of Economics

Helleveien 30, N-5045 Bergen, Norway

arnt.hopland@nhh.no

Sturla F. Kvamsdal

SNF – Centre for Applied Research at NHH

Helleveien 30, N-5045 Bergen, Norway

sturla.kvamsdal@snf.no

**Abstract** 

Purpose: To investigate which concerns are most important for local government facility managers

in Norway.

Design: We analyze a survey dataset covering about 2/3 of all Norwegian local governments, using

descriptive statistics techniques.

Findings: The facility managers are most worried about weak fiscal conditions and lack of political

priority of facility management. Almost all facility managers report concerns about these issues,

and the responses do not vary much across local governments with different characteristics. There

is also widespread concern, albeit less serious, about organizational structure and recuitment

problems. Local governments with a decentralized facility management are more concerned about

the organizational structure than those with a centralized structure, and low-population local

governments are more concerned about recruitment problems than those with a high population.

Finally, local governments that report that their public buildings are in good condition generally

have fewer and less serious concerns, in line with what one could expect.

Originality/value: The paper offers insights into which concerns that are most important among

local government facility managers.

Keywords: Facility management, local governments, public sector

1

#### 1 Introduction

Local governments own and operate a vast capital stock of facilities, and these facilities serve as important inputs in the production of public services. Proper facilities management in local governments is thus a central and important task for local governments. Many recent studies raise concerns that local public buildings are in decay (see, e.g., Borge and Hopland, 2016), suggesting that facility managers in many local governments face real and important challenges in their effort to maintain the facilities.

In this paper, we use comprehensive survey data for Norwegian local governments to investigate which concerns the facility managers think are the most important in their municipality. The survey was sent to all 428 municipalities in Norway, and response rate was about 2/3. Among the questions in the survey was one where the facility managers were asked to rate several potential concerns. We think our results have broad relevance for two reasons. First, given the high response rate, we are certain that the conclusions of the paper are representative for the full population of Norwegian local governments. Second, it is reasonable to assume that local governments in other countries face some of the same concerns as the Norwegian local governments.

On our survey, most facility managers agree that lack of resources and political inability or unwillingness to give sufficient priority to maintenance are challenges for maintenance work. Suboptimal organizational structure and problems with recruiting qualified personnel is a concern in far fewer local governments. Further investigations reveal that the concerns are overlapping. Almost all respondents report that either poor local government economy or low political priority is at least somewhat challenging, and as many as 76% report concerns over both. Furthermore, even though fewer local governments are concerned about sub-optimal organizational structure and recruitment issues, a sizable minority (29%) of the local governments actually reported concerns about all four issues we suggested.

We also study whether local governments with different characteristics are concerned to a different extent and if there is any heterogeneity in which issues local governments with different characteristics are most concerned about. Interestingly, the local government's responses do not seem to vary with maintenance spending, fiscal capacity, or demographics. Hence, it seems that

most local governments share the same concerns, even though they are very different in many measurable respects.

#### 2 Background

In 2003, a government commission was appointed to evaluate facility management in the local public sector. In its final report (NOU, 2004), the commission concluded that buildings in decay were a substantial problem in one third of the local governments, and that the level of maintenance was insufficient in another one third. Aggregate maintenance backlog was estimated to NOK 100 billion (USD 17.5 billion) or 50 percent of local government revenues.

