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# Social Public Purchasing: Addressing a Critical Void in Public Purchasing Research

Research Article

**Abstract:** *Since governments are the largest buyers globally, they have enormous purchasing power. Government purchasing, therefore, has potential to be leveraged to improve social outcomes, such as helping disadvantaged communities, ensuring labor rights, and minimizing negative environmental impacts. However, as yet, there is little understanding about social public purchasing research in the field of public administration. We provide a theoretical framework for organizing research around social public purchasing. We then survey both the scholarly and practitioner research on social public purchasing in order to develop a clear understanding of the critical knowledge gaps and the potential for important social public purchasing research.*

## Evidence for Practice

- Public purchasing includes direct purchase (contracts) and indirect purchases (grants, cash reimbursements, and vouchers)
- Social public purchasing can be categorized according to the type of purchase (direct or indirect), and social outcome timing (immediate or deferred).
- Public administration research, both scholarly and practitioner, has paid little attention to the increased use of social public purchasing in policy making. In particular, very little attention has been given to indirect purchases and deferred social outcomes.
- Public administration scholars and practitioners have an opportunity to address critical knowledge gaps about social public purchasing, including policy adoption, policy outcomes, balancing competing policy objectives, and implementation challenges.

Public Purchasing consists of governments' purchase of goods and services. It accounts for about 20 percent of global Gross Domestic Product (GDP) and between 25 and 40 percent of all U.S. tax dollars collected (Cogburn 2003). Increasingly, some governments are using public purchasing to meet their broader social objectives, also known as social public purchasing. Social public purchasing policies are government purchasing rules that explicitly value the economic, environmental, and societal impacts of their purchases. Examples of social public purchasing policies include purchasing quotas for women- or minority-owned businesses, preferences for locally produced products, set asides for small business, expectations for fair labor practices, and purchasing criteria for products with reduced environmental impacts (Arrowsmith 2010; Arrowsmith and Kunzlik 2009; McCrudden 2004; Stritch et al. 2018). While anecdotal information about these policies is emerging in fields such as economic policy, business administration, and innovation, public administration practitioners and scholars have given it far less attention, even

though public purchasing is a central function of administrative government.

Historically, public purchasing has been at the periphery of public administration scholarship, accounting for about 1 percent of the total publications (Trammell, Abutabenjeh, and Dimand 2019). Among these publications, scholars have typically studied contracting concerns involving contract design (Kim and Brown 2012; Malatesta and Smith 2011), contract management (Brown, Potoski, and Van Slyke 2018; Romzek and Johnston 2002), and accountability mechanisms in contracts (Allen et al. 2016; Girth 2012; Romzek and Johnston 2005). Less attention has been given to social public purchasing (Trammell, Abutabenjeh, and Dimand 2019), such as buying local, green purchasing, or responsible supply chains. Additionally, we know very little about how the practitioner community is discussing social public purchasing in their professional articles.

This research aims to understand how social public purchasing has been regarded by the most influential

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outlets in public administration scholarship and practice and to pave a way forward for future research. We begin by describing the basic characteristics of public purchasing and social public purchasing. We then provide a theoretical framework for organizing research around social public purchasing. Next, we consider the historical evaluation of social public purchasing policies enacted by the U.S. federal government and other OECD countries. We then review how public administration literature (scholarly and practitioner) addresses public purchasing and social public purchasing. We pay special attention to prior research on social public purchasing to assess what has been studied to date and to identify potential gaps that are important for public administration scholars to address.

Our findings show that the landscape of social public purchasing policies in the United States is rich and varied. While the federal government first implemented these policies in the 1800s, their use has increased especially since the mid-1970s, with no indication of a slowing trend. However, public administration publications have focused on other topics, with only 4.2 percent discussing issues of public purchasing. These articles focus almost exclusively on aspects of public purchasing, rather than discussing social public purchasing. More specifically, these articles discuss the different aspects of contracting (Brown, Potoski, and Van Slyke 2018; Brown and Potoski 2003; Kim and Brown 2012), public private partnerships (Reynaers 2014; Wang et al. 2018; Yang, Hou, and Wang 2013), and performance management (Koning and Heinrich 2013; Yang, Hsieh, and Li 2009). Although the proportion of public purchasing publications is greater in practitioner association publications, less than 1 percent discuss social public purchasing. These results point to a critical void in the scholarly and practitioner literatures, especially given the potential promise that social public purchasing policies have toward improving economic, environmental, and societal outcomes. We offer a justification for future research to consider the impact of these policies and identify several research questions to advance the field.

## Public Purchasing

Public purchasing is defined as the purchase of goods and services by all levels of government (Arrowsmith 2010; OECD 2017). Funded by taxpayers, these purchases facilitate government functioning and enable public agencies to provide public services such as education, healthcare, infrastructure, and waste management (Furieux and Barraket 2014).

Figure 1 shows that governments carry out public purchasing through two mechanisms: direct purchases and indirect purchases. Direct purchasing, also commonly known as public procurement, refers to contract purchases that are carried out by government offices. For example, the Department of Defense uses direct purchasing to purchase equipment (Ruttan 2006; Salamon and Elliott 2002; U.S. Department of Treasury 2020). Typically, scholars and practitioners have interpreted public purchasing to refer to only direct purchases (Boyne 1998; Brown and Potoski 2003; Romzek and Johnston 2005). This interpretation ignores governments' indirect purchases where the government does not make the actual purchase. Rather, for indirect purchases, government offices transfer their purchasing authority to another organization or citizens. Examples include government grants to nonprofit organizations to

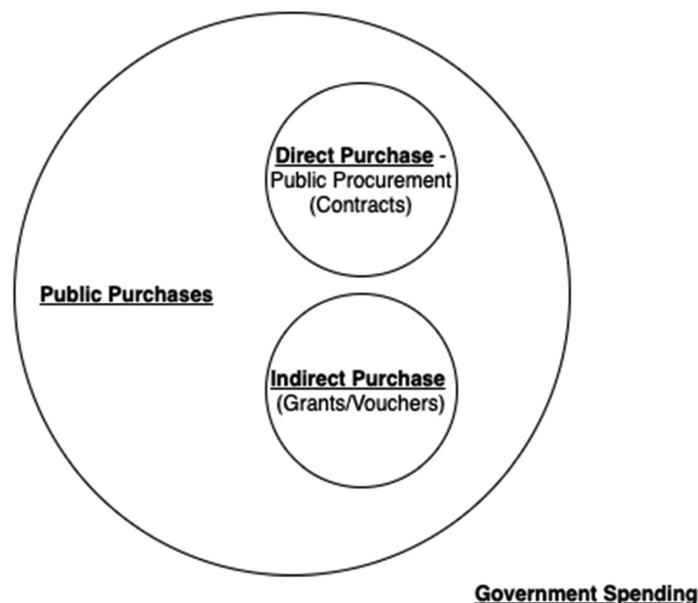


Figure 1 Public Purchasing

provide social services to citizens such as healthcare for the elderly, cash vouchers for food, and cash reimbursements for medicines (Ashley and Van Slyke 2012; Beam and Conlan 2002; Breton 1965; Buchanan 1953; Colin 2005; Department for International Development 2011; Hipp and Warner 2008; Lindert 2013). While indirect purchases are an important form of public purchasing, scholars and practitioners typically have not considered indirect public purchasing in their assessments of public purchasing. Instead, they have focused on contracts with private sector vendors or service providers. When considering the government's overall purchasing power and influence, it is important to include both its direct and indirect purchases.

Government's purchasing influence is significant. Public purchasing amounts to approximately \$9.5 trillion annually, accounting for one-fifth of the global GDP and one-fourth of all government spending (World Bank 2017), making government the largest buyer in most economies (McCrudden 2004; OECD 2017). Within the Organization for Economic Co-operation and Development (OECD) countries, public purchasing accounts for between 15 and 30 percent of GDP (OECD 2017). Even in developing countries, public purchasing accounts for between 10 and 15 percent of their national GDP (UNEP 2017). Within the United States, public purchases are approximately 24 percent of GDP (Hafsa et al. 2021).

Given its size and scope, all types of public purchases are susceptible to mismanagement and corruption, which can lead to huge losses to governments and taxpayers. To reduce these problems, public purchases are heavily regulated. Over the past 100 years, local reform movements and international trade organizations have helped governments create systems of regulation-based laws and rules (Arrowsmith et al. 2011; OECD 2017). Related to direct public purchases, these regulations guide the various stages of the process, which include budget plans, requests for bids, bid evaluation, contract design, and performance assessments (Arrowsmith et al. 2011; Thai 2001). They also impose accountability on purchasers and vendors (Arrowsmith et al. 2011; Hettne 2013;

Schapper, Malta, and Gilbert 2017). Both purchasers and vendors are provided clear guidelines about due process including possible penalties for noncompliance. Purchasers are also typically required to practice transparency by documenting their selection criteria and the final choice of vendor, which helps ensure accountability. This documentation coupled with other regulations allows competing vendors to contest final decisions (Arrowsmith et al. 2011; Telgen, Harland, and Knight 2007; Thai 2001). Although these regulations help ensure compliance, they also tend to add complexity to the public purchasing system and can increase administrative delays (Stritch et al. 2018).

Other forms of government purchasing are regulated to improve accountability. Related to indirect purchases, grants can account for up to 20 percent of state and local government's expenses (Beam and Conlan 2002). To improve the accountability of these indirect purchases, governments require competitive applications and internal audits. Additionally, governments regulate indirect purchases by imposing restrictions on the types of goods and services that organizations or citizens can purchase. In each instance, citizens' or organizations' purchasing choices are constrained by government expectations or specific purchasing criteria. For instance, related to food vouchers, governments often restrict what types of food citizens can purchase with these vouchers. These restrictions can influence the production of certain types of food products. Similarly, government grants for social services place restrictions on the types of services provided. However, indirect purchases are less regulated than contracts (Beam and Conlan 2002) and are generally awarded with limited scrutiny, as is the case for Medicaid grants (Breton 1965). Some scholars therefore suggest that governments should be more transparent and critical regarding their award criteria (Ashley and Van Slyke 2012; Dong and Lu 2019; Zhao and Lu 2020).

Other ways in which governments seek to reduce purchasing mismanagement and corruption involve imposing regulations such as eligibility criteria, purchase restrictions, and preapproved vendor lists for voucher and cash transfer and reimbursement programs (Handa et al. 2016; Steuerle and Twombly 2002). For instance, vouchers for housing are limited to qualified citizens who are either low-income or vulnerable (Handa et al. 2016; Steuerle and Twombly 2002). Additionally, U.S. federal housing vouchers can only be used for housing that obtains a health and safety inspection. Similarly, in the case of food vouchers, governments generally limit eligibility and restrict the types of food that citizens can purchase, eliminating, for example, purchases of alcohol and unhealthy foods. Other programs that restrict the products that citizens purchase, include preapproved vehicles in California's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project.

