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Local Government Capacity Building Matters

Review of information on South African and international local government staffing norms

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1 Introduction

In 2013, the Department of Cooperative Governance (DCOG) commissioned a research project aimed at addressing several outstanding local government capacity building matters. The overarching purpose of this project is to enable the more effective capacitation of local government through looking at a wide range of existing frameworks and strategies, as well as assessing the gaps that exist. Given the nature of the project, there are several research outputs associated with this study.

The purpose of this paper is to summarise the available literature on determining staffing guidelines for municipalities as an initial step towards establishing a methodology for determining staffing norms for South African municipalities.

The paper breaks down available staffing information by groups of municipal functions in the following way:

- Internal local government services
- Functions of local government relating to the civil professions
- Other municipal functions

2 Methodology

This paper seeks to summarise information available on staffing norms and standards for local government functions in South Africa. This includes outlining the current norms in South African cases where they exist, outlining international approaches to staffing norms for South Africa's local government functions and summarising relevant literature on approaches to developing staffing norms for South Africa's local government functions.

This research is strictly a desktop study comprising largely of internet based research and is further informed by previous work conducted by the consultants. The Western Cape Provincial Government and the South African Institute of Management Services were approached to provide information as it was understood that each had undertaken work on staffing norms that would contribute to this paper. Neither, however, was able to assist, as they had not undertaken the work they were understood to have.

The paper is broken down by local government functions, with a final chapter outlining the conclusion and recommendations for the South African case.

3 Status of Local Government Staffing Norms and Standards Discussion in South Africa

3.1.1 2012 Draft Discussion Paper: Development of a Staffing Norms and Standards Framework for South African Local Government

The status of the staffing norms and standards discussion in South Africa is outlined in the CoGTA's Draft discussion paper entitled Development of a Staffing Norms and Standards Framework for South African Local Government.

The papers set out to path forward to developing a generic staffing norms and standards framework for South African local government.

The discussion paper proposes to develop this framework through:

1. Collecting of information
 - a. By sampling identified occupations within local government as contained in the Organising Framework for Occupations
 - b. To determine which occupations within local government already:
 - i. operate within a required number of employees per occupation to deliver an acceptable service
 - ii. Have norms and standards, by whom the norms and standards were developed and how the norms and standards were developed.
 - c. Use a standard template as a data collection tool to assist with the research aimed at developing a staffing norms and standards framework, with due regards to international benchmarks.
2. Developing and extensively work shopping a draft framework, including workshops with the metro practitioner's working group, the provincial skills audit task teams and the national steering committee linked to the local government skills audit as well as other stakeholders. This is to ensure that the framework assists with the development of the required number of employees per occupation to deliver an acceptable service in various types of municipalities.
3. Piloting the framework in municipalities' Skills Development Units to implementation capability, with the outcome of the pilot being:
 - a. A proposed number of employees required, per occupation or profession within the Skills Development Unit, on a sliding scale with motivation
 - b. Variables that were considered to ensure the provision of an acceptable level of service.
4. The discussion paper then envisions that the national steering committee would recommend a draft framework to the Department of Cooperative Governance after the consultations. DCoG had intended on getting the framework approved for implementation by local government and planned to develop a project plan to:
 - a. Capacitate local government practitioners to enable the facilitation of a process to determine the required number of employees per occupation to deliver an acceptable service.
 - b. Timelines per occupational grouping.

Norms and Standards

The discussion paper defines norms and standards as:

Norms are statistical normative rates of provision or measurable target outcomes over specified periods of time. A norm in this context should indicate the number of posts required to render a service against a defined standard.

Standards are defined statements about desired and acceptable levels of service. They specify what level of service is acceptable but not how that service is provided.¹

3.1.2 2009 Skills Audit OD Work Stream Report²

In 2009 the Department of Provincial and Local Government conducted a skills audit in an effort to produce scientifically recognised guidelines proposing the numbers of employees required per occupation or profession for providing an acceptable level of service to households; a schedule defining the scope of each municipal function, linking occupations or professions to functions in local government; and norms and standards with due regard to norms and standards.

The 2009 report analysed each occupation at three municipalities. It recommended that its methodology be applied to a broader range of municipalities, at least twenty, to establish a more reliable reflection of the staffing requirements of municipalities.

The audit identified 91 occupations or professions, and each was to be analysed at three different municipalities of different size. 57 Municipalities were included in the study were divided by size into 5 different typologies. Typologies 1 to 4 included both local and district municipalities, while Typology 5 was made up entirely of Metro municipalities.

Incumbents at each municipality included in the study were requested to fill in a questionnaire listing the tasks they performed, the frequency of each task, the number of times they completed a specific task each month and how much time each task took to complete. The information collected was input in the Integrated Business Control Work Measurement System, which calculates the staff utilisation and determines the number of people required to complete the workload.

This paper, as far as is possible outlines the norms suggested by the OD Work Stream Report in relation to the function and is used as a basis for comparison with recommended norms from government department or public institutions or international norms.

4 Municipal internal services

4.1 Municipal Management

Municipal Manager

It is the municipal or city manager's role to plan, organise, control, and oversee the interpretation and implementation of government policies and legislations. The municipal manager is an essential position in each municipality, with one position per municipality.³

¹ DCOG (2012) Draft Discussion Paper: Development of a Staffing Norms and Standards Framework for South African Local Government

² DCOG (2009) Skills Audit OD Work Stream Report

³ Ibid

Chief Financial Officer

The chief financial officer (CFO) or city treasurer is responsible for the smooth and efficient running of the financial and information systems in the municipality. The CFO is administratively in charge of the budget and treasury office. It is an essential position and one is required per municipality.⁴

Corporate Services Manager

The corporate services manager plans, organises, directs and controls and coordinates the overall administration of the municipality. It is an essential position in all municipalities and one person is sufficient to fulfil this role.⁵

4.2 Finance and Accounting

Accountants General

The 2009 Skills Audit OD Work Stream Report provides a possible norm for the number of accountants employed by a municipality with 6 for every 60,000 to 100,000 households and a minimum of 3 for municipalities with 10,000 to 30,000 households. The report does point out that this is scope for variability within these figures for municipalities with high income levels.

Internal Auditor

Internal Auditors are responsible for examining verifying, evaluating and reporting on financial operational and managerial process, systems and outcomes to ensure financial and operational integrity and compliance and assist in business process reviews risk assessments, developing deliverables and reporting progress against outcomes. The Skills Audit OD Work Stream Report argues that staffing norms should be the same as those for accountants, and that using own staff for internal audits is preferable to the using private services.

