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Public services, government employment and the budget: Social Goods Report

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SOUTHERN CENTRE FOR INEQUALITY STUDIES

Public Economy Project

The Public Economy Project aims to build analytical capabilities on macro-fiscal policy and public economics to support deliberation and engagement between government, social partners, and civil society. The project is located within the Southern Centre for Inequality Studies (SCIS) at the University of the Witwatersrand.

More about the project here: https://www.wits.ac.za/scis/research-projects/public-economy/

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OVERVIEW AND MAIN CONCLUSIONS

This report presents independent analysis using publicly available data on budgets, audited spending outcomes, and government plans for future expenditure. Our main concern is to draw inferences about the impact of budget choices on the allocation of real resources to core public services.

These core services are basic education, healthcare and criminal justice. They are provided largely free-of-charge to any user, and account for a large share of the consumption basket of poor South Africans. Public provision of these services is widely recognised as a cornerstone of social and economic development in any society. Together, basic education, healthcare and criminal justice account for three-quarters of government's wage bill, and one-half of spending on procurement.

The quantitative nature of budget choices means that, in contrast to other forms of policy expression, trade-offs between different policy goals are made clear and explicit. However, most would agree that many of the challenges South Africa faces concern the *quality* of services. In basic education, healthcare and criminal justice there are fundamental concerns about maladministration, mismanagement, low productivity, waste and inefficiency. This report, however, seeks to appraise the choices made in government's budget statements, and numbers that are tabled as part of those statements. This necessarily limits our focus, especially in respect of these important qualitative issues. We hope to address this limitation in the future, with research on public sector productivity.

The report attempts to gauge the quantitative aspect of public policy in three respects. First, we identify the trends in real spending over the last two decades. Second, we use the budgets approved by parliament and provincial legislatures to gauge the impact of budget choices on real resource allocation over the next three years. Third, we present analysis of government pay and employment trends, which are strongly concentrated in the core public services that are our interest.

Real spending is falling

We find that over the last decade, there have been significant reductions in the real value of basic education and criminal justice, while healthcare budgets have been under increasing pressure.

- In basic education, government spent about R20 000 per learner in 2009, but this had fallen to about R16 500 per learner by 2021. If the budgets tabled by provincial governments in 2022 are executed without adjustment, the next three years will see a large negative shock to the real value of spending per learner. In a worst-case scenario spending will fall to R14 000 per learner. Government currently employs one educator for every 33 learners enrolled in the public school system. This could rise to as high as 39 over the next three years because the budget can only be realised with significant reductions to employment in the sector.
- In healthcare, expenditure has stagnated in real terms relative to the population dependent on government services. In 2012, there were more than 720 healthcare workers per 100 000 uninsured people. This ratio has steadily fallen since then, reaching 632 by 2018. The response to the Covid-19 pandemic saw an increase in spending and employment in 2020. But current budgets imply that increased employment would need to be completely reversed and spending per capita brought to an historic low. Healthcare workers per 100 000 citizens could fall to as low as 590. Given the systemic inequalities within the healthcare system, this shock is likely to be unevenly distributed. Provincial, specialized and district hospitals, which have already seen a significant erosion of their resource-base as funds have been switched towards primary healthcare, are likely to face the brunt of the fiscal squeeze.

- For the criminal justice sector, our analysis shows that by 2010 the level of spending had increased to more than R2 000 per citizen. By the time the Covid-19 pandemic hit in 2020, however, spending had fallen to below R1 700 per citizen. Police employment reached around 200 000 in 2010 but was reduced by around 15 000 personnel by 2020. If current budget plans are executed, police spending and employment levels will fall even further in the years ahead, reaching their lowest point over the last 20 years. We find similar budget pressures face the courts, justice system and correctional services.

Cutting employment means cutting services

The currently tabled budgets of national and provincial governments imply large reductions in government employment in all these services under any reasonable assumptions about pay improvements. Even if the assumptions made in the budget for average pay increases of 1.5 percent per annum were to be realised, large and damaging headcount reductions are required to meet expenditure limits.

Analysing government spending and payroll data, we show that the government wage bill is dominated by core public services, and that the professionals who provide these services – teachers, doctors and nurses, and police officers – dominate government employment. Within the core public services, the balance between professional and administrative staff appears stable and sensible. "Bloating", if it exists, is concentrated in political and executive offices, economic regulation, infrastructure services, and public administration – particularly finance and co-operative government, which have seen substantial increases in employment in recent years. Even so, total employment in all public administration departments was less than 40 000 in 2019 compared with more than 1 million in education, healthcare and criminal justice.

From this bird's-eye view, therefore, there is little evidence that government employment structure is deficient – a widely held view in public discourse. The implication of this is that fiscal consolidation will lead to a further withdrawal of core services, rather than an improvement in efficiency. Even if government could find efficiencies, reduce unnecessarily "bloated" bureaucracies, or overcome wasteful spending and corruption (and it has tabled no clear plans to do this), the currently planned path of fiscal consolidation would still largely depend on reducing the real value of core public services.

The emphasis of government's programme is to reduce average pay, and it is sometimes believed that government employees are overpaid and unproductive, and therefore reductions in their numbers and pay can be achieved without negative impacts on public services. Evidence presented in this report questions these assumptions. It is true that over the last 20 years, most government employees have enjoyed significant improvements in pay. However, these improvements are strongly concentrated in the period 2007 – 2010, the years during which the system of Occupation Specific Dispensations (OSDs) was introduced. OSDs were part of a concerted effort to retain and upgrade human capital in the public service. Since then, for the last decade at least, the average pay of most government employees has grown at a moderate pace, largely in line with pay trends for similar workers in the private sector.

Compensation spending cannibalising budgets

Budget allocations, however, have not kept pace with pay increases agreed to by government, and spending on compensation of employees has been contained within strict limits for many years. In effect, Cabinet has been deciding to increase pay while adopting budgets that effectively invalidate

its own decisions. These pressures have resulted in three forms of "crowding out" that have eroded state capabilities, especially in the provision of core services:

- First, and most damaging, has been the reduction in the number of employees. Employment in core public services has fallen relative to broad measures of public demand for services (such as the size of the population or enrolled users). In the case of basic education and criminal justice, there have been absolute falls in employee numbers.
- Second, the real incomes of government employees who fall outside the bargaining unit – senior managers and judges – have been forced down consistently over the last decade. This, combined with successive bargained agreements that give higher pay increments to lower-level employees, has contributed to a compression in the government wage structure. In a context of rapid increases in pay for private-sector executives and others at the top end of the distribution, this is likely to have contributed to the brain drain from the public service and the operational collapse experienced in so many government departments over the last decade.
- Third, where government departments have been unable to keep within limits imposed on compensation spending, there has been a reallocation of the budget away from goods, services, capital and maintenance spending, towards compensation, which now accounts for a larger share of budgets. This has been particularly marked in healthcare and criminal justice.

Arguably, these outcomes can be avoided if pay is pushed down for the bulk of employees, enabling greater employment and complementary inputs, with a lower compensation bill. However, if the incomes of teachers, nurses and doctors, and police officers are reduced relative to their private-sector counterparts (i.e. workers with similar years of training and expertise) then government is effectively reversing the decision to implement OSDs in the first place. The result is likely to be a further intensification of the public-sector brain drain.

While spending on government consumption has been held down over the last ten years, there is evidence that demand for these services has increased substantially, in line with rising unemployment and poverty. Moreover, the stagnation in public provision of health, education and criminal justice contrasts with increased employment in the private provision of the same services. This shift may be welcomed by some as contributing towards better social services delivered by a more efficient private sector.

However, these shifts will lead to rising inequality, for two reasons. First, the poorest sections of the population depend on in-kind services provided free-of-charge to all. The shift of provision towards the private sector (where services are financed with user charges) implies a significant worsening in the effective distribution of income in South Africa, and a redistribution of consumption from the poor to affluent households. Second, the public-sector salary structure is an equalising element in the formal-sector labour market; we show that the while the Gini coefficient is around 0.65 for formal-sector wages, among government employees the Gini is less than 0.3 and has substantially fallen in recent years. Reducing government employment and allowing the private sector to take over the delivery of social goods will exacerbate income inequality in South Africa.

The need to negotiate a new path ahead

We do not take any stand on fiscal issues in this report. The arguments we put forward and the evidence we present have little bearing on the need for fiscal consolidation or otherwise. But the point we *do* make is that the fiscal consolidation as currently proposed will significantly reduce real spending on core public services, erode the quality and reach of these services, and widen income inequality in South Africa. These choices are at odds with the Constitution, and will certainly lead to

a retrogression in socioeconomic rights. Yet government has provided no evidence that suggests a contrary conclusion, nor has it presented any plans or policy interventions that seek to alleviate the damaging effects of fiscal consolidation on public services.

The current structure of collective bargaining focuses solely on the value of annual cost-of-living adjustments, without any meaningful discussion of productivity. The treasury is focused solely on fiscal consolidation, without apparent concern for the harmful effects on public services. The Presidency and sector departments in provincial and national government lack any coherent plan that acknowledges, let alone plans for, the impact of the fiscal shock currently taking place, preferring to focus on capital spending projects and new programmes that add further pressure to the fiscus. The result is that policy inconsistency is baked into the very heart of government, leading to an ongoing erosion of the capability of the state and the quality of public services. In the absence of clear policy choices backed by strong action from Cabinet, fiscal pressure will continue to grow across all spending items, imposing debilitating austerity conditions on an indiscriminate basis.

Instead, government's programme must balance the need for fiscal consolidation with the obligations set out in the Constitution and embrace the interests of both government employees and the recipients of core public services. Agreement on a broad package to moderate pay, increase headcounts and improve the effectiveness of public services is essential. We suggest the following change in direction:

- First, government should announce a programme that reflects clear policy choices and explicit plans to balance fiscal consolidation with the need to safeguard frontline services by reducing resources for lower priority programmes and departments. Such a programme should ensure that employment of teachers, nurses and doctors, and police officers keeps pace with the demand for services and ensure that resource allocation to core public services is protected.
- Second, government should negotiate a longer-term agreement with its employees that balances the need for decent pay, sufficient employment and measures that improve the effectiveness of public services and enhance productivity. This should form part of a programme to improve public provision and restructure public services. Consideration should also be given to reform of the institutions of collective bargaining in the public sector, so that annual negotiations become more focused on the challenges faced by specific service-delivery sectors.
- Third, a fiscal rule to anchor expectations of growth of the salary bill should be considered in the context of social dialogue. This would enable a better alignment between fiscal objectives on the one hand, and the need to sustain the services which form a critical part of South Africa's fragile social and political compact. To be effective, a fiscal rule of this nature needs to command broad support from the public and acceptance by public sector unions. In achieving such a consensus there is no substitute for effective political leadership.

The debate about South Africa's budget has been dominated by government's need to consolidate the fiscus on the one hand, and the demands of public sector unions for better pay on the other. The result has been a chronic and deepening erosion of the resources base for quality public services on which the majority of South Africans depend. It is time to place the users of public services at the centre of the debate.

NOTE ON DATA AND DATA SOURCES

Budget year

Unless otherwise indicated, data in this report is presented by "budget year". This means the fiscal year identified by the year in which the budget is tabled. Budget 2022, for instance, covers the year from 1 April 2022 to 31 March 2023. In this report we refer to this year as 2022.

Government payroll data (Persal, GTAC/PEPA)

Persal is government's payroll system. Employees of national and provincial government departments are on the payroll system. Employees of local government, public entities, state owned companies are not on Persal. In general, temporary employees created by public employment programmes are also not on the payroll system.

The actual payroll data is confidential and not available to the public. However, the Government Technical Advisory Services' Public Expenditure and Policy Analysis Unit (GTAC/PEPA) has made a limited data set publicly available as an excel spreadsheet covering the period 2006–2021. The data contains fields for province, department, salary group and salary level, showing the number of full-time equivalent employees as well as expenditure processed through Persal in relation to those employees. The full data set is available at www.gtac.gov.za/pepa/personnel-analysis/

The Public Economy Project has developed the data set by consolidating definitions of department (which often have different names at provincial and national level) which enables us to group and analyse the data by sector. We have also consolidated the salary group field in order to generate analysis of occupation specific dispensations and identify professionals. Average pay is calculated on this data set by dividing total payments through the system by the number of full time equivalents.

Estimates of Provincial Revenue and Expenditure (EPRE)

National Treasury prepares a consolidated dataset of budgets adopted by provincial legislatures. This includes audited spending outcomes for the last three years, and estimates of expenditure over the next three years, grouped by standard economic and functional classifications.

The Public Economy Project has consolidated these datasets over several years. Consolidated excel-based data is available on the National Treasury website going as far back as 2011. Data prior to 2011 is drawn from provincial and national reports.

The most recent ERPE dataset is available at:
www.treasury.gov.za/documents/provincial%20budget/2022/4.%20EPRE%20tables%20in%20Excel%20Format/Default.aspx

Estimates of National Expenditure (ENE)

The Estimates of National Expenditure are tabled each year, together with the national budget. They contain spending outcomes and medium-term expenditure estimates for national departments, and in this report this data is used for criminal justice and defence.

The most recent ENE data is available in excel format at:
www.treasury.gov.za/documents/National%20Budget/2022/Estimates.aspx

Consolidated account pivot

National Treasury issues a set of pivot-tables containing data of the consolidated national budget in excel format. The most recent consolidated account pivot, together with a variety of other budget data in excel format is available at:
www.treasury.gov.za/documents/National%20Budget/2022/excelFormat.aspx

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1. INTRODUCTION

This report presents independent budget analysis using publicly available and easily accessible data on budgets, audited spending outcomes, and government plans for future expenditure. Our main concern is to draw inferences about the impact of budget choices on the allocation of real resources to core public services. We also aim to establish a set of relatively simply metrics that can be used to evaluate budget choices on an ongoing basis.