Regardless of whether purchases are direct or indirect, an important tension associated with reducing mismanagement and corruption is that regulations tend to diminish efficiencies related to the time it takes to award a contract, grant, or voucher (Arrowsmith et al. 2011). That is, as regulations increase, so too does process inefficiency. One way in which governments reduce this inefficiency is to require a singular criterion for purchases. Related to contracts, that criterion is often the lowest price bid for awarding contracts, and related to grants it is the highest number of beneficiaries

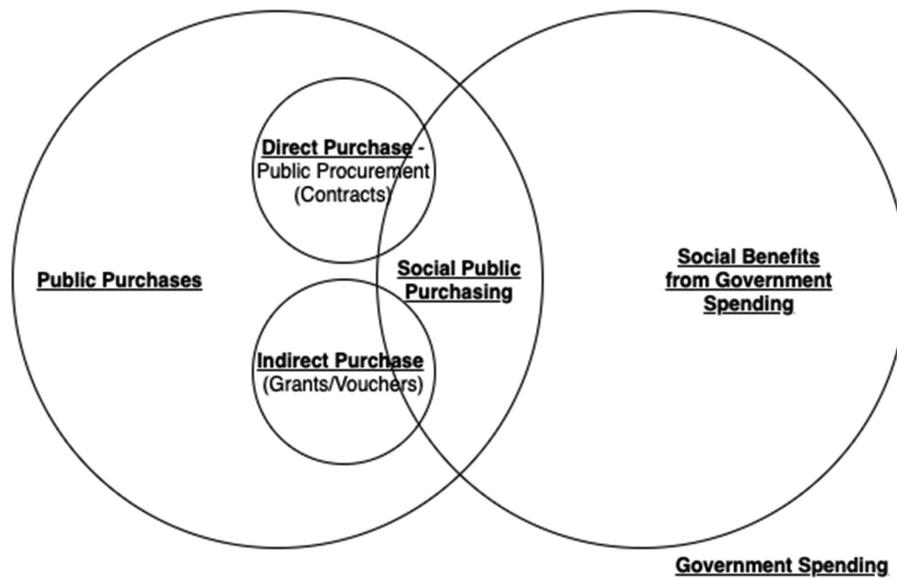
(Arrowsmith et al. 2011; Beam and Conlan 2002; Cravero 2017; Hettne 2013; Zhao and Lu 2020). This incentive structure creates unintended outcomes. For instance, when a nonprofit is motivated to increase the number beneficiaries in order to receive a grant, it will most likely prioritize cases that are easier to process. As a result, vulnerable groups or more complicated recipients might get left behind. Single criterion approaches can also limit other benefits that could be derived from a product or service, such as product quality and timeliness of delivery. Governments, therefore, typically design purchasing regulations with multiple criteria in order to deliver social and economic benefits simultaneously.

## Social Public Purchasing

Government's use of public purchases to achieve social and environmental goals is known as social public purchasing (Arrowsmith 2010; Bengo 2018; Brammer and Walker 2011; Kanapinskas, Plytnikas, and Tvaronavičienė 2014; Leiser and Wolter 2017; McCrudden 2004; Mendoza Jiménez, Hernández López, and Franco Escobar 2019; Sack and Sarter 2018; Uttam and Roos 2015; Wontner et al. 2020). Examples of social public purchasing include set-asides that seek to address a single issue, such as the purchase of products from minority-owned businesses to address social inequalities, the purchase of environmentally friendly goods to reduce negative environmental impacts, and vouchers to encourage the adoption of low-carbon emitting vehicles to address climate change. Some forms of social public purchasing address multiple social and environmental issues together, such as the purchase of environmentally friendly goods from a minority-owned, local business in an effort to reduce environmental impacts while empowering disadvantaged groups and supporting local economic development.

Two prominent bodies of literature address social public purchases: public procurement of innovation (direct purchase of innovative solutions) and social public procurement (use of direct purchase for social outcomes). Both literatures typically have not been published in prominent public administration journals. The public procurement of innovation literature suggests that governments can solve large social problems created by inadequate public service and poor environmental management through direct purchase of innovative solutions (Edler et al. 2005; Edler and Georghiou 2007; Hommen and Rolfstam 2008; Uyarra and Flanagan 2010). Since governments are large buyers, their purchase can encourage widespread adoption of innovative solutions that ultimately solve social problems (Edler and Georghiou 2007; Edquist et al. 2015). The public procurement of innovation is currently limited to the direct purchase of innovative environmentally friendly technologies. It generally does not account for other types of public purchases and social outcomes, particularly social justice issues such as socioeconomic inequality.

The second prominent body of literature addressing social public procurement focuses attention on how direct purchases can be used to address social justice issues such as women empowerment and labor rights, in addition to environmental issues (Arrowsmith 2010; Barraket, Keast, and Furneaux 2015; Furneaux and Barraket 2014). These scholars suggest that purchases can be categorized according to: (1) what governments' purchase (goods, services, or human services); (2) from whom it was purchased (private or nonprofit



**Figure 2** Public Purchasing, Social Public Purchasing, and Social Benefits from Government Spending

organization); and (3) the type of social impact (direct or indirect) (Barraket, Keast, and Furneaux 2015; Furneaux and Barraket 2014). While this literature advances our understanding of social public purchasing impacts, is it limited to direct public purchase and only considers social outcomes that can be achieved from contracts. What is generally missing from these discussions is how other public purchases, including grants, vouchers, and cash reimbursement, can affect social outcomes. This limitation can impact how social public purchasing is assessed more generally.

In order to address this gap, we define social public purchasing as all government purchases (direct and indirect) that improve social and environmental outcomes, as shown in figure 2.

We consider social outcomes to be different from public services (e.g., public education and public health) that governments typically provide. Social outcomes are societal benefits that can result from a public purchase, such as worker safety, harassment free workspaces, child labor-free supply chains, women and minority empowerment, and accessible workspaces (Mendoza Jiménez, Hernández López, and Franco Escobar 2019; Missimer, Robèrt, and Broman 2017; Uttam and Roos 2015; Wontner et al. 2020). They also include environmental concerns such as climate action through low emissions production, protection of natural resources through water-smart purchases, and reduction in use of single-use plastic (Daly 1995; Wu 2013). While environmental benefits are sometimes seen as distinct from social benefits, they directly impact the society. For example, if the local government purchases energy-efficient bulbs, it directly saves taxpayer money and reduces carbon emissions. The emissions reduction would also ultimately improve overall public health and well-being.

Table 1 elaborates on social public purchasing by offering a theoretical typology. It distinguishes among two types of public purchases: direct (contract), and indirect (grants, vouchers, cash reimbursements). Direct purchases involve government making purchasing decisions that lead to exchanges between government

**Table 1** Social Public Purchasing Types

		Social Outcome Timing	
		Immediate	Deferred
Public purchase type	Direct Indirect	Explicit contract Typical transfer	Contract spillover Transfer spillover

and a vendor. By contrast, indirect purchases involve government transferring the purchasing decision to either individual citizens or to a nonprofit that provides a social service. Both types of purchases can deliver immediate and deferred social outcomes. Immediate social outcomes are typically achieved shortly after government awards the contract, grant, voucher etc. Examples include energy savings that accrue after the purchase of energy-efficient goods that reduce climate change impacts. Other outcomes are deferred and typically take multiple years to materialize. For instance, government's purchase of low-carbon goods can cause upstream manufacturers and distributors to reevaluate their production processes to mitigate their carbon emissions. These distinctions lead to four types of social public purchasing: explicit contracts, contract spillovers, typical transfers, and transfer spillovers.

#### **Explicit Contract**

Explicit contracts are direct, contractual, purchases. These contracts specify the nature of the good or service and the type of vendor. Social outcomes accrue at the point the contract is awarded, or shortly thereafter. As such, explicit contracts have an immediate social outcome. Examples include contracts for low-carbon goods. These contracts directly reduce government's carbon emission. Similarly, contracts involving set-asides for women-owned businesses address socioeconomic inequality by supporting women business-owners at the point the contract is awarded. and set-asides for women-owned businesses (Arrowsmith and Kunzlik 2009; McCrudden 2004).

#### **Contract Spillover**

Contract spillovers are direct purchases or contracts that have deferred social outcome in that they occur sometime after the point

of purchase. For instance, governments often create purchasing contracts with statements of equal employment. These statements are intended to encourage contractors to hire more minority and female employees over time (Rice 1991). Similarly, the United Kingdom requires contractors to take steps to prevent modern slavery in their supply chains (Butler 2016). This condition is intended to eventually lead to elimination of modern slavery in supply chains.

### Typical Transfer

Typical transfers are general purchases for social services that have immediate social outcomes for citizens. In some instances, typical transfers involve government cash vouchers to citizens for specific social outcomes, such as to assist low-income families with nutritious meals (Steuerle and Twombly 2002). Typical transfers also involve governments giving grants to nonprofits so they can purchase nutritious meals for low-income families (Beam and Conlan 2002). In all cases, typical transfers offer social outcomes shortly after the transfer.

### Transfer Spillovers

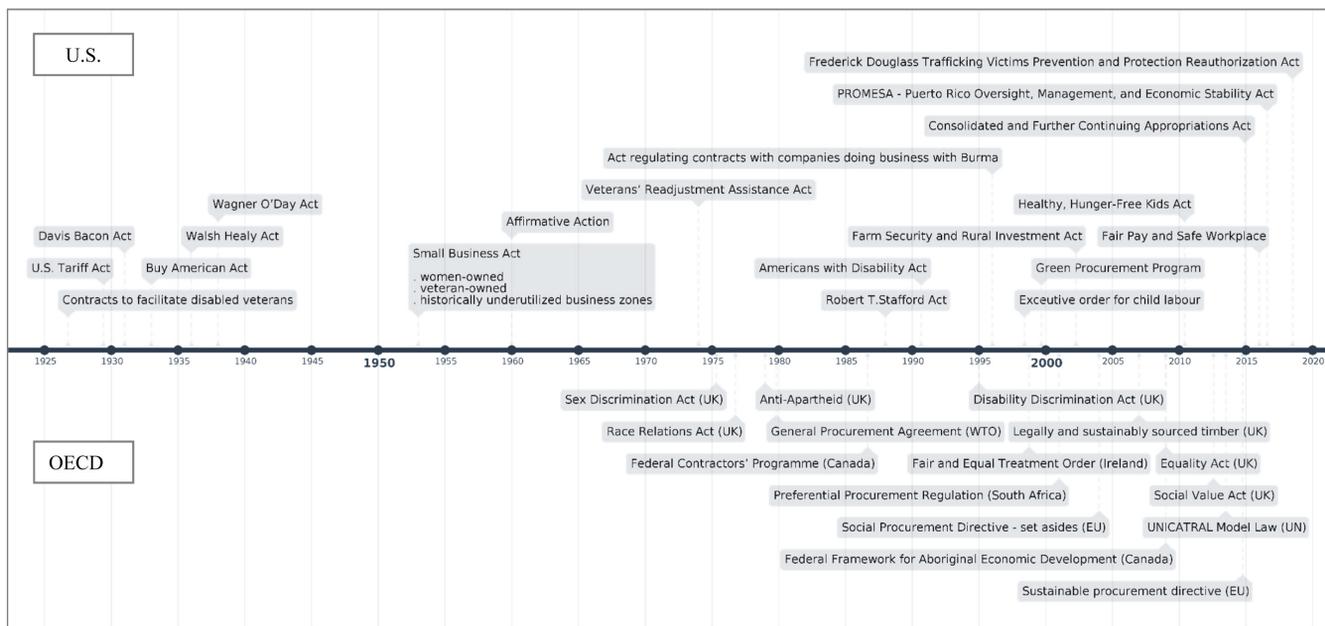
Transfer spillovers are typical transfers that offer deferred social outcome. For instance, food vouchers (a typical transfer) can specify healthier alternates to low-income families that reduce obesity over time. Additionally, food vouchers may allow the low-income family to spend their earnings on other family concerns, such as the purchase of medicine (Handa et al. 2016). Grants to nonprofits can also have similar spillover outcomes. For example, a government grant that funds tobacco policy research can have long lasting impacts on citizens' health if government uses it to develop evidence-based policies.

Combined, these four types of social public purchasing form a theoretical typology that articulates the variations in different types of government purchases (direct and indirect) and when social outcomes accrue (immediate or deferred). The typology also illustrates that while social public purchasing may encourage the production of innovative products and services and contracting, this is only a small portion of its scope.

### Social Public Purchasing Policies

Social public purchasing policies are purchasing rules or guidelines that deliver social benefits (Arrowsmith et al. 2011; Furneaux and Barraket 2014). These benefits are derived from enhanced empowerment for women-, small-, or minority-owned businesses, local business growth, fair labor practices, and environmental improvements (Arrowsmith and Kunzlik 2009; Cravero 2017). Some governments set quotas for purchasing from minority-owned or small businesses to ensure equal access in the market (Arrowsmith et al. 2011; Furneaux and Barraket 2014). In other instances, governments impose wage conditions on vendors when awarding contracts, such as fair wages, no child labor, or the prohibition against modern slavery (Furneaux and Barraket 2014; McCrudden 2004).