By international comparison the state of Andhra Pradesh in India recommends the number of accounting staff by income range only, not by household or populations size. It proposes the following:

- For income above roughly R 175 million a municipality requires 1 examiner of accounts, 2 accounts officers, 2 junior account officers, 6 senior accountants and 8 junior accountants
- For income between roughly R 85 million and R175 million a municipality requires 1 examiner of accounts, 1 accounts officer, 1 junior account officer, 4 senior accountants and 6 junior accountants
- For income between roughly R 35 million and R 85 million a municipality requires 1 examiner of accounts, 1 accounts officer, 1 junior account officer, 3 senior accountants and 5 junior accountants
- For income between roughly R 17.5 million and R 35 million a municipality requires 1 accounts officer, 3 senior accountants and 3 junior accountants

⁴ Ibid

⁵ Ibid

- For income between roughly R 5 million and R 17.5 million a municipality requires 1 junior accounts officer, 2 senior accountants and 2 junior accountants
- For income up to roughly R 5 million a municipality requires 1 junior accounts officer, 1 senior accountants and 1 junior accountants⁶

In developing norms and standard for South African municipality measuring staffing requirements by municipal income instead of by household should be considered.

4.3 Human Resources

Human Resource Officers

Human resource officers provide staffing and personnel administration services to support a municipality's human resource policies and programmes. Human resource staffing requirements are determined by the number of employees. The Skills Audit OD Work Stream Report recommends 3 to 4 human resource officers for municipalities employing 50 to 100 staff and 7 to 8 employees for municipalities employing 600 to 800 staff.

Skills Development Facilitators

Skills development facilitators analyse the skills requirements in municipality and coordinates the execution of the personal development plans of municipal employees. Staffing requirements are measured per number of municipal employees. The Skills Audit OD Work Stream Report considers it an important function and that all municipalities with as few as 100 should have 1. However 1 Skills Development Facilitator should be sufficient for up to 900 municipal employees.

In 2013 SALGA published the National Human Resources Management and Development Strategy (HRM&D) – Blueprint for Local Government. This document envisions reinvigorating and repositioning HRM&D within local government. This blue print includes developing HRM&D norms and standards by December 2014 and had intended on developing a generic structure for HRM&D at for municipalities by July 2013. These developments should make a significant contribution towards establishing norm for local government human resources.⁷

4.4 Maintenance

Maintenance, cleaning, painting on municipal buildings and grounds is covered by general handypersons or labourers. Possible norms are largely equivalent to the possibilities laid out below in the Public Places and Amenities section of this paper.

⁶ Government of Andhra Pradesh (2011) Establishment- Proposal for the Rationalization of Staffing Pattern in Urban Local Bodies – Approval of Norms for Staffing Pattern in various Urban Local Bodies except Greater Hyderabad Municipal Corporation.

⁷ SALGA (2013)

5 Municipal functions relating to civil engineering professions

5.1 Needs and Numbers

Allyson Lawless outlines a useful approach to calculating the staffing requirements for the civil professionals in local government in South Africa.⁸ This approach is particularly useful as it incorporates means for aggregating the functions of a profession in local government. It is likely that this approach is adaptable to other professional areas in local government. The approach also outlines the considerations one must make with respect to the nature of the municipal area for the civil professions.

Lawless suggests that the most correct measure for assessing the number of engineers and technical staff is the number of households. This is unaffected by the size of the households, as this only affects the size of the components in the bulk infrastructure.

She proposes the following formula for the number of civil professional required:

$$N_H = 1 + ROUND\left(\frac{N}{5000} * \frac{\sum_{CEF}}{9}\right)$$

Where,

Round refers to the rounded value in the brackets. If the decimal value is less than 0.5 the whole number should be adopted. If the decimal value is greater than or equal to 0.5 the whole next number should be adopted.

N = number of households, and

$\sum_{CEF} = a+b+c+d+e+f+g+h+i$ (the sum of the civil engineering functions performed in a municipality)

Score 1 for each of a to i if the following functions are performed or 0 for each function that is not the responsibility of the municipality.

a = planning

b = road service provision

c = stormwater service provision

d = sanitation service provision

e = solid waste service provision

f = traffic engineering and transport planning

g = water service authority

h = water service provision

i = has a PMU

⁸ Allyson Lawless (2007) Needs & Numbers in Local Government: Addressing civil engineering – the critical profession for service delivery

If a municipality predominantly supplies dry sanitation and limited water-borne networks, set $d=1/2$.⁹

Accounting for land use and urbanisation

In order to account for land use in larger municipalities, where business and commercial land, mines, recreational and public spaces account for a significant land use.

It is proposed that N_L , the number of civil professionals adjusted according to land use, is calculated as follows:

$$N_L = N_H * \frac{\text{area of municipality} - \text{area of farms} - \text{area of public open space}}{\text{area of residential erven}}$$

Where farms plus public open space are subtracted in the numerator as neither of these land uses require servicing. Where land use is almost exclusively agricultural this equation can be simplified to $N_L=N_H$.

To account for the further demand on engineering capacity of urbanisation in South Africa's 15 urban centres, where urbanisation insufficient low-income housing stock means that informal settlements grow rapidly, Lawless proposes an Urbanisation factor. This creates the dual need to provided services for unplanned dwellings and plan and design news areas to accommodate these residents. Additionally these municipalities need to provide additional complex services such as transport infrastructure. This all create an additional load on the requirement of civil staff.

Lawless suggests adjusting for these requirements in the following way, with N_U the number of civil professional adjusted to take account for the additional urban workload:

$$N_U = N_L * (N + N_{INF})/N$$

Where,

N_L = number of civil professionals calculated so far based on the number of households and land use.

N = number of households

N_{INF} = number of informal households.¹⁰

Other factor that can affect requirements

Lawless notes that there are several factors which increase the number of engineers required by a municipality. These need to be considered when designing norms for civil staffing and include:

- Whether the Municipality has a design office.
- The area of the municipality, as in large areas where a central office may not be able to serve the whole municipality sufficiently and additional service centres are required to provide services efficiently and avoid staff time being wasted on travel.