We define the core public services as basic education, healthcare and criminal justice. They are provided largely free-of charge to any user, and account for a large share of the consumption basket of poor South Africans. Public provision of these services is widely recognised as a cornerstone of social and economic development in any society.

Together, basic education, healthcare, and criminal justice account for three-quarters of government's wage bill, and one-half of spending on procurement (see Table 1). The enormous size of spending on these services is illustrated in Figure 1, which also shows the composition of this spending. Core public services account for two-thirds of government consumption spending funded directly by the national budget.

To stabilise rising national debt, government is committed to a very large fiscal consolidation, which is strongly focused on government consumption.[1] The unprecedented nature of the consolidation proposed in the 2022 budget is shown in Figure 2. The proposed contraction in government consumption is far larger than that observed in the 1990s – the last comparable episode of consolidation.

A key concern of this report is the impact of this contraction in government consumption on the value of core public services and, by extension, the value of the consumption basket of poor households. By analysing publicly available evidence, the report hopes to contribute to public discourse on fiscal adjustments and their social impact.

Table 1: Consolidated spending on core public services

Selected budget groups | Average spending 2017–2019

R billion	Compensation of employees	Goods and services	Capital	Transfers	Total*
Basic education	203.3	26.1	10.8	21.1	261.3
Health	141.0	63.6	10.7	7.4	222.6
Police services	81.5	18.8	2.7	1.5	104.6
Law courts and prisons	32.4	12.7	1.3	1.1	47.4
Total	**458.2**	**121.1**	**25.5**	**31.1**	**635.9**
Share of total consolidated spending					
Basic education	32.6%	10.7%	17.0%	3.5%	17.1%
Health	22.6%	26.0%	16.9%	1.2%	14.6%
Police services	13.1%	7.7%	4.3%	0.2%	6.8%
Law courts and prisons	5.2%	5.2%	2.0%	0.2%	3.1%
Total	**73.4%**	**49.6%**	**40.3%**	**5.2%**	**41.6%**

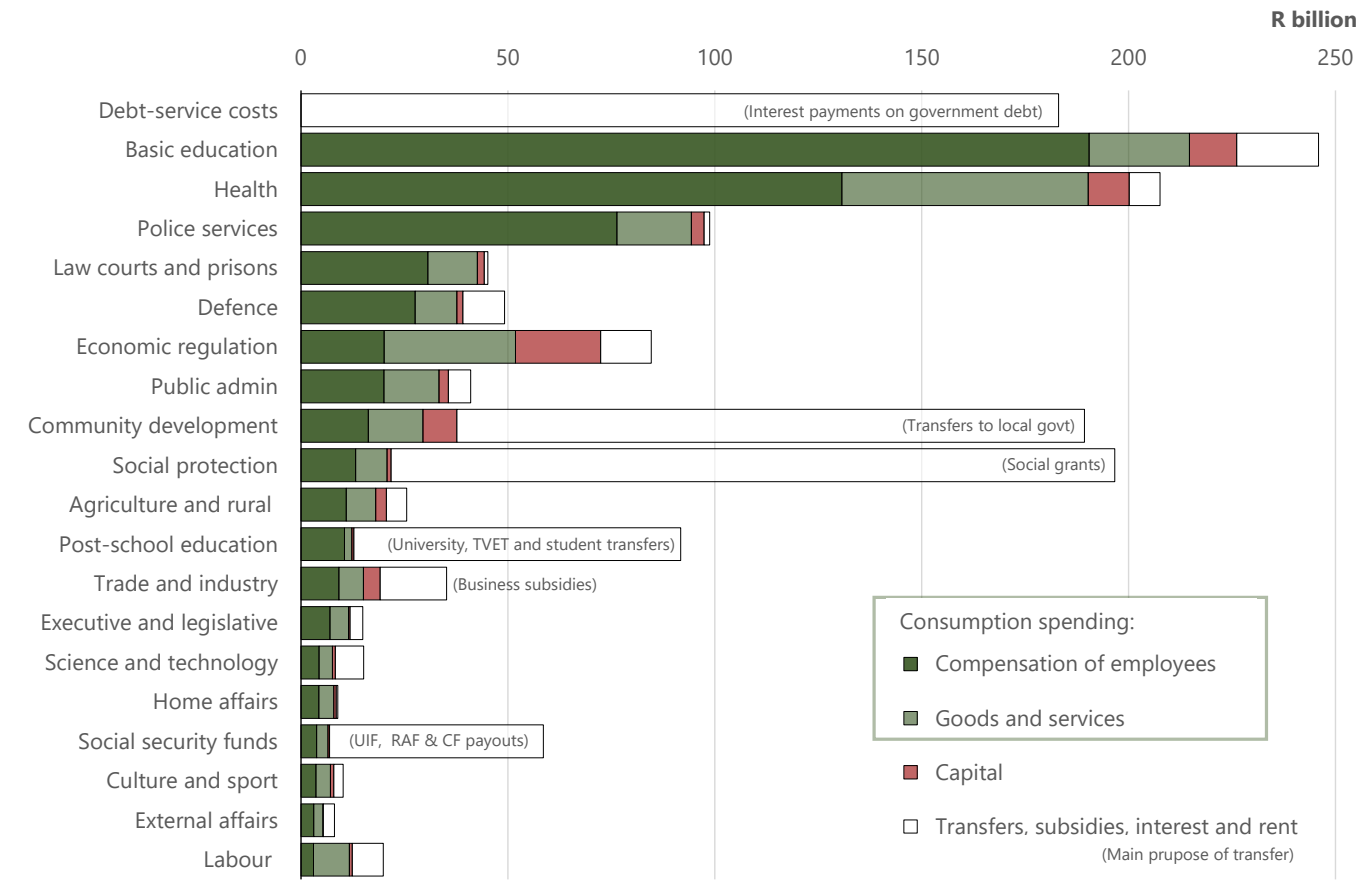
* Excludes interest payments and payments for financial assets.

Source: National Treasury, Consolidated account pivot (2022).

[1] See Public Economy Project, May 2022, for a discussion of the fiscal consolidation and other choices indicated in the February 2022 budget.

Figure 1: Anatomy of the consolidated national budget

Average annual expenditure (2017-2019) | By budget group and economic classification



Notes: Excludes payments for financial assets

Source data: National Treasury, Consolidated account pivot (2022 and 2021)

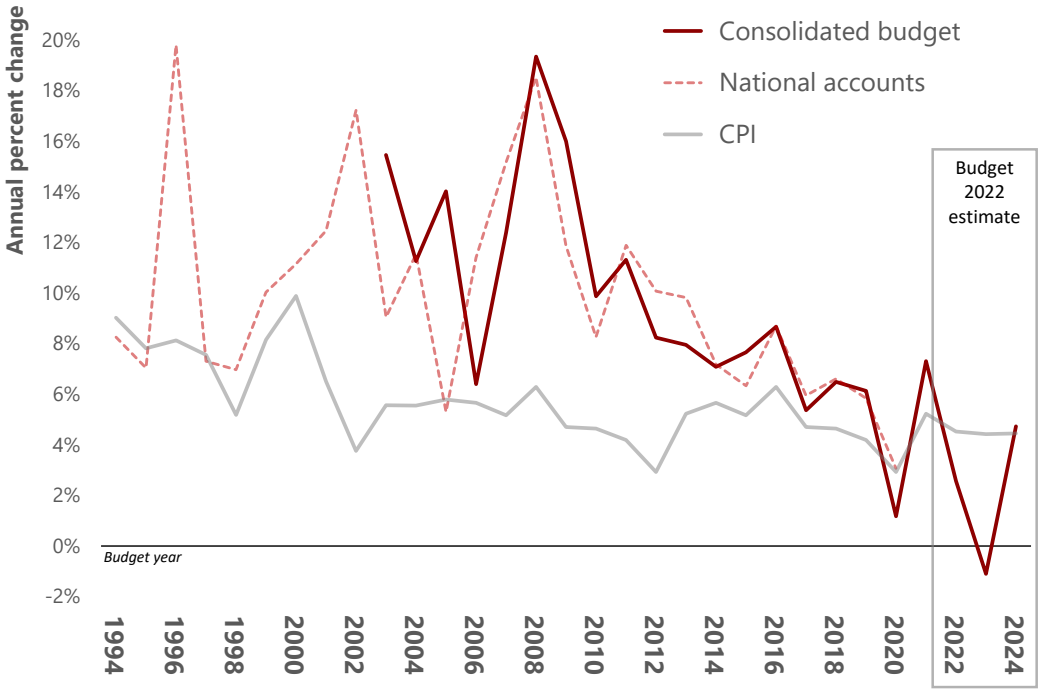
It is important to remember that spending on government consumption is *not* consumed by government, but by families and households that depend on the services it provides (see Box 1). Government consumption funds schooling for children from age 6 to 15 – for whom education is compulsory. Children and the elderly use healthcare services far more intensively than the rest of the population. Without access to private security services, the poor depend on the police service and the criminal justice system.

Government's determination to cut consumption spending implies that basic education, healthcare and criminal justice face a double burden of austerity: they bear the weight of the overall consolidation, plus a further penalty arising from their inherent character as consumption-intensive services that account for two-thirds of consumption spending on budget.

We show in the following sections (3, 4 and 5) that this large shock comes after a decade of real and significant declines in the value of core public services. The fiscal squeeze since 2012 has contributed to a chronic deterioration in the capacity of the state, the quality of social services, and the outcomes they are intended to achieve. The consequences of these choices for the distribution of effective income are large and negative. They have come at a time of rising demand for public services, as economic stagnation and rising unemployment make more South Africans dependent on public provision.

Figure 2: Government consumption and consumer prices

Annual nominal growth, 1994-2024



Notes: The figure shows the annual nominal growth rate of government consumption calculated from two different sources. The consolidated budget data reflects spending largely by national and provincial government, and public entities on compensation of employees, and goods and services. This consolidated budget data is only available after 2002. The projections beyond 2022 are those contained in the 2022 budget review. The national accounts data are at the level of "general government" i.e. including local government. As can be observed, the two sources align very closely. Consumer prices are included to give an indication of the real increase in government spending, which may be proxied by the difference between the CPI line and the growth in government consumption. All the data are for budget years.

Source data: Consolidated budget: National Treasury (Budget Review Statistical Table 7, various years, sum of compensation and goods and services spending); National Accounts: South African Reserve Bank (Final consumption expenditure by general government); CPI: StatsSA

Box 1: Defining government consumption

South Africa spends 20 percent of its national income on government consumption. Government consumption is expenditure on the outputs of non-market producers that are provided free, or at prices that are not economically significant (United Nations et al. 2009:189). In the national accounts, the value of non-market output is estimated by the sum of costs involved in production. As a result "[a]lthough government delivers goods and services to the population individually and collectively, the costs of so doing are shown as final consumption expenditure by government" (United Nations et al. 2009:189).

There are two elements to government consumption: the remuneration of public servants, and the procurement of consumption goods and services from the private sector. As we show in this report, all the social goods are highly intensive in these two factors. The transfer of cash to the poor (e.g., social grants, and the National Student Financial Aid Scheme (NSFAS)) is strictly not government consumption as these operations simply move cash between bank accounts (from taxpayers to recipients) rather than consume real economic resources.

Technically speaking, "government consumption" is a misnomer and any "'final consumption by general government' is a national accounting convention." (Lequiller and Blades 2014) General government does not actually consume its output: instead, households and firms consume that output as public services. However, because there are no observable monetary transactions (the services are free-of-charge, financed by tax revenues), national accountants have given up on the idea of attributing this consumption specifically to direct beneficiaries, and they have attributed it to general government itself. (Lequiller and Blades 2014, pp. 280–1).

This appraisal of what government has chosen to do with the resources under its direct command appears to be at odds with what government *says* it is doing. Basic education, healthcare and criminal justice are regularly highlighted as policy priorities. Government claims to be pursing "inclusive growth" and recent budgets have emphasised the importance and generosity of "the social wage".

Reduced spending on compensation of employees means lower salaries, fewer people or some combination of both. Falling headcounts in the midst of the increased demand for public services means more pressure on the existing workforce. Over time, falling real pay for public service workers creates strong incentives for those qualified with the most mobile skills and capabilities to leave. As the incomes of public employees deteriorates relative to other professions or activities that require similar years of training, it is likely that the quality of human resources available to the public sector will deteriorate.

Our focus in this report is on the choices about spending that are directly under the authority of Cabinet when it considers and tables the national budget. We therefore look at data on consolidated national spending and employees on government's payroll. In the allocation of resources raised from national taxes, the elements we consider constitute an overwhelmingly large share. This focus means, however, that we largely overlook trends in the broader public sector, including local government, public works programmes, state-owned companies and government agencies. These elements of the public sector are financed either by transfers from the budget (so that they are not directly implicated in the government wage bill) or from user charges collected directly from citizens.

A second significant limitation of our analysis arises because we are focused on the "purchasing power", or the real economic value, of the resources allocated to core public services. Again, this focus is important because it directs attention to the choices made in government's budget, which are quantitative choices about resource allocation. However, it does limit our ability to reach conclusions about the quality of the services that these resources produce. Obviously, the perceived deterioration of public services in recent years has a great deal to do with the organisation and effectiveness of the resources that are deployed, rather than the size of the fiscal envelope. Measuring the productivity of services (public or private) is always a difficult exercise, and the data we marshal for this report throws little light on this important question. However, since government has presented no plan to raise the quality of public services or to prevent a deterioration in that quality in the course of fiscal consolidation, we think it is safe to assume that the productivity of spending will remain fixed. In this context, a deterioration in resource allocation will lead to a deterioration in the value of services (see Box 2).