Social public purchasing policies have been expanding significantly over time, as illustrated in figure 3. The figure shows the evolution of social public purchasing policies between 1900–2018 in the United States and different OECD countries. The first U.S. social public purchasing policy was adopted in 1840. It was an executive order by the President Van Buren, which imposed a 10 hour working day condition on all vendors contracted by federal government (Roediger and Foner 1989). After 1930, the number of U.S. social public purchasing policies steadily grew.



Notes: This timeline was produced by searching US laws using the US Congressional Database (govtrack) and Google search to identify similar policies for Australia, Canada, European Union (E.U.), New Zealand and the United Kingdoms (U.K.). Typical keywords used in both of these searches include; women, minority, local, buy American, small businesses, green, environment, and labor rights for the US; and women public purchasing policy, minority public purchasing policy, buy local public purchasing policy, small business public purchasing policy, green public purchasing policy, environmental public purchasing policy, and social public purchasing policy for other countries.

Figure 3 Timeline of U.S. and OECD Social Public Purchasing Policies (1900–2018)

Some of the more prominent U.S. social public purchasing policies include Davis Bacon Act (1931) which ensured that federally contracted businesses paid minimum wages for all employees, the Buy American Act (1933) which prioritized local manufacturers when awarding contracts, and the Small Business Act (1958), which set aside contracts for small, women-owned, or minority-owned businesses (McCrudden 2004). Other U.S. policies also encouraged set-aside contracts. These include the Wagner O'Day Act (1938) for people with disabilities, Veterans' Readjustment Assistance Act (1974) and Affirmative action policies in 1960s (McCrudden 2004). In 1998, by way of executive order, the United States also adopted a federal green purchasing policy.

Many policies were motivated by social movements (e.g., labor, ecology). For instance, the Davis Bacon Act and the Buy American Act reflected labor and business interests during the depression. Similarly, the Affirmative action policies of the 1960 reflect the civil rights movement and the 1998 Executive Order for federal green purchasing was created because of the growing environmental movement.

In contrast to the United States, social public purchasing policies across OECD countries began gathering momentum in the 1970s. The United Kingdom and Ireland passed legislations that required all public officers, including purchasing officers, to consider equality in their decision-making. These legislations included the Race Relations Act (1976), Sex Discrimination Act (1975), Disability Act (1995), and Equality Act (2010). Like the United States, the United Kingdom government also supported small businesses through direct purchases. However, instead of creating a formal purchasing policy, the United Kingdom government set up a council to advise small businesses (McCrudden and Doreen 2007). Much of the E.U.'s social public purchasing objectives were bundled into single legislations such as the 2008 and 2014 procurement directives. More recently, international governance bodies such as the United Nations and OECD have emphasized the importance of using public purchasing to achieve environmental and social goals.

Across all geographic settings, social public purchasing policies hold enormous potential for improving numerous social outcomes even though, at present, they are largely limited to direct public purchases. As the largest buyers in the economy, governments can signal a significant demand for goods and services that offer social benefits. Even if governments allocate a small portion of their purchases to social public purchasing, they may be able to achieve significant social change directly within their communities and by shifting demand in the supply chain. If governments started considering the social impact of all types of public purchasing, we expect the impact to be much larger. However, as yet, we have limited knowledge about how public administration scholars and practitioners are emphasizing it and whether its potential promise is being assessed.

## Methods

In order to assess how public administration scholars and practitioners have regarded social public purchasing, we conducted a systematic literature review (Tummers et al. 2015; Tummers and Karsten 2012) of the scholarly and practitioner literatures that were published in the most widely recognized public administration outlets. A systematic review carefully examines publications on a

specific topic and synthesizes their content. This approach enabled us to understand what previous scholars have assessed related to public purchasing and social public purchasing, and what gaps exist. Additionally, we reviewed both the scholarly and practitioner literatures to explore whether social public purchasing has been addressed differently in scholarly and practitioner publications.

## Assessing Scholarly Publications

We started with the scholarly literature. We constructed a dataset of public purchasing-related articles that were published in peer-reviewed public administration journals over 32 years. We focused on the top ranked public administration journals as identified by two prominent indexing platforms: Google Scholar Metrics and the Journal Citation Report Index. Our approach was motivated by three factors. First, by focusing on indexed platforms, we identified journals with greater visibility, availability, and readership (Koushik 2017). While nonindexed journals offer important scholarly contributions, they are less likely to be identified by search databases and tend to have lower citations and readership (Balhara 2012).

Additionally, in incorporating two indexing platforms, we further ensure that our analysis focuses on journals with greater prominence and that were available to a wider array of readers (Akhigbe 2012). Moreover, indexed journals are ranked, which is how we were able to identify the top ranked public administration journals. This is important because faculty tenure, promotion, and other professional decisions, increasingly consider journal rankings as evidence for research quality (Corley and Sabharwal 2010; Hodge and Lacasse 2011; Lamb et al. 2018). Journal ranking is recognized as a measure of its importance within its field and provides a powerful incentive on what faculty decide to focus their research (Balhara 2012).

After merging both lists, we identified the 10 highest ranked journals that were identified more generally as being public administration journals—either a public affairs, public management, or public administration journal. These journals were characterized as having the highest h-indices, numbers of citations, and journal impact factors, as shown in table 2.

Table 2 shows four columns. The first column lists the names the top 10 public administration journals. The second column indicates

**Table 2** Top 10 Public Administration Journals

Journal	h-5 Index	Number of Cites	Journal Impact Factor
Administration & Society (AS)	30	1,877	1.564
American Review of Public Administration (ARPA)	38	1,872	2.168
Governance (Gov)	38	2,364	2.899
International Review of Administrative Sciences (IRAS)	30	1,454	2.129
Journal of Policy Analysis and Management (JPAM)	36	2,707	5.018
Journal of Public Administration Research and Theory (JPART)	46	5,222	3.289
Public Administration (PA)	40	3,941	1.825
Public Administration Review (PAR)	58	9,110	4.063
Public Management Review (PMR)	49	3,556	4.221
Public Money & Management (PMM)	24	1,416	1.377

their h-5 Index, which indicates that a journal has at least h articles with h citations in the last five years. For example, Administrative Society (AS) has at least 30 articles with at least 30 citations in the last five years (Bornmann and Daniel 2007; Google Scholar 2021). The third column, number of cites, indicates the total cites for each journal for the year 2019. The fourth column lists each journal's impact factor, which is the ratio of total citations in 2019 to the number of articles and reviews published in the last two years (2018 and 2017). A ratio higher than 1.0 implies that a journal's total number of citations in a year exceeded the number of articles published over the prior two years (Garfield 2006). A journal's impact factor is a widely used proxy for the relative importance of a journal and is awarded to indexed journals (Balhara 2012).

However, several biases are introduced by assessing only the work of indexed journals, which include: coverage and language preference of the database, procedures used to collect citations, citation distribution of journals, preference of journal publishers for articles of a certain type, citing behavior across subjects, and possibility of exertion of influence from journal editors (Balhara 2011). For this reason, it is important to recognize that there are some limitations to our approach of focusing on indexed journals.

We restricted our assessment to publications in public administration journals as we wanted to understand how public administration scholars have discussed and assessed social public purchasing. The top 10 journals included in our assessment were: Administrative Society (AS), American Review of Public Administration (ARPA), Governance—an International Journal of Policy Administration and Institutions (Gov), International Review of Administrative Sciences (IRAS), Journal of Policy Analysis and Management (JPAM), Journal of Public Administration Research and Theory (JPART), Public Administration (PA), Public Administration Review (PAR), Public Money Management (PMM), and Public Management Review (PMR). Of the prominent public purchasing journals, only one was listed in the Journal Citation Report index for 2019: *Journal of Public Money Management*. Although journals like *Journal of Public Procurement* and *Public Budgeting and Finance* also address public purchasing, as they are not indexed, we did not include them in our analysis.

Our next step was to identify articles within the top 10 public administration journals that addressed topics of public purchasing. Our keywords are summarized in table 3. To identify whether an article met our definition of public purchasing, we relied on keywords that included: purchase, procure, contract, outsourcing, grants, and cash vouchers. We used asterisks in keywords to increase the probability of identifying relevant articles. We relied on Web of Science for our search and considered only peer-reviewed articles published during the time period, 1988–2020. Web of Science yielded 2,595 unique scholarly articles that had the keywords in the titles, abstract, or author listed keyword.

We manually screened each of the 2,595 articles for their relevance to *public purchasing*. Articles were considered relevant if they focused on contracting, tenders, vendors, purchasing, privatization or outsourcing of public service delivery, bidding or auctions, and government purchases for citizens through grants to nonprofits, cash vouchers, or cash reimbursements. We coded articles as 1 if

**Table 3** Keywords for Public Purchasing and Social Public Purchasing

Public Purchasing	Social Public Purchasing
Auction*	Set-aside
Bid*	Women
Contract*	Minority
Privat*	Local business
Procur*	Small businesses
Purchas*	SME
Suppl*	Small medium enterprise
Set-aside*	Labor rights in supply chain
Tender*	Green purchasing
Vendor*	Environmental purchasing
Acquis*	Social
Capital	Ethics
NonProfit*	Sustainable development
Cash	Gender
Voucher	Race
Expend*	Disability
Spend*	Public procurement of innovation
Award	Inequality
Grant*	Sustainability
Outsourc*	Sustainable development
Buy*	Nutrition
	Innovation

they were relevant to public purchasing and 0 if irrelevant. Articles that could not be easily categorized into either category, were coded as 2. For such articles, we assessed their abstracts and conclusions to verify their relevance and then coded them as either 1 or 0. If a publication was irrelevant to public purchasing, it was removed from our analysis. This process identified 515 publications that were relevant to public purchasing.

We then assessed each of the 515 articles for their relevance to *social public purchasing*. If an article's title or abstract mentioned the following: social or environmental values, socioeconomic inequality, minority preference purchasing, women- or minority-owned business, buying local, small businesses, green/environmental purchasing, sustainable development, labor rights in supply chain (as mentioned in table 3) we considered it relevant to social public purchasing. Additionally, we also identified public procurement of innovation as being relevant to social public purchasing. A total of 65 articles from 1988 to 2020 met our criteria focusing on social public purchasing.

In order to strengthen the validity of our results, we assessed the inter-coder reliability for our coding framework.<sup>1</sup> To do so, we gave another researcher in the field a randomly selected sample of 25 articles. We provided this individual with our coding definitions and asked them to determine whether the articles were relevant to either public purchasing or social public purchasing. We then calculated the intercoder reliability as the proportion of the sample articles in which the independent researcher's coding matched that of the authors. The inter-coder reliability across the independent researcher's coding and that of the authors' was 88 percent, in that coding for 22 of the 25 articles matched.

To determine the proportion of articles that were focused on public purchasing or social public purchasing in the top 10 public administration journals, we needed to know the total number of publications in each journal for each respective year. We collected these data by visiting each journal's website and manually counting its total number of articles in each year. Book reviews and editorial

notes were omitted from the overall count. We then calculated: (1) the number of public purchasing articles as a percentage of the total publication, and (2) the number of social public purchasing articles as a percentage of the total publications for each journal.

### Assessing Practitioner Publications

For practitioner publications, we conducted a systematic review of publications that were produced by professional associations, since a critical part of their role is to impart information on cutting edge concerns that are relevant to their membership (ICMA 2021; NCMA 2021). For instance, if either the General Accountability Office or the General Services Administration develop new guidance related to social public purchasing, professional associations generally would describe this guidance in their publications and convey how it is relevant to their members.

We focused on the largest public administration and public purchasing professional associations. We identified these associations by using internet searches on Google. Professional associations that were included in our analysis had to meet the following five criteria: (1) their primary mission that was focused on public administration; (2) they emphasized public purchasing in member communication; (3) their publications were published regularly via a report, magazine, blog, or newsletter; (4) their publications were in English; (5) publications were accessible to general audiences (and not just members). Since English is widely used for communication across their international membership, by focusing on professional associations that produce publications in English, we were able to target more influential international professional associations. The five inclusion criteria led to 34 professional associations,<sup>2</sup> which were sorted based on their total membership. The top five largest professional associations had between 1,750 and 20,000 members (see table 4). We limited our analysis to these associations because their large memberships are suggestive of their impact on the field. Additionally, memberships within other organizations were significantly lower (the next largest had 175 members). This approach necessarily excluded smaller, more regionally focused associations, associations that are not regularly communicating to members via publications. Additionally, because associations that either do not produce publications in English or are not regularly communicating to members via publications.