⁹ Ibid

¹⁰ Ibid

- The number of towns and villages in the municipality. A large number of towns in a large area increase demand for civil staff in order for them service each of these towns.
- Coastal municipalities need more civil engineering staff to deal with additional function such as piers and breakwaters and the increased complexity of a variable water table.
- Increased complexity of planning, delivery and O&M in hilly terrain.
- Additional amenities that the municipality is responsible for including municipal airports, cemeteries and recreational facilities increase the responsibilities on engineering staff.
- Breaking up of development work into small contracts to create additional SMME involvement increases the amount of management work that is requires on jobs, creating the need for additional project managers.¹¹

Taking into account these types of factors the number of civil engineering professionals required will be the N_U plus the additional staff needed to address the individualities of a municipality.

Allyson Lawless noted in 2007 that in local government at the time there were 2 to 3 civil engineering professionals for every 100 000 members of the public. This represented a decrease from 20 to 21 professionals in the previous dispensation, which is similar to European benchmarks. This has inevitably led to the increased use of the private sector in projects, but also to a shortage of human resources available to operate critical plant and maintain infrastructure.

Technical Service Director

In all but the smallest municipalities a civil engineering professional is required to attend to day to day activities. In municipalities of at least 10 000 households, a technical director is needed for strategic oversight and to run the technical department. This translates to roughly 200 technical directors nationally.

Project Management

Lawless argues that is it necessary to have one civil professional per R30 to R40 million worth of projects at 2007 prices. This translates roughly to between R47 million and R63 million in 2014.¹² Incorporating MIG and other capital project subsidies this translated to some 700 project management staff nationally in local government.

Initiating and planning projects

Lawless argues that planning, scoping and evaluating projects would need at least one person in all but the smallest municipalities. In the smallest municipalities, technical services directors could possibly cover this function. In large municipalities and Metros planning and design departments are required, comprising several civil professionals such as town planners.

¹¹ Ibid

¹² 2007 prices converted to 2014 prices using calculator at www.inflationcalc.co.za

5.2 Water Supply

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Water supply	<p>Constitution - Schedule 4 Part B: Water limited to potable water supply systems</p> <p>MSA: Section 84(1)(b) Potable water supply systems.</p> <p>The Minister may in terms of Section 84(3) of the Municipal Structures Act authorise a local municipality to perform this function</p>	Engineer water operation: 1 per 25,000 households
		Water Quality Officer Depends on scenario
		Water Resources Technician (EMP) 1 per 50000 households
		Water Plant Operator No recommendation

Water reticulation

Lawless estimates that managing water networks requires one person for 600 to 800 kilometres of water pipes.

Waterworks

Lawless estimates that for water in larges centre at the least one civil engineer is required per 7 to 10 works.

Canadian guidelines for waterworks operation outline that staffing requirements for waterworks are largely dependent on the nature of the plants, their type, their size and their levels of automation.¹³

It is clear that staffing norms for water systems will be dependent on the plant type used in municipalities, norms will need to be developed based on plant type and network size.

5.3 Sanitation

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Sanitation	<p>Constitution - Schedule 4 Part B: Sanitation services limited to</p>	

¹³ Alberta Government (2012) Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems: Part 2 Guidelines for Municipal Waterworks of a Total of 5 Part

	<p>domestic waste-water and sewage disposal systems</p> <p>MSA: Section 84(1)(d)</p> <p>Domestic waste-water and sewage disposal systems.</p> <p>The Minister may in terms of Section 84(3) of the Municipal Structures Act authorise a local municipality to perform this function</p>	
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Sanitation Management

For the South African case, Lawless estimates that for managing sanitation networks one person per 800 to 1000 kilometres of sewer pipes. For waste-water in larges centres at the least one civil engineer is required per 7 to 10 works.

Wastewater treatment works

In of terms of staffing wastewater treatment works the United States Environmental Protection Agency¹⁴ outlines a 4 step methodology for determining wastewater treatment staff requirements based on a study of 35 treatment plants across the United States.

Step 1:

The first step take into account the plant layout, unit processes, level of treatment, type of waste removal requirements, industrial wastes, productivity of labour, climate, training, automatic monitoring, automatic sampling, off-plant laboratory work, off-plant maintenance, pattern of staffing, age and condition of equipment, storm infiltration flow and operation at less than design flows. These are adjustment factors which may affect the man-hours required to perform a given task at a given plant. Examples of how these adjustment factors affect man-hours required include how the plant layout affects walking distance between workstation and how that affect man-hours per task or in the case of climate, whether the plant experiences hostile winters and therefore requires additional maintenance man-hours. These adjustments factors should be consolidated into a table of Adjustment for Local Conditions (TALC).

Step 2:

Step 2 of the EPA guideline is to develop an annual man-hour staffing requirement for an average plant. This average should be developed within specific size range of plants and based on a single assumption of operating time per week. From these averages staffing curves can be developed for the plants within the given size range operating at design flow not current flow.

Step 3:

Step 3 of the guideline requires the application of the adjustment factors in the table developed in Step 1 for each type of work.

¹⁴ US Environmental Protection Agency (1973) Estimating Staffing for Municipal Wastewater Treatment Facilities

Step 4

Step 4 of the guideline is to breakdown annual man-hours into specific jobs. The guideline uses six general classifications of work rather than specific job titles and descriptions. The six classifications that the guideline uses are supervisory, clerical, laboratory, operations, maintenance and yard. Yard covers jobs that do not fit into other categories such as cleaning, custodial work etc. Existing job titles can be allocated to each of these categories.

From the TALC and from the average curves one can calculate the annual productive man-hours in each of the six categories. This can then be divided by the annual work hours of an employee to determine how many staff are required for each category.

If fractional numbers of staff are obtained, work should be combined where possible in a rational way, in terms of what staff are already doing and what skills staff have. Consideration should also be given to time of work, and how work is divided into night-time and weekend work.

This presents a useful methodology for setting staffing norms for wastewater treatment works and could be adapted for setting norms in other functions of local government.

5.4 Electricity Reticulation

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Electricity reticulation	Constitution - Schedule 4 Part B: Electricity reticulation	Electrical Engineer 1 per 12,500 households
	MSA: Section 84(1)(c): Bulk supply of electricity	Electrician (General) 1 per 4,000 Households
		Electrician / Cable layer / Faultsman / Line Inspector 1 per 3,500 households
		Technical Cable Jointer No recommendation
		Electrical / Telecommunications Trades Assistant 1 per Artisan (Electrician)

Electricity reticulation

CoGTA's 2009 Skills Audit Stream Final Report provides the best consolidated information on the electricity reticulation staffing requirements of municipalities. The skills audit's recommendations are outlined above. As far as this research can ascertain there have been no norms or regulations for municipal staffing for electricity reticulation published by either the Department of Energy or the NERSA.

