

## A review of the outcomes from contracting out urban green space maintenance

*What we know, don't know and should know*

Lindholst, Andrej Christian

*Published in:*  
Urban Forestry and Urban Greening

*DOI (link to publication from Publisher):*  
[10.1016/j.ufug.2017.06.012](https://doi.org/10.1016/j.ufug.2017.06.012)

*Creative Commons License*  
CC BY-NC-ND 4.0

*Publication date:*  
2017

*Document Version*  
Accepted author manuscript, peer reviewed version

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Lindholst, A. C. (2017). A review of the outcomes from contracting out urban green space maintenance: What we know, don't know and should know. *Urban Forestry and Urban Greening*, 27, 50-58.  
<https://doi.org/10.1016/j.ufug.2017.06.012>

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

**A review of the outcomes from contracting out urban green  
space maintenance: What we know, don't know and should  
know**

*Andrej Christian Lindholst, PhD, Associate Professor.*

*Department of Political Science, Aalborg University, Fibigerstræde 1, DK-9220,*

*Aalborg. Phone: +45 2872 8520. E-mail: [acl@dps.aau.dk](mailto:acl@dps.aau.dk).*

Full version published by Elsevier in Urban Forestry & Urban Greening, 2017, volume  
27 (October), pp. 50-58.

Link to publisher's version: <https://doi.org/10.1016/j.ufug.2017.06.012>

## **Abstract**

Private delivery, i.e. contracting out, of maintenance services in urban parks and green spaces has since the 1980s been spurred by neoliberal reform promises of improved performance. This article contributes to discussions of whether contracting out park and green space maintenance services is a well-performing alternative by evaluating what is known – and not known – about the outcomes in a narrative review of thirteen studies bridging experiences from four decades and three country contexts. It is found that the balance of reported economic and managerial outcomes mostly are on the positive side while the balance of reported outcomes related to service quality and staff are found to be on the negative side. Findings indicate that reforms have partly delivered on their promises. However, the reviewed studies are found to be dominated by evaluations based on governing values inherent in neoliberal management reforms rather than alternative management paradigms, rely on older data from a limited number of country contexts, and lack an accumulated understanding of explanation of outcomes. Finally, the reviewed studies pay little or no attention to the details of the development of different contracting and organizational models within contemporary urban green space management. Future research can expand further on what is known by addressing these key caveats.

## **Keywords**

Contracting out; green spaces; maintenance; management; narrative review; parks; performance

## Introduction

One profound change within local governments' delivery of maintenance services in urban parks and green spaces in many countries in the last four decades is a shift toward greater reliance on private contractors – a shift that simultaneously has challenged and reduced public authorities' reliance on in-house provision (Jones, 2000; Lindholst, 2009; Nuppenau, 2009). In a global perspective, the increased reliance on private contractors in the public sector is one tangible result from the last four decades' reform push promoting new organizational and managerial instruments and values based on a neoliberal belief in 'markets' as superior mechanisms for improving the performance of service delivery (Pollitt and Bouckaert, 2011; Hansen and Lindholst, 2016).

Evaluations of whether the promises of neoliberal beliefs have been fulfilled as well as what the broader outcomes are from the increased reliance on private contractors for delivery of maintenance services in urban parks and green spaces have been covered by a small number of studies over the years. The studies have within perspectives confined to a single country context and particular time periods provided either 'narrow' evaluations of a particular outcome such as difference in expenditure levels (e.g. Jang, 2006) or provided more rounded narratives reporting on a broader set of experiences and outcomes (e.g. Jones, 2000). However, no research has in a cross-national perspective within the context of urban green space management gauged what is hitherto known – and not known – about the outcomes for service delivery from the increased reliance on private contractors.

With the aim of illuminating this 'grander puzzle', this article provides a review of internationally available studies reporting on outcomes from public authorities' use of contracting out for delivery of maintenance services in urban parks and green spaces

– a practice that critically has changed who carries out maintenance services in urban parks and green spaces. The key research question addressed in the article is: *what is known (and not known) in a cross-national perspective about the outcomes for service delivery from contracting out maintenance services in urban parks and green spaces.* To address the research question, the article first provides an introductory theoretical overview and discussion of the idea of using contracting out in the public sector for improving performance, secondly it identifies and review altogether 13 internationally available studies reporting on outcomes from contracting out maintenance services in urban parks and green spaces, thirdly it discusses the findings on outcomes against theory, and fourthly it extrapolates from the findings in the review and pinpoints key knowledge gaps which should be addressed in future research. The remainder of the article is structured into four main sections: ‘Theories on contracting out,’ ‘Methods and materials,’ ‘Review of evidence,’ ‘Discussions,’ and ‘Conclusions.’

#### **Theories on contracting out**

The idea or prescription that private contractors should be systematically involved in public service delivery with the purpose of improving public sector performance is associated with the rise of public reforms from the 1970s and onward subsumed under the heading of ‘new public management’ (NPM) (Hood, 1995). As part of its core values, the NPM has ingrained the wider neoliberal belief that various ‘market-like’ mechanisms, such as competition, free choice or benchmarking, are superior for coordinating and organizing public activities (Hansen and Lindholm, 2016). The belief has been backed by theoretical arguments on the private sector’s comparative ability to operate more cost-effectively than the public sector due to stronger competitive and

(profit-based) economic incentives to innovate and bring down operational costs (Boyne, 1998). Congruently, private contractors have become involved in public service delivery through a ‘competition model’ for contracting public services (Dehoog, 1990). In this model, a government is ideally able to specify a service in a formal contract and through a process of competitive tendering with participation of several potential providers – public as well as private – contract with the provider that promises to deliver services at the lowest cost. The model requires (as a minimum) that a government can spur competition among several qualified providers, has a capacity for managing and monitoring contracting processes, and can be relatively certain regarding future funding levels, service needs and service technology. The value of linking a highly specified set of services with fixed ex ante pricing in a contract will tend to diminish if change later occurs in, for example, user patterns or planning objectives. The remedy in many green space maintenance contracts has been to build in a degree of flexibility (Lindholst, 2009). However, in theory, this approach runs counter to the basic logic of the low cost-focus inherent in the competition model.