Our study of concerns in public sector facility management relate to a vast literature on low levels of public investment. For example, the experiences for the OECD countries during the 1980s have received much attention, and are discussed by Oxley and Martin (1991), De Haan et al. (1996) and Sturm (1998, ch. 3), among others. During the 1980s, public investment as share of GDP declined in a majority of the OECD countries, while total public spending stopped growing as share of GDP. It became a popular claim that public investment is an easy target in periods of fiscal consolidation. Roubini and Sachs (1989a, p. 108-109) argue that "in periods of restrictive fiscal policies and fiscal consolidation capital expenditures are the first to be reduced (often drastically) given that they are the least rigid component of expenditures". In a sample of 22 OECD countries, De Haan et al. (1996) and Sturm (1998, ch. 3) find evidence in favor of the hypothesis that public investment is reduced as share of public spending during periods of fiscal stringency. They also find that frequent government changes lead to cuts in investment spending. On the other hand, Sanz (2011) provide evidence that productive spending (spending components assumed to promote longterm growth) is isolated from budgetary cuts in OECD countries. Finally, Akitoby et al. (2006) study public spending in 51 developing countries during 1970-2002 and their results support the hypothesis that investments are cut disproportionately more than other expenditures during economic downturns. It thus seems that results are fragmented and that further research is called for.

In the US, similar concerns were raised regarding a possible "infrastructure crisis" in state and local governments (see, e.g., Hulten and Peterson, 1984). Some argued that low levels of public

investments indicate myopic behavior (e.g., Inman, 1983), while others claimed that the decline in capital spending was consistent with rational responses to changing economic and demographic conditions (e.g., Holtz-Eakin and Rosen, 1989; 1993).<sup>1</sup>

While it takes time before the consequences of reduction in public investments become easily observable, new investments may have high visibility, as emphasized by Drazen and Eslava (2010). They document that local public investments in Columbia are significantly increased prior to elections, and the effect is strongest in local governments with severe political competition. Moreover, an increase in investments prior to elections pays off in terms of a higher vote share for the incumbent.

In light of this debate, it becomes clear that we need to know more about the everyday situation for facilities managers in the public sector. We contribute by studying how concerned local government facility managers are about their local government's fiscal situation, local government's ability to prioritize maintenance, the organizational structure of their facility management, and their ability to recruit qualified personnel. In addition, we study whether local governments with different characteristics differ in their concerns.

Earlier Norwegian studies point to a weak fiscal situation in many local governments and inability or unwillingness among local politicians to give maintenance sufficient priority as the main concerns among facility managers (Econ & Multiconsult, 2001; NOU, 2004). Borge and Hopland (2012, 2016) find that economic conditions are not the sole explanation for poor facility management in Norwegian local governments. Rather, they find that weak political leadership also is an important determinant for low levels of maintenance and poor building conditions. They move on to argue that poor facilities conditions to some extent are owing to myopic politicians who are unable to make long-run prioritizations, and thus favor other expenditures that are more visible to voters in the short-run.

4

<sup>&</sup>lt;sup>1</sup> A similar examination is carried out by Rattsø (1999) on Norwegian data. As Holtz-Eakin and Rosen (1989, 1993), he cannot reject that local public investments are determined by rational forward looking behavior.

Other studies look into the organizational framework, and suggest that differences in organizational structure and competence are vital factors for the successfulness of local government facility management. Haugen (2003) reviews the historical development of local government facility management. More and more local governments centralize their facility management, and more services are contracted out to external companies. The driving force behind this development is a wish for a more professional and competent facility management. Hopland (2014) looks more closely into the local governments' choice of structure for the facility management, i.e., centralized or decentralized. He argues that even though most local governments have chosen to centralize facility management, it is not given that "one size fits all", but that characteristics of the local government will decide which is best. Moreover, his empirical analysis shows that local governments actually seem to choose the structure of their facility management at least partly based on such characteristics.

Competence in the local government facilities management organization is critical, since it is non-trivial both to secure that maintenance expenditures are spent efficiently on an every-day basis and to optimize the life-span maintenance schedule of facilities (Hopland and Kvamsdal, 2016).

#### 3 The survey and data analysis

*The survey* 

The survey follows the same general set-up as the survey conducted by the commission appointed to evaluate the facility management in Norwegian local governments more than a decade ago. It thus includes a rich set of questions concerning building conditions, maintenance, and organizational structure, in addition to questions on which issues the facility managers are most concerned about.