International literature on staffing norms or requirements for electricity reticulation is also limited.

Methods to determine staffing norms for the municipal electricity reticulation will have to be developed to suit South African circumstances.

5.5 Roads

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Roads	Constitution - Schedule 4 Part B Storm water management systems in built-up areas	Civil Engineer
	Constitution - Schedule 5 Part A Provincial roads	Civil Engineering Technologist
	Constitution - Schedule 5 Part B Municipal roads	Civil Engineering Technician
	Street lighting	1 per 25,000 households
	MSA: Section 84(1)(f) Municipal roads which form an integral part of a road transport system for the area of the district municipality as a whole.	Grader Operator No recommendation
	MSA: Section 84(2) All other municipal roads responsibility of local municipalities	Bulldozer operator 1 operator per machine
Possible: Constitution - Schedule 4 Part B Pontoons, ferries, jetties, piers and harbours, excluding the regulation of international and national shipping and matters related thereto The MEC has the power to adjust these functions between the local and district municipality and visa- versa.	Road repairer No recommendation	

Traffic and Transport planning and management

The South African Roads and Traffic Signs Manual recommend the number of engineers, technologists and technicians required to manage traffic signs. It outlines that staffing requirements for traffic signals are dependent on various factors including the number of traffic signals, age of signals, the Area Traffic Control Systems, the complexity of the traffic patterns in an area as well as skill levels of the personal available. It suggests a rough estimate of staffing level as

$$\text{Staffing Level} = \frac{\text{Work hours} \times \text{No. of signals}}{\text{Annual work hours of one staff}}$$

The manual also lays out the recommended work hours per signal per work discipline.

It recommends that roads authorities controlling over 200 signal installation should have a traffic signal division employing at least one professional traffic engineer and one professional electronic and/or electrical engineering technologist.¹⁵

Lawless argues that beyond traffic signals, large cities and Metros need at least one person dedicated to planning and managing service providers as do District municipalities.

Operations and Maintenance

For roads, it is estimated that 1 civil staff member is necessary for every 400 to 500 kilometres of surfaced roads on 800 kilometres of unsurfaced roads.

5.6 Public Transport

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Public transport	Constitution - Schedule 4 Part A Public transport Constitution - Schedule 4 Part B Municipal public transport MSA: Section 84(1)(g) Regulation of passenger transport services	Transport Planning Engineer 1 per 100,000 Households
		Traffic and Transport Planner 1 per 80,000 households. Scenario dictates thereafter

Public Transport Maintenance

The extent of the public transport function of municipality will determine its staffing approach. Large cities and metros often play a significant role in the provision of public transport and this creates additional roles for civil professionals in these municipalities and is accounted for in Lawless's approach to civil professional staffing outlined above. The 2009 Skills Audit OD Work Stream report outlined the per household requirements for Transport Planning Engineers and for Traffic and Transport Planners.

¹⁵ National Department of Transport (2001) South African Road Traffic Signs and Signals Manual 3rd Edition: Volume 3 Traffic signal design

The international literature argues that the following factors need to be considered when developing public transport technician staffing requirements for maintenance:

- Standard repair times
- Type of maintenance (scheduled, unscheduled, specialised)
- Maintenance intervals
- Population type
- Fleet size, age, and type
- Duty cycle
- Number of maintenance shifts
- Number of maintenance facilities
- Number of bus models
- Accessory systems (such as camera systems, GPS and fare boxes)
- Outsourcing¹⁶

Staffing requirements will differ dramatically from fleet to fleet further on the basis of fleet age and annual mileage. Additionally, international experience shows that staffing required per mileage will also differ based on the fleet size.

There is a substantial international literature on the staffing requirements for fleet maintenance, for which a full summary goes beyond the scope of this research. There is little literature on public transport staffing norms beyond maintenance, and the existing literature does tend to be system specific.

5.7 Housing (Human Settlements)

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Housing (human settlements)	<p>Constitution - Schedule 4 Part A Housing Property transfer fees</p> <p>Housing Act No 107 of 1997 amended addressing aspect re the assignment of the function to local government</p>	Building Inspector 1 per 6500 households

¹⁶ EDSI Consulting for the Transportation Research Board of the National Academies (2014) Maintenance Technician Staffing Levels for Modern Public Transport Fleets [available at: <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=3327>]

		Valuer Depends on scenario. Small municipalities do not warrant full time valuers
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Town planning, building inspection and property valuation

The human settlements functions for most municipalities is limited to town planning, building inspections and property valuation, as it is a national and provincial function. The requirements for these posts are set are suggested by the Skill Audit OD Work Stream Final Report and outlined in the table above.

Town planning requirements are to some extent accounted for under the civil professions discussed above.

The transfer of the human settlements function to metro municipalities and some district municipalities at the level 2 accreditation status gives these municipalities the responsibility to approve and manage housing construction programmes and ensure technical quality assurance. These functions create an additional burden on the project management, urban planning and other civil requirements for municipalities. It is suggested that a means of incorporating these function into the civil professions equations presented above offers a preliminary approach to establishing staffing requirements¹⁷.

This accreditation will also create additional administrative burdens on staff handling contracts.

5.8 Planning and Land Use Management

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Planning and land use management	Constitution - Schedule 4 Part A Property transfer fees Regional planning and development Urban and rural planning Constitution - Schedule 4 Part B Municipal planning	IDP Manager/Officer Office of the MM 1 per municipality
		Urban and Regional Planner 1 per 7,500 Households

¹⁷ SALGA (2012) Accreditation and Assignment Framework for Municipalities to Administer National Human Settlements Programmes: Managing the capacitation of municipalities for the assignment of human settlements functions to local government

<p>Constitution – Schedule 5 Part A Provincial planning MSA: Section 84(1)(a) Integrated development planning for the district municipality as a whole, including a framework for integrated development plans of all municipalities in the area of the district municipality. MSA: Section 84(2) Local IDP and all other municipal planning functions</p>	Senior District / Community Planner 1 per 10,000 households
	Town Planner 1 per 12,500 to 20,000 households
	Land Planner 1 per municipality up to 100 000 households. Scenario dictates further
	Spatial/ Environmental Planner 1 per 500,000 population

IDPs

Ultimate responsibility for IDPs lies with the municipal manager and is not a function of a municipalities planning department. However the IDP’s development requires the involvement of all the municipalities departments, through developing their own sectoral plans and ensuring their incorporation into the IDP. This is an additional workload on sector staff and may through that mechanism create the need for extra staff in those departments.