Using markets and contract-based exchange furthermore involves ‘transaction costs’ for activities ensuring that received values in an exchange relation match expected values (Ouchi, 1980). These costs include various activities related to planning, formation and monitoring of service delivery (by contracts). Ultimately, transaction costs need to be compared across available alternatives for organizing service delivery. In other words, assessment of the most cost-efficient arrangement for service delivery requires comparison of the transaction costs associated with each alternative (Williamson, 1991). However, calculations of comparative transaction costs are notoriously difficult and seldom fully accounted for in studies of economic

outcomes from contracting out (Petersen et al., 2017). Hodge (2000) projected that transaction costs associated with contracting out reduced average cost savings by around two percentage points. In addition to transaction costs, contracting out may also result in cost shifts and ‘quasi-market failures’ within the public sector where, for example, reduced operational expenditures from staff lay-offs or higher productivity associated with contracting out incur increased expenditures on health and social welfare elsewhere or years later in the public sector (Boyne 1998). Several other issues can also be associated with the use of the competition model for service contracting. Kettl (2010), for example, elaborated on various ‘governance failures’, such as lack of transparency in money flows, dependency on a single private contractor or lack of internal contract management capacities, while the theory of ‘incomplete contracts’ (Hart et al. 1997) highlights that competitive tendering increases providers’ incentives to offer low prices and/or reduce costs at the expense of quality in service delivery.

While the ideal case of the competition model seldom can be fully achieved in practice it is an assumption that governments when possible at least will seek to maximize economic efficiency in choosing among potential providers (Dehoog, 1990). The competition model is usually expected to work better for some services than others. Characteristics of parks and green space maintenance are in comparisons with other public services commonly regarded as relatively well-suited for contracting out. A US based study by Hefetz and Warner (2012), for example, found that contracting out of park and landscape maintenance was characterized by higher competition levels, and lower levels of contracting difficulties and investment requirements in comparison with other municipal services. However, a relatively higher citizen interest in park services indicated some caveats, as higher citizen interest is likely to require higher levels of

ongoing government coordination and control in order to ensure responsiveness toward community needs. Based on the comparative characteristics, it can be argued that the competitive model of contracting out can be expected to work relatively well for parks and green space maintenance services in relation to economic performance but less so in relation to other important aspects.

The competitive model of service contracting furthermore ingrains a distinct set of governing values. The neoliberal belief in the market as a superior coordination mechanism has through the NPM promoted core values in the public sector related to competition, cost-effectiveness and productivity. Patterson and Pinch (1995), for example, observed that the implementation of contracting out in the UK encompassed an organizational shift toward ‘strategic centralization and operational decentralization’ as well as a shift toward a business and commercial discourse focused on ‘efficiency’, ‘performance targets’ and ‘consumer needs.’ These values seem somehow odd or differ from traditional bureaucratic values, such as legality and procedural fairness supporting a ‘public ethos’, as well as governing values promoted in management paradigms in newer reform trends such as involvement, deliberation and flexibility in decentralized searches of ‘public value’ within networks of stakeholders (Hood, 1991; Stoker, 2006). With the point of departure in alternative sets of governing values the performance of contracting out can be judged very differently. For example, one longstanding criticism in the literature of the competitive model of service contracting is the loss of democratic deliberation and political control (Vincent-Jones, 2007) – or what have been called a process of ‘hollowing out of the state’ (Rhodes, 1994). In the competition model private contractors are intentionally engaged to deliver contracted services at the lowest possible costs whereas in-house providers are directly governed by their political



constituencies within a hierarchical structure and can recurrently be required to serve broader public purposes within a community or adapt to changing political preferences. It follows that service delivery through in-house organizations is governed by a different – if not more complex – set of values than the values governing the use of private contractors through a competition model. In the institutional literature on economic organization the difference between organizing production through markets (‘buy’) versus hierarchies (‘make’) has been analysed in terms of comparative benefits and costs (Williamson 1991). In-house provision may have advantages such as greater ‘allocative’ efficiency (e.g. flexibility and ability to meet changing community needs and user preferences) while contracting out may have the advantage in terms of greater ‘technical’ efficiency (plan and provide standard services at the lower cost).

The differences between in-house and market based approaches as well as how contracting out is organized may, however, not be as clear cut as analytical models suggest. New models for contracting out serving other purposes than cost-effectiveness have been introduced through shifts in reform focus in some countries, such as the UK (Boyne, 1999), as well as discussed more broadly as an international trend in the literature (Entwistle and Martin, 2005; Vincent-Jones 2007, Donahue and Zeckhauser, 2006). The new models include various partnership and collaborative approaches supporting objectives related to service development, public deliberation, flexibility and transformation rather than mere cost concerns. The focus on new models has also been reflected within urban green space management where alternative contractual arrangements, incorporating partnership features in various degrees, have emerged since the early 2000s (Lindholst, 2009).

The upshot is that evaluations of outcomes from contracting out can have points of departure in very different sets of values which illuminate different comparative advantages and disadvantages of various arrangements for service delivery – and very different conclusions may arise from the chosen approach.

## **Methods and materials**

Materials for the review were partly identified by a systematic key-word based search on the web of science database and partly by ‘show-balling’ within two streams of literature. Identified materials were first screened for any inclusion or reference to maintenance services with relevance for urban green spaces, e.g. park or grounds maintenance. Secondly, each title was reviewed for any reported evidence on outcomes related to private provision of maintenance services. Thirdly, the originality and credibility of the evidence were reviewed by assessment of methods and data supporting any reported outcome. A few titles were excluded in the third stage due to either severe methodological flaws (e.g. Greene, 1994) or a more commentary-oriented character of a title (e.g. Hebbert, 2008). The final list of all relevant materials for the review included 13 titles.

The search in the web of science (within the social science and emerging indices) used a syntax including: contract\* OR privati\* OR outsour\* AND green\* OR park\* OR ground\* AND maintenance. The search generated 698 unique hits. Inspection of titles and abstracts reduced the number of relevant titles to only three. In the show-balling two streams of research were inspected. The first stream comprised reviews of outcomes from contracting out in the public sector by Borcharding et al. (1982), Donahue (1989), Hirsch (1995), Domberger (1997), Boyne (1998), Hodge (2000) and

Petersen et al. (2017). The second stream consisted of existing studies of contracting out within park and green space management in local governments including titles by Jones (2000), Baycan-Levent and Nijkamp (2009), Lindholm and Bogetoft (2011), Jansson and Lindgren (2012) and Lindholm et al. (2015). Inspection of the titles resulted in altogether 10 relevant studies for the review.

Given the broader scope of the research, a ‘narrative’ approach was adapted for the review (Green et al., 2006). A narrative approach allows for more detailed accounts of reviewed evidence rather than summaries in either qualitative (e.g. summary of positive or negative outcomes) or quantitative (e.g. calculation of effect sizes) terms. Based on the narrative approach, the 13 titles identified in the literature search were inspected and summarized through an inductive analytical process with regard to 1) any findings on outcomes related to contracting out of park and green space maintenance (reported outcomes), 2) any findings or discussion on factors which explain the reported outcomes (explanations for outcomes), 3) the methods sustaining any finding or conclusion (methods), and 4) contextual details of the studies (context).