The survey was open from end of May to early October 2016 and we received a total of 282 responses, i.e., 66% of the Norwegian local governments. The responding local governments are quite evenly spread, geographically and demographically, even though populous local governments are somewhat overrepresented.

We requested that an adequately informed bureaucrat should answer the survey. In a vast majority of the cases, the head of the facilities management unit answered the survey, while in a few cases it was the chief administrative officer (*rådmannen*) who was the respondent. Hence, we consider the information in the survey to be accurate and of the highest possible quality for large-scale surveys. The questions where the respondents were asked to which extent they agree that different issues in their local government give rise to concern on a 1-5 scale. The response '1' was defined as 'fully disagree, and '5' as 'fully agree'. Any further definition of the scale was not provided. For the most of our analysis, we interpret a response of '3' or higher to mean that the respondent at least does not disagree to a given statement and thus use '3' as a cut off. Our qualitative results do not change if we use '4' as cut off.

#### Local government fiscal situation

Figure 1A shows to which extent the facility managers are concerned about the fiscal situation in their local governments. More than half responded '5', i.e., fully agreed (see appendix for the exact statement for all panels in Figure 1). This is in line with the findings in Econ & Multiconsult (2001). Next, we look at how the responses vary with local government characteristics. To investigate this, we study the sub-sample of facility managers that are at least to some extent concerned about the fiscal situation in their local government, i.e., those that have reported at least 3 on this question.

#### [Figure 1 about here]

It is reasonable to assume that facility managers in local governments with weak economy are more concerned about their local governments' fiscal situation than those in high-revenue municipalities. In Figure 2, we thus split the respondents by their municipality's average free disposable income per capita and by their debt as percent of revenues over the period 2008-2015. We use the average over a longer period, since this gives a better overview of the local governments' fiscal situation than if we used the revenues in a single year.

Somewhat surprisingly, we see that the local governments are evenly distributed along the revenue distribution. Since splitting into quartiles mean constructing large categories, we have also looked

at more fine-grid classifications. Still we observe the same pattern, where a very similar number of local governments in each classification report concerns about the fiscal situation.

We split the respondents by debt quartiles to see if facility managers in highly indebted local governments are more concerned about the fiscal situation. As for revenues, we use the average debt over the period 2008-2015. Again, we observe that how concerned the facility manager is about tight fiscal conditions in his municipality does not vary with economic conditions.

#### [Figure 2 about here]

It is not obvious how the results for the fiscal situation should be interpreted. A pessimistic view can be that facility managers are unaware of the actual fiscal conditions in their municipality, but blame tight local government finances nevertheless. Another possibility is that the fiscal situation in the local governments is so tight that even those in the higher parts of the revenue distribution (and lower part of the debt distribution) are also fiscally restricted. A final hypothesis is that facilities seldom benefit from favorable economic conditions, but further untabulated analysis of the relationship between concerns over political priorities and economic conditions does not support this hypothesis (see also Borge and Hopland 2012, who find that maintenance typically suffer excessive cuts when total budgets are reduced).

We next split by the local governments spending per square meter of facilities, which is a good measure to check whether maintenance is sufficient. Also here, we see that the responses are evenly distributed independently of the local government characteristics. Even though Borge and Hopland (2012) document that a vast majority of local governments do indeed spend less than norm numbers as defined by, e.g., FOBE (2006), a sizable minority spends more than the norm numbers. However, even when we try to split the local governments into finer grids, we still do not see a pattern where the facility managers in high-spending local governments are less concerned. One may thus wonder if facility managers are concerned about tight fiscal conditions «by habit», regardless of the actual fiscal situation in their local government. In light of the aforementioned findings on budget cuts by Borge and Hopland (2012), such 'habitual' concerns are perhaps not surprising.

[Figure 3 about here]

Lack of political priority of maintenance

Figure 1B presents the responses to a statement saying that local government politicians are unable or unwilling to give maintenance sufficient priority. Even though fewer reported to fully agree ('5') to this statement than what was the case for tight fiscal conditions, almost as many report it to be of at least some concern (84% vs. 76%). The observation that this is a widespread worry is consistent with the findings by the government commission (NOU 2004).