It is common for municipalities to have their own IDP offices through which the process is coordinated. Staffing in these offices tends to vary based on the size of the municipality and the financial resource available. A municipality will at the very least, require one IDP manager or officer, but in larger municipalities with more sophisticated planning requirement and more departments staffing requirements will increase.

Land use planning

There is limited policy guidance for norms for staffing the land use planning function of municipalities. The Skills Audit OD Works Stream Report makes recommendations as laid out in the table above for Urban and Regional Planners, Town Planners, Land Planner and Spatial and Environmental Planners. The promulgation of the Spatial Planning and Land Use Act in 2013 creates the need for municipalities to establish Municipal Land Tribunals, which will include municipal official as part of their composition, which may create additional work for planners.¹⁸

While the international literature on urban and regional planning and land use planning is substantial, much of it is proprietary information of the planning associations that develop it such as the International Society of City and Regional Planners and the Global Planners Network and is not readily available to this

¹⁸ Republic of South Africa (2013) Spatial Planning and Land Use Management Act 16 of 2013

research. It is not clear the extent to which it gives guidance to staffing norms. By international comparison, states in India take a fairly rigid per population approach to staffing of municipality and recommend the following

- 1 chief city planner for every 1,000,000 people,
- 1 city planner for every 500,000 population,
- 1 deputy city planner for every 300,000 to 500,000 population,
- 1 assistant city planner or senior town planning officer for every 100,000 to 300,000 population,
- 1 mid-grade town planning officer for every 40,000 to 100,000 population,
- 1 basic grade town planning officer for every 40,000 population.¹⁹

Given the differentiated nature of South African municipalities and the role of district municipalities in providing planning support, particularly to small local municipalities, South Africa will likely need to develop its own norms for its various contexts.

6 Other Municipal Functions

6.1 Municipal Solid Waste (Refuse)

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Municipal solid waste (refuse) service	<p>Constitution - Schedule 5 Part B: Refuse removal, refuse dumps and solid waste disposal</p> <p>MSA: Section 84(1)(e) Solid waste disposal sites, in so far as it relates to-</p> <p>(i) the determination of a waste disposal strategy; (ii) the regulation of waste disposal; (iii) the establishment, operation and control of waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one local municipality in the district.</p> <p>In terms of Section 85 of the</p>	Environmental Waste Officer 1 per municipality
		Compactor Driver (Business Refuse) 1 per 50 businesses (Waste Management Act)
		Compactor Driver (Household Refuse) 1 per 1800 - 3750 households oppose to 750 per household (Department of Water Affairs)
		Truck / Tractor Driver 1 per 20000 households
		Recycling / Rubbish Collector 6-7 per vehicle (Waste Management Act)
		Street Sweeping

¹⁹ Government of Andhra Pradesh (2011) Establishment- Proposal for the Rationalization of Staffing Pattern in Urban Local Bodies – Approval of Norms for Staffing Pattern in various Urban Local Bodies except Greater Hyderabad Municipal Corporation.

Municipal Structures Act, the MEC may adjust the Section 84(1) (e) function from the district municipality to the local municipality. Conversely, the MEC may adjust the local solid waste function from the local municipality to the district.	0.5 km per worker per day (Waste Management Act)
	Litter Picking 1.5 km per worker per day (Waste Management Act)
	Garden Refuse 300 households per vehicle per day (Waste Management Act)

Refuse collection

Staffing requirements for refuse collection are laid out in the Waste Management Act, the 2009 Skills Audit OD Work Stream Final Report and by the Department of Water Affairs. However the extent to which these can be broadly applied is limited given the diversity of methods used for collection even among municipalities using the same technologies. For example, a municipality that uses a tractor trailer to collect refuse from end of a road will have a different staffing requirement to one that collects refuse from in front of a house.

Landfill

DWAF’s Minimum Requirements for Waste Disposal by landfill make it a minimum requirement that the operation of all landfill sites be carried out under the direction of a responsible person. This may be a gate controller in the case of a General Waste Communal Landfill site, a site foreman in the case of a General Waste Small Landfill site, a site superintendent in the case of a General Waste Medium Landfill site and a landfill manager with a post-matric or tertiary qualification in the case of a General Waste Large Landfill site. In the case of Hazardous waste, rating 3&4, sites and Hazardous Waste Rating 1-4 sites, the Responsible Person must have the academic equivalent of a BSc Degree with a Chemistry major and suitable experience. He/she must also be fully *au fait* with the Hazard Rating system and its application.²⁰

There are no South African guidelines for staffing needs beyond the individual with overall responsibility for the landfill sight. However the New South Wales Environment Protection Authority recommends that staffing norms at landfill sites need to be set at the level where all continuous tasks, including waste reception and security, compactions and covering, can be completed in line with any national regulation and environmental standards.²¹

6.2 Safety and Security

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
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²⁰ DWAF (1998) Minimum Requirements for Waste Disposal By Landfill

²¹ New South Wales Environment Protection Authority (1996) Environmental Guidelines: Solid Waste Landfills

Safety and security	<p>Constitution: See Chapter 11 Section 205</p> <p>Constitution - Schedule 4 Part A: Police to the extent that the provisions of Chapter 11 of the Constitution confer upon the provincial legislatures legislative competence</p> <p>Road traffic regulation</p> <p>Constitution - Schedule 5 Part A</p> <p>Provincial traffic</p> <p>Constitution - Schedule 5 Part B</p> <p>Control of public nuisances</p> <p>Traffic and parking</p> <p>MSA Section 84(2) – Local municipality functions</p> <p>Control of public nuisances</p> <p>Traffic and parking</p>	<p>Senior Law Enforcement Officer</p> <p>1 per 100 000 household</p>
		<p>Traffic Officer</p> <p>No recommendation</p>
		<p>Security Officer</p> <p>No recommendation</p>

Traffic control

As far as this research has been able to determine there are no norms for the staffing of municipal police for bylaw enforcement, traffic and parking functions and licencing functions for South Africa. These would have to be established, based on the needs of different types of municipalities based on the duties of traffic officers outlined in Section 3F to 3I in the National Road Traffic Act No.93 of 1996.