We then reviewed professional association publications from *National Contract Management Association (NCMA)*, *Institute of Public Procurement (NIGP)*, *International City/County Management Association (ICMA)*, *National League of Cities (NLC)*, and *ICLEI—Local Governments for Sustainability (ICLEI)*. We visited the website for each professional association, and using the same keywords listed in table 3, we manually screened each publication to determine whether or not it was relevant to public purchasing. Since the

most recent publication began in 2015, we only considered articles published between 2015 and 2019 for all five organizations.

We determined each article’s relevance to public purchasing and social public purchasing using the criteria we used for assessing the scholarly publications. We identified 262 publications published between 2015 and –2019 that were relevant to public purchasing and, of these, 31 focused on social public purchasing. We then calculated the proportion of public purchasing and social public purchasing for each organization by manually counting the total number of professional association publications. Advertisements or editorial notes were omitted.

### Content Analysis

In order to understand the general topics that are most commonly addressed in the scholarly (515) and practitioner (262) publications, we relied on keyword analysis. For scholarly articles, we analyzed abstracts from publications. For practitioner articles, we only analyzed the article titles as many did not have formal abstracts. We used Antconc, a free text analysis software to find keywords (Anthony 2019).

A keyword analysis compares distribution of words within a target text and a common English text (brown corpus) using a log-likelihood test. The software identifies keywords as words that have a high positive difference in distribution (Anthony 2019; Kilgarriff 2001). In order to ensure that the software only identifies key concepts, we excluded regularly used words from our analysis such as articles and pronouns, academic words such as theory and methods, and common public purchasing terms such as purchase, procurement, public, and government.

Antconc allows users to upload a stop list of words to exclude them from the analysis. We used the stop list by Natural Language Toolkit’s and a modified version of Averil Coxhead’s academic word lists (Coxhead 2000). The academic wordlist includes words such as contract, minority, and partnership that were key to our text. For this reason, we only included words such as research, lab, experiment, and results that commonly appear in research papers. Since we expected the words public, governments, procurement, and purchasing to occur frequently throughout the text, we also added them to the stop list. By excluding these words, we were able to understand other topics besides public purchasing that were key to the public purchasing literature.

Once we obtained the keyword list, we manually screened for anomalies. We looked for words that share roots such as contract and contracting that were mentioned separately, and only used one of those words. We limited our analysis to the top 50 keywords.

In addition to keyword analysis, we used an n-grams analysis. An n-gram analysis helps identify clusters of words that frequently occur together such as public-private partnerships (Anthony 2005; Nesselhauf and Tschichold 2002). For our analysis, we only looked for 2- and 3-g. Unlike the keyword analysis, we were unable to automate the n-gram analysis to exclude key concepts. Therefore, we manually screened for words that were helpful for the analysis, such as “set asides” and “small businesses.” We screened out phrases such as “guide to” and “state and local” as these did not advance our

**Table 4** Shortlisted Professional Public Purchasing Organizations

Organization	Membership
National Contract Management Association (NCMA)	20,000
Institute of Public Procurement (NIGP)	15,588
International City/County Management Association (ICMA)	11,881
National League of Cities (NLC)	2,000
ICLEI	1,750

understanding of the text. We combined the words from the top 50 keyword lists and the key phrases from top 50 n-grams to generate a word list. We used this word list to generate word clouds with a free, online word cloud generator.

We paid special attention to social public purchasing scholarly articles and analyzed 57 for their type of social public purchasing. We did not have full access to 8 of the 65 scholarly articles on social public purchasing as they were behind a paywall. We mapped the 57 accessible articles on to our social public purchasing typology. We used our definitions of type of public purchase (direct or indirect) and social outcome timing (immediate or deferred) to classify the article as explicit contract, contract spillover, typical transfer, or transfer spillover. If the article referred to contracts or acquisition, it was coded as direct purchase. For other types of public purchases such as grants, and cash vouchers, we coded the articles as indirect purchase. If the article referred to an immediate social outcome such as empowering disadvantaged groups through set-asides or purchase of green goods, we coded it as immediate. If the article referred to spillover outcomes such as increasing minority employment in a contracted firm through set-aside, we coded it as deferred. For this coding, we asked a second coder to assess titles and abstracts for type of public purchase and social impact timing. We had a 100 percent intercoder reliability for type of public purchase. For timing, we had a 67 percent intercoder reliability, so we asked the coder to read more of the paper and conducted a second analysis, which resulted in a 100 percent match.

For all social public purchasing scholarly articles, we also identified and categorized the social outcomes that they addressed. We conducted this exercise on MAXQDA and used grounded theory to categorize social outcomes.

## Results

Figure 4 indicates the overall trend of scholarly publications in the top indexed public administration and public purchasing journals over the last 32 years.<sup>3</sup> The total journal publications are

at the bottom, followed by public purchasing publications, and social public purchasing publications are at the top. Since 1988 of the 12,164 total publications in all 10 journals, less than 4 percent (515) of the publications addressed public purchasing. These results support earlier findings by Trammell, Abutabenjeh, and Dimand (2019). Additionally, of these publications less than 1 percent (65) addressed social public purchasing, suggesting that while there is a critical gap in public administration literature related to public purchasing, it is even bigger for social public purchasing.

Figure 5 separates the scholarly publications by journal. Each journal's total publications are on the left, followed by its public purchasing publications and social public purchasing publications. For example, PAR published 2,064 articles over 32 years. A total of 78 articles studied public purchasing (3.8 percent of all published content) and 13 studied social public purchasing (0.7 percent of all published content). Among the top 10 public administration journals, PMM published most articles on both public purchasing (118 articles) and social public purchasing (19 articles). Among the top 10 public administration journals, publications on public purchasing ranged between 1 and 7 percent of total content, and social public purchasing made up less than 1 percent of all publications.

We observe similar trends in practitioner literature. Figure 6 indicates the overall trend of publications in the top public administration professional association publications between 2015 and 2019.<sup>4</sup> The proportion of public purchasing publications is much higher in practitioner publications as compared to the proportion published in scholarly journals. However, of the 3,243 total publications (bottom) in all five practitioner publications, 8 percent (262) publications have addressed public purchasing and only 1 percent (31) have addressed social public purchasing.

Figure 7 displays results of practitioner literature review by professional association. We note that NCMA and NIGP have

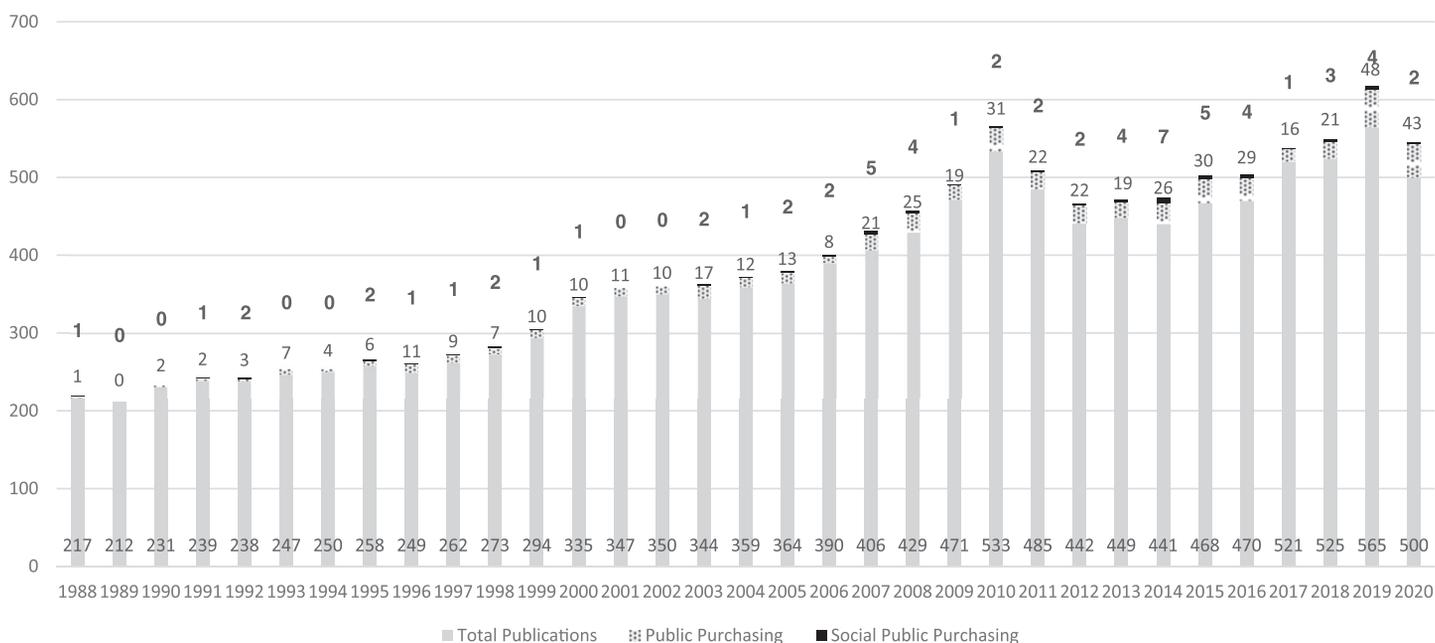
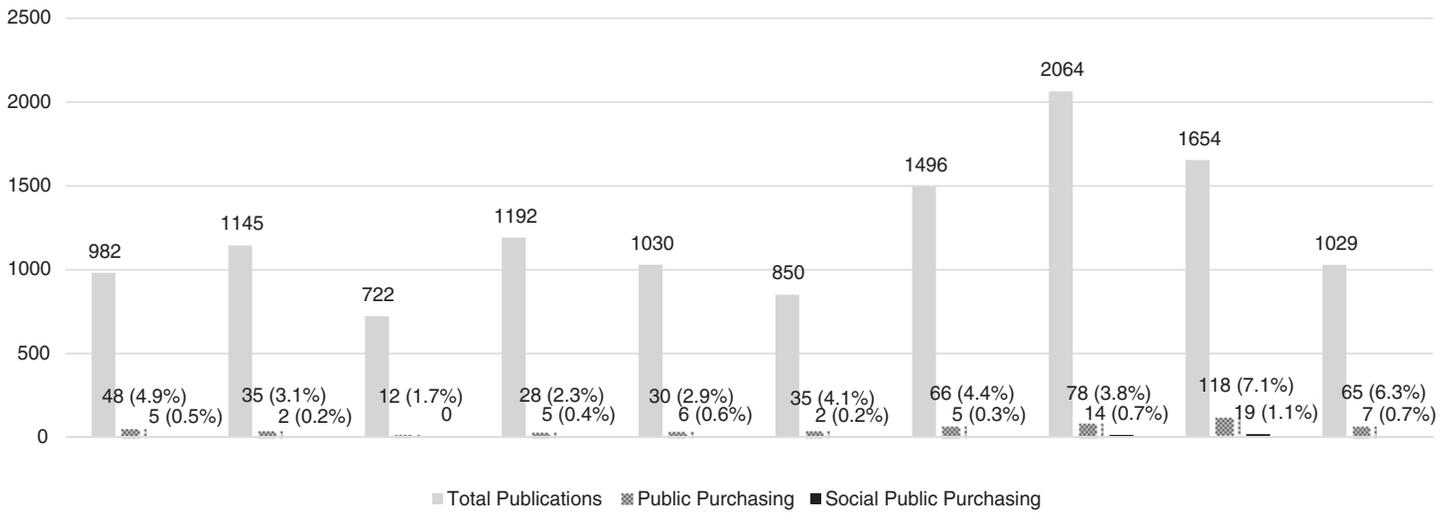
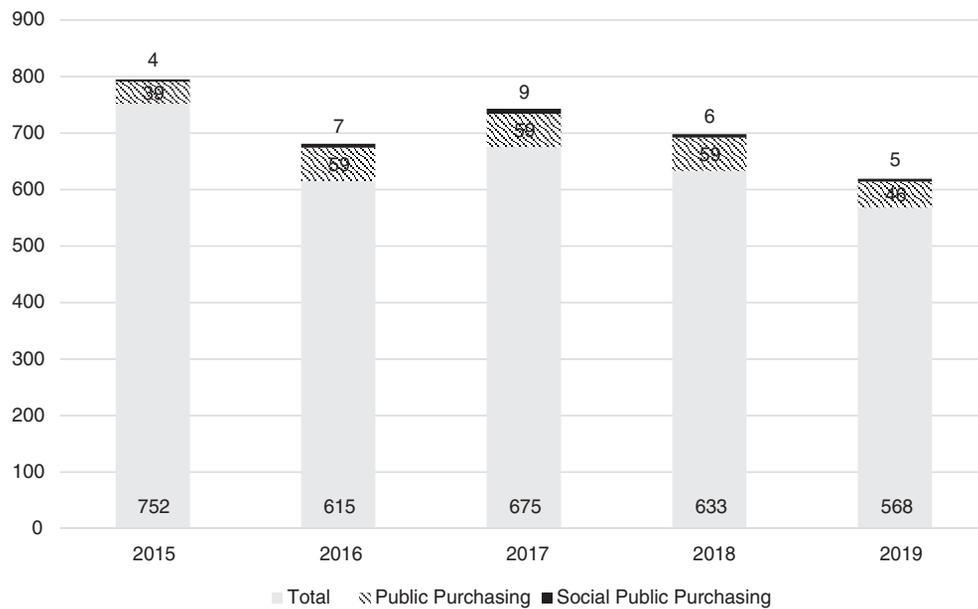