Borge and Hopland (2012) note that while maintenance expenditure per square meter is the most appropriate measure of whether maintenance is sufficient, maintenance as share of total expenditures is the most appropriate when measuring a local government's ability to prioritize maintenance over other expenditures. Hence, in Figure 4 we divide those who report at least some concern about low priority of maintenance into quartiles for maintenance as share of total expenditures. We find that even though there are some indications that facility managers in local governments that spend a relatively large share of their expenditures on maintenance are less concerned, the concerns are quite evenly distributed. Again, we note that Borge and Hopland (2012) point out that while a large majority of municipalities give low priority to maintenance, a sizable minority gives it fairly high priority.

[Figure 4 about here]

We next split by local government revenues, also reported in Figure 4. Also in this case, we see that the responses are rather evenly distributed and seemingly disconnected from the revenues of the local governments. Hence, even though political prioritization is somewhat less of a concern than fiscal conditions, one might still speculate whether facility managers to some extent have also this concern «by habit».

Sub-optimal organizational structure

We now turn the attention to sub-optimal organizational structure, and present the responses in Figure 1C. We see that only a few local governments report very serious concerns, but that almost half of the respondents do not disagree that the organizational structure is sub-optimal.

A first hypothesis is that small and rural local governments have less professionalized facility management and can thus be more concerned about sub-optimal structures. We investigate this in Figure 5. Consistent with this hypothesis, we do observe that a majority of the local governments that reported concern about the organizational structure are below the median population size. However, quite a few of the more populous local governments are also concerned about the organization of their facility management, so this is clearly not a concern only in rural areas.

#### [Figure 5 about here]

Second, some argue that a centralized facility management structure is superior to decentralized structures (see discussions in, e.g., Econ & Multiconsult, 2002; Haugen, 2003; Hopland, 2014). Hence, one may expect that facility managers in local governments with a decentralized structure are more concerned about poor organizational form than those in local governments with a centralized structure. We investigate this in Figure 6 where we show the distribution of responses in local governments with a decentralized and centralized structure separately.

It is worth noting that only 16 (5.7%) of the respondents report a dencentralized structure, making the diagram for these local governments very sensitive to individual responses. However, the pattern observed in Figure 6 is still quite interesting. None of the local governments with a decentralized structure respond '1', and only about a quarter respond '2'. About half respond '3' while the remaining quarter respond '4' or '5' and are certainly concerned.

Those with a centralized facility management, on the other hand, seem much less concerned. In this group, almost half of the repondents disagreed that the organization was sub-optimal. It is noteworthy though, that even among local governments with a centralized facility management, more than half of the respondents are at least somewhat concerned about the adequacy of the

organizational form and responded '3' or higher. Hence, researchers must look more deeply into the different characteristics, benefits and drawbacks of the different organizational forms.

[Figure 6 about here]

Recruitment problems

The responses to the fourth potential concern we asked the respondents to rate, recuitment problems, are reported in Figure 1D. This seems to be the one among the four issues the local governments are least concerned about, as only just over half (149 of 282) reported to be at least somewhat concerned ('3' or higher). As wages in the Norwegian local government wages are mostly set at the central (national) level, we do not expect that there is a lot of variation across local government with different fiscal conditions. In the public debate, it is frequently argued that rural local governments are less attractive and struggle with recruitment (not only in facility management).

In Figure 7 we thus investigate how those that report at least some concern are divided along the population size distribution. Perhaps somewhat surprisingly, only a small majority of the municipalities that report concern about recruitment are below the median population. This could indicate that local governments struggle to compete with the wages offered in the private sector, and that this is a more important mechanism than whether the municipality is an attractive place to reside or not. Alternatively, the recent downturn in the large Norwegian oil sector, which has put many highly qualified persons out of work, may have resolved recruitment issues for many municipalities.