Guidelines available for equivalent functions internationally tend rather to be focussed the establishment of police departments which tend to go beyond the functions covered in by South African municipalities. The literature argues that staffing decisions should be guided by workload rather than by number per population or incidents reported, given the varying function of the service provides and varying nature of service areas such as size of the municipality.²²

The considerations that need to be undertaken considering staffing guidelines for police departments include:

- The size of the beat an officer is expected to cover;
- What form of transportation do they use on the beat;
- The list of public services staff are expected to provide;
- The number of large events that take place in the jurisdiction, such as festivals.²³

²² ICMA (undated) Determining Police Staffing and Development

²³ U.S. Department of Justice: Office of the Community Oriented Policing Services (undated) Guidelines for Starting and Operating a New Police Department

6.3 Emergency Services

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Emergency services (fire, rescue, disaster management and ambulance service)	<p>Constitution - Schedule 4 Part A Disaster management</p> <p>Constitution - Schedule 4 Part B Firefighting services</p> <p>Constitution - Schedule 5 Part A Ambulance services</p>	<p>Commissioned Fire and Rescue Officer</p> <p>No recommendation</p>
	<p>MSA: Section 84(1)(j) Firefighting services serving the area of the district municipality as a whole, which includes-</p> <ul style="list-style-type: none"> (i) planning, co-ordination and regulation of fire services; (ii) specialised firefighting services such as mountain, veld and chemical fire services; (iii) co-ordination of the standardisation of infrastructure, vehicles, equipment and procedures; (iv) training of fire officers. <p>MSA: Section 84(2) Local firefighting functions excluding functions listed in section 84(1)(j)</p> <p>MSA: Section 26(g) Inclusion of the applicable disaster management plans in the IDP</p>	<p>Fire Fighter</p> <p>5-4 per appliance depending on the category of service</p> <p>SANS 10090:2003 Edition 3</p>

Fire fighting

The South African National Standards requires that 4-5 firefighters are available per appliance, depending on the category of service. This is in line with the United States' National Standards, as outlines below.

In 2012 Municipal Resources, Inc. completed a staffing study for the town of Lexington, Massachusetts on firefighting. The US National Fire Protection Standards 1710 underpin the staffing requirements for fire departments in the US. They require that each engine or truck company should be staffed with a minimum of four on duty personnel, that the first respondent to a fire suppression scene should arrive within four minutes and a full first alarm response should arrive within eight minutes 90% of the time. The same parameters apply for EMS incidents with basic EMT arriving within four minutes and a full advanced life support system should arrive on scene within eight minutes. A full first response team consists of 16 people for a typical home. But different types of dwellings and buildings require

different levels of response, and the nature of the building being serviced would need to be taken into account in developing norms for firefighting staff.²⁴

The Canadian National Fire Protection Association (NFPA) reports a median staffing rate in career fire departments as one firefighter per 1000 population or 100 firefighters per 100,000 population.²⁵

6.4 Public Places and Community Facilities

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Public places and community facilities	<p>Constitution - Schedule 4 Part B Child care facilities</p> <p>Constitution - Schedule 5 Part A Provincial recreation and amenities</p> <p>Constitution - Schedule 5 Part B Cemeteries, funeral parlours and crematoria Local amenities Public places</p> <p>MSA: Section 84(1)(l) The establishment, conduct and control of cemeteries and crematoria serving the area of a major proportion of municipalities in the district.</p> <p>MSA: Section 84(2) All other cemeteries, crematoria and funeral parlours are local municipality functions</p>	

Maintenance of Local Amenities and Public Places

This research could not establish whether there are any staffing South African staffing guidelines available for the maintenance of local amenities and public places, however following approaches outlined below are used internationally.

The United States' General Service Administration estimates man-hour requirements for preventative maintenance based of the equipment used in each facility to determine the staffing requirements for maintenance of public facilities. It uses specific formulas for specific trade area to estimate the man-hours required to accomplish all types of maintenance. These formulas take into account the type, and size of the facility.²⁶

²⁴ Municipal Resources, Inc. for the Town of Lexington, MA (2012) Fire Department Staffing Study

²⁵ PDG (2011) Establishment of a Baseline and Methodology to Track and Measure CoJ Inclusive Indicators and Updating of CoJ Sustainability Indicators.

²⁶ Fairfax VA Facilities Management Department (undated) Estimated Operations and Maintenance Staffing Requirements.

The International Facilities Management Association uses large surveys of Operations and Maintenance organisations to compile benchmarks for staffing requirements. Based on the results of this survey the association recommends one maintenance full time equivalent is required for 47,000 rentable square feet. This is approximately 4366 square metres.²⁷

Cemeteries, crematoria and funeral parlours

As outlined by Allyson Lawless, in the inclusion of cemeteries as a municipal function increase the workload of civil professional staff adding to requirements in this area.

There is little further guidance available as to the staffing requirements for cemeteries, crematoria and funeral parlours, however the great extent to which their management is controlled by municipal bylaws suggests that the approach to staffing may differ depending across municipalities may differ depending on the bylaws.

6.5 Sports and Recreation

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Sports and recreation	<p>Constitution - Schedule 5 Part A Provincial sport</p> <p>Constitution - Schedule 5 Part B Beaches and amusement facilities Local sports facilities Municipal parks and recreation MSA: Section 84(2) The functions listed in Schedule 5 Part B are local municipality functions</p>	

Sports and Recreation Facilities

Regulations for the management of Sports and Recreation Facilities are laid down in The South African Sports and Recreation Norms and Standards.²⁸ The norms and standards outline the management structure options for management of facilities. A facility may be managed directly, through contract management, may be leased out, or managed jointly with an outside party if the facilities were developed jointly. Contract management and lease management limit the staffing requirements for municipalities as day to day responsibilities transfer to the contractor or lessee. With Direct management the regulations require that the local authority employ a facility manager. Where the number of staff employed at the facility is small, it falls to the local authority to provide administrative support. This then creates an

²⁷ IMFA (2005) Operations and Maintenance Benchmarks Research Report #26

²⁸ Department of Sport and Recreation (2010) Norms and Standards for Sport and Recreation Infrastructure Provision and Management

additional load on the municipality's administrative staff rather than additional staffing requirement at sport and recreation facilities.

The full extent of any staffing requirement for sports and recreation facilities is entirely dependent on the nature and size of the facility, its usage and its management structure, making it difficult to generalise norms for staffing.