The report is structured as follows: Section 2 looks at overall government employment and compensation trends, analysing the government wage bill in greater depth. Sections 3, 4 and 5 look at the historical and projected spending trends of basic education (section 3) healthcare (section 4) and the police service and the criminal justice system (section 5). For each function, the report traces trends in real resource allocation over the last 20 years. It takes account of budget allocations, cost inflation, the size of the population served, as well as other relevant social, demographic, and economic evidence. Extrapolating these trends over the next three years and analysing the medium-term expenditure plans tabled by national and provincial governments allows us to draw sound inferences about the likely impact on the provision of these core public services in the near future. It also enables us to consider the implication of changes to the assumptions underpinning the budget and the impact of such variation on service provision.

Box 2: What is the real value of government consumption?

How do we value this government consumption? What do we mean by an increase in real spending? In this report, we attempt to value government consumption from the point of view of the households that receive them. From the users' point of view, the value of government consumption is likely to be overestimated. In the private sector, voluntary exchanges over well-defined property rights establish a social value in the form of market prices for healthcare, education and protection services. Services financed by compulsory transfers (i.e., taxes) and provided free to people with no other alternative do not involve market exchange and are inherently difficult to value objectively.

National accounts statisticians take a pragmatic approach to the question. The value of government consumption is measured by the costs of employing public servants and procuring goods and services. But what if public servants are paid more than their private counterparts? What if government pays a premium on the purchase of goods and services? Should we include these rents on public services as part of their value? The answer is clearly no. However, distinguishing between rent and the real value is a thorny question. Answering it requires a definition of productivity, which is notoriously difficult to answer in services that are intensive in human interactions, including public services.

We do not attempt to resolve these questions in this report. Like national accounts statisticians, we take the pragmatic approach, using the data that are available. Our concern with changes in the value of services over time makes our task somewhat easier. If we assume the extraction or rent, or the productivity of the public service is constant over time, then it is possible to reach conclusions about the direction of change.

Finding the "real value" of goods and services is relatively uncontroversial. In the main, we estimate the real change in the value of these items against the standard of average consumer price inflation. Where the data allows, we have used other more appropriate deflators drawn from StatSA estimates, such as inflation of medical products, fuel, utility payments etc.

Finding the real value of spending on government employees is less straightforward. The approach we have taken is to deflate compensation budgets with increases in average pay. Average pay is calculated as total expenditure on government's payroll (i.e., the Persal system) divided by the number of employees in a particular department, sector, profession, salary rank or other variables for the data at our disposal. Changes in average pay are directly influenced by shifts in wages earned but also many other factors, including shifts in the composition of personnel.

To take one example, since doctors earn more than nurses or auxiliary workers, increasing the number of doctors in the public healthcare sector (and keeping everything else constant) would raise average pay. It may be argued that the increase in the number of doctors employed would lead to an improvement in healthcare services and therefore an increase in the real value of these services to end-users. However, if the increased employment of doctors took place in the context of a fixed compensation budget and as a result the number of cleaners, porters and laundry workers employed in the hospital dropped, the effect on the end-user could be negative, or at best ambiguous, because auxiliary health workers are essential to the preservation of life and the effectiveness of healthcare services.

If younger, more junior workers are employed to replace older, better qualified and higher-paid employees, average pay would fall. As community health workers – or other categories of comparatively lower-paid workers – are absorbed onto government's payroll this would reduce average pay. If the existing workforce upgrades its skills and capabilities, promotions will also lead to an increase in average pay.

For this report, we overlook these changes in the structure of government employment. Our assumption is that increases in average pay in South Africa in recent years largely reflect the operation of pay improvements unrelated to changes in the structure or employment of the productivity of work. One reason we feel comfortable taking this view is that the structure of government employment has been quite stable. It might be argued that this is an optimistic assumption as the last 20 years have seen a large reduction in the real value of labour services employed by government, despite rising average pay. If this is so, then our calculations are underestimated.

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2. GOVERNMENT EMPLOYMENT AND COMPENSATION TRENDS

The economics of resource allocation to public services is largely determined by the number of people and the quality of human resources employed. As is often the case with interpersonal services, changes in the number of employees, the quality of their training, and the effectiveness of their work determine a very large part of the value and productivity of the services they provide. Physical capital, machines, and goods and services play a complementary role in driving productivity growth, but public services depend most critically on human inputs.

In this section we review long-term trends in employment and pay of government employees, highlighting the effect of occupation-specific dispensations (OSD). This is followed by a discussion of trends in the composition of government's wage bill; employment trends in public and private social services; and a comparison of trends in government and private pay. We end the section with a focus on wage compression and average pay trends on government's payroll.

There are five points that we derive from consideration of this data. First, high levels of employment reflect the extensive provision of public services, and therefore there is little scope for achieving government's ambitious plans to reduce spending on compensation without reducing this core cohort of frontline service providers. Second, the claim that the wage bill has been rising over the last decade (and that this is the central cause of fiscal crisis) is not supported by the facts. Instead, both employment and pay increased rapidly in the decade before 2012, and have been stable and moderate since then. Third, employment levels in core public services have already fallen considerably relative to the population served over the last decade. Fourth, pay gains awarded to government employees have not outpaced those awarded to their private-sector counterparts and that, if anything, the gap between public and private pay has already narrowed. Finally, we identify as a key issue in the government wage bill the compression of the salary structure. Lower-paid workers have been given the biggest improvements in pay, while senior managers have seen the real value of their pay eroded over the last decade.

Long-term trends in employment and pay

What have been the trends in employment and pay in the public service since the transition to democracy 30 years ago? Before 1994, South Africa was a fragmented state. The adoption of the Constitution in 1996 led to the consolidation of national and provincial structures of government. The same year, however, government embarked on a fiscal consolidation strategy.[2] This led to a "downsizing", as employment was reduced by about 230 000 people, spread across national and provincial government (Hassen and Altman 2010). In Table 2, we use budget and payroll data to analyse trends in employment and average pay in core public services. The table also shows national department data from 1997, where this is available in national budget reports, and payroll data is used for 2007 onwards.

The reductions in employment in the 1990s were distributed differently across sectors. Reliable budget data on total employment in provincial basic education departments before 2002 is not available in budget documents. However, Gustafsson and Patel (2008) report that the total number of teachers fell by about 20 000 between 1997 and 2002, and their data is used to impute the number employed by basic education departments. The result estimates that employment in the sector fell by about 42 000. Sharp reductions in defence are also clear, with employment falling by 24 000.

[2] The Growth, Employment and Redistribution strategy or "GEAR"

Table 2: Government employment by sector, 1997–2021

	Budget reports and estimates		*Paryoll data*				Average annual growth			
Budget year	**1997**	**2002**	**2007**	**2012**	**2019**	**2021**	**1997-2002**	**2002-2007**	**2007-2012**	**2012-2019**
Healthcare	**213 765**	**216 092**	**256 587**	**313 114**	**317 339**	**333 629**	0.2%	3.5%	4.1%	0.2%
Average pay (2020 prices)	204 374	218 970	246 223	348 893	421 385	418 257	1.4%	2.4%	7.2%	2.7%
Employees per 100k uninsured people	554	548	616	722	654	669	-0.2%	2.4%	3.2%	-1.4%
Basic education	**468 701**	**426 915**	**459 450**	**489 746**	**473 611**	**474 701**	-1.9%	1.5%	1.3%	-0.5%
Average pay (2020 prices)	257 616	263 474	256 587	386 345	438 172	424 843	0.5%	-0.5%	8.5%	1.8%
Employees per 1000 learners	38	35	38	41	38	37	-1.4%	1.5%	1.4%	-1.0%
Police	**131 730**	**131 560**	**163 015**	**196 028**	**189 494**	**178 673**	0.0%	4.4%	3.8%	-0.5%
Average pay (2020 prices)	254 731	281 771	250 726	314 131	374 340	372 753	2.0%	-2.3%	4.6%	2.5%
Employees per 100k people	302	283	328	371	323	297	-1.2%	2.9%	2.5%	-2.0%
Courts and prisons	**45 724**	**49 769**	**58 785**	**63 154**	**58 398**	**58 170**	1.7%	3.4%	1.4%	-1.1%
Average pay (2020 prices)	339 236	348 500	299 659	399 230	440 380	424 746	0.5%	-3.0%	5.9%	1.4%
Employees per 100k people	105	107	118	120	99	97	0.5%	2.0%	0.2%	-2.6%
Defence	**99 430**	**75 290**	**74 576**	**78 442**	**73 988**	**73 153**	-5.4%	-0.2%	1.0%	-0.8%
Average pay (2020 prices)	185 576	221 484	257 508	368 550	442 430	402 890	3.6%	3.1%	7.4%	2.6%
Employees per 100k people	228	162	150	148	126	122	-6.5%	-1.6%	-0.2%	-2.3%
Total government	**1 100 784**	**1 039 644**	**1 185 793**	**1 335 876**	**1 330 122**	**1 334 506**	-1.1%	2.7%	2.4%	-0.1%
Average pay (2020 prices)		260 693	266 208	368 851	427 629	418 063		0.4%	6.7%	2.1%
Employees per 100k people	2 520	2 240	2 383	2 529	2 265	2 219	-2.3%	1.2%	1.2%	-1.6%
Memo										
Population	43 682 259	46 409 106	49 757 466	52 827 909	58 726 826	60 142 978				
Uninsured population	38 615 117	39 445 910	41 632 202	43 374 818	48 558 659	49 843 986				
Learners enrolled in public schools	12 335 000	12 039 000	12 009 228	11 923 674	12 408 755	12 706 157				
CPI index (budget year 2020=100)	31.5	40.5	55.3	68.1	97.2	105.2				

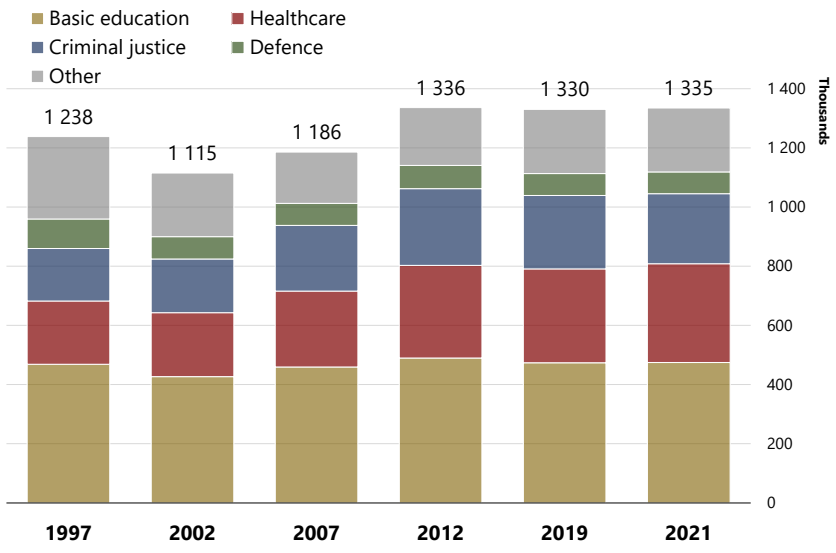
Note: Employees are full-time equivalents; Healthcare and basic education numbers reflect provincial headcounts and expenditure only. Average pay is total spending on payroll (i.e., processed through Persal or where not available compensation of employees indicated in budget documents) divided by the number of full-time equivalents or reported headcounts. Defence data is from the Estimates of National Expenditure, various years.

Sources: **1997**: *Healthcare*: National Treasury: Intergovernmental Fiscal Review (2001); *Basic education*: Estimate of total employees is imputed using data from Gustafsson and Patel (2009) on the number of educators employed, and assuming that the ratio of educators to administrative staff is stable. *Police, Courts and Prisons and Defence*: Estimates of National Expenditure (2001). Total government: Altman and Hassan (2010) report total payroll numbers. We add defence numbers from National Treasury's ENE to derive total employment. **2002**: *Healthcare and basic education*: National Treasury: Intergovernmental Fiscal Review (2004); *Police, courts and prisons, and defence*: Estimates of National Expenditure (2005); **2007– 2021** Persal (GTAC-PEPA) dataset; *Population*: StatsSA mid-year population estimates; *Learners*: National Treasury (Intergovernmental Fiscal Review, 2005; Department of Basic Education (School Realities reports, various years) *Uninsured population*: 1997-2008: Council for Medical Schemes; 2012-2021: National Treasury. *CPI index*: StatsSA.

The police service, on the other hand, maintained stable employment levels, while employment in courts and prisons appears to have expanded during the same period. The number of healthcare workers also appears to have moderately increased over this period.

Figure 3 illustrates the data from Table 2, showing that total employment fell between 1997 and 2002, but then grew significantly until 2012. Most growth was in the basic education, healthcare and criminal justice sectors. Since 2012, total employment has stagnated and, despite an increase in employees since 2018, remains below the level reached in 2012.