[Figure 7 about here]

Combinations of concerns

Since all the concerns are rather widespread, many local governments will obviously report to be concerned about several of the issues discussed above. In Table 1 we thus study the pairwise relationship between the concerns.

#### [Table 1 about here]

In Panel A, we report the coefficient of correlation between each concern. The correlations are all positive, and except for the correlation between tight fiscal conditions and recruitment problems, they are also statistically significant. The strong correlation (0.57) between tight fiscal conditions and lack of political prioritization reflect that a very large share of municipalities have these concerns. However, it is also worth noting that this strong correlation also indicate that it is more difficult to prioritize maintenance in times of fiscal distress, an observation that is consistent with the arguments in the political economy literature discussed earlier. Further, the insignificant correlation between tight fiscal conditions and recruitment can be due to the centralized wage bargaining which leaves little room for variation in wages across local governments.

In Panel B we look at the number of local governments that report concerns (i.e, respond at least «3») on pairs of statements. We see that as many as 214 (76%) are concerned about both fiscal conditions and political prioritization. That many local governments are concerned about both issues is no surprise, given that as many 237 (84%) report concerns about fiscal conditions and 233 (83%) report concerns about political prioritization. The other pairwise combinations are also widespread. The least reported combination, concerns over both sub-optimal organizational structure and recruitment problems, is reported by as many as 35% (100) of the municipalities.

#### [Figure 8 about here]

In Figure 8, we study the distribution of how many concerns the local governments report. 8 (3%) do not respond at least «3» to any of the concerns, 25 (9%) to only one, and 73 (26%) to two concerns. The largest proportion, 94 (33%) report three concerns, while as many as 82 (29%) are concerned about all suggested issues.

An interesting final question is whether there is a relationship between how concerned the facility managers report to be and the building conditions they report for their local government. We expect that a facility manager is less concerned when building conditions are good, although one could imagine that more concerned facility managers work harder to make sure the conditions are good,

potentially drawing in the opposite direction. But it would be somewhat unsettling if facility managers in local governments with poor building conditions report few concerns in our survey.

The frequency of responses and numbers of concerns are tabulated in Table 2. We observe that as the number of concerns increase, the reported building conditions decrease. Moreover, while none of the «totally unconcerned» local governments report to have buildings in the worst category, none of those which report concerns on all categories have buildings in the best category. Thus, the level of attention to various issues of facilities management correlate oppositely with reported building conditions.

#### [Table 2 about here]

#### Open response

In addition to the given categories of concerns, the respondents were given the opportunity to report other concerns in an open question on the survey. 51 (18%) respondents chose to reply to the open question. Many of the reported other concerns overlapped or repeated concerns among our four main concerns. Two recurring topics on the open reply were that maintenance spending often is sacrificed to make room for investments in new buildings (7), and that maintenance and daily operations share budget or are otherwise handled such that maintenance may suffer (14). Both these concerns align with our question about political priority. Also, that new buildings are more attractive spending opportunities for politicians is in agreement with the aforementioned Drazen and Eslava (2010). Other concerns or problems are the communication of maintenance needs to decision makers (6) and that maintenance staff does not always have the necessary technical expertise (5). The first suggests – in an admittedly extreme interpretation – a democratic problem that elected officials lack the necessary skills to understand the full consequences of their decisions.

#### **Concluding remarks**

We investigate which concerns are most important for local government facility managers in Norway using a survey dataset covering about 2/3 of all Norwegian local governments. Using descriptive statistics techniques, we find that the facility managers are most worried about weak fiscal conditions and lack of political priority of facility management. Almost all facility managers

report concerns about these issues, and the responses do not vary much across local governments with different characteristics. It is interesting that even facility managers in local governments with a solid fiscal situation are concerned about low funding. This indicates that local governments in general put too little emphasis on facilities management.