6.6 Economic Development

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Economic development	<p>Constitution - Schedule 4 Part A</p> <p>Consumer protection</p> <p>Trade</p> <p>Constitution Section 152(1)(c)</p> <p>Objects</p> <p>To promote social and economic development</p>	<p>Local Economic Development Officer</p> <p>No clear norm.</p>
	<p>Constitution Section 153(a)</p> <p>A municipality must structure and manage its administration and budgeting and planning process to give priority to the basic needs of the community; and to promote the social and economic development of the community</p>	<p>Community Development Worker</p> <p>1 per municipality (up to 100,000 households)</p>

Economic Development

The Skills Audit OD Work Stream Final Report suggests that there should be at least 2 Local Economic Development (LED) Officers per 100,000 population. This is based on a very small sample, and the report notes the need for further investigation to establish a norm.

The Mpumalanga Guidelines for the Establishment of Municipal Local Economic Development Institutional Arrangements outlines the structure of a municipal LED Unit. The guidelines call for an LED Manager at a strategic level to ensure sufficient skills and influence, an LED Coordinator, focussed on stakeholder mobilisation and at least one LED Officer focussing on the implementation of the LED Implementation Plan²⁹. This calls for at least 3 staff per municipality, though it is not clear the extent to which each position is a full time equivalent.

²⁹ Mpumalanga Department of Cooperative Governance and Traditional Affairs (2011) Guidelines for the Establishment of Municipal Local Economic Development Institutional Arrangements

6.7 Arts and Culture

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Arts and culture	Constitution - Schedule 4 Part A Cultural matters	Arts and Culture Manager No recommendation
	Constitution - Schedule 5 Part A Libraries other than national libraries Museums other than national museums	Librarian 1 librarian per library that serves more than 10 000 population
	Provincial cultural matters	Library Assistant No recommendation
		Galley / Museum Curator No recommendation

Libraries

The 2009 Skills Audit OD Work Stream recommends 1 librarian for every library that serves 10,000 people based on recommendations from the Department of Arts and Culture.

The proposed South African Public Libraries and Information Service Bill outlines that libraries must have appropriate opening times so as to adequately serve their communities. The implication of this is that staffing requirements will be determined to a large extent by their operating times. A costing of the bill uses proposed norms and standards for libraries to establish the likely costs of the bill. It includes a proposed set of norms and standard for staffing libraries by type of library from Community Books Units to Mega Public Libraries. It also outlines the minimum libraries threshold, showing the minimum number of libraries a municipality should get based on population size. For instance and municipality should have a basic public library for every 25,000 to 33,000 population which can be staffed by 1 librarian and 1 library assistant, and a municipality should have 3 branch libraries for every 200,000 population each staffed by 2 librarians, 1 library assistant and a general worker. This is a smaller requirement of librarians than the Skills Audit proposes, but a similar overall number of staff.³⁰

³⁰ Cornerstone Economic Research for the Department of Arts and Culture (2013) Project Report: Costing the South African Public Library and Information Services Bill

By international comparison the State Library of Queensland in Australia recommends 1 library employee for every 3000 population and 1 fully qualified librarian for every 10,000 population, making librarian requirement equivalent to those of the Department of Arts and Culture.³¹

Museum and Gallery Staffing

This study was unable to find adequate data on norms for the staffing of museums.

6.8 Environment

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Environment	<i>Constitution - Schedule 4 Part A</i> Environment Pollution control	Environmental Manager No recommendation
		Environmental Research Scientist 1 per municipality
		Environmental / GIS Officer 1 per 30,000 population

Pollution Control

The best source of information for staffing of Air Quality Technician for the South African case is the Skills Audit OD Work Stream Final Report which recommends 1 air quality technician per 50,000 households. However, this is based on a very small sample of 3 municipalities and warrants further investigation.

Environment

Staffing norms for Environmental Science Technician are variable based on the nature of the municipality. A municipality with a large number of industries or mines would need a higher level of staffing. South Africa would need to find develop a basis by which to set norms for its environmental officers.

6.9 Municipal Health Services

Broad function Description	Functions included: Schedule 4 and 5, Section 84 of the Municipal Structures Act	2009 Skills Audit OD Work Stream Final Report Recommendation
Municipal health services	<i>Schedule 4 Part B</i> Municipal health services <i>Defined in the Health Act No.61 of 2003 as:</i>	Registered Nurse (Community Health) Depends on scenario / 1 on 15 000 households
		Nurse Manager No recommendation

³¹ State Library of Queensland (2008) Queensland Public Library Standard and Guidelines: Staffing Standard.

<p>“municipal health services”, for the purposes of this Act, includes- (a) water quality monitoring; (b) food control; (c)waste management; (d) health surveillance of premises (e) surveillance and prevention of communicable diseases, excluding immunisations; (j) vector control; (k) environmental pollution control; (h) the disposal of the dead (i) Chemical safety, but excludes port health, malaria control and control of hazardous substances.</p>	<p>Ancillary Health Care Worker No recommendation</p>
	<p>Community Health Worker 1 per 30,000 population</p>
	<p>Environment Health Practitioner 1 per 15,000 households</p>

Community Health

There are no South African legislative requirements for numbers of community health workers. However the 2009 Skill Audit OD Report outlined the possible norms for Registered Nurses for community health and for Community Health Workers as outlined in the table above.

Environmental Health

The Department of Health does not give guidelines as to staffing norms for municipalities. The South African National Health Council recommends at least one environmental health practitioner per 15,000 households.³² However, in 2013 the department published the National Norms and Standards Relating to Environmental Health in Terms of the National Health Act 2003 (Act 61 of 2003). These outline the norms and standards for the following functions of local government:

- Health surveillance of premises
- Health related water quality monitoring
- Waste management (general, hazardous and health care risk waste)

The publication of these norms and standards allow for comprehensive categorisation of the work required of environmental health officials leading to better informing the calculation of the work hours required to fulfil the function.

Studies by the World Health Organisation provide some insight into the staffing requirements for environmental health. The international experience is that although there is a wide range of functions performed by environmental health departments the number of staff employed in Europe largely lay within a band of 187 to 222 persons per 100,000 population. However, this was found to be inadequate leading to the recommendation of 100 professional staff per 100,000 population, 100 sub professional staff and 350 technicians per 100,000 population. However these numbers are inflated as they include work done by engineers, economists, legal specialists that are unlikely to exclusively fulfil an environmental health function in a South African municipality.