Figure 3: Government employees

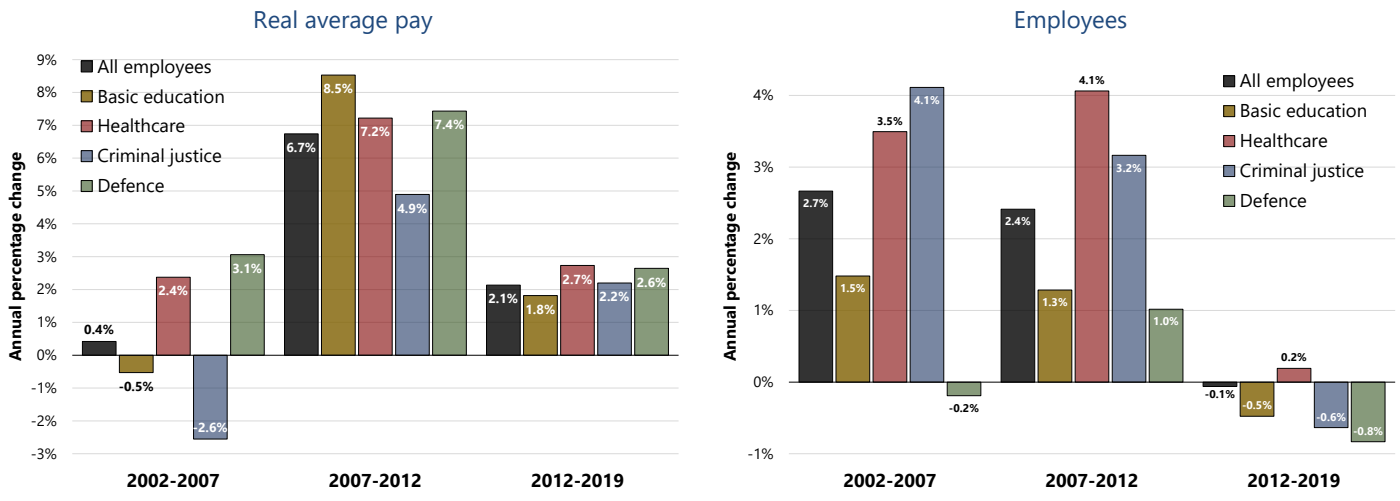


Source: Table 2

Since 2002, when budget data started to become more reliable, three distinct phases of growth in employment and average pay are observed. These phases can be seen in Figure 4 (which illustrates the data contained in Table 2) and can be characterized as follows:

- Between 2002 and 2007, there were significant increases in the number of employees overall, and moderate improvements in real average pay for some sectors, with declines for others.
- Between 2007 and 2012, headcount growth continued but was combined with very substantial increases in real average pay, amounting to 6.7 percent real increase per annum on average.
- Between 2012 and 2019, headcounts across the public service stagnated, and pay gains were far more moderate, at average CPI plus 2.1 percent per annum across the whole payroll.

Figure 4: Annual growth rates of real average pay and employees by sector



Note: The figure shows average annual compound growth rate over each period.

Source: Table 2

Substantial pay gains between 2007 and 2012 were the result of the implementation of Occupation Specific Dispensations (OSDs) (see Box 3). This amounted to a level shift in pay, with the aim of plugging the drain of professional nurses and teachers to the private sector and overseas, both of which offered better returns, especially for the most qualified and effective employees (George and Rhodes 2012). Following the implementation of the OSDs, pay in the public sector continued to grow in excess of inflation, with annual cost-of-living adjustments agreed in central bargaining. Pay progression (promotions to a higher notch on the salary scale) also became increasingly automatic and universal across the public service.

Table 2 provides data on the relationship between the number of employees and the broadest measures of demand for public services. Employment levels increased faster than the population served between 2002 and 2012. This led to a large increase in the ratio of potential users of public services to the number of employees. In healthcare, there were 722 employees per 100 000 users of the system in 2012, up from just 548 in 2002. Police service employment increased from 283 to 371 employees per 100 000 people. The growth in employees in the basic education sector was far slower, but still outpaced the increase in learners, easing the pressure on the basic education system and enabling smaller class sizes. These improvements were largely reversed after 2012, particularly strongly in policing, courts and prisons, and defence, where employment to population ratios had fallen to their lowest levels ever by 2021.

These trends in employment and their consequences for public services are discussed further in the sections that follow.

Box 3: Occupation Specific Dispensations

Occupation Specific Dispensations (OSDs) were agreed in collective bargaining in 2007 and implemented over the next few years. Each OSD came with a unique revised salary structure for each of the identified occupations in the public service (Department of Public Service and Administration 2007). The purpose of OSD implementation was to strengthen the government's ability to attract and retain qualified people by increasing pay (Ditlopo et al. 2013). Public sector employees were previously compensated using a single salary structure that did not adequately address the diverse needs of different occupational categories (Matshekga 2014). The OSD policy was introduced through the adoption of a collective agreement within the framework of the Public Service Coordinating Bargaining Council (PSCBC) (Resolution No. 1 of 2007, 2007).

The unique salary structures that came with OSD: are centrally defined through grading structures and broad job profiles; develop career pathing for public sector employees based on competencies, experience, and performance; provide for pay progression within the salary level; and lastly, consolidate certain benefits and allowances into the salaries of employees (Department of Public Service and Administration 2007).

OSD was first implemented for nurses in July 2007, followed by educators and principals in January 2008, the rest of the health employees in April 2008, Correctional services in July 2008, and finally, office-based educators and other professions in January 2009.

The composition of government's wage bill

Table 2 shows that, of the 1.33 million government employees in 2019, 474 000 (more than one-third) are in the basic education sector. Healthcare and criminal justice accounted for 317 000 (one-quarter) and 248 000 (one-fifth), respectively. In combination, these core public services account for more than 85 percent of government employees. Figure 5 breaks down *expenditure* (as opposed to headcounts) on government's payroll by sector, showing that core public services absorb more than 80 percent of the compensation budget. Defence accounts for a further 5.8 percent and various economic and infrastructure services spend around 8 percent of spending on government's payroll.

For the core public services, Figure 5 also indicates the share of spending on OSD staff. Teachers, nurses, doctors and other clinical professionals, and police officers account for 72 percent of spending on payroll. Of course, the effective provision of services requires that these professionals

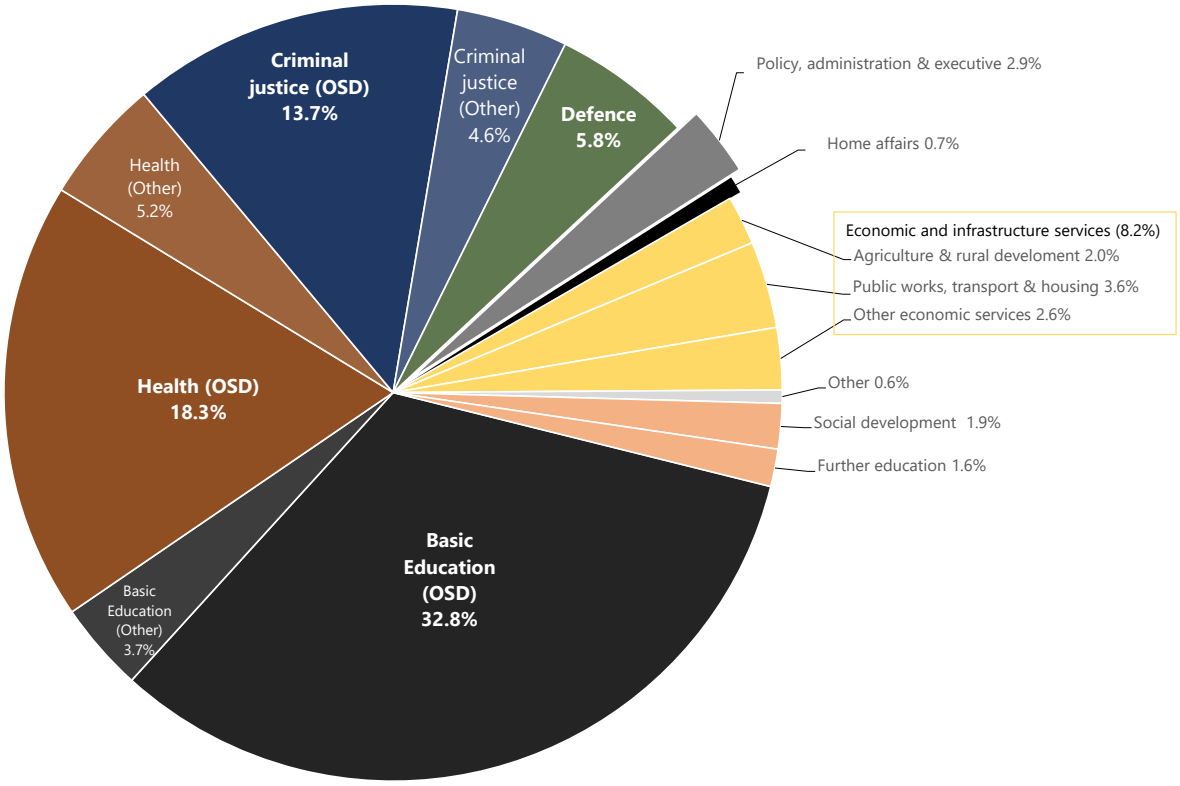
are supported by administrative staff and, while it could be that the share of administrators to frontline staff is not optimal, it does not appear obvious that this is the case from the data shown in Figure 5. In terms of headcounts, the balance between OSD and other employees has been very stable in the decade since the distinction was introduced (see Figure 6). There is no indication of a trend towards increasing employment of non-OSD staff. We expand on these trends in greater detail in the sector-specific sections of this report (sections 3, 4 and 5).

We cannot reach firm conclusions here about the balance between frontline and "back office" employment. Further detailed investigation into the conditions within each sector would be required to do so. But from this bird's-eye view, it is by no means obvious that the wage bill needs to be shifted away from back-office, administrative and support staff in order to create space for frontline professional employment.

Figure 7 shows the employee numbers by both OSD-designation and salary level. Both Figure 6 and Figure 7 point to remarkable stability in the composition of government employment. Despite this stability, one trend than is notable from Figure 7 is the falling number of employees in lower salary levels. This points towards the compression of the government wage structure, which we also revisit later in this section.

Figure 5: Spending on payroll by sector

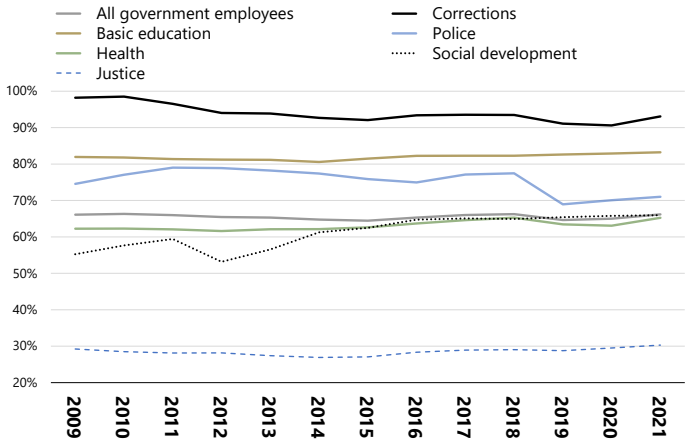
Average share of spending, 2017-2019 | Persal



Notes: The figure is calculated using average expenditure through the payroll system between 2017 and 2019. Sectors are grouped as follows: ---Policy, administration and executive: Finance; Executive and Legislative; Cooperative Governance; Traditional Affairs; Planning; Statistics; Foreign Affairs; Public Service and Administration; Information and Publicity. Other economic services: Labour; Water; Economic Development; Environment; Trade and Industry; Minerals; Energy; Tourism; Science and Technology; Communications; Public Enterprises; Small Business.

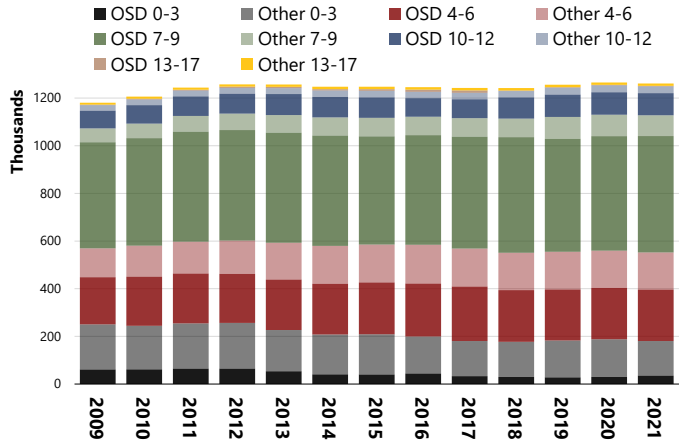
Source data: Persal (GTAC-PEPA) data; except Defence, for which National Treasury's ENE were used.

Figure 6: OSD as a share of total employees



Source data: Persal (GTAC-PEPA)

Figure 7: Government employees by salary level and OSD designation



Source data: Persal (GTAC-PEPA)

It is also notable that the number of senior managers remains small in comparison to the number of professional frontline staff, and senior echelons do not appear to have grown over the period. About 23 percent of the compensation budget is spent on the middle and senior ranks of the salary structure (i.e., salary level 10 and above), as shown in Figure 8. But of this spending on senior echelons, about 70 percent is allocated to the remuneration of professionals on an OSD. This category of senior OSD employees earning top salaries in the public service includes most doctors and many allied healthcare professionals, the most experienced teachers, senior police officers, as well as engineers, judges and prosecutors. Indeed, as noted by Intellidex (2020), "the increase in top-earners in the public service has been driven by a dramatic rise in the number of medical professionals – overwhelmingly doctors – rather than ordinary public servants, administrators and policy makers" (p13).