There is also widespread concern, albeit less serious, about organizational structure and recuitment problems. Local governments with a decentralized facility management are more concerned about the organizational structure than those with a centralized structure, and low-population local governments are more concerned about recruitment problems than populous municipalities. Finally, local governments that report that their public buildings are in good condition generally have fewer and less serious concerns.

#### **Appendix**

The statements that respondents were asked whether they agreed to (see Figure 1) were as follows (our translation from the Norwegian survey form):

- A. Tight local government total budget make maintenance budgets too small.
- B. Lack of political prioritization in local governments make maintenance budgets too small.
- C. The organization of the local government facilities management is sub-optimal.
- D. It is difficult to recruit qualified staff members to local government facilities management.

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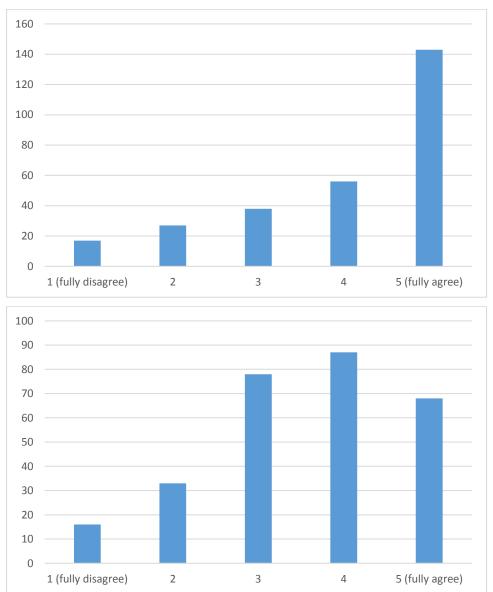
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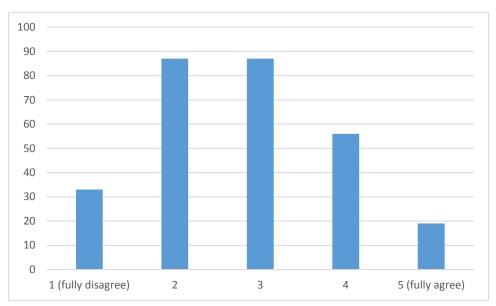
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Figure 1: Distribution of scores on different issues in facilities management. A (first panel): Tight fiscal situation. B (second panel): Lack of political priority. C (third panel): Sub-optimal organizational structure. D (fourth panel): Recruitment.





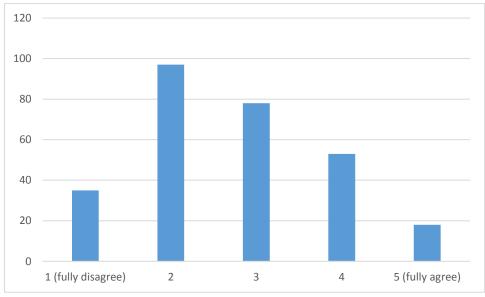


Figure 2: Revenue and debt distribution of local governments that report 3 or higher on the fiscal situation issue.

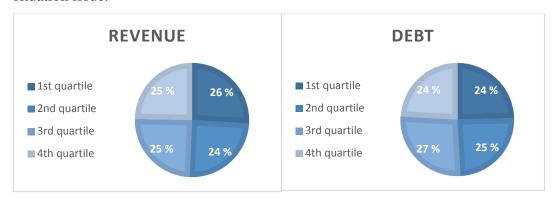


Figure 3: Maintenance per square meter distribution of local governments that report 3 or higher on the fiscal situation issue.

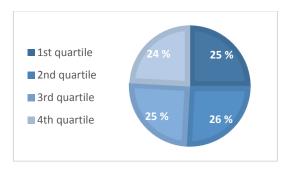


Figure 4: Maintenance as share of total expenditures (left) and revenue distribution (right) of local governments that report 3 or higher on the political prioritization issue.