³² DCOG (2009) Skills Audit OD Work Stream Report

The WHO, however, does recommend a scientific analysis of work norms and analysis of tasks to be performed by an environmental health officer as a better approach to forecasting manpower needs. This analysis should also take into account factors affecting the area like economic activity, social, political and cultural values and systems, topography and climate and available resources for delivering services.³³ In terms of environmental health practitioners, the WHO recommends one for every 10,000 households.³⁴

While South African municipalities provide only very limited health care services the approach taken by Oman in developing staffing levels for its local outpatient facilities is informative. In order to provide staffing guidelines for the provision of staffing for outpatient facilities, the ministry of health in Oman began by classifying health centres by catchment area and by average Out Patient Daily Attendance. From this the department was able to determine that below a 20,000 population catchment area there was a linear relationship between the number of outpatients attending and the size of the catchment area but that where the population is greater than 20,000 this relationship breaks down.

From this breakdown of visits per population, the ministry was able to establish 22 different categories of primary health care facility, and categorise each in one of eight staffing profiles developed. The staffing profiles based on 13 occupations, were developed based on the number of visits to a facility.³⁵

7 Conclusion and Recommendations

7.1 Conclusions

Availability of Staffing Norms and Standards

Through the research it has emerged that there is relatively little literature available on staffing norms and standards for local government. This is true both of the South African case and internationally.

In the South African case very few national departments, who have an important regulatory and supervisory role to play, have published norms and standard for functions performed by local government, particularly around staffing requirements. Some legislation, such as the Waste Management Act does outline some staff requirements but these examples are few and far between.

From the international perspective there is relatively little generic literature offering guidance on staffing levels for local government or for South Africa's local government functions. There is some benchmarking literature, but these often reflect current realities in staffing rather than what resources should be available. It is also often the case that staffing is treated as a total number of staff required per unit population with little disaggregation into profession or occupation with required skills or education levels. Some of the few examples that are disaggregated by profession are outlined here but these are limited.

³³ James Gallagher for the World Health Organisation (1987) Development of Environmental Health Manpower

³⁴ DCOG (2009) Skills Audit OD Work Stream Report

³⁵ Base Ghosh for Directorate General of Health Sultanate of Oman (2006) Staffing Norms for Primary Healthcare Institutions

There have been some attempts in recent years to improve municipal organisational structures in South Africa. Any attempts to devise generalised municipal staffing norms in the future should pay particular attention to those organisational structures that have indeed been improved through previous initiatives. Financial viability, however, remains a key issue that needs to be factored into the discussion.

Methods of service delivery

Much of the international literature available reflects studies that have been done by municipalities or state governments into specific aspects of service provision. These will be particular to the specific systems in specific places, with specific services levels and specific technologies, and can offer some guidance as how to go about setting norms and standards for staffing but few shortcuts by way of providing ready-made norms and standards.

It is important to note that alternate methods of service delivery, through outsourcing and corporatisation and even public partnerships to deliver a service, will have a significant impact on staffing trends and norms. Choices exercised in each institution about whether to utilise more technology and tools in the delivery of a service or remain labour-intensive will also impact on staffing trends and norms.

Definitions of services

The definition of functions of local government can additionally create challenges for setting norms and standards for staffing levels when using international example. Local government functions are often defined differently internationally and are made up of different sets of activities. The primary example of this demonstrated here the WHO study environmental health study, which include a far broader set of activities relating to environmental health than would be typical in South Africa.

The overlap of some functions also presents challenges, particularly in small municipalities where individual employees will be working in several different local government functions. These instances require individualised divisions of labour which will be difficult to account for in generic norms and standards. The approach taken by Lawless outlined in this study offers a means of addressing this in describing a way to calculate the civil requirements across all civil engineering functions, rather than differentiating staffing requirements by service. This approach should be applicable in other functions.

Differentiation

The nature of South African local government will clearly provide its own challenges for setting norms and standards for staffing. It seems likely that different types of municipalities will require different norms in order to meet minimum service standards. For instance, a District Municipality providing services to a set of small local municipality may need to use different measures for staffing than a large local or metro municipality. This is likely to be particularly true of engineering functions. The use of adjustment factors, as demonstrated by the US Environmental Protection Agency's approach to wastewater works staffing would be a useful means to counter this.

7.2 Recommendations

Given the challenges in finding international norms and standards for municipal functions, and the lack of norms and standards available in South Africa it is likely that the best option for future work is an extension of the 2009 Skills Audit OD

Work Stream methodology, broadening the number of municipalities sampled per occupation and differentiating across types of municipalities sampled. It is likely that this would need to be done by visiting municipalities to obtain the information. This would allow preliminary local benchmarks to be set, for discussion and debate.

Once staffing levels have been established comparison can be drawn with the staffing levels of the municipalities providing at least an adequate standard of delivery in a given function, and for a given type of municipality as a possible basis for staffing norms to be proposed and debated. Determining an adequate level of service would be assisted by the publication of norms and standards for service delivery by national departments.

7.3 Future work

Information for developing prospective staffing norms and guidelines for South African local government is limited. Significant work needs to be done in several key areas in order to reduce this deficit. The three main limitations are:

1. The lack of norms and standards for acceptable levels of service delivery by local government from national government departments. This means that there is limited information available to municipalities on what an acceptable level of service is in a number of functions, limiting their ability to understand the number and type of staff they would require to fulfil this level of service.
2. Some information exists on what staffing levels are in South African municipalities and what those municipalities feel is necessary for them to fulfil a service, the sample sizes in the studies remain too small to make generalizable findings and underpin debate around norms and standards. Thirdly,
3. Where information exists internationally and locally, it is not often universally applicable to the context of South African municipalities. However, existing methodologies for determining staffing ratios for some local government functions should be investigated for applicability to the South African case.

Therefore, future work on staffing norms and standards for local government should:

- Explore fully the service level requirements in norms and standards established by national government departments, for local government functions and understand the staffing implications of these norms and standards.
- Identify gaps of service level norms and standards, to establish where service level requirements are still outstanding, and which national departments should be engaged towards developing these.
- Extend the work of the 2009 Skills Audit OD Work Stream Report, using the same methodology, with the emphasis on expanding the number of municipalities sampled for each occupation and each typology of municipality to establish local benchmarks for municipal staffing.
- Compare results of the expanded work stream OD report to the staffing profiles of municipalities providing an adequate level of service and propose norms for debate.

- Extract existing methodologies for determining staffing requirements for the local government functions from existing norms and standards, the literature presented in the paper, other local and package it to allow municipalities to make informed staffing decisions in lieu of formal norms in the interim.

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