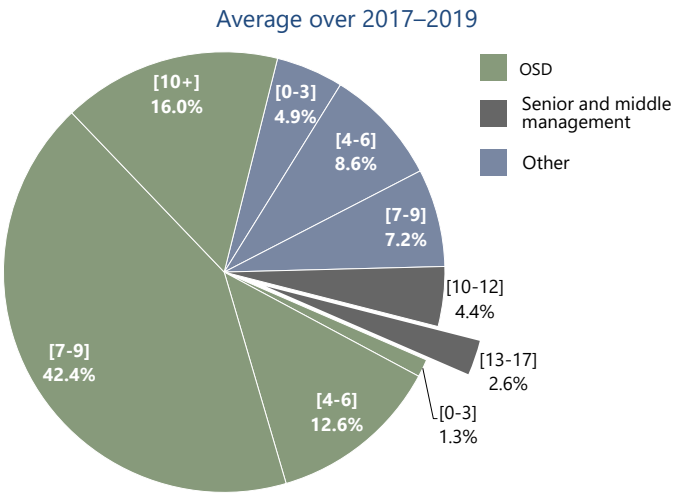
Leaving aside these professionals, Figure 8 shows that only 2.6 percent of the salary bill is spent on senior managers proper (i.e., salary levels 13–17 not on an OSD dispensation). These managers number about 17 000 employees, and their distribution across the functions of government is shown in Figure 9. The management echelon grew between 2009 and 2015, but this growth appears to have halted and has perhaps already gone into reverse. Most of the growth, and the bulk of management employees, work in economic regulation and social infrastructure functions, as well as public administration. By contrast, the core public services – healthcare, basic education and criminal justice – have relatively few non-OSD managers. It should be pointed out, however, that management positions in these sectors are often occupied by professionals on an OSD dispensation.

To gauge employment trends outside the core public services that are our main concern in this report, Table 3 uses payroll data to show the number of employees in other functions. There has been some growth in these departments, which may be a cause for concern. Indeed, against the backdrop of stagnating and falling headcounts in core public services, it is disconcerting to see that the number of politicians and their staff in "Executive office" have grown by around 1 000 since 2009. The significant growth in finance and cooperative governance functions is also notable.

So, to the extent that there is "bloating" or excessive employment of the wrong personnel, this does not appear to be a problem afflicting core public services. Rather, the concentration of managerial and administrative support staff – and the relative growth of these functions over time – is concentrated in political and executive office, economic regulation, infrastructure services and public administration, particularly finance, "cooperative government" and similar functions. Efforts to reduce government employment, it would seem, need to concentrate on here.

On the other hand, the total employment in all the public administration departments shown in Table 3 remained less than 40 000 in 2019. Set against the more than 1 million public servants in healthcare, education and criminal justice, it is hard to see how reducing these functions (many of which also play an important role in public administration) would yield significant resources – either for improved employment in frontline services, or as part of a strategy of fiscal consolidation.

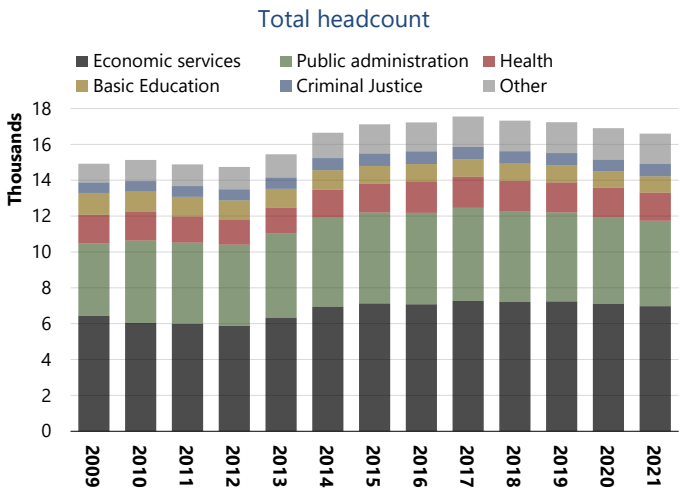
Figure 8: Spending on payroll by salary level



Notes: Excludes defence

Source data: Persal (GTAC-PEPA)

Figure 9: Senior and middle management



Notes: The figure shows the total number of employees on salary levels 12 – 17 who are not on an OSD designation. Persal data excludes defence.

Source data: Persal (GTAC-PEPA)

Table 3: Employees on payroll in selected government functions (National and Provincial)

	2007	2012	2019	2021
Economic regulation and social infrastructure	**106 031**	**107 919**	**102 891**	**98 982**
Agriculture, rural and environment	25 687	30 845	28 810	27 123
Public works	24 459	27 043	23 256	22 203
Transport	21 209	17 073	17 751	16 700
Economic regulation	14 810	17 631	18 043	18 303
Water	14 265	7 161	6 743	6 503
Housing	5 602	8 167	8 289	8 149
Public administration	**28 662**	**36 850**	**38 813**	**38 232**
Home Affairs	7 762	9 160	9 772	9 220
Cooperative governance and traditional affairs	5 940	7 102	7 849	8 150
Finance	4 192	7 016	7 562	7 051
Executive	4 618	4 887	5 921	5 507
Planning and statistics	2 791	4 844	4 052	4 921
Foreign affairs	2 143	2 446	2 204	2 016
Public service and administration	776	894	988	883
Information and communication	441	500	465	485
Social	**26 684**	**32 304**	**60 025**	**62 423**
Social development	21 359	26 305	26 986	27 522
Sports, recreation, arts and culture	5 325	5 999	7 010	6 691
Further education and training*			26 029	28 210
Grand Total	**161 377**	**177 072**	**201 730**	**199 636**

*Employees of FET colleges were included on the payroll system following the shift of this function to national government in 2015.

Source data: Persal (GTAC-PEPA)

Employment trends in public and private social services

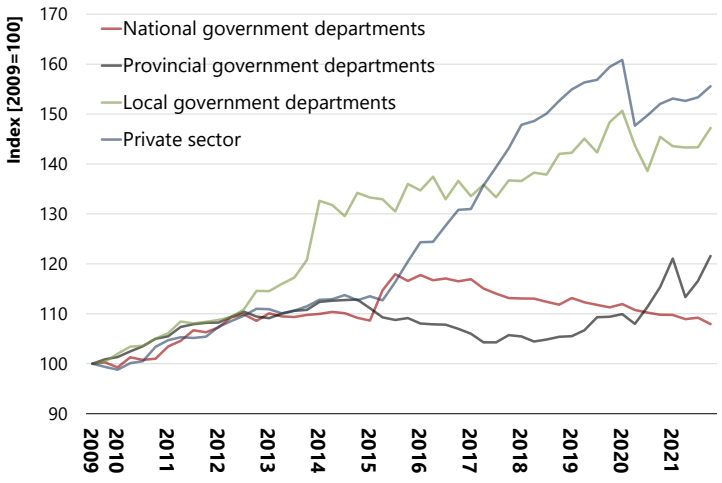
StatsSA gauges employment and wages in a quarterly employment survey (QES). Here we compare data from this survey with the payroll data we have looked at thus far, and consider the relationship between government and private employment.

In the QES data, the community, social and personal services sector is often taken as a proxy for government employment. However, the elements of the survey that correspond with the payroll data we analyse in the rest of this report are reported as national and provincial government departments. These only account for around 55 percent of employment in the sector, with the rest made up of local government, other public agencies and privately provided social and personal services (such as private education, healthcare, and recreation). Figure 10 shows an index of employment levels in these components of the sector. The underlying QES data is for selected years and is shown in the right-hand panel.

Several observations are worth making. First, the QES data supports the conclusions we reached above using payroll data: employment levels in national and provincial government have stagnated over the last decade. They have fallen as a share of total, non-agricultural formal sector employment from 17 percent in 2009 to 15 percent in 2019. Second, the same trend does *not* apply to other components of the public sector. Local government employment has grown by 45 percent, from 237 000 in 2009 to over 345 000 in 2019. Government financial data reported by the South African Reserve Bank show a similar trend of rising consumption spending by local government (see Sachs 2021 for more on this), but the QES data may also be capturing the temporary work opportunities created by public works jobs. University employment has increased by one-third between 2013 and 2019.[3]

Figure 10: Employees in community, social and personal services

Index of employment (2009=100)



Total number of employees, selected years

	2009	2013	2019
Public			
Provincial government departments	1 000 887	1 102 208	1 081 331
National government departments	412 387	452 830	461 830
Local government departments	237 367	286 457	345 243
Extra-budgetary institutions*	133 432	71 652	106 686
Universities and technikons*		88 244	117 073
Total	**1 784 074**	**2 001 391**	**2 112 162**
Private			
Private health and social work	253 097	274 049	397 830
Private recreation, culture and sport	78 515	86 930	113 480
Other educational insitutions	65 032	75 202	117 349
Private other	12 509	21 220	27 245
Private membership organisations	17 798	20 535	24 429
Total	**426 951**	**477 935**	**680 332**
Community, social and personal services	**2 211 025**	**2 479 327**	**2 792 494**
Non-agricultural formal sector	8 205 013	9 095 125	10 323 461
National, provincial departments' share	17.2%	17.1%	14.9%

Source data: StatsSA (Quarterly Employment Survey)

* Universities and technikons were reported together with extra-budgetary institutions before 2013

[3] Employment in universities is combined with other extra-budgetary institutions and was not reported separately until 2013.

Third, whereas *government* employment in basic education, healthcare and policing has stagnated over the last decade, *private-sector* employment in social and personal services has grown in leaps and bounds. Employment in the private healthcare sector has grown by 57 percent, while private education employment has increased by 80 percent.

These observations point to the possibility that attempts to contain government spending on core public services may have led to an increase in direct household spending on the same service, albeit delivered through private systems of provision. If so, the main result of fiscal consolidation could be to shift the composition of consumption spending from government to households. It is not clear why such a shift would be positive from a macroeconomic point view. An almost certain consequence, however, is a widening of inequality as affluent households finance their own consumption, while publicly financed consumption of the poor is compressed. There is some additional evidence that this is indeed taking place, which we consider in the section on basic education (section 3).

Comparing trends in government and private pay

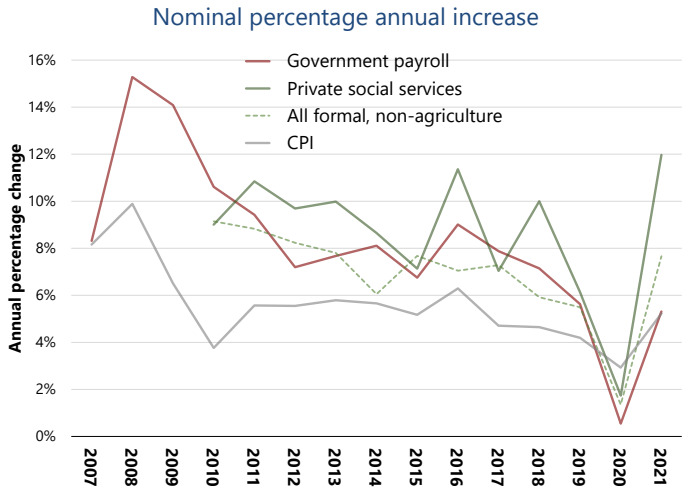
We noted above that significant improvements in the remuneration of government employees took place with the implementation of the OSDs in the late 2000s, and average pay has grown at a moderate pace since then. Figure 11 compares the increase in average pay from government payroll data with average pay in the private social services calculated from the QES (which only dates back to 2009). The effect of the implementation of the OSDs can be seen in increases in average pay in excess of 10 percent per annum between 2008 and 2010.

From 2012–2019, the increase in average government pay is around 2.2 percent higher than the rate of consumer inflation. By contrast, the average earnings of social services workers in the formal private sector increased by 3.5 percent above CPI on average over the same period. Also shown is the increase in average pay across all formal non-agricultural workers reported in StatsSA's QES survey, who saw average earnings increase by about 1.7 percent faster than inflation in the period.

This suggests that, over the last decade, pay gains in the public sector have not been noticeably out of line with economy-wide improvements in formal-sector pay. The QES data suggests also that government's efforts to contain public pay since 2020 have borne fruit. In the last two years, growth in average pay on government's payroll has fallen far below the slowdown in earnings growth of private-sector formal workers in the community and social services sector.

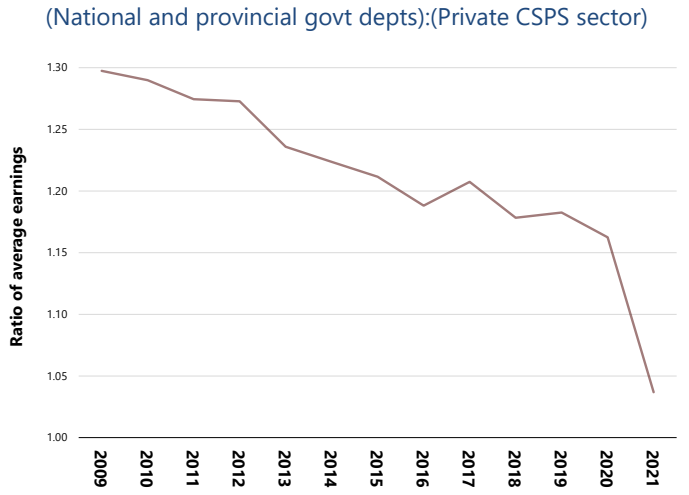
These patterns do not imply that there is no "wage premium" between public or private wages Indeed, average earnings of national and provincial government employees in the community, personal and social services sector were about 30 percent higher than their private-sector counterparts in 2009, according to QES data shown in Figure 12. Public-sector workers may be better educated and more unionised than their private-sector counterparts, which might explain this premium (see Bhorat et al. 2015, Kerr and Wittenberg 2017). Nevertheless, the data presented in Figure 12 suggests that the premium has fallen considerably over the last decade. In the last two years, it appears to have almost reached parity.