## **Review of evidence**

Table 1 provides a chronological overview of the titles, including reported outcomes, any stated explanations for outcomes, the methods and finally the country context of the data.

\*\*\* *Insert table 1 around here* \*\*\*

*The 13 studies in short*

The 13 studies covered data from a timespan of approximately three decades (1982-2015) and included a limited number of country / regional contexts. The country contexts included: USA (three studies), England and Wales (five studies), and Scandinavia (five studies). With a few exceptions, the studies tended to focus on only one or two key outcomes. Eleven studies reported on economic effects, eight studies reported on effects on service quality, five studies reported on effects on management and organization, while five studies reported on staff related effects.

Altogether ten studies reported statistics as part of their key findings while three studies reported findings in terms of qualitative accounts. In terms of data, seven studies were purely quantitative, two studies were purely qualitative while four studies were based on a mix of quantitative and qualitative data. Key data sources across the studies included surveys and research interviews with key stakeholders while register-based data and expert assessments were used in a few studies only.

#### *Economic outcomes*

Seven out of the 13 studies found cost reductions as a major (positive) outcome. Six of these seven studies also indicated improved technical efficiency, i.e. the same service level was provided at lower costs. Two studies found no significant differences in service expenditure levels between contracting and non-contracting municipalities. One study found substantial cost increases in contract prices while one study found that the likelihood of no cost change was substantially higher than the chance for cost savings.

Studies by Berenyi and Stevens (1988), Walsh and Davis (1993), and Lindholst (2008) which measured cost change at the level of individual contracts all found that contracting out was associated with cost savings, on balance. Walsh and Davis (1993)

found that for 69 cases the shift from provision of grounds maintenance by direct services organizations (in-house) to contracting out had resulted in an average cost reduction by a magnitude of 10.9 percent (with a standard deviation around 15 percent). Berenyi and Stevens (1988) found that municipal provision of, respectively, street tree and turf maintenance were respectively 27 percent and 29 percent cheaper than private provision in a statistical analysis of 20 municipalities where other factors such as scale and quality were held constant. In a study of a Danish state agency's contracting practices, Lindholst (2008) reported that a 34 percent cost saving on overall expenditures on maintenance operations was realized though introduction of contracting out and successive rounds of procurement without compromised service levels and quality of service delivery. Studies by Jones (2000) and Nuppenau (2009) based on qualitative / narrative accounts of effects in multiple case studies of local governments in, respectively, England and Denmark also reported cost savings as a key outcome from the introduction of contracting out. Two US studies by, respectively, Martin and Stein (1992) and Jang (2006), which measured cost differences at the level of overall municipal expenditures and provided analysis based on statistical analysis of quantitative data, did not find any statistically significant association between contracting levels and spending levels. Clark (1997) found that 71 percent of responding UK local authorities reported that 'better value for tax payers' was achieved from contracting out versus 25 percent reporting that this was not the case. The study by Leiren et al. (2016) found highly negative economic outcomes in terms of substantial cost increases for Norwegian municipalities from their latest use of competitive tendering, while the study by Bretzer et al. (2016) found that the likelihood of no cost

change in competitive tendering was substantially higher for Swedish municipalities than the chance for cost savings.

Across the studies, the key explanatory factors for economic outcomes encompassed references to ‘competition’, ‘change in standards/quality levels’, ‘higher private productivity’ and ‘government objectives’.

*Competition.* In almost all studies the introduction of competition was theorized to be a key driver of improved economic performance. The study by Martin and Stein (1992), for example, provided a direct empirical test of the importance of competition / contracting levels for cost levels and found that contracting out was significantly related to (slightly) lower levels of spending. However, further decreases in spending levels from additional contracting beyond 25 percent of all municipal services were found to be insignificant. The studies of, respectively, Norwegian and Swedish municipalities by Leiren et al. (2016) and Bretzer et al. (2016) also indicated that competition varied according to geography and administrative structures. Both country contexts are characterized by many very small municipalities scattered over vast geographical areas. In this context, competition – as well as the level of contracting out – was higher in the more densely populated metropolitan areas.

*Higher private productivity.* All reviewed studies implicitly or explicitly stated that productivity, i.e. producing the same output with fewer inputs, was higher in the private sector than in the public sector. Walsh and Davis (1993), for example, reported that among park managers it was believed that a key reason for cost reductions was relatively higher private sector productivity. The reported cost savings by Lindholm (2008) were attributed to a shift to full-scale contracting out and the abolition of a former ineffective and poorly managed in-house arrangement. From findings in studies

by Berenyi and Stevens (1988) or Patterson and Pinch (1995) it is also evident that higher private productivity has been achieved by substantial changes in the number of employees, employee composition, work conditions and workforce management.

*Change in service levels.* Some studies prompted the importance of change in service levels as a direct driver of cost change in contracting out. For example, Walsh and Davis (1993) found a key reason for a part of the reported cost reductions was changes toward lower standards for service quality while the main source for cost increases was reported to be changes toward higher standards.

*Government objectives.* Based on the studies by Martin and Stein (1992), Patterson and Pinch (1995) and Jones (2000), it can furthermore be argued that pursuit of general government objectives in terms of cost reductions in contracting practices is a key explanatory factor for the observed effects. In particular, it can be argued that contracting out has been used as a means through which governments implement an objective of cost reduction (as well as objectives related to reducing the number of staff in public organizations). This is perhaps most evident in the policies on compulsory competitive tendering in the UK which provided a tight regulation of the use of contracting out as a clear cost-reducing mechanism (Dempsey et al., 2016). A special case, which also illuminates the importance of taking objectives into account, is the study of contracting out in Norwegian municipalities by Leiren et al. (2016). The study found that the overriding reason for private service provision was a lack of in-house capacity rather than cost concerns.

*Service outcomes*

Four studies reported overall neutral effects on service quality while four studies reported negative effects and one study indicated positive effects on service quality. Studies by Lindholst (2008), Berenyi and Stevens (1988), Walsh and Davis (1993) and Clark (1997) found no overall negative direct effect on service quality. Walsh and Davis (1993) found few reports of declining quality as an effect of contracting out. However, changes in service standards were reported to affect cost levels (see above). Clark (1997) found that 36percent of responding local authorities reported that quality levels had decreased compared to 37 percent who reported that reported that quality levels had increased. The two studies by Jones (2000) and Lindholst et al. (2015) reported negative effects on service quality and they in particular indicated problems with *allocative* efficiency, i.e. overall functionality of parks and their ability to satisfy user needs, within public service delivery systems. The study by Jones (2000) found that service levels / quality had generally declined by contracting out in the era of compulsory competitive tendering in the UK and created run down and derelict park areas low in horticultural and recreational value. Jones (2000) attributed that decline partly to '*making parks fit for mowers rather than mowers fit the needs of the park*' as well as to a loss of community contact by shifts from site-based staff toward mobile work gangs. The study by Lindholst et al. (2015) pointed out that service specifications adopted for contracting out of grounds maintenance have drawbacks, as they tend to limit the view on service quality to a question about compliance to pre-predefined technical measures based on horticultural knowledge, rather than enabling integration of broader stakeholder views on what services are – or should be – about. In consequence, contracting out has resulted in implementation of managerial arrangements with limited scope for democratic deliberation – i.e. limited scope for alignment of resource use with