Figure 4 Sum of Total Articles, Public Purchasing Articles and Social Public Purchasing Articles in Public Administration Journals



**Figure 5 Proportion of Public Purchasing and Social Public Purchasing Articles in the Top 10 Public Administration Journals (1988–2020)**



**Figure 6 Sum of Total Articles, Public Purchasing Articles and Social Public Purchasing Article in the Top Professional Association Publications for Public Administration (2015–2019)**

a much higher share of public purchasing publications. These articles discuss topics such as contracting employees. Among other organizations, ICLEI, ICMA, and NLC, the proportion of public purchasing and social public purchasing publications is similar to the trend we see in scholarly publications.

Figure 8 summarizes the results of our keyword analysis of the public purchasing and social public purchasing publications in scholarly and practitioner literature, respectively. The publication type (scholarly article or practitioner publication) defines the vertical axis, and the purchasing topic (public purchasing or social public purchasing) defines the horizontal axis. In each word cloud, the size of each word is proportional to its keyness (difference in distribution).

In general, there is a disproportional focus on the contracting process in direct public purchases in scholarly articles and practitioner articles

of all sorts. Scholarly articles on public purchasing (quadrant a), focus prominently on topics related to “services,” “service delivery,” “private firms,” and “management.” Practitioner publications on public purchasing (quadrant c), focus more frequently on topics related to “technology,” “partnerships” and “subcontracts.” By contrast, scholarly articles on social public purchasing (quadrant b) emphasize topics related to “minority” “policy” and “public private partnership (PPP)”. Finally, practitioner publications on social public purchasing (quadrant d) emphasize topics related to “green,” “sustainability,” and “Small Business Innovation Research Program (SBIR).”

Table 5 summarizes the type of social public purchasing for scholarly social public purchasing articles. A total of 51 out of 57 articles referred to direct public purchases. However, only five addressed indirect purchases. While articles were more inclined toward studying immediate outcomes, 22 articles studied both

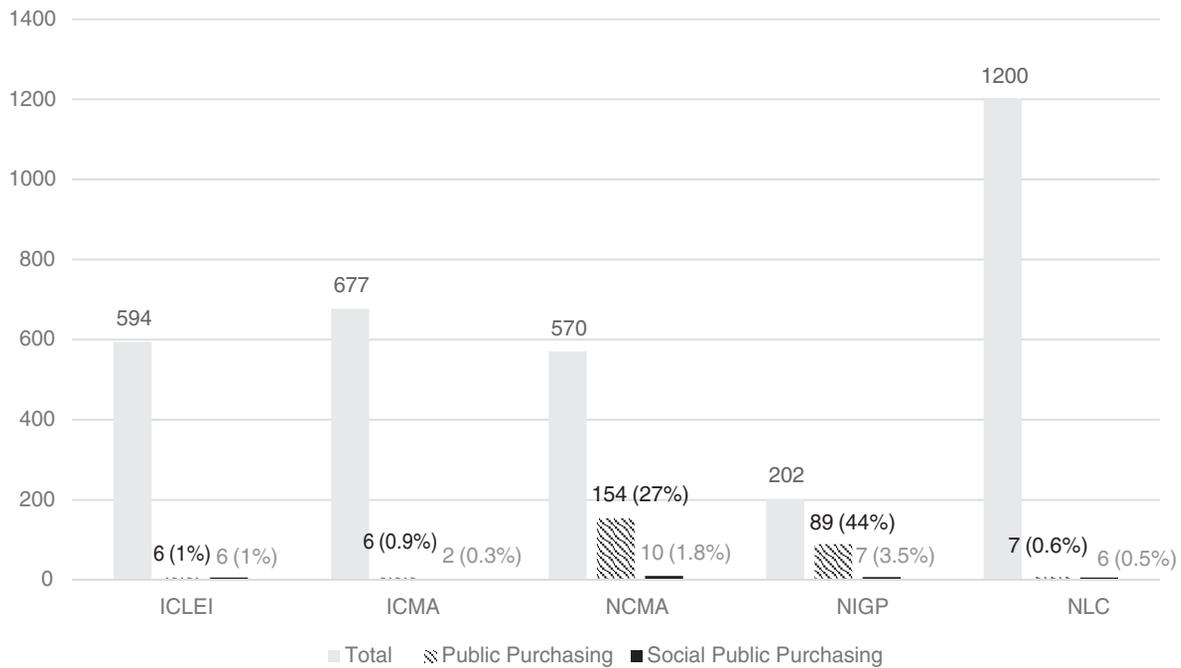


Figure 7 Proportion of Public Purchasing and Social Public Purchasing Articles in the Top Professional Association Publications for Public Administration (2015–2019)



Figure 8 Keywords of Shortlisted Articles: (a) Public Purchasing articles in Scholarly Journals, (b) Social Public Purchasing Articles in Scholarly Journals, (c) Public Purchasing articles in Practitioner Publications, and (d) Social Public Purchasing Articles in Practitioner Publications

immediate and deferred outcomes of contracts. In general, scholars mostly studied explicit contracts and contract spillovers. There was little focus on typical transfer and transfer spillovers.

Table 6 is a summary of the social outcomes that scholarly social public purchasing articles studied. For each type of public purchase, we identify the type of outcomes that the articles

**Table 5** Type of Public Purchase versus Outcome Timing in Scholarly Social Public Purchasing Article

		Social Outcome Timing			Total Articles
		Immediate	Both	Deferred	
Public purchase type	Direct	<i>Explicit contract</i> 22	17	<i>Contract Spillover</i> 12	51
	Indirect	<i>Typical transfer</i> 1	5	<i>Transfer Spillover</i> 0	
Total articles		23	22	12	6

**Table 6** Social Outcomes from Social Public Purchasing Articles

		Immediate Outcome	Deferred Outcome
<b>Direct purchase</b> contracts	<ul style="list-style-type: none"> <li>• Contract with minority-owned organization                             <ul style="list-style-type: none"> <li>◦ <i>General</i> (13)</li> <li>◦ <i>Women</i> (6)</li> <li>◦ <i>Indigenous</i> (1)</li> <li>◦ <i>Racial or ethnic</i> (8)</li> </ul> </li> <li>• Contracts with small businesses (15)</li> <li>• Contracts with local business (4)</li> <li>• Environmental impact of goods                             <ul style="list-style-type: none"> <li>◦ <i>Energy efficiency</i> (1)</li> <li>◦ <i>Water footprint</i> (1)</li> </ul> </li> <li>• Specifications for working conditions                             <ul style="list-style-type: none"> <li>◦ <i>Worker safety</i> (2)</li> <li>◦ <i>Minimum wage</i> (1)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Contractor employs minorities                             <ul style="list-style-type: none"> <li>◦ <i>Equal employment</i> (4)</li> <li>◦ <i>Women</i> (2)</li> <li>◦ <i>Indigenous</i> (1)</li> </ul> </li> <li>• Contractor addresses human rights in supply chain                             <ul style="list-style-type: none"> <li>◦ <i>General rights</i> (1)</li> <li>◦ <i>Labor rights</i> (1)</li> <li>◦ <i>Child labor</i> (1)</li> </ul> </li> <li>• Contractor values process efficiency over                             <ul style="list-style-type: none"> <li>◦ <i>safety and well-being</i> (1)</li> <li>◦ <i>ensuring all citizen's access to services</i> (1)</li> </ul> </li> <li>• Environmental impact of goods                             <ul style="list-style-type: none"> <li>◦ <i>General</i> (4)</li> <li>◦ <i>Climate action</i> (1)</li> </ul> </li> </ul>	
<b>Indirect purchase</b> vouchers/cash reimbursement	<ul style="list-style-type: none"> <li>• Government provides vouchers for nutritious meals to low-income families (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Certain demographics do not have equal access to vouchers such as citizens with disabilities, or non-English speaking residents due to efficiency considerations (3)</li> </ul>	
<b>Indirect purchase</b> grants	<ul style="list-style-type: none"> <li>• Grants to nonprofits run by religious minorities (1)</li> </ul>	<ul style="list-style-type: none"> <li>• Grants to religious groups to ensure diverse groups of citizens have access to social services (1)</li> </ul>	

discussed. For example, for indirect public purchases (grants), scholars had studied grants to religious organizations run by religious minorities, which was an immediate social outcome. Similarly, use of religious groups to provide services to a diverse demographics was a deferred outcome. For each outcome, the number in bracket indicates the number of articles it was mentioned in. In general, most articles studied explicit contracts which refer to immediate outcomes from contracts. The most studied outcome was contracting with minority-owned business and small business. Other outcomes such as nutrition in meals and equal access were less studied.

**Discussion and Conclusions**

Governments can influence social outcomes in two ways: via socially responsible production or by socially responsible purchasing. Our paper focuses on the latter. We do not focus on outcomes that the government itself produces. We only focus on products and services that the government purchases (either directly or indirectly). In this paper, we argue that governments have the potential to increase overall social benefits through social public purchasing.

Social public purchasing is recognized as a strategic tool that is used by both national governments and international governance organizations around the world to influence social outcomes. Since the 1800s, the United States government has been using public purchasing systems to address its broader social objectives, beyond price and quality. The United States has used social public purchasing policies to address various disadvantaged communities, especially by using set-asides. Other countries have also used social

public purchasing policies to assist disadvantaged communities by establishing advisory councils. Globally, social public purchasing policies have gained traction since 1970s with increased use.