Figure 11: Annual increase in average pay



Source data: StatsSA (Quarterly Employment Survey), Persal (GTAC-PEPA)

Figure 12: Ratio of average earnings



Source data: StatsSA (Quarterly Employment Survey)

Wage compression and government pay gains

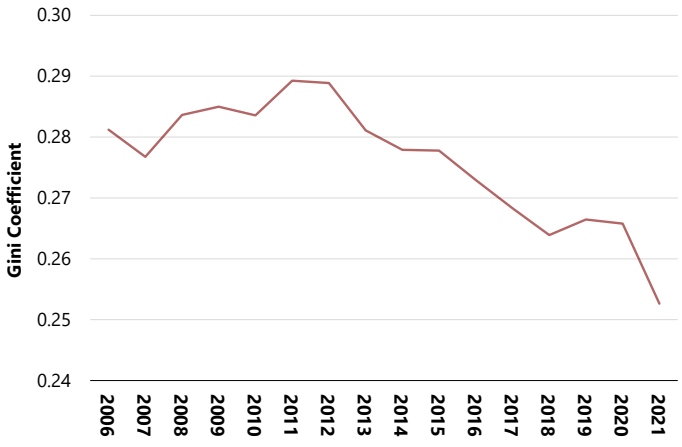
Pay across the public service is far more evenly distributed than in society at large. It is well known that South Africa has an extremely unequal distribution of income, with a Gini coefficient of close to 0.7 (Bhorat et al. 2020). The labour market is the major driver of this inequality, and Bhorat et al (2020) report that the wage Gini has increased over the post-apartheid period from a coefficient of 0.58 in 1995 to 0.69 by 2015 – a rise of 19 per cent. An indication of the wage inequality in the formal sector is given the Gini coefficient on disposable income calculated from taxpayer data, which has recently been estimated at 0.58 (Redonda and Axelson 2021).

By contrast, we estimate the Gini coefficient on government's payroll data at 0.25 in 2021. Moreover, the inequality in average pay of government workers has fallen significantly over the last decade (see Figure 13). This reflects the fact that pay gains for government employees have not been evenly distributed. Over time, the government salary structure has become more and more "compressed". While unions frequently demand that government do more to reduce the "apartheid wage gap" in its own salary structure, the difference between inequality in society compared to the government wage bill is very large. Moreover, inequality in government pay has fallen over time, even while wage inequality appears to have widened.

There are three factors behind this compression of the government wage structure that we are aware of. The first is successive agreements in collective bargaining, which have favoured lower-paid workers, awarding high pay rises to lower-paid workers in the bargaining unit over several years.

Second has been the emptying of the lower ranks of the salary structure shown in Figure 7 above. This has been the result of regular, annual (and almost universal) promotion, as well as by administrative proclamations that upgraded the salary level for whole sections of the workforce.

Figure 13: Gini coefficient on government payroll



Source data: Persal (GTAC-PEPA)

Third, in conditions of fiscal stress, and in an effort to contain compensation spending, government has eroded the real value of remuneration of workers who fall outside centralised bargaining. Although these are the highest-paid workers, they have seen real declines in their remuneration over the last decade. Table 4 shows average real compensation estimated from government payroll data over the last decade. The data is shown as monthly gross income (i.e., including tax) in 2020 prices. Average monthly pay ranges from around R100 000 for senior managers and judges, to R15 000 for those on the lowest ranks of the salary structure.

To illustrate improvements in average pay, Figure 14 uses the data in Table 4 to show an index of trends between 2009 and 2019. Average compensation for the lowest-paid workers has increased by almost 30 percent in real terms. By contrast, compensation of senior managers has fallen consistently in real terms. Figure 15 shows indices of average real compensation for various OSD packages. All these employees have similarly seen significant increases in average real compensation since 2009, except for judges and magistrates.

Bassier and Woolard (2020) estimate that South Africans in the top 5 percent of the income distribution experienced "a large real compounded average growth rate (CAGR) of four to five per cent, with real income nearly doubling over the 14-year period [between 2003 and 2017]". By comparison, senior government managers and judges have seen their average pay decline in real terms.

Senior managers and judges are the best-paid employees in the public service, with average monthly gross remuneration exceeding R100 000. However, decisions about incremental remuneration of these employees fall outside the structures of collective bargaining. Their annual salary adjustments are determined by executive proclamation.[4] As fiscal pressures have mounted, government has acted to hold down pay increments where it can. While the pay of doctors, engineers and other professionals falls within the ambit of collectively bargained decisions, the executive has acted to limit the growth of compensation of managers and judges to create fiscal space.

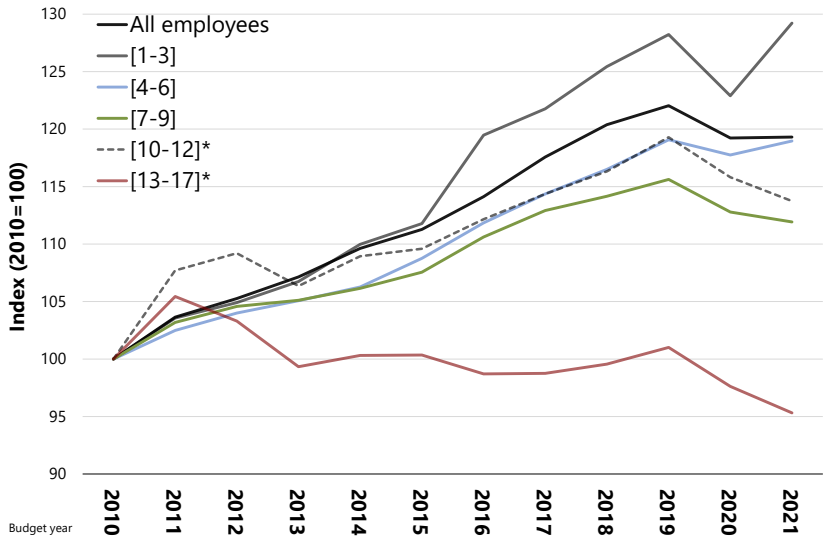
Table 4: Average gross monthly compensation (2020 prices)

	Occupation Specific Dispensations									Non-OSD by salary level						
	Doctors*	Nurses	Social workers	Edu-cators	Police	Correc-tions	Legal**	Judges+	Engin-eers	[1-3]	[4-6]	[7-9]	[10-12]	[13-17]	Mean	Median
2009	52 825	28 360	28 475	31 466	26 789	29 436	57 711	113 650	36 404	11 280	18 482	31 785	56 064	104 173	27 392	30 426
2010	59 340	30 218	28 801	33 435	27 510	30 242	63 051	113 013	43 655	12 199	19 695	32 624	58 545	105 853	29 200	33 536
2011	55 101	30 816	29 437	34 802	27 975	31 010	63 372	118 639	45 534	12 481	20 242	33 888	63 419	111 627	30 266	34 706
2012	55 046	30 924	30 193	35 609	28 546	31 690	63 403	114 594	46 070	12 384	20 638	34 633	64 512	109 308	30 738	35 887
2013	56 027	31 351	30 181	35 948	29 288	32 337	63 438	117 335	44 308	12 379	20 957	34 389	62 921	105 709	31 284	36 424
2014	56 833	31 510	30 274	36 314	30 216	32 085	63 123	116 466	45 009	12 869	21 172	34 884	64 530	106 819	32 010	37 016
2015	57 396	31 891	30 712	36 714	31 069	32 581	63 388	114 805	45 728	13 022	21 569	35 301	64 908	106 952	32 491	37 798
2016	58 492	32 731	31 577	37 098	31 542	33 406	65 716	104 293	46 929	14 588	22 133	36 239	66 320	105 541	33 323	39 005
2017	60 609	33 450	32 667	38 085	31 773	34 450	68 263	105 281	48 463	14 985	22 935	37 025	67 727	105 885	34 332	44 117
2018	61 987	34 555	33 946	38 702	32 450	35 102	70 857	105 741	49 901	15 544	23 811	38 050	68 934	106 912	35 151	43 415
2019	62 738	35 374	35 042	39 340	33 362	35 885	72 370	103 772	50 859	15 920	24 555	39 043	70 033	108 224	35 636	42 999
2020	61 502	34 334	33 868	38 382	33 190	35 039	68 005	103 243	48 921	15 203	24 064	37 953	67 811	104 792	34 812	41 352
2021	60 337	34 034	35 135	37 567	33 047	34 023	63 390	96 421	49 004	16 077	24 444	38 059	66 710	102 498	34 839	41 223

* Includes allied healthcare professionals; ** includes prosecutors; + includes magistrates
Source data: Persal (GTAC-PEPA), StatsSA (CPI index)

[4] In the case of judges and magistrates, the Independent Commission on the Remuneration of Public Office Bearers recommends to the President, whose decision is subject to the approval of Parliament. In the case of senior managers, the Minister of Public Service and Administration proclaims the adjustments by issuing a circular, in consultation with the Minister of Finance.

Figure 14: Index of real average pay by salary level

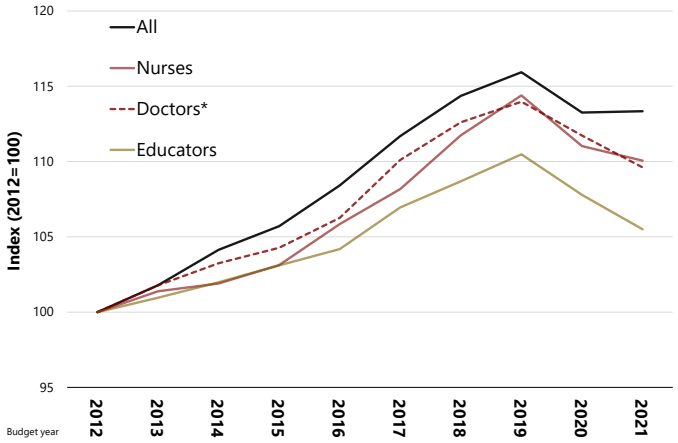


* Excludes employees on occupation-specific dispensations

Source: Table 5

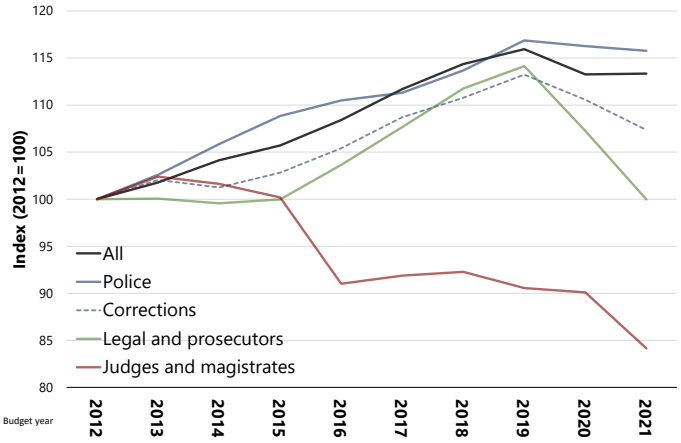
Figure 15: Index of real average pay for occupation specific dispensations

Healthcare and education



Source: Table 5

Criminal Justice



Source: Table 5

Conclusion

It is sometimes asserted in public discourse that the key factor behind South Africa's current fiscal crisis is the unsustainable growth of the public-sector wage bill. The data presented in this section suggests that this may not be the case. For the last decade, the number of employees has been stable and average pay has grown moderately. Large gains in employment levels and pay were executed in the years between 2007 and 2012.

Unsurprisingly, the phases of expansion and deterioration are strongly correlated with South Africa's overall economic and fiscal fortunes (see Sachs 2021). During the period of strong economic growth, supported by the commodity boom up to 2012, government employment expanded and significant improvements in public pay were awarded. Once the economy slowed and fiscal deficits became entrenched, authorities contained pay gains and budget constraints forced departments to reduce headcounts.

A second common assertion is that public-sector employment has grown in "back office" or administrative functions, while the employment of "frontline" workers has stagnated. The perception that the state is bloated with unnecessary employees leads to the conclusion that the government wage bill can be reduced without compromising core public services. But from the bird's-eye view we have presented above, it is by no means obvious that the wage bill needs to be shifted away from back-office, administrative and support staff in order to create space for frontline professional employment. Within the core public services, the balance between professional and administrative staff appears both stable and sensible. Rather, outside these core services, there has been growth in the number of administrators and managers concerned with economic regulation, infrastructure, finance and "cooperative government", as well as an increase in the number of staff supporting politicians.

The implication is that attempts to reduce government's wage bill will inevitably have their largest impact on core public services – basic education, healthcare and criminal justice. The overall structure of employment is such that there is limited scope to reduce employment elsewhere. Moreover, compared with the private sector, neither the number of government employees nor their average pay has grown particularly strongly over the last decade. In addition, for certain categories of public services – senior managers and judges – remuneration has, in fact, been reduced in real terms.

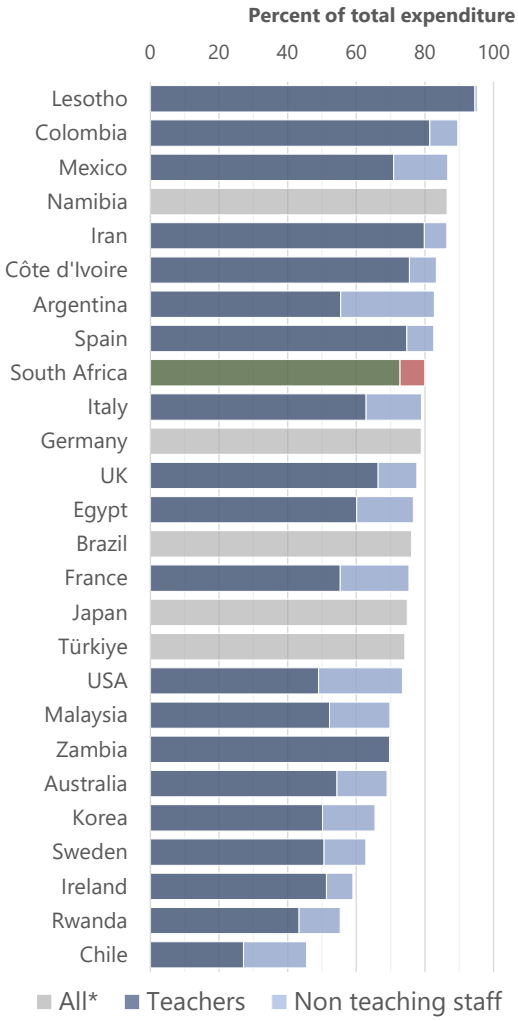
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3. BASIC EDUCATION

It is widely recognized in South Africa that the public school system faces huge performance challenges. The country spends a significant amount on basic education and enrolment is high, but the South Africa's public schools achieves poor results. As Gustafsson and Patel (2009) point out, "the quality challenges in the schooling system clearly overshadow the quantity challenges".