broader community or user preferences. Leiren et al. (2016) provided a comparison of satisfaction levels with performance of public and private provision and found that satisfaction levels with public provision compared to private provision were significantly higher for three out of six measures. However, the difference may be a result of differences in the type of maintenance services, as the Norwegian municipalities mostly used private contractors for provision of services they could not provide themselves. Dempsey et al. (2016) found that satisfaction levels with private provision among English local authorities on the average were surprisingly high compared to the legacy of contracting out from the era of compulsory competitive tendering in the 1980s and 1990s.

The explanations for quality effects stated in the reviewed studies related to *organizational changes* in service delivery systems in which contracting out is introduced. The changes related to new organization of operational staff, the operationalization of services in order to comply with formal management systems and rationalizations based on available organizational capacities (e.g. ‘making parks fit for mowers’). Walsh and Davis (1993) and Nuppenau (2009), for example, reported that service standards in many cases did not exist prior to the introduction of competitive contracting. In an extended argument, Lindholst et al. (2015) found that the use of particular standards for defining services in accordance with the requirement for contracting out has introduced and entrenched a particular way of thinking about and making decisions on ‘quality’ in urban park management. This ‘mindset’ was suggested to be more occupied with serving professional needs rather than addressing broader service needs.

*Managerial and organizational outcomes*

Both negative and positive outcomes for managerial and organizational performance were reported in studies by Clark (1997), Jones (2000), Lindholst (2008), Nuppenau (2009) and Lindholst et al. (2015).

Clark (1997) found that park managers reported increased difficulties with service monitoring by implementation of contracting out but at the same time also that service monitoring had become more ‘effective’ for most local authorities. Jones (2000) reported several managerial improvements from the implementation of contracting out such as standardization of work activities and service levels across locations and creation of information and resource systems for improved centralized management and decision-making. Correspondingly, Lindholst (2008) found that management of ground maintenance services had become more effective by the introduction of a tougher contract management regime based on ‘high-powered’ (economic) incentives for managing externally provided services. However, the shift toward a tougher management regime also left important issues aside related to day-to-day flexibility and collaboration. Nuppenau (2009) reported that competitive tendering improved internal management and organisation by implementation of new managerial tools, such as performance targets, and by spurring staff to innovate and perform better. Lindholst et al. (2015) found that development of quality standards based on horticultural knowledge supported cost-effective service delivery through the use of competitive tendering, but also unintentionally limited the scope for public deliberation.

Across the studies, the introduction of new management tools associated with contracting out provided a major explanatory factor for reported effects on management and organization. As found by Nuppenau (2009), new management tools have also been

applied and improved management of in-house organizations. An important caveat, noted in the study by Clark (1997), is that improved management depends on contract management capability and lacking capabilities may result in ineffective management of service delivery.

#### *Staff outcomes*

Studies by Berenyi and Stevens (1988), Patterson and Pinch (1995), Clark (1997), Jones (2000) and Nuppenau (2009) provided evidence on the impact on staff. Overall, the reported effects are negative with the exception of mixed effects reported by Nuppenau (2009).

Berenyi and Stevens (1988) found that contracting out compared to in-house provision involved several differences in personnel practices including lower levels of absenteeism, a younger workforce, a lower level of fringe benefits, lower average age and tenure, easier access to hiring and firing, shorter distance between management and direct labour as well as a general lower level of labour costs among private contractors compared to municipal organizations. Patterson and Pinch (1995) found that the policy of compulsory competitive tendering in the UK had led to substantial reductions in both public and private workforces as well as deteriorating employment terms and conditions within a labour market characterized by lower wages and more precarious working conditions. In perspective, Patterson and Pinch (1995) observed that implementation of contracting out had resulted in '*a separation of a concern for the services to be provided from a concern for those people who will provide that service*'. Congruently, Clark (1997) found that staff training was not included in the vast majority of ground maintenance contracts in the UK in the mid-1990s, and Jones (2000) reported a lack of

investment in and loss of the sector's skills base as well as loss of initiative, morale and creative flair in the workforce. Nuppenau (2009) found, however, mixed effects on in-house operational staff exposed to competitive pressures in Danish municipal organizations. On the negative side, change processes related to contracting out were reported to be experienced by staff as '*a time of resistance, scepticism, anxiety and insecurity*'. On the positive side, Nuppenau (2009) found that new performance standards and organization of work were helpful in generating learning, sharing experience and motivating work efforts among staff.

A summary of the provided explanations for reported effects on staff includes introduction of competitive organizational environments, substantial differences in management and employment terms as well as workforce composition between the public and private sector, weaker managerial concerns for staff in disaggregated organizations based on a purchaser-provider models, and underinvestment in staff training.

## **Discussion**

The reported outcomes were summarized under headings for effects on economy, service quality, management and organization, and staff. Reported outcomes of positive, neutral and negative kinds were observed. The list of positive outcomes included: cost savings at the level of contracts, improved technical efficiency, more effective management and monitoring, learning and motivation. The list of negative outcomes included: declining service quality, lacking public participation and democratic deliberation, disengaged staff, loss of professional skills, and a reduced workforce.

Neutral outcomes / no effects included, for example, no impact on service quality or no overall change in expenditure levels for park services.

\*\*\*\* *Insert Table 2 around here* \*\*\*\*

Table 2 provides a summary of the instances of positive, neutral and negative outcomes reported for the four types of outcomes. A finding is that the overall evaluation of outcomes is mixed. However, the tendencies are that reports on economic and managerial/organizational outcomes on balance are positive while reports on service and staff on balance are negative. Most instances of reported outcomes are, furthermore, counted as economic outcomes (12 instances), followed by service outcomes (nine instances), managerial/organizational outcomes (seven instances) and outcomes for staff (five instances).

Across the reviewed studies it was notable that explanations for the various outcomes were not systematically addressed or discussed and only a single study by Berenyi and Stevens (1988) included systematic research on the reasons for performance differences between public and private provision. Thus, the reviewed studies themselves do not provide a systematic accumulation of a deeper or more refined understanding of why and under which circumstances various outcomes occur. However, by summarizing the various explanations reported across the reviewed studies, some hypothetical associations can be established. Table 3 provides a summary of all reported explanations and their main association with the four types of outcomes across the 13 studies.