In spite of the numerous social public purchasing polices around the globe, our findings show that the scholarly and practitioner literature in public administration has been slow to respond. In the last 32 years, of all publications in the top 10 public administration journals, only 4.2 percent address public purchasing, and only 0.5 percent address social public purchasing. In practitioner publications, while a greater proportion of content is dedicated to public purchasing (8 percent), only 1 percent of all content relates to social public purchasing. We acknowledge that a literature review of the top 10 public administration journals and top five professional association publications is not completely representative of the field. It is biased toward English language publications, more generalized public administration journals (as compared to specialized purchasing and finance journals), and larger publishing organizations with finances to invest in indexing or making their professional publications publicly accessible. Our results therefore are not representative the entire field of public administration. They also are not representative of other fields, such as business administration, economic policy, and supply chain innovation, which may publish on the topic. Our more targeted approach allowed us to thoroughly assess the most widely recognized public administration journals and practitioner publications for a more systematic review. As such, our findings are representative of the state of the most influential public administration academic and professional outlets more generally. For public administration scholars, it is these public administration

journals that receive considerable attention in tenure, promotion, and other professional decisions since journal rankings are regarded as evidence for research quality (Corley and Sabharwal 2010; Douglas 1996; Hodge and Lacasse 2011) and journal importance (Balhara 2012). Attention to journal quality during tenure, promotion, and other professional decisions also signals to faculty what their academic institutions considers important, which influences their choice of research topics and journal selection (Corley and Sabharwal 2010; Douglas 1996; Hodge and Lacasse 2011). Based on the results of this research, we conclude that the top public administration outlets are not studying social public purchasing, even though public purchasing is a critical function of public organizations. Public administration's neglect of public purchasing, and particularly social public purchasing, has left a critical void in our knowledge about this increasingly important activity.

For the last 32 years, public administration scholarship has leaned heavily toward assessing direct public purchases. In comparison, indirect public purchases have received little attention, which indicates that most top journals typically do not consider indirect purchases as a government purchasing activity. Indeed, 50 (88 percent) out of 57 scholarly articles assessed either explicit contracts, contract spillovers, or both. Due to this publication bias, scholars have focused on a narrow portion of social outcomes from public purchasing. Most articles studied sustainability in contracting (Papanagnou and Shchhaveleva 2018), and set-asides for minorities (Fernandez, Malatesta, and Smith 2013; Martin, Berner, and Bluestein 2007; Rice 1991) and small businesses (Craig Smith and Fernandez 2010; Walker et al. 2013). Even among the practitioner articles, topics related to contracts were widely studied, including set-asides, local purchasing, and some emphasis on green/sustainable purchasing. For instance, each issue of NIGPs' publication includes a section related to green public purchasing. While these publications advanced a deeper understanding of contracts, very little is understood about how indirect purchases can be used to address social needs. These are key research gaps that public administration scholars can fill.

Related to social outcomes of social public purchasing, scholars have mainly studied immediate outcomes, especially explicit contracts. Scholars have been concerned with the processes to award contracts, contract design, and contract effectiveness (Erridge and Hennigan 2012; Gelderman, Semeijn, and Vluggen 2017; Young, Nagpal, and Adams 2016). This is mirrored in the practitioner literature, which primarily discusses various aspects of explicit contracts such as process innovation, and best practices for city government. As a result, a deeper understanding of deferred impacts is missing. In particular, there are no studies on transfer spillovers that can answer important questions such as can cash vouchers reduce obesity among citizens (Myers Jr and Chan 1996; Sarter and Thomson 2020). Therefore, assessing the deferred impact of social public purchasing programs and policies, is another opportunity area for public administration scholars to study.

Existing social public purchasing research raises concerns about the kind of outcomes that are studied. Although scholars have paid attention to minority-owned businesses, only some kinds of minorities such as racial and ethnic groups, and women have received most attention. Other minorities such as religious,

sexual, and gender minorities have not been studied. Similarly, scholars have considered minority employment by vendor, with the more general term "equal employment" (Brunjes and Edward Kellough 2018; Williams 2014). Other more general social outcomes such as sustainability and human rights also require more clarification. Although some scholars study sustainable public purchasing (Grandia 2015; Papanagnou and Shchhaveleva 2018; Preuss and Walker 2011), more work needs to be done on clarifying distinct social, environmental, and economic priorities, and considering them together instead of a piecemeal fashion (Brown, Potoski, and Van Slyke 2006). Researchers have an opportunity to study, clarify, and evaluate the immediate and deferred social outcomes that public purchasing can achieve.

Scholars should also consider how competing values impact the implementation of social public purchasing policies (Boyne et al. 1999; Brown, Potoski, and Van Slyke 2006). The practitioner literature critically views set-aside contracts as barriers to the purchasing process efficiency and market competition. This may be due to the increased purchasing complexity that comes with social public purchasing such as set-asides (Stritch et al. 2018). For instance, a purchasing officer might be guided to purchase the lowest cost product, that is also environmentally friendly and sold by a small business. Meeting all these objectives can be difficult and puts greater responsibility on purchasing officers to assess tradeoffs between purchasing values without guidance on how to prioritize competing objectives. If the process takes too long or creates large administrative burden, the purchaser also faces a tradeoff between process efficiency, effectiveness, and social values. This efficiency concern is also raised in the indirect public purchasing literature. Some cases are more costly and time-consuming to process, so providers have a motivation to not process them. As a result, disadvantaged communities such as non-English speakers, immigrants, and elderly are left without access to critical social services (Colin 2005; Heflin, London, and Mueser 2013). In order to simplify the decision-making process for purchasers and providers and reduce the administrative burden, prospective research should identify different mechanisms to balance such conflicting objectives.

Within social public purchasing articles the discussion on policy implementation is missing. For instance, it is unclear what type of organizational structures, information availability, software systems, and other factors can facilitate the implementation of social public purchasing. In recent years, scholars have asked, but not answered, this question as it relates to sustainable public purchasing (Darnall et al. 2017a; Grandia, Steijn, and Kuipers 2015; Christy Smith and Terman 2016). However, less is known about the implementation challenges that organizations face for social public purchasing more generally (Darnall et al. 2017a). Future research should consider these issues more. One valuable approach might be assessing how different agencies, including the U.S. Department of Defense and the U.S. Environmental Protection Agency, are adopting and implementing social public purchasing. By comparing the implementation activities across agencies, prospective research would go a long way toward understanding the variations in implementation challenges as well as commonalities.

Although social public purchasing policies are being implemented on a large scale, it is unclear whether these policies are achieving

their desired goals (Brunjes and Edward Kellough 2018; Denes 1997; Koning and Heinrich 2013). For instance, about 28 percent of the United States cities have adopted sustainable public purchasing policies (Darnall et al. 2017b), but scholars should consider whether they lead to more women or minority representation in contracted businesses, facilitate a higher market access for small businesses, or improve environmental outcomes? It is important to study the impacts of different types of public purchases such as relational contracting (Bertelli and Smith 2010; Bovaird 2006), social impacts bonds (Farr 2016; Heinrich and Kabourek 2019), and transfers (Ashley and Van Slyke 2012; Suarez 2011), which have been less studied. Answers to these questions can help us understand whether social objectives can be met using public purchasing policies. Scholars should consider expanding their scope to empirical studies for all kinds of public purchases, especially for transfers. With limited to no data on transfers, it is difficult to ascertain how policies related to them impact social well-being.

Public administration scholars should also consider whether some policies are more effective than others (Flynn and Davis 2015; Myers Jr and Chan 1996). For instance, in order to help small businesses, governments can set aside contracts for them, advise them on how to increase their chances of obtaining a contract, or break up larger contracts so that small business can compete with the large business without preferential treatment. Among these, and other possible alternatives, it is unclear which approach helps small businesses more. Similarly, scholars ask whether indirect purchases should be regulated. For example, should they only be allowed at a preapproved vendor list or should they be unconditional (Colin 2005; Handa et al. 2016). This knowledge could help policy makers toward creating more effective policies.

The list of gaps that we have identified in public administration research is not exhaustive. While there is room for more research social public purchasing, existing knowledge gaps echo the existing debates in public administration relating to policy impact, policy alternatives, competing values, and policy implementation. These voids create opportunities to learn more about social public purchasing, advance theoretical development, and help governments use public purchasing more strategically and more impactfully.

## Notes

1. The coding framework is available on request.
2. A list of organizations is available on request.
3. A list of these articles is available on request.
4. A list of these articles is available on request.

## References

- Akhigbe, Roland E. 2012. Scientific Journals: Indexation and Impact Factor. *Lung India* 29(3): 300–1. <https://doi.org/10.4103/0970-2113.99130>.
- Allen, Pauline, David Hughes, Peter Vincent-Jones, Christina Petsoulas, Shane Doheny, and Jennifer A. Roberts. 2016. Public Contracts as Accountability Mechanisms: Assuring Quality in Public Health Care in England and Wales. *Public Management Review* 18(1): 20–39. <https://doi.org/10.1080/14719037.2014.957341>.
- Anthony, Laurence. 2005. AntConc: A Learner and Classroom Friendly, Multi-Platform Corpus Analysis Toolkit." In *Proceedings of IWLeL*, 7–13. Waseda University, Tokyo, Japan: IWLeL 2004 Program Committee. [https://www.researchgate.net/profile/Laurence-Anthony-2/publication/267631346\\_Proceedings\\_of\\_IWLeL\\_2004\\_An\\_Interactive\\_Workshop\\_on\\_Language\\_E-learning\\_2004/links/5458cd870cf26d5090acf212/Proceedings-of-IWLeL-2004-An-Interactive-Workshop-on-Language-E-learning-2004.pdf#page=7](https://www.researchgate.net/profile/Laurence-Anthony-2/publication/267631346_Proceedings_of_IWLeL_2004_An_Interactive_Workshop_on_Language_E-learning_2004/links/5458cd870cf26d5090acf212/Proceedings-of-IWLeL-2004-An-Interactive-Workshop-on-Language-E-learning-2004.pdf#page=7). Accessed July 8, 2021.
- . 2019. *AntConc (Version 3.5.8)*. Tokyo, Japan: Waseda University <https://www.laurenceanthony.net/software>.
- Arrowsmith, Sue. 2010. Horizontal Policies in Public Procurement: A Taxonomy. *Journal of Public Procurement* 10(2): 149–86. <https://doi.org/10.1108/JOPP-10-02-2010-B001>.
- Arrowsmith, Sue, and Peter Kunzlik. 2009. Public Procurement and Horizontal Policies in EC Law: General Principles. In *Social and Environmental Policies in EC Procurement Law: New Directives and New Directions* 9–53. Cambridge University Press.
- Arrowsmith, Sue, Steen Treumer, Jens Fejø, and Lili Jiang. 2011. "Public Procurement: Basic Concepts and the Coverage of Procurement Rules." University of Nottingham. <http://eprints.nottingham.ac.uk/id/eprint/1689>. Accessed January 29, 2021.
- Ashley, Shena R., and David M. Van Slyke. 2012. The Influence of Administrative Cost Ratios on State Government Grant Allocations to Nonprofits. *Public Administration Review* 72(s1): S47–56. <https://doi.org/10.1111/j.1540-6210.2012.02666.x>.
- Balhara, Yatan Pal Singh. 2011. Publication: An Essential Step in Research. *Lung India* 28(4): 324–5. <https://doi.org/10.4103/0970-2113.85752>.
- . 2012. Indexed Journal: What Does it Mean? *Lung India* 29(2): 193. <https://doi.org/10.4103/0970-2113.95345>.
- Barraket, Jo, Robyn Keast, and Craig Furneaux. 2015. Introduction. In *Social Procurement and New Public Governance* 1–12. Routledge. [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C3&q=Social+Procurement+and+New+Public+Governance+&btnG](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C3&q=Social+Procurement+and+New+Public+Governance+&btnG). Accessed December 10, 2020.
- Beam, David, and Timothy Conlan. 2002. Grants. In *The Tools of Government: A Guide to the New Governance* 340–81. Oxford University Press.
- Bengo, Irene. 2018. Debate: Impact Measurement and Social Public Procurement. *Public Money & Management* 38(5): 391–2. <https://doi.org/10.1080/09540962.2018.1471817>.
- Bertelli, Anthony M., and Craig R. Smith. 2010. Relational Contracting and Network Management. *Journal of Public Administration Research and Theory* 20(January): I21–40. <https://doi.org/10.1093/jopart/mup033>.
- Bornmann, Lutz, and Hans-Dieter Daniel. 2007. What Do We Know about the h index? *Journal of the American Society for Information Science and Technology* 58(9): 1381–5. <https://doi.org/10.1002/asi.20609>.
- Bovaird, Tony. 2006. Developing New Forms of Partnership with the 'Market' in the Procurement of Public Services. *Public Administration* 84(1): 81–102. <https://doi.org/10.1111/j.0033-3298.2006.00494.x>.
- Boyne, George. 1998. Bureaucratic Theory Meets Reality: Public Choice and Service Contracting in U.S. Local Government. *Public Administration Review* 58(6): 474–84. <https://doi.org/10.2307/977575>.
- Boyne, George, Julian Gould-Williams, Jennifer Law, and Richard Walker. 1999. Markets, Bureaucracy and Public Management: Competitive Tendering and Best Value in Local Government. *Public Money and Management* 19(4): 23–9. <https://doi.org/10.1111/1467-9302.00185>.
- Brammer, Stephen, and Helen Walker. 2011. Sustainable Procurement in the Public Sector: An International Comparative Study. *International Journal of Operations & Production Management* 31(4): 452–76. <https://doi.org/10.1108/0144357111119551>.
- Breton, Albert. 1965. A Theory of Government Grants. *The Canadian Journal of Economics and Political Science/Revue Canadienne d'Economie et de Science Politique* 31(2): 175–87. <https://doi.org/10.2307/140062>.
- Brown, Trevor L., and Matthew Potoski. 2003. Contract-Management Capacity in Municipal and County Governments. *Public Administration Review* 63(2): 153–64. <https://doi.org/10.1111/1540-6210.00276>.