Nevertheless, in this section we show that that real spending per learner has fallen substantially over the last decade. Budgets adopted by provincial legislatures this year point to a further substantial and unprecedented reduction in real spending per learner. The number of educators on payroll has also stagnated over the last decade, while the number of learners enrolled in the public system has risen. We also show evidence that indicates the number of privately financed teachers employed by school governing bodies in affluent areas has increased to offset the fall in teachers employed on government's payroll. If so, this may point to the role of fiscal consolidation in widening inequality within South Africa's already dualistic education system.

Figure 16: Compensation as a percent of total spending in public secondary schools



* For these countries spending on staff compensation is not reported on teaching and non-teaching staff

Note: Selected countries; Average of available data for secondary institutions over the period 2015–2019

Source data: UNESCO Institute for Statistics (UIS)

While the challenge of quality remains predominant, and the need for reforms to the education system is pressing, these quantitative trends point to an erosion of resources available for public education and a widening of inequalities within the system. In our view, these quantitative developments are likely to have a negative impact on the quality of public services and the value of education for poor South Africans.

The first sub-section sets the context by looking at compensation spending and its importance in basic education. This is followed by analyses of real spending per learner, and learner-educator ratios. The section ends with a focus on the rising inequality in basic education.

Compensation spending and basic education

Eighty percent of government spending on basic education goes to compensation of employees (see Figure 1 in the introduction). Basic education systems across the world are similarly intensive in human capital, and Figure 16 shows that South Africa is by no means unique in this regard. While emerging technologies could improve on the "productivity" of teachers over time, in today's public-sector environment a decent education is critically dependent on the quality and number of teachers employed. Given this inherent labour intensity of basic education, a good gauge of resource allocation in the sector must consider the 80 percent of education resources allocated to remuneration.

Since the transition to democracy, teachers have seen substantial gains in their conditions of employment. Over the last ten years, increases in basic education spending have been devoted largely to sustaining real annual increase in pay of around 2 percent, and there has been a "race between teacher pay and the education budget", which the former has won

(Spaull, Lilenstein and Carel 2020). Keeping the total resource envelope for basic education constant has meant reducing the number of teachers employed and cutting the provision of complementary inputs (such as books and school buildings) that are necessary inputs for effective education.

Real spending per learner

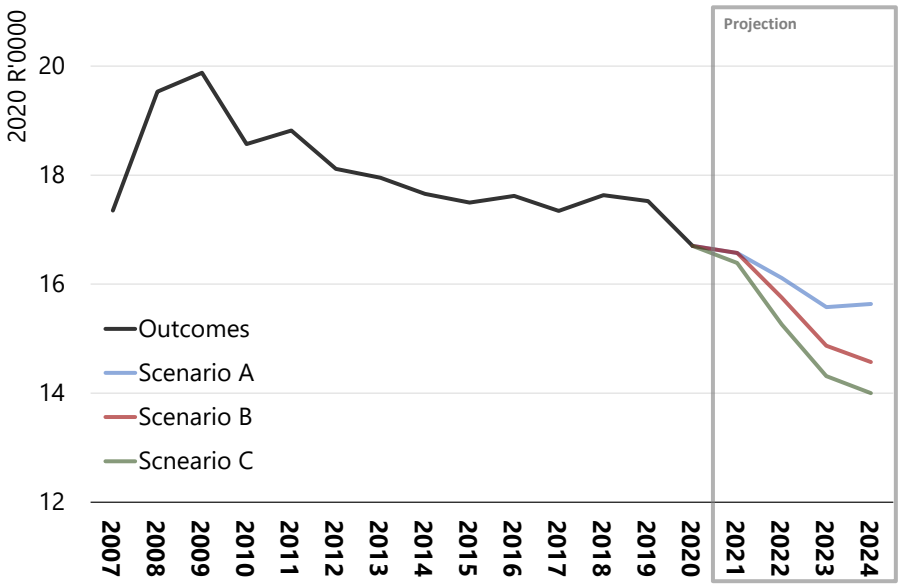
Had teacher pay gains been matched by improvements in the effectiveness of the basic education system or substantial gains in the capabilities of teachers, this may have translated into improvements in the real value of basic education to users of the public system. However, we are not aware of evidence to support the idea that teacher "productivity" or the overall effectiveness of the system has substantially improved as a result of pay gains. From the point of view of learners and their families, therefore, it is reasonable to assume that the increase in real pay for teachers over the last decade has not resulted in an increase in the real value of basic education services they consume. We take an increase in the number of teachers, or a real increase in the value of complementary inputs (such as learning materials) to indicate an increase in the value of basic education. Increases in teacher pay do not make this contribution, and we discount teacher pay gains when calculating the real value of services.

The results are presented in Figure 17. Government spent about R20 000 per learner in 2009, but this has fallen consistently over a decade to about R16 500 per learner in 2021. To gauge the likely impact of the government's current budget plan, the budgets for public ordinary schools adopted by provincial legislatures in 2022 are used to estimate real spending per learner over the next three years.

If the budgets tabled by provincial governments in 2022 are executed without adjustment (and if our assumptions about pay increases, consumer inflation and enrolment numbers are correct), the next three years will see a large negative shock to the real value of spending per learner. If government sticks to its planned 1.5 percent increase in average pay, we will still see a large fall in spending per learner to below R16 000. In the worst-case scenario, where average pay increases by forecast CPI but budgets are not adjusted to accommodate this, spending per learner falls to R14 000.

The falls in real spending per learner since 2009 has been of a similar magnitude across all provinces, as shown in Table 5. Provinces that have seen the largest declines are the Western Cape, North West and Free State. Our projections indicate that the largest falls in spending over the next three years will take place in KwaZulu-Natal and Gauteng if budgets are executed as planned. This variation in real spending trends across provinces indicates that fiscal pressures are not the same across the country. Since national government has limited control over the allocation of funds towards basic education, it is the provincial legislatures that will need to reconsider these choices in the years ahead.

Figure 17: Real spending per learner in public ordinary schools



Notes: The chart shows spending on public ordinary schools drawn from provincial data sources. We convert nominal amounts into real spending using a composite deflator with two elements. Compensation of employees spending is discounted using increases in average pay in the basic education sector derived from government's payroll (i.e. the percentage year-on-year change in average pay calculated from Persal data). The rest of the budget is deflated using consumer prices. These two elements are weighted using the share of compensation and non-compensation budgets in each province. Finally, real spending numbers are divided by the number of learners enrolled in public ordinary to generate an estimate of real spending per learner.

The projections after 2021 assume that the number of learners enrolled in public ordinary schools increases at the same rate as the increase in the school-age population, as forecast by StatsSA. National Treasury's forecast of consumer inflation is used to deflate non-compensation budgets. For compensation budgets, three scenarios are considered. **Scenario A**: it is assumed that average pay in the education sector increases by 1.5 percent over the next three years (2022–2024) as implied in the national budget. **Scenario B**: average pay is assumed to increase in line with National Treasury's CPI forecast. **Scenario C:** average pay increases by the CPI forecast published by the South African Reserve Bank after its July 2022 monetary policy committee meeting. For each scenario we hold the provincial budgets for compensation of employees in the public ordinary school sub-programme fixed, assuming no additional resources are provided to compensation for wage trends

Source data: Persal (GTAC/PEPA), National Treasury (EPRE), Department of Basic Education (School Realities Reports), StatsSA (Population estimates) and the South African Reserve Bank (CPI forecast)

Table 5: Real spending per learner by province

	2009	2014	2021	2024*
Eastern Cape	19 690	17 363	16 114	16 182
Free State	21 650	19 138	17 276	16 366
Gauteng	20 405	17 575	17 598	16 489
KwaZulu-Natal	18 508	17 022	16 367	14 776
Limpopo	19 482	18 331	16 695	15 956
Mpumalanga	20 552	18 382	16 585	15 919
Northern Cape	22 206	17 944	17 954	16 942
North West	20 876	17 252	16 290	15 360
Western Cape	20 678	17 371	15 072	14 564
South Africa	**19 877**	**17 641**	**16 572**	**15 635**

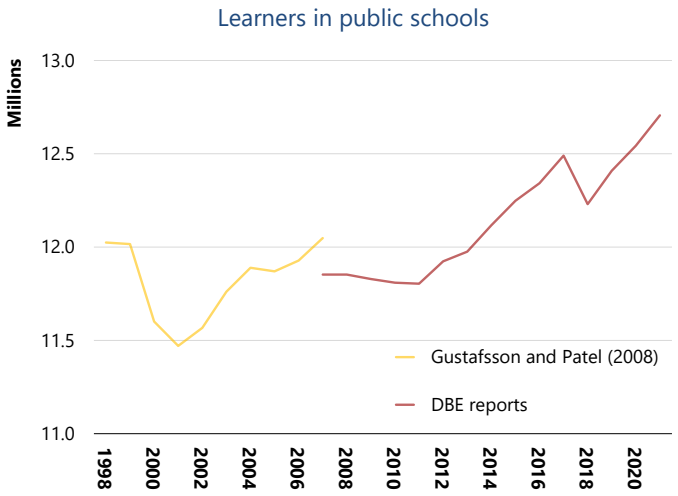
* 2024 is our estimate of scenario A (i.e., if wage assumptions contained in the budget of a 1.5% increase in salaries are implemented)

Source data: Persal (GTAC/PEPA), National Treasury (EPRE), Department of Basic Education (School Realities Reports) and StatsSA (Population estimates)

Learners and educators

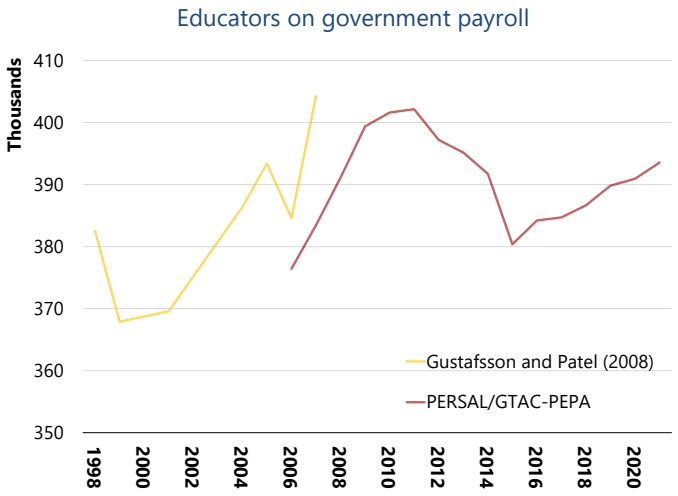
A second way to evaluate aggregate resource allocation to basic education is to consider the relationship between the number of educators employed and the number of learners in schools. Figure 18 gives an indication of the number of learners and educators since the transition to democracy. While initially stable, from 2012 onwards the number of learners enrolled in public schools has increased from about 12 million to around 12.7 million. Educators employed by government increased from 2006, peaking at 402 000 in 2012. Between 2012 and 2015, teacher numbers fell by 20 000, after which they started to improve, according to payroll data. However, they remain below the peak of 2012.

Figure 18: Learners and educators-on-payroll



Note: Gustafsson and Patel (2008) do not directly report enrolment figures in their paper. The numbers shown have been imputed using their estimate of teachers in schools and pupil-teacher ratios

Source data: Gustafsson and Patel (2008) and Department of Basic Education (School Realities Reports)



Source data: Gustafson and Patel (2008) and Persal (GTAC-PEPA)

Table 6: Leaners and teachers by province

[a] Learners enrolled

	Average enrollment		*Change*	
	2007-2010	**2017-2020**	**#**	**%**
Eastern Cape	2 040 567	1 768 927	-271 640	-13.3%
Free State	650 620	692 520	41 901	6.4%
Gauteng	1 727 612	2 180 469	452 857	26.2%
KwaZulu-Natal	2 762 581	2 800 703	38 122	1.4%
Limpopo	1 709 646	1 693 570	-16 077	-0.9%
Mpumalanga	1 024 310	1 061 518	37 209	3.6%
Northern Cape	264 251	292 705	28 454	10.8%
North West	752 994	824 771	71 778	9.5%
Western Cape	943 493	1 111 074	167 581	17.8%
South Africa	**11 874 955**	**12 427 562**	**552 607**	4.7%

[b] Teachers in schools

	Average employment		*Change*	
	2007-2010	**2017-2020**	**#**	**%**
Eastern Cape	65 630	60 212	-5 418	-8.3%
Free State	23 012	22 847	-165	-0.7%
Gauteng	54 230	70 935	16 705	30.8%
KwaZulu-Natal	85 576	92 041	6 465	7.6%
Limpopo	55 294	50 920	-4 374	-7.9%
Mpumalanga	32 712	34 248	1 536	4.7%
Northern Cape	8 666	10 176	1 509	17.4%
North West	25 331	26 482	1 151	4.5%
Western Cape	30 432	35 432	5 000	16.4%
South Africa	**380 891**	**403 267**	**22 377**	5.9%

Source data: Department of Basic Education (School Realities Reports)

Behind these headline numbers, there have been important shifts in the location of learners and teachers. Table 6 shows these shifts between provinces over the last decade or so. The number of learners enrolled in the Eastern Cape declined by 272 000 or 13.3 percent, and learner numbers have also fallen in Limpopo, though much less dramatically. In contrast, learners in Gauteng have increased by 453 000, or 26 percent, and in the Western Cape by 167 581, or 17.8 percent. At the broadest levels, the fiscal system has succeeded in reallocating budgets in response to these shifts in demand, and the provincial share of the wage bill has adjusted to accommodate them.