\*\*\* Insert table 3 around here \*\*\*

Across the studies, introduction of competition, relative effectiveness of private contractors (i.e. private ownership) and cost-focused contracting policies were predominant explanations for the various outcomes. Cost reductions were in some studies, e.g. Berenyi and Stevens (1988) or Patterson and Pinch (1995), found or argued to be a result of lower wages and workforce reductions driven by differences between public and private sector management as well as overall competitive pressures. Introduction of new management systems (e.g. service standards) as part of the requirements for implementing contracting out were also a recurrent explanation across several studies, e.g. Clark (1997) or Lindholst (2008), for managerial and organizational outcomes. However, in order to improve the understanding of the drivers for various outcomes a recommendation for future research is to address the various explanations in more systematic approaches.

The reviewed studies reported on outcomes from a limited range of country contexts. The three contexts in the reviewed evidence included the UK, the US and the three Scandinavian countries. The limited number of country contexts limits how far results can be generalized. Each country context embeds particular historical path dependencies in reform orientation – or governance traditions – which are likely to influence both reform aims and outcomes (Rhodes, 1999). Adding to the complexities of country context are the policy shifts or incremental institutional changes which can be observed over time within a country context. The relatively high number of reviewed studies from the UK based on data from the 1990s (four out of a total of five UK based studies), for example, infuses a certain bias in the overall evidence base toward the

intricacies of the implementation of contracting out in the UK context. In an international comparison, it is critical to note that the shift toward greater reliance on private contractors in the UK in the 1990s was spurred by tight and cost-focused regulations for compulsory use of competitive tendering in local authorities (Clark, 1997) – a policy abandoned by the end of the 1990s in a shift to a more flexible and strategic approach to service provision based on a broader idea of ‘best value’ (Boyne, 1999). In contrast, more flexible and pragmatic policies have been implemented in Scandinavia (e.g. Leiren et al., 2016; Lindholst et al., 2016). Given the policy context in the UK in the 1990s it is no surprise that the three studies based in data for this period all found that contracting out resulted in improved economic performance in terms of either cost reductions (Walsh and Davis, 1993; Jones, 2000) or better value for money (Clark, 1997). To gauge further the importance of country (and policy) context, a recommendation for future research is to expand the number of country contexts. Beyond a requirement to balance the potential bias from particularities of country context, it is also of inherent interest to see how alternative arrangements for providing maintenance in urban parks and green spaces perform in additional country contexts.

In the section on theories of contracting out it was highlighted that outcomes can be evaluated from different sets of governing values embedded in different management paradigms. The reviewed evidence was dominated by studies which took as their point of departure values associated with the neoliberal reform agenda. This dominance was reflected, for example, in the majority of studies addressing whether cost-savings have been achieved – a question clearly associated with the NPM. Furthermore, some of the reviewed studies reporting on improved management/organization referred to managerial dimensions of relevance to key values in the NPM. For example, the shift

toward contracting out was reported to be an improvement in the performance of centralised and formal management practices in studies by Jones (2000) and Lindholst (2008). However, strategic centralization in the management of public activities is a key feature of NPM and its improvement may come at the expense of a loss of the capacity for decentralized and responsive management within local networks— an important capacity for implementation of more collaborative and deliberative oriented reforms. In other words, the improved performance in management is reported from the perspective of a particular set of governing values rather than an evaluation of the outcomes seen from the perspective of alternative management paradigms. Overall, only limited evidence was found which took point of departure in the governing values associated with other major paradigms for managing and organizing the public sector. The studies by Lindholst et al. (2015) and Jones (2000), for example, reported on losses in the capacity and flexibility to addresses and satisfy user needs – key values related to reform trends based on ideas of governance including public involvement and democratic deliberation. Other studies reporting on losses in the skill-base, e.g. Clark (1997), Patterson and Pinch (1995) or Jones (2000), also provided some evidence on detrimental effects from contracting out on the function of organizational models based on more traditional administrative values related to professionalism and robustness. It is a recommendation for future research to provide more rounded evaluations which explicitly illuminate and evaluate outcomes from the viewpoints of the different governing values inherent in alternative management paradigms.

None of the reviewed studies compared or distinguished between different approaches to contracting out in their links to outcomes. The introduction of collaborative approaches to contracting out in urban green space management the 2000s



has hosted a strategic focus in public-private relations related to service development and changes/improvements in managerial approach (Lindholst, 2009). Earlier studies have called for such approaches in order to mitigate perceived flaws of earlier approaches to contracting out (e.g. Jones, 2000; Lindholst, 2008; Dempsey and Burton, 2012). However, the reviewed studies do not shed any light on whether newer collaborative approaches perform differently than long-standing standard approaches grounded in the competition model. Even newer studies in the review, e.g. Dempsey et al. (2016) or Leiren et al. (2016), confined reports on outcomes to the relative performance between private and in-house provision as the two main alternatives. A recommendation for future research is to pay attention to the details of different contractual and organizational arrangements and their comparative performance.

Another main finding from the review is the relatively high share of the studies reporting positive economic outcomes—a finding apparently indicating that one key promise of NPM, i.e. improved economic performance, has been fulfilled by the shift toward greater reliance on private delivery. However, some caveats must be raised. None of the reviewed studies considered potential off-setting effects from, for example, cost shifts in the public sector or the size of comparative transaction costs. This is a recurrent and longstanding critique of studies of the economic performance of contracting out in the public sector (Boyne, 1998; Petersen et al. 2017). Some of these effects, in particular comparative transaction costs, are implicitly accounted for in the group of reviewed studies comparing overall expenditure levels for park services between municipalities with different levels of contracting out (e.g. Martin and Stein, 1992). On the other hand, these studies may again fail to account for any re-allocation or re-investment within park services, e.g. new facilities, of potential cost gains from

contracting out maintenance services. Earlier estimates of transaction costs associated with contracting out in the public sector more generally indicate that their magnitude (a two per cent point reduction in the level of estimated cost savings) is certainly not tipping the overall balance of economic performance (Hodge, 2000).