- Brown, Trevor L., Matthew Potoski, and David M. Van Slyke. 2006. Managing Public Service Contracts: Aligning Values, Institutions, and Markets. *Public Administration Review* 66(3): 323–31. <https://doi.org/10.1111/j.1540-6210.2006.00590.x>.
- . 2018. Complex Contracting: Management Challenges and Solutions. *Public Administration Review* 78(5): 739–47. <https://doi.org/10.1111/puar.12959>.
- Brunjes, Benjamin M., and J. Edward Kellough. 2018. Representative Bureaucracy and Government Contracting: A Further Examination of Evidence from Federal Agencies. *Journal of Public Administration Research and Theory* 28(4): 519–34. <https://doi.org/10.1093/jopart/muy022>.
- Buchanan, James M. 1953. Federal Grants and Resource Allocation. *Journal of Political Economy* 60(3): 208–17. <https://www.jstor.org/stable/1826452>. Accessed January 25, 2021.
- Butler, James. 2016. *Procuring for Good: How the Social Value Act Is Being Used by Local Authorities*. Social Enterprise UK. [https://www.socialenterprise.org.uk/wp-content/uploads/2019/05/Procuring\\_for\\_Good\\_FINAL.pdf](https://www.socialenterprise.org.uk/wp-content/uploads/2019/05/Procuring_for_Good_FINAL.pdf). Accessed January 25, 2021.
- Cogburn, Jerrell D. 2003. Exploring Differences in the American States' Procurement Practices. *Journal of Public Procurement* 3(1): 3–28. <https://doi.org/10.1108/JOPP-03-01-2003-B001>.
- Colin, Frédéric. 2005. Public Service Vouchers. *International Review of Administrative Sciences* 71(1): 19–34.
- Corley, Elizabeth A., and Meghna Sabharwal. 2010. Scholarly Collaboration and Productivity Patterns in Public Administration: Analysing Recent Trends. *Public Administration* 88(3): 627–48. <https://doi.org/10.1111/j.1467-9299.2010.01830.x>.
- Coxhead, Averil. 2000. A New Academic Word List. *TESOL Quarterly* 34(2): 213–38. <https://doi.org/10.2307/3587951>.
- Cravero, Carol. 2017. Socially Responsible Public Procurement and Set-Asides: A Comparative Analysis of the US, Canada and the EU. *Arctic Review on Law and Politics* 8(2017): 174–92. <https://doi.org/10.23865/arctic.v8.739>.
- Daly, Herman. 1995. On Wilfred Beckerman's Critique of Sustainable Development. *Environmental Values* 4(1): 49–55.
- Darnall, Nicole, Justin M. Stritch, Stuart Bretschneider, Hsueh Lily, M. Duscha, J. Iles, W. No, J. Suarez, and C. Burwell. 2017a. *Advancing Green Purchasing in Local Governments*. Phoenix: Arizona State University: Center for Organization Research and Design, Sustainable Purchasing Research Initiative.
- Darnall, Nicole, Justin M. Stritch, Stuart Bretschneider, Lily Hsueh, and Won No. 2017b. Going Green on Purchasing. *PM. Public Management; Washington* 99(8): 28–9.
- Denes, Thomas A. 1997. Do Small Business Set-Asides Increase the Cost of Government Contracting? *Public Administration Review* 57: 441–4. <https://doi.org/10.2307/3109990>.
- Department for International Development. 2011. Cash Transfers. Evidence Paper, Policy Division. UK Aid. [https://www.who.int/alliance-hpsr/alliancehpsr\\_dfidevidencepaper.pdf](https://www.who.int/alliance-hpsr/alliancehpsr_dfidevidencepaper.pdf). Accessed January 25, 2021.
- Dong, Qiang, and Jiahuan Lu. 2019. What Type of Nonprofit Organization Is Preferred in Government Contracting in China? *International Review of Administrative Sciences* 87(2): 328–46. <https://doi.org/10.1177/0020852319862347>.
- Douglas, James W. 1996. Faculty, Graduate Student, and Graduate Productivity in Public Administration and Public Affairs Programs, 1986–1993. *Public Administration Review* 56(5): 433–40. <https://doi.org/10.2307/977042>.
- Edler, Jakob, and Luke Georghiou. 2007. Public Procurement and Innovation—Resurrecting the Demand Side. *Research Policy* 36(7): 949–63. <https://doi.org/10.1016/j.respol.2007.03.003>.
- Edler, Jakob, Sascha Ruhland, Sabine Hafner, John Rigby, Luke Georghiou, Leif Hommen, Max Rolfstam, Charles Edquist, Lena Tsipouri, and Mona Papadaku. 2005. Innovation and Public Procurement. Review of Issues at Stake. In *Institute Systems and Innovation Research*.
- Edquist, Charles, Nicholas Vonortas, Jon Mikel Zabala-Iturriagoitia, and Jakob Edler. 2015. *Public Procurement for Innovation*. Cheltenham: Edward Elgar Publishing. <https://charlesedquist.com/books/public-procurement-for-innovation/>.
- Erridge, Andrew, and Sean Hennigan. 2012. Sustainable Procurement in Health and Social Care in Northern Ireland. *Public Money & Management* 32(5): 363–70.
- Farr, Michelle. 2016. Co-Production and Value co-Creation in Outcome-Based Contracting in Public Services. *Public Management Review* 18(5): 654–72. <https://doi.org/10.1080/14719037.2015.1111661>.
- Fernandez, Sergio, Deanna Malatesta, and Craig R. Smith. 2013. Race, Gender, and Government Contracting: Different Explanations or New Prospects for Theory? *Public Administration Review* 73(1): 109–20.
- Flynn, Anthony, and Paul Davis. 2015. The Rhetoric and Reality of SME-Friendly Procurement. *Public Money & Management* 35(2): 111–8. <https://doi.org/10.1080/09540962.2015.1007705>.
- Furneaux, Craig, and Jo Barraket. 2014. Purchasing Social Good (s): A Definition and Typology of Social Procurement. *Public Money & Management* 34(4): 265–72.
- Garfield, Eugene. 2006. The History and Meaning of the Journal Impact Factor. *JAMA* 295(1): 90–3. <https://doi.org/10.1001/jama.295.1.90>.
- Gelderman, Cees J., Janjaap Semeijn, and Rob Vluggen. 2017. Development of Sustainability in Public Sector Procurement. *Public Money & Management* 37(6): 435–42. <https://doi.org/10.1080/09540962.2017.1344027>.
- Girth, Amanda M. 2012. A Closer Look at Contract Accountability: Exploring the Determinants of Sanctions for Unsatisfactory Contract Performance. *Journal of Public Administration Research and Theory* 24(2): 317–48. <https://doi.org/10.1093/jopart/mus033>.
- Google Scholar. 2021. Google Scholar Metrics Help. Google Scholar. 2021. <https://scholar.google.com/intl/en/scholar/metrics.html#metrics>. Accessed July 8, 2021.
- Grandia, Jolien. 2015. The Role of Change Agents in Sustainable Public Procurement Projects. *Public Money & Management* 35(2): 119–26. <https://doi.org/10.1080/09540962.2015.1007706>.
- Grandia, Jolien, Bram Steijn, and Ben Kuipers. 2015. It Is Not Easy Being Green: Increasing Sustainable Public Procurement Behaviour. *Innovation: The European Journal of Social Science Research* 28(3): 243–60. <https://doi.org/10.1080/13511610.2015.1024639>.
- Hafsa, Fatima, Nicole Darnall, and Stuart Bretschneider. 2021. Estimating the True Size of Public Procurement to Assess Sustainability Impact. In *Sustainability* 13(3). <https://doi.org/10.3390/su13031448>.
- Handa, Sudhanshu, David Seidenfeld, Benjamin Davis, Gelson Tembo, and Zambia Cash Transfer Evaluation Team. 2016. The Social and Productive Impacts of Zambia's Child Grant. *Journal of Policy Analysis and Management* 35(2): 357–87. <https://doi.org/10.1002/pam.21892>.
- Heflin, Colleen M., Andrew S. London, and Peter R. Mueser. 2013. Clients' Perspectives on a Technology-Based Food Assistance Application System. *The American Review of Public Administration* 43(6): 656–73. <https://doi.org/10.1177/0275074012455454>.
- Heinrich, Carolyn J., and Sarah E. Kabourek. 2019. Pay-for-Success Development in the United States: Feasible or Failing to Launch? *Public Administration Review* 79(6): 867–79. <https://doi.org/10.1111/puar.13099>.
- Hettne, Jörgen. 2013. Strategic Use of Public Procurement—Limits and Opportunities. In *European Policy Analysis. Swedish Institute of European Policy Studies*. <https://lup.lub.lu.se/record/8166862>.
- Hipp, Lena, and Mildred E. Warner. 2008. Market Forces for the Unemployed? Training Vouchers in Germany and the USA. *Social Policy & Administration* 42(1): 77–101. <https://doi.org/10.1111/j.1467-9515.2007.00589.x>.