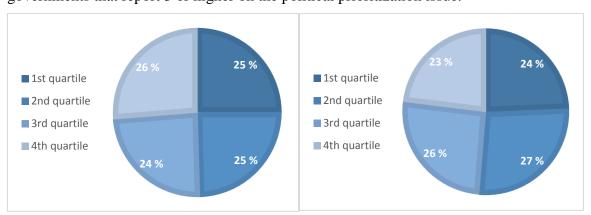


Figure 5: Population size distribution of local governments that report 3 or higher on the organizational structure issue.

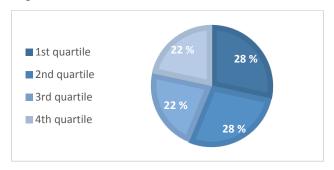


Figure 6: Distribution of responses in local governments with decentralized and centralized organisation of the facility management.

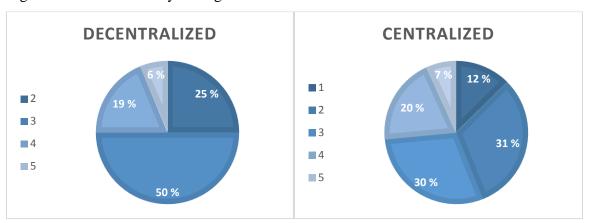


Figure 7: Population size distribution of local governments that report 3 or higher on the recruitment issue.

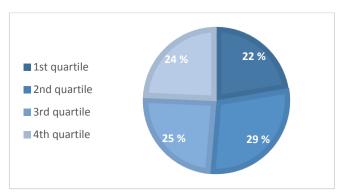


Table 1: Combination of concerns

Panel A: Correlations				
in responses				
	Tight fiscal	Lack pol. priori.	Subopt. org.	Recruitment
	cond.			
Tight fiscal cond.	1			
Lack pol. priori.	0.57	1		
Subopt. org.	0.13	0.20	1	
Recruitment	0.09	0.19	0.26	1
Panel B: Pairwise				
combinations (3 or				
higher)				
	Tight fiscal	Lack pol. priori.	Subopt. org.	Recruitment
	cond.			
Tight fiscal cond.	237 (84%)			
Lack pol. priori.	214 (76%)	233 (83%)		
Subopt. org.	138 (49%)	138 (49%)	162 (57%)	
Recruitment	126 (45%)	131 (47%)	100 (35%)	149 (53%)

Bold numbers in italics indicate that the correlations are statistically significant at the 5% level.

29 %

29 %

26 %

33 %

34

Figure 8: Number of reported concerns (responding 3 or higher)

Table 2: Number of concerns and building conditions, column headings refer to reported overall local public building conditions, from 1 (low) to 5 (high)

	1	2	3	4	5	Average
0 concerns	0	1	2	2	3	3.88
1 concern	0	1	12	12	0	3.44
2 concerns	1	8	31	31	2	3.34
3 concerns	0	12	53	28	1	3.19
4 concerns	2	12	50	18	0	3.02

*Purpose:* To investigate which concerns are most important for local government facility managers in Norway.

*Design:* We analyze a survey dataset covering about 2/3 of all Norwegian local governments, using descriptive statistics techniques.

Findings: The facility managers are most worried about weak fiscal conditions and lack of political priority of facility management. Almost all facility managers report concerns about these issues, and the responses do not vary much across local governments with different characteristics. There is also widespread concern, albeit less serious, about organizational structure and recuitment problems. Local governments with a decentralized facility management are more concerned about the organizational structure than those with a centralized structure, and low-population local governments are more concerned about recruitment problems than those with a high population. Finally, local governments that report that their public buildings are in good condition generally have fewer and less serious concerns, in line with what one could expect.

*Originality/value*: The paper offers insights into which concerns that are most important among local government facility managers.

## SNF



#### Samfunns- og næringslivsforskning AS

Centre for Applied Research at NHH

Helleveien 30 NO-5045 Bergen Norway

P +47 55 95 95 00 E snf@snf.no W snf.no

Trykk: Allkopi Bergen