Studies comparing the economic performance from contracting out the first time, i.e. a shift from public to private provision, may also to some degree compare service provision of public and private organizations which differ in their comparative advantages and disadvantages as well as governing values. The introduction of competitive tendering and shifts from public to private provision has historically implied a change from one type of organization to another. Clark (1997), for example, noted that public providers in local governments in the UK prior to the implementation of the UK based versions of NPM reforms were characterized by a unitary and skill-based organization based on horticultural (and arboricultural) knowledge and low degrees of formalization of managerial systems. Consequently, public organizations were abruptly situated in competition with private organizations whose business culture was already closely aligned with the governing values, such as cost-efficiency and productivity, inherent in the NPM. In Scandinavia, however, municipal park management witnessed a more incremental and pragmatic approach to the introduction of competition and private contractors in the 1990s and 2000s where public organizations were able to prepare themselves for potential exposure to competition (e.g. Nuppenau, 2009). Generically, the two types of organization, i.e. the private contractor and the traditional public provider, can be contrasted as a difference between their orientations toward, respectively, 'inputs' and 'outputs' as well as a difference between organizational values related to, respectively, 'robustness' and 'efficiency' (see

also Hood, 1991). In other words, the improved cost-efficiency reported in several of the reviewed studies may have come at the disadvantage of organizational robustness as well as being detrimental to the governing values inherent in alternative management paradigms (as discussed above). Such dynamics are reflected in the earlier critique within the UK context of the (massive) losses in skills, i.e. organizational robustness, due to the implementation of competitive tendering in the 1980s and 1990s (e.g. Jones, 2000). However, as found by Nuppenau (2009) in an Scandinavian context, municipal provider organizations have over time become ‘marketized’ by incorporation of new management systems such as service standards, resource management and cost-based accounting principles, or business plans. In other words, public and private provider organizations have become – at least in some countries – more alike due to the NPM. The dynamics in the internal organizational development of in-house providers indicate that earlier studies have compared the (economic) performance of very different organizations while later studies have compared organizations that were more alike. In perspective, generalizations forward in time of findings in earlier studies may come with some caveats as well as the organizational dynamics toward convergence (also) motivate a call for new studies based on contemporary data.

Finally, across the reviewed studies it was found that research has relied on a mix of qualitative and quantitative data, collected from secondary and primary data sources in terms of register-based repositories, expert evaluations, surveys and interviews as well as different analytical methods ranging from longitudinal case studies based on narrative accounts toward application of multivariate statistical analysis. Given the relatively small number of studies, the represented materials and methods are quite heterogeneous and complementary in character. Given well-known strengths and

weaknesses of different research designs, no particular recommendation for future research designs can be provided from the review beyond the substantial call raised in the foregoing discussions for updating the evidence base by inclusion of further country contexts, contemporary data, more systematic explorations of explanatory factors, and more detailed differentiation between various alternatives for providing maintenance services.

## **Conclusion**

This article provided a review of what was known – and not known – about the outcomes from contracting out maintenance services in urban parks and green spaces. The review was based on an analysis of altogether 13 internationally available studies with regard to type of reported outcomes, explanations for outcomes, methodological basis and country context. The studies covered data from a timespan of four decades and three major country contexts. Four major outcome types – economic, service, management/organisation and staff – were found to be illuminated in the reviewed studies. Economic and managerial performance tended to be evaluated as positive while outcomes for service quality and staff tended to be evaluated as negative.

The evaluation of what is known about the outcomes was, however, to some extent flawed or influenced by the particularities of country and policy context in the reviewed studies. The review furthermore found that what is known mostly relates to questions raised from a NPM perspective. In other words, contracting out has mostly been evaluated for its merits (or perils) in terms of economic performance. The merits seen from other managerial perspectives and their inherent governing values, for example democratic deliberation or legal compliance, were more scarcely covered or

not covered at all. Thus, the evidence is somehow ‘flawed’ toward the particular set of governing values associated with the NPM perspective. Furthermore, even evaluations of contracting outcomes with a point of departure in a NPM perspective were to some extent flawed. For example, comparable transaction costs or cost shifts in the public sector were not explicitly addressed in studies reporting estimates on economic outcomes.

Finally, the reviewed studies did not distinguish between different alternative approaches to contracting out. This should be of less concern for findings from early studies based on data from the 1990s, or earlier, where a tighter alignment with a competitive model can be assumed. Given the introduction of collaborative approaches to contracting out from the early 2000s and onward it has become of increasing interest to distinguish between alternative approaches to involvement of the private contractors and their comparative performance. This development should be seen as parallel to the organizational reform and development of in-house providers in the same period. In other words, the organization and performance of contemporary private contractors and in-house providers are likely to be very different than four decades ago.

In perspective, the review found that what is known about the outcomes from contracting out in a cross-country perspective is limited in important respects. Future research is needed and may expand on what is known by addressing knowledge gaps by, for example, expanding the number of country and policy contexts, seeking to connect and accumulate evidence on the explanations for reported outcomes, pay attention to different contracting and organizational models as well as take point of departure in a wider set of governance values than those ingrained in neoliberal reform approaches.



## References

- Baycan-Levent, T., Nijkamp, P. 2009. Planning and Management of Urban Green Spaces in Europe: Comparative Analysis, *Journal of Urban Planning and Development*, 135(1), 1-12.
- Berenyi, E.B., Stevens, B.J. 1988. Does Privatization Work? A Study of the Delivery of Eight Local Services, *State and Local Government Review*, 20(1), 11-20.
- Borcherding, T.E., Pommerehne, W.W., Schneider, F. 1982. Comparing the efficiency of private versus public production: The evidence from five countries. Zurich: Institute for Empirical Research in Economics.
- Boyne, G.A. 1998. *Public Choice and Local Government. A Comparative Analysis of the UK and the USA*. Basingstoke: Macmillan Press.
- Boyne, G.A (ed.). 1999. *Managing Local Services: From CCT to Best Value*. Ilford: Frank Cass.
- Bretzer, Y.N., Persson, B., Randrup, T.B. 2016. Is public procurement efficiency conditioned by market types? A critical test in park and road sectors in Sweden. *International Journal of Public Sector Management*, 29(5), 488-501.
- Clark, L. 1997. *The Effects of Compulsory Competitive Tendering on Grounds Maintenance*. Reading: Institute of Leisure and Amenity Management.
- de Magalhães, C., Carmona, M. 2009. Dimensions and models of contemporary public space management in England. *Journal of Environmental Planning and Management*, 52(1), 111-129.

678 Dehoog, R. 1990. Competition, Negotiation, or Cooperation: Three Models for Service  
679 Contracting. *Administration and Society*, 22(3), 317-340.

680 Dempsey, N., Burton, M. 2012. Defining place-keeping: The long-term management of  
681 public spaces. *Urban Forestry & Urban Greening*, 11(1), 11-20.

682 Dempsey, N., Burton, M., Selin, J. 2016. Contracting out parks and roads maintenance in  
683 England. *International Journal of Public Sector Management*, 29(5), 441-456.

684 Domberger, S., Jensen, P. 1997. Contracting out by the public sector: Theory, evidence,  
685 prospects. *Oxford Review of Economic Policy*, 13(4), 67-78.