- Hodge, David R., and Jeffrey R. Lacasse. 2011. Evaluating Journal Quality: Is the H-Index a Better Measure than Impact Factors? *Research on Social Work Practice* 21(2): 222–30. <https://doi.org/10.1177/1049731510369141>.
- Hommen, Leif, and Max Rolfstam. 2008. Public Procurement and Innovation: Towards a Taxonomy. *Journal of Public Procurement* 8(3): 17–56. <https://doi.org/10.1108/JOPP-08-03-2008-B001>.
- ICMA. 2021. Public Management (PM) Editorial Guidelines. ICMA 2021. <https://icma.org/public-management-pm-editorial-guidelines>. Accessed July 7, 2021.
- Kanapinskas, Virginijus, Žydrūnas Plytnikas, and Agnė Tvaronavičienė. 2014. Sustainable Public Procurement: Realization of the Social Aspect in Republic of Lithuania. *Verslas: Teorija Ir Praktika* 15(4): 302–15. <https://doi.org/10.3846/btp.2014.529>.
- Kilgariff, Adam. 2001. Comparing Corpora. *International Journal of Corpus Linguistics* 6(1): 97–133. <https://doi.org/10.1075/ijcl.6.1.05kil>.
- Kim, Yong Woon, and Trevor L. Brown. 2012. The Importance of Contract Design. *Public Administration Review* 72(5): 687–96. <https://doi.org/10.1111/j.1540-6210.2012.02537.x>.
- Koning, Pierre, and Carolyn J. Heinrich. 2013. Cream-Skimming, Parking and Other Intended and Unintended Effects of High-Powered, Performance-Based Contracts. *Journal of Policy Analysis and Management* 32(3): 461–83. <https://doi.org/10.1002/pam.21695>.
- Koushik, Amit. 2017. Indexing and Impact Factor: Judging the Quality of a Journal. *Journal of Health & Medical Informatics* 08(January). <https://doi.org/10.4172/2157-7420.1000285>.
- Lamb, Joleah B., Bette L. Willis, Evan A. Fiorenza, Courtney S. Couch, Robert Howard, Douglas N. Rader, and James D. True, et al. 2018. Plastic Waste Associated with Disease on Coral Reefs. *Science* 359(6374): 460–2. <https://doi.org/10.1126/science.aar3320>.
- Leiser, Mirjam Strupler, and Stefan C. Wolter. 2017. Empirical Evidence on the Effectiveness of Social Public Procurement Policy: The Case of the Swiss Apprenticeship Training System. *Labour* 31(2): 204–22. <https://doi.org/10.1111/labr.12089>.
- Lindert, Kathy. 2013. *Conditional & Unconditional Cash Transfers*. The World Bank.
- Malatesta, Deanna, and Craig R. Smith. 2011. Resource Dependence, Alternative Supply Sources, and the Design of Formal Contracts. *Public Administration Review* 71(4): 608–17. <https://doi.org/10.1111/j.1540-6210.2011.02392.x>.
- Martin, Heather, Maureen Berner, and Frayda Bluestein. 2007. Documenting Disparity in Minority Contracting: Legal Requirements and Recommendations for Policy Makers. *Public Administration Review* 67(3): 511–20.
- McCrudden, Christopher. 2004. Using Public Procurement to Achieve Social Outcomes. *Natural Resources Forum* 28(4): 257–67. <https://doi.org/10.1111/j.1477-8947.2004.00099.x>.
- McCrudden, Christopher, and McBarnet Doreen. 2007. Corporate Social Responsibility and Public Procurement. In *The New Corporate Accountability: Corporate Social Responsibility and the Law* 93–119. Oxford Legal Studies Research Paper 9/2006. Cambridge University Press. <https://ssrn.com/abstract=899686>.
- Mendoza Jiménez, Javier, Montserrat Hernández López, and Susana Eva Franco Escobar. 2019. Sustainable Public Procurement: From Law to Practice. *Sustainability* 11(22): 6388. <https://doi.org/10.3390/su11226388>.
- Missimer, Merlina, Karl-Henrik Robèrt, and Göran Broman. 2017. A Strategic Approach to Social Sustainability—Part I: Exploring the Social System. *Journal of Cleaner Production* 140(1): 32–41. <https://doi.org/10.1016/j.jclepro.2016.03.170>.
- Myers, Samuel L., Jr., and Tsze Chan. 1996. Who Benefits from Minority Business Set-Asides? The Case of New Jersey. *Journal of Policy Analysis and Management* 15(2): 202–26. [https://doi.org/10.1002/\(SICI\)1520-6688\(199621\)15:2<202::AID-PAM3>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1520-6688(199621)15:2<202::AID-PAM3>3.0.CO;2-N).
- NCMA. 2021. Contract Management Magazine Editorial Guideline. NCMA. [https://www.ncmahq.org/docs/default-source/cm-magazine-files/cm-editorial-calendar-2021.pdf?sfvrsn=d17033fc\\_0](https://www.ncmahq.org/docs/default-source/cm-magazine-files/cm-editorial-calendar-2021.pdf?sfvrsn=d17033fc_0). Accessed July 7, 2021.
- Nesselhauf, Nadja, and Cornelia Tschichold. 2002. Collocations in CALL: An Investigation of Vocabulary-Building Software for EFL. *Computer Assisted Language Learning* 15(3): 251–79. <https://doi.org/10.1076/call.15.3.251.8190>.
- OECD. 2017. *Government at a Glance 2017*. Paris: OECD Publishing. [https://doi.org/10.1787/gov\\_glance-2017-en](https://doi.org/10.1787/gov_glance-2017-en).
- Papanagnou, Christos I., and Natalia Shchhaveleva. 2018. Investigation of Current Perspectives for NHS Wales Sustainable Development through Procurement Policies. *Public Money & Management* 38(7): 493–502. <https://doi.org/10.1080/09540962.2018.1527535>.
- Preuss, Lutz, and Helen Walker. 2011. Psychological Barriers in the Road to Sustainable Development: Evidence from Public Sector Procurement. *Public Administration* 89(2): 493–521. <https://doi.org/10.1111/j.1467-9299.2010.01893.x>.
- Reynaers, Anne-Marie. 2014. Public Values in Public–Private Partnerships. *Public Administration Review* 74(1): 41–50. <https://doi.org/10.1111/puar.12137>.
- Rice, Mitchell F. 1991. Government Set-Asides, Minority Business Enterprises, and the Supreme Court. *Public Administration Review* 51: 114–22.
- Roediger, David R., and Philip Sheldon Foner. 1989. *Our Own Time: A History of American Labor and the Working Day*. Verso.
- Romzek, Barbara S., and Jocelyn M. Johnston. 2002. Effective Contract Implementation and Management: A Preliminary Model. *Journal of Public Administration Research and Theory* 12(3): 423–53. <https://doi.org/10.1093/oxfordjournals.jpart.a003541>.
- . 2005. State Social Services Contracting: Exploring the Determinants of Effective Contract Accountability. *Public Administration Review* 65(4): 436–49. <https://doi.org/10.1111/j.1540-6210.2005.00470.x>.
- Ruttan, Vernon W. 2006. *Is War Necessary for Economic Growth?: Military Procurement and Technology Development*. Oxford University Press.
- Sack, Detlef, and Eva Katharina Sarter. 2018. Strategic Use and Social Taming—Opening up the Doctrine of Market Competition in Public Procurement. In *Handbook of European Policies* 371–87. Edward Elgar Publishing.
- Salamon, Lester M., and Odus V. Elliott. 2002. *The Tools of Government: A Guide to the New Governance*. Oxford: Oxford University Press.
- Sarter, E.K., and Emily Thomson. 2020. Fulfilling its Promise? Strategic Public Procurement and the Impact of Equality Considerations on Employers’ Behaviour in Scotland. *Public Money & Management* 40(6): 437–45. <https://doi.org/10.1080/09540962.2019.1684615>.
- Schapper, Paul R., João Nuno Veiga Malta, and Diane L. Gilbert. 2017. Analytical Framework for the Management and Reform of Public Procurement. In *International Handbook of Public Procurement* 119–36. Routledge.
- Smith, Craig, and Sergio Fernandez. 2010. Equity in Federal Contracting: Examining the Link between Minority Representation and Federal Procurement Decisions. *Public Administration Review* 70(1): 87–96. <https://doi.org/10.1111/j.1540-6210.2009.02113.x>.
- Smith, Christy, and Jessica Terman. 2016. Overcoming the Barriers to Green Procurement in the County: Interest Groups and Administrative Professionalism. *Journal of Public Procurement* 16(3): 259–85. <https://doi.org/10.1108/JOPP-16-03-2016-B001>.
- Steuerle, C. Eugene, and Eric C. Twombly. 2002. Vouchers. In *The Tools of Government: A Guide to the New Governance*. 445–65. Oxford University Press. <https://ebookcentral-proquest-com.ezproxy1.lib.asu.edu/lib/asulib-ebooks/detail.action?docID=729030>. Accessed November 17, 2020.
- Stritch, Justin M., Nicole Darnall, Lily Hsueh, and Stuart Bretschneider. 2018. Green Technology Firms and Sustainable Public Purchasing. *IEEE Engineering Management Review* 46(1): 128–31. <https://doi.org/10.1109/EMR.2018.2810080>.

- Suarez, David F. 2011. Collaboration and Professionalization: The Contours of Public Sector Funding for Nonprofit Organizations. *Journal of Public Administration Research and Theory* 21(2): 307–26. <https://doi.org/10.1093/jpart/muq049>.
- Telgen, Jan, Christine Harland, and Louise Knight. 2007. Public Procurement in Perspective. In *Public Procurement: International Cases and Commentary* 16–22. Routledge.
- Thai, Khi V. 2001. Public Procurement Re-Examined. *Journal of Public Procurement* 1(1): 9–50. <https://doi.org/10.1108/JOPP-01-01-2001-B001>.
- Trammell, Evelyn, Sawsan Abutabenjeh, and Ana-Maria Dimand. 2019. A Review of Public Administration Research: Where Does Public Procurement Fit In? *International Journal of Public Administration*: 1–13. <https://doi.org/10.1080/01900692.2019.1644654>.
- Tummers, Lars, and Niels Karsten. 2012. Reflecting on the Role of Literature in Qualitative Public Administration Research: Learning from Grounded Theory. *Administration & Society* 44(1): 64–86. <https://doi.org/10.1177/0095399711414121>.
- Tummers, Lars, Victor Bekkers, Evelien Vink, and Michael Musheno. 2015. Coping during Public Service Delivery: A Conceptualization and Systematic Review of the Literature. *Journal of Public Administration Research and Theory* 25(4): 1099–126. <https://doi.org/10.1093/jopart/muu056>.
- U.S. Department of Treasury. 2020. *Analyst's Guide to Federal Spending Data*. U.S. Treasury Data Lab. <https://datalab.usaspending.gov/analyst-guide/>.
- UNEP. 2017. “*Global Review of Sustainable Public Procurement*.” United Nations Environment Programme.
- Uttam, Kedar, and Caroline Le Lann Roos. 2015. Competitive Dialogue Procedure for Sustainable Public Procurement. *Journal of Cleaner Production* 86: 403–16. <https://doi.org/10.1016/j.jclepro.2014.08.031>.
- Uyarra, Elvira, and Kieron Flanagan. 2010. Understanding the Innovation Impacts of Public Procurement. *European Planning Studies* 18(1): 123–43. <https://doi.org/10.1080/09654310903343567>.
- Walker, Helen, Fredo Schotanus, Elmer Bakker, and Christine Harland. 2013. Collaborative Procurement: A Relational View of Buyer-Buyer Relationships. *Public Administration Review* 73(4): 588–98. <https://doi.org/10.1111/puar.12048>.
- Wang, Huanming, Wei Xiong, Guangdong Wu, and Dajian Zhu. 2018. Public-Private Partnership in Public Administration Discipline: A Literature Review. *Public Management Review* 20(2): 293–316. <https://doi.org/10.1080/14719037.2017.1313445>.
- Williams, Adam M. 2014. Local Preferencing for Local Suppliers: Examining the Use of Locality in Public Procurement. *Public Money & Management* 34(3): 165–72. <https://doi.org/10.1080/09540962.2014.908006>.
- Wontner, Karen Lorraine, Helen Walker, Irina Harris, and Jane Lynch. 2020. Maximising ‘Community Benefits’ in Public Procurement: Tensions and Trade-Offs. *International Journal of Operations & Production Management* 40(12): 1909–39. <https://doi.org/10.1108/IJOPM-05-2019-0395>.
- World Bank. 2017. *Benchmarking Public Procurement 2017*. World Bank Publications.
- Wu, Jianguo. 2013. Landscape Sustainability Science: Ecosystem Services and Human Well-Being in Changing Landscapes. *Landscape Ecology* 28(6): 999–1023. <https://doi.org/10.1007/s10980-013-9894-9>.
- Yang, Kaifeng, Jun Yi Hsieh, and Tzung Shiun Li. 2009. Contracting Capacity and Perceived Contracting Performance: Nonlinear Effects and the Role of Time. *Public Administration Review* 69(4): 681–96. <https://doi.org/10.1111/j.1540-6210.2009.02017.x>.
- Yang, Yongheng, Yilin Hou, and Youqiang Wang. 2013. On the Development of Public–Private Partnerships in Transitional Economies: An Explanatory Framework. *Public Administration Review* 73(2): 301–10. <https://doi.org/10.1111/j.1540-6210.2012.02672.x>.
- Young, Suzanne, Swati Nagpal, and Carol A. Adams. 2016. Sustainable Procurement in Australian and UK Universities. *Public Management Review* 18(7): 993–1016. <https://doi.org/10.1080/14719037.2015.1051575>.
- Zhao, Jianzhi, and Jiahuan Lu. 2020. Does Government Punish Nonprofits for High Administrative Costs in Contracting Decisions? *The American Review of Public Administration* 50(3): 286–96. <https://doi.org/10.1177/0275074019893807>.