686 Donahue, J.D. 1989. *The privatization decision: Public ends, private means*. New York:  
687 Basic Books.

688 Donahue, J.D., Zeckhauser, R.J. 2006. Public-Private Collaboration. In M. Moran, M.  
689 Rein, R.E. Goodin (Eds.). *The Oxford Handbook of Public Policy*. (pp. 496-525).  
690 Oxford: Oxford University Press

691 Entwistle, T., Martin, S. 2005. From competition to collaboration in public service  
692 delivery: A new agenda for research. *Public Administration*, 83(1), 233-242.

693 Green, B.N., Johnson, C.D., Adams, A. 2006. Writing narrative literature reviews for peer-  
694 reviewed journals: secrets of the trade. *Journal of Chiropractic Medicine*, 5(3), 101-  
695 117.

696 Greene, J.D. 1994. Does Privatization Make a Difference? The Impact of Private  
697 Contracting on Municipal Efficiency. *International Journal of Public Administration*,  
698 17(7), 1299-1325.

699 Hansen, M.B., Lindholst, A.C. 2016. Marketization revisited. *International Journal of*  
700 *Public Sector Management*, 29(5), 398-408.



701 Hart, O., Shleifer, A., Vishny, R.W. 1997. The proper scope of government: Theory and an  
 702 application to prisons. *Quarterly Journal of Economics*, 112(4), 1127-1161.

703 Hebbert, M. 2008. Re-enclosure of the urban picturesque: Green-space transformations in  
 704 postmodern urbanism. *Town Planning Review*, 79(1), 31-59.

705 Hefetz, A., Warner, M.E. 2012. Contracting or Public Delivery? The Importance of  
 706 Service, Market, and Management Characteristics. *Journal of Public Administration*  
 707 *Research and Theory*, 22(2), 289-317.

708 Hirsch, W.Z. 1995. Contracting out by Urban Governments: A Review. *Urban Affairs*  
 709 *Review*, 30(3) 458-72.

710 Hodge, G.A. 2000. Privatization - an international review of performance. Oxford: Boulder  
 711 Westview Press.

712 Hood, C. 1991. A Public Management for All Seasons? *Public Administration*. 69(1), 3-19.

713 Hood, C. 1995. The "new public management" in the 1980s: variations on a theme.  
 714 *Accounting, Organizations and Society*, 20(2/3), 93-109.

715 Jang, H. 2006. Contracting Out Parks and Recreation Services: Correcting for Selection  
 716 Bias Using a Heckman Selection Model. *International Journal of Public*  
 717 *Administration*, 29(10/11), 799-818.

718 Jansson, M., Lindgren, T. 2012. A review of the concept 'management' in relation to urban  
 719 landscapes and green spaces: Toward a holistic understanding. *Urban Forestry and*  
 720 *Urban Greening*, 11(2), 139-45.

721 Jones, R. 2000. Managing the green spaces: problems of maintaining quality in a local  
 722 government service department. *Managing Service Quality*, 10(1), 19-31.

723 Kettl, D.F. 2010. Governance, Contract Management and Public Management. In S.P.  
 724 Osborne (Ed.). *New Public Governance?* (pp. 239-254). Oxon: Routledge.

725 Lindholst, A.C. 2008. Improving Contract Design and Management for Urban Green Space  
 726 Maintenance through Action Research. *Urban Forestry and Urban Greening*, 7(2), 77-  
 727 91.

728 Lindholst, A.C. 2009. Contracting-Out in Urban Green-Space Management: Instruments,  
 729 approaches and arrangements. *Urban Forestry and Urban Greening*, 8(4), 257-68.

730 Lindholst, A.C., Bogetoft, P. 2011. Managerial Challenges in Public Service Contracting:  
 731 Lessons in Green-Space Management. *Public Administration*, 89(3), 1036–1062.

732 Lindholst, A.C., Sullivan, S., Konijnendijk van den Borsch, C.C., Fors, H. 2015. The  
 733 Inherent Politics of Managing the Quality of Urban Green Spaces. *Planning Practice  
 734 and Research*, 30(4), 376-392.

735 Lindholst, A.C., Hansen, M.B., Petersen, O.H. 2016. Marketization trajectories in the  
 736 Danish road and park sectors: A story of incremental institutional change. *International  
 737 Journal of Public Sector Management*, 29(5), 457-473.

738 Leiren, M.D., Lindholst, A.C., Ingjerd, S., Randrup, T.B. 2016. Capability versus  
 739 efficiency: contracting out park and road services in Norway. *International Journal of  
 740 Public Sector Management*, 29(5), 474-487.

741 Martin, D.L., Stein, R.M. 1992. An empirical analysis of contracting out local government  
 742 services. In G. Bowman, S. Hakim, P. Seidenstat (Eds.). *Privatizing the United States  
 743 justice system: Police, adjudication, and corrections services from the private sector.  
 744 (pp. 82-106). McFarland & Company: Jefferson.*

745 Nuppenau, C. 2009. Marketizing Municipal Park Management Organisations in Denmark.  
 746 A study of policymaking and organisational change in the period 1985-2005.  
 747 Frederiksberg: University of Copenhagen.

748 Ouchi, W.G. 1980. Markets, Bureaucracies, and Clans. *American Science Quarterly*, 25(1),  
 749 129-141.

750 Patterson, A., Pinch, P.L. 1995. Hollowing Out the Local State - Compulsory Competitive  
 751 Tendering and the Restructuring of British Public-Sector Services. *Environment and*  
 752 *Planning*, 27(9), 1437-1461.

753 Petersen, O.H., Hjelmar, U., Vrangbæk, K. 2017. Is Contracting out of Public Services still  
 754 the Great Panacea? A Systematic Review of Studies on Economic and Quality Effects  
 755 from 2000 to 2014. *Social Policy & Administration*, DOI: 10.1111/spol.12297.

756 Pollitt, C., Bouckaert, G. 2011. *Public Management Reform: Comparative Analysis of New*  
 757 *Public Management, Governance and the Neo-Weberian State*. Oxford: Oxford  
 758 University Press.

759 Rhodes, R.A.W. 1994. The Hollowing Out of the State - the Changing Nature of the  
 760 Public-Service in Britain. *Political Quarterly*, 65(2), 138-151.

761 Rhodes, R.A.W. 1999. Traditions and Public Sector Reform: Comparing Britain and  
 762 Denmark. *Scandinavian Political Studies*, 22(4), 341-370.

763 Stoker, G. 2006. Public Value Management: A New Narrative for Networked Governance?  
 764 *The American Review of Public Administration*, 36(1), 41-57.

765 Walsh, K., Davis, H. 1993. *Competition and Service: The Impact of the Local Government*  
 766 *Act 1988*. London: HSMO.

767 Williamson, O.E. 1991. Comparative Economic Organization: The Analysis of Discrete  
768 Structural Alternatives. *Administrative Science Quarterly*, 36(2), 269-96.  
769 Vincent-Jones, P. 2007. The New Public Contracting: Public Versus Private Ordering?.  
770 *Indiana Journal of Global Legal Studies*, 14(2), 259-278.  
771

**TABLE 1.** Chronological overview on studies on outcomes from contracting out maintenance services in parks and urban green spaces.

Reference	Reported key outcome(s)	Explanatory factors	Methods	Country context
Berenyi and Stevens (1988)	Delivery of street trees and turf maintenance respectively 27% and 29% cheaper in municipalities with private delivery compared to public delivery. Estimates controlled for service levels and quality.	Less labour intensive organization. Lower salaries. More direct control with manpower and use of technical equipment. Different characteristics of employees and employment.	Statistical analysis (OLS regression with controls) of the comparable efficiency and effectiveness of street tree and turf maintenance between public and private provision based on quantitative data (year 1984) from on 20 cities.	USA
Martin and Stein (1992)	Insignificant relationship between contracting out and overall expenditures on maintenance operations.	Theoretical considerations about governments' need to reduce costs and number of public employees.	Statistical analysis (OLS regression with controls) of service provisions in 877 local authorities based on available survey data from 1982-1983.	USA
Walsh and Davis (1993)	Cost saving (average 10%) and some improvement in technical efficiency for services contracted out (e.g. no impact on service quality).	Improved productivity and changes (increase/decrease) in work standards.	Descriptive analysis of survey-data (1989-1992) for eight local services, including 69 grounds maintenance contracts sampled from 40 local authorities.	England and Wales
Patterson and Pinch (1995)	Estimated average reductions in staff about 32% for private and 13% for public providers. Organizational change toward 'strategic centralization' and 'operational decentralization'	Legislative requirements. Cost-focused contracting policies.	Narrative account based on various secondary data sources and available official statistics.	England and Wales
Clark (1997)	Improved value for tax payers and improved monitoring reported in a majority of local governments (no estimates for effect size provided).	Not discussed.	Descriptive analysis of survey data (collected in 1996) based on 268 responses (response rate 53%) from local governments in England and Wales.	England and Wales
Jones (2000)	Improved information level on assets, costs and service levels. Reduced production costs. Decreased standards and quality of services.	Tight and cost-focused contracting policies.	Retrospective longitudinal study for the period 1980s-1990s based on qualitative data from four city	England

	Loss of staff engagement and motivation. Loss of skills and local knowledge		councils.	
Jang (2006)	No difference in overall expenditures for park and recreation services between municipalities contracting out all services to profit-seeking firms and municipalities providing services in-house. Lower expenditure on services found for municipalities contracting out to non-profit or other public providers.	For negative effects: Transactional risks (difficulties with service measurability and monitoring).  For positive effects: Economy of scale, sufficient competition.	Statistical analysis (OLS regression with controls) of available register and secondary survey data (year 1997) from 1055 municipalities.	USA
Lindholst (2008)	Improved technical efficiency (34%) and improved managerial effectiveness in the initial implementation of contracting out. Thereafter only small cost effects in additional procurements.	Abolition of former in-efficient in-house organization. Stronger management instruments ('high powered incentives').	Embedded (longitudinal) case study of development in the period 1998-2006 of contract management in one state authority based on quantitative (accounts) and qualitative (interview) data for six maintenance contracts.	Denmark
Nuppenau (2009)	Internal decentralization of operational decision-making and responsibilities. Differential staff experiences (adapting to contract management as both difficult and stimulating). Creation of common goals and common spirit / cultural change. Improved technical efficiency	Marketization as a locally driven and adaptive organizational change process. Exposure to competitive pressures drives change.	Retrospective longitudinal case-study based on interview data of marketization in the period 1980-2005 six municipalities with different characteristics.	Denmark
Lindholst <i>et al.</i> (2015)	Improved technical efficiency. Decreased allocative efficiency. Increased control orientation in management. Limited outlook on service provision and development in planning and management	Institutionalization and domination of a 'technical language', based on standardizations for defining and managing services.	Case-study of the use of service standards based on analysis of existing literature / studies.	Denmark
Bretzer <i>et al.</i> (2016)	Average cost saving around 2 % found for 39 cases. Unchanged or increased costs are more likely outcomes than cost savings. The likelihood for cost savings is greater the first or second time services are contracted out compared to the third time or more	Some indication that cost savings of contracting out are more likely in metropolitan areas (compared to rural) and in municipalities with high spend per capital on services.	Descriptive statistical analysis with simple tests based on survey data (year 2015) of park maintenance services from 115 municipalities.	Sweden
Leiren <i>et al.</i> (2016)	Substantial increases in cost levels. Lower satisfaction with the performance of private	Private contractors are mainly used for provision of services	Descriptive statistical analysis with simple tests based on survey data	Norway

	contractors compared to in-house provision for cost, development and long term objectives. Similar satisfaction levels for quality, flexibility and follow-up and problem-solving.	municipalities cannot provide themselves, i.e. not for assuring low costs (or other purposes). Competition is weak in some regions.	(year 2015) on park (and road) maintenance services from 95 municipalities.	
Dempsey <i>et al.</i> (2016)	High degree of satisfaction with cost and quality of private provision.	Some indication that higher satisfaction with cost are correlated with using contractors to achieve cost efficiency well as higher satisfaction was reported for municipalities with higher levels of contracting out	Descriptive statistical analysis based on survey data (year 2015) on park (and road) maintenance services from 103 local governments.	England

*Note: Table based on a literature search on outcomes from contracting out park and green space maintenance.*

**TABLE 2.** Qualitative summary of reported instances of positive, neutral or negative outcomes from contracting out park and green space maintenance

Outcome	Positive	Neutral	Negative
Economic (11 studies)	8	3	1
Service (8 studies)	1	4	4
Management / organization (5 studies)	5	0	2
Staff (5 studies)	1	0	5

*Note: A study can report more than one type of outcome as well as both positive, neutral and negative outcomes (i.e. the sum of positive, neutral and negative outcomes can be greater than the number of studies). Relative frequencies are not calculated due to the low number of studies.*



774

**TABLE 3.** Summary of reported associations between four types of contracting outcomes and hypothetical explanations

Explanation	Economic	Service	Management / organization	Staff
Introduction of competition	+	÷	+ / ÷	÷
Private ownership / management	+	÷	+	÷
Shift toward lower service levels	+	÷	-	-
Low costs as government objective	+	÷	-	÷
Change in managerial thinking / tools	+	+ / ÷	+	÷

*Note: Table based inspection of explanations for outcomes provided in 13 studies of contracting out grounds maintenance.*

*Legend: + = mainly positive association, ÷ = mainly negative association, - = no association reported, + / ÷ = highly mixed associations reported*

775