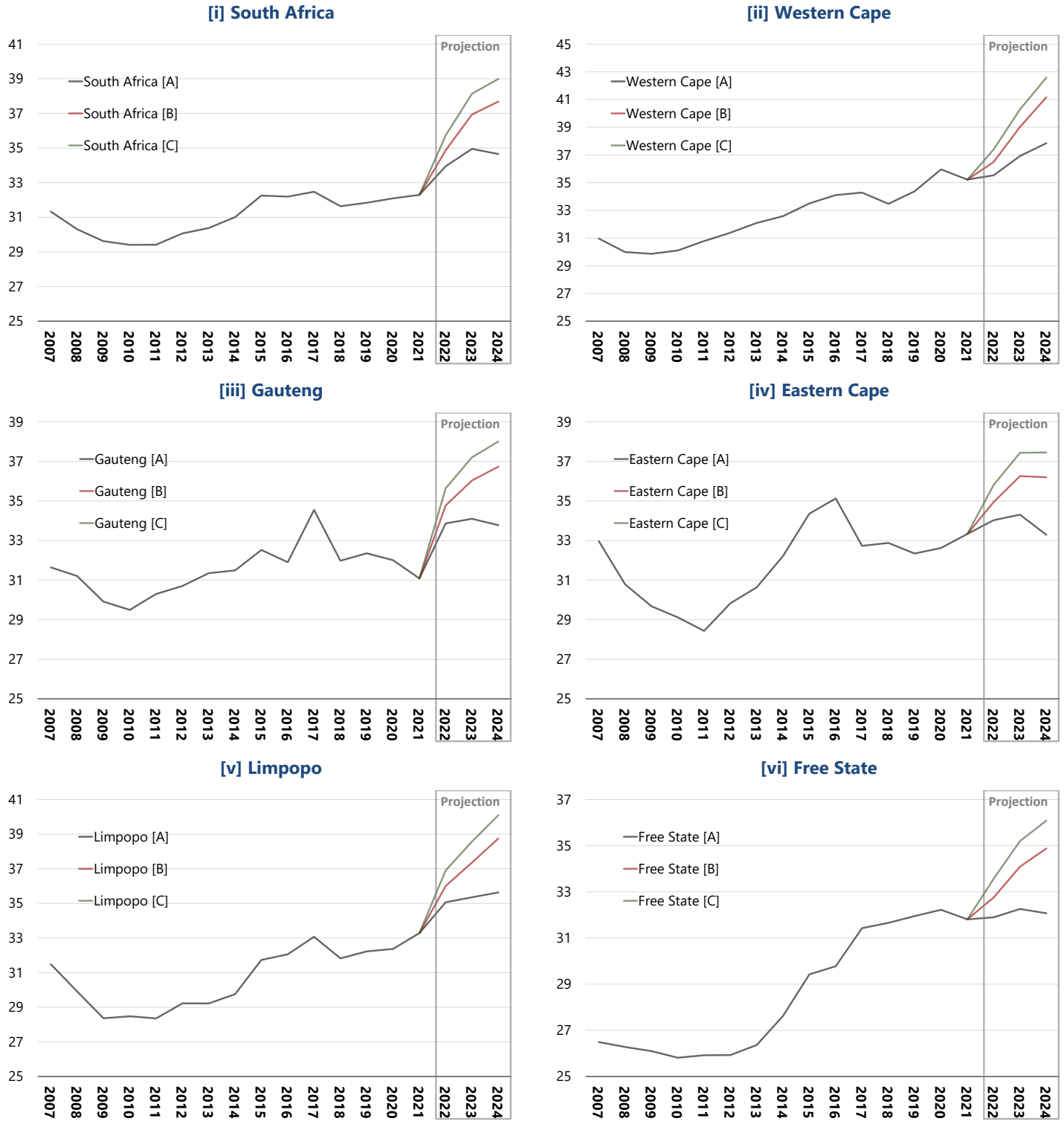
In this context, what are the likely trends implied by the budget? We consider three scenarios: In scenario A, we assume that average teacher pay increases of 1.5 percent per annum over the medium term (2022–2024), which is in line with assumptions made in the last budget. If implemented without adjustment, the tabled budgets for public ordinary schools imply a reduction of 15 000 educators currently on payroll. If educator pay rises at the rate of inflation projected in the last budgets, headcounts on government's payroll will need to fall by 43 000. In a worst-case scenario, where pay increases at current estimates of the rate of inflation, headcounts will need to fall by 55 000.

Combining these estimates with the expected growth in the number of learners allows us to project the ratio between educators employed on government's payroll and learners enrolled in public ordinary schools. This metric – learners per educators-on-payroll – is not the same as the learner-educator ratio, which is frequently used to measure average class size in a school system. Our estimate is not a direct estimate of class size for (at least) two reasons. First, many educators are not employed as teachers in schools, but as subject advisors, inspectors and administrators of the school system located in district and provincial offices. Second, many other factors at the level of the school (for instance the number of subjects taught) influence class size but are not considered here. While not a direct measure of class size, however, *learners per educator-on-payroll* is a good measure of real resource allocation to the public school system. It indicates the number of qualified educators employed by government relative to the number of learners they serve as teachers, principals, subject advisors, system evaluators and managers.

Our calculations are shown in Figure 19. Between 2007 and 2020, the number of learners per educator-on-payroll was stable, though rising moderately towards 33 in 2017. Applying the three scenarios explained above, this ratio will rise to between 35 and 39 (see Figure 18, panel [i]). By any measure therefore, education budgets will need substantial augmentation to avoid an unprecedented resource shock over the next three years.

Our projections differ across provinces. The province likely to see the largest impact is the Western Cape, which already has fewer educators-on-payroll per learner than any other province. However, the trends in most provinces indicate rising pressure on the system over the last decade, and a looming budget shock unless additional resources are added in the years ahead.

Figure 19: Learners per educator-on-payroll



Notes: Up to 2021, the figures show the number of educators-on-payroll, defined by OSD designation on PERSAL, divided by the number of learners in public ordinary schools reported in the Department of Basic Education's School Realities Reports. The projection uses the budgets for compensation of employees in public ordinary schools adopted by provincial legislatures in 2022. To calculate how many educators can be employed if these budgets remain unchanged we make assumptions about learner enrolment and the increase in average pay over the next three years. We estimate the number of educators the budgets will be able to hire under three different assumptions about pay increases over the next three years. **Scenario A**: pay increases by 1.5 percent each year; **Scenario B:** average pay increases in line with National Treasury's CPI forecast from the 2022 budget; **Scenario C**: average pay increases in line with the CPI forecast published by the South African Reserve Bank after its July 2022 monetary policy committee meeting. **Enrolment** in public schools increases at the same rate as the school age populations as projected by StatsSA.

Source data: National Treasury (EPRE). Persal (GTAC-PEPA). StatsSA (Population Estimates)

Indications of rising inequality in basic education

Thus far, we have considered the learners in public ordinary schools and educators employed on government's payroll. Many schools in affluent areas, however, hire their own teachers directly using school fees, and this capacity for private financing results in large inequalities in resources allocated to education in the public system, even though public funding is provided equally (Gustafsson 2018, Spaull 2019).

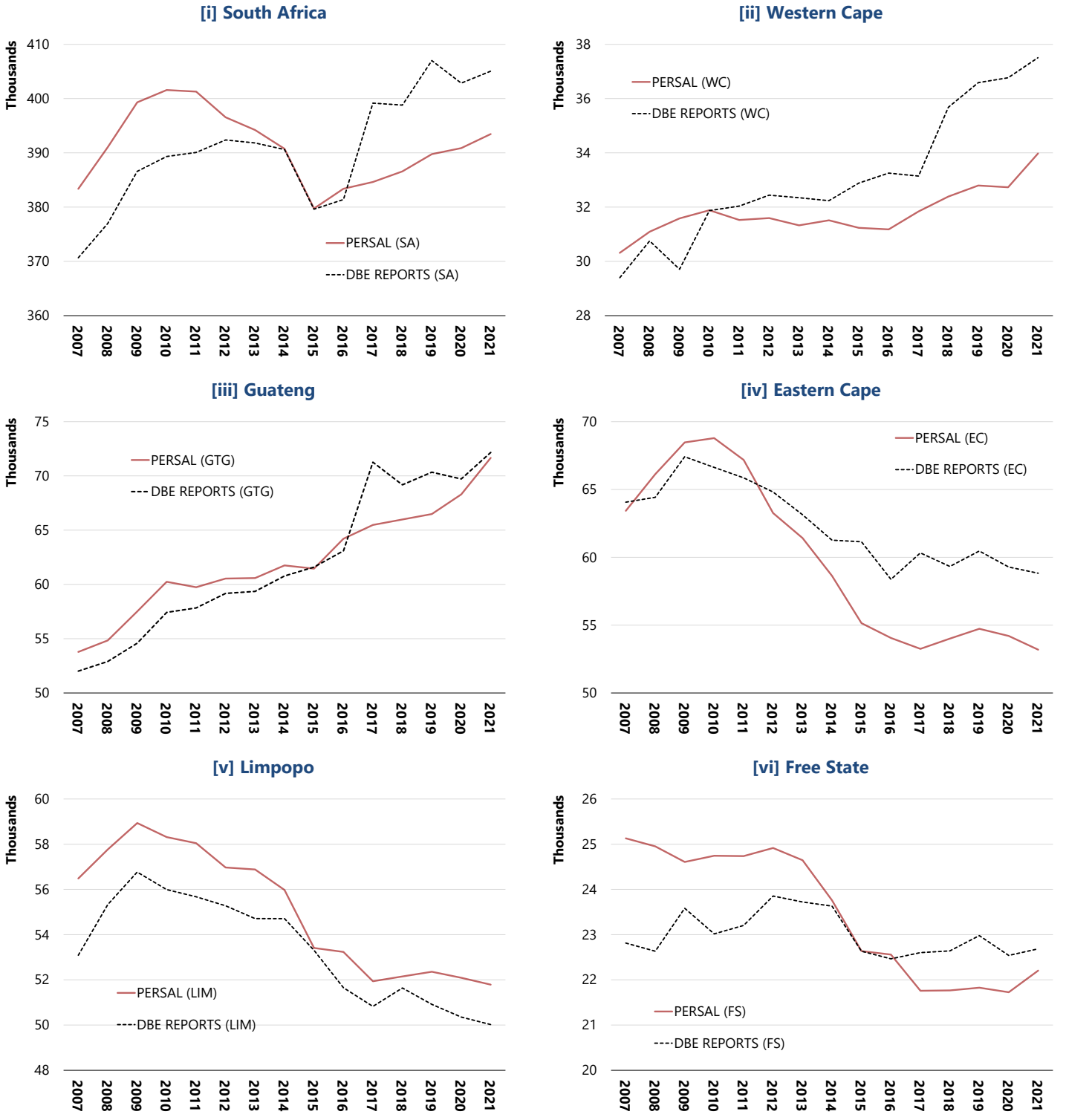
An indicator of the divergence between educators-on-payroll and teachers employed in schools is shown in Figure 20. It compares two sources of data on educator numbers: the first is the number of educators on government's payroll (the thick red line); the second shows the number of teachers in schools as reported to the Department of Basic Education (the dashed black line). This second data source excludes educators who are not teaching in a classroom but includes government and privately financed teachers stationed at public schools.

The divergence between these two sources over the last decade is notable. Ten years ago, the number of educators-on-payroll across South Africa was about 12 000 greater than the number of teachers in public schools. This is what we might expect, given the fact that payroll data includes educators working in district offices and other parts of the public education system (i.e., not teaching in schools). Since 2017, however, the number of teachers in public schools has been about 13 500 greater than the number on payroll. This reversal may suggest a growing trend towards the private financing of teachers. If so, it appears that the stagnation in employment of educators on government's payroll has been offset by an increase in privately financed teachers in public schools.

These trends appear to play out differently in different provinces. While the Western Cape has continued to increase the number of educators-on-payroll, this has fallen far behind the increase in learners (as we saw in the last section). Meanwhile, the total number of teachers in schools has increased rapidly. The other provinces included in the figure show a significant fall in the number of teachers on payroll, while the gap between these and teachers reported by schools has widened.

A second potential barometer of rising inequality is the shift towards independent schools, documented in Table 7. Government's budget contributes to independent schools through transfers, but independent schools are privately governed and also charge fees. As shown in the table, an increasing number of learners are shifting into independent schools, especially in more urbanised provinces, where affluent households are concentrated. Moreover, in contrast to public ordinary schools, the learner-educator ratio has fallen in independent schools (at least in the more urban provinces).

Figure 20: Educators-on-payroll and teachers-in-schools



Source Data: Persal (GTAC-PEPA) data and Department of Basic Education (School Realities Reports)

Table 7: Learners and educators in independent and public schools

	Leaners in independent schools (% of total)		Learner-educator ratio: Independent schools		Learner-educator ratio: Public ordinary schools		Learners in public schools to educators-on-payroll	
	2009	2021	2009	2021	2009	2021	2009	2021
Gauteng	9.6%	13.1%	28.7	27.9	31.5	30.9	29.9	31.1
KwaZulu-Natal	1.5%	2.2%	31.7	29.9	32.3	30.7	31.2	31.9
Western Cape	3.1%	5.4%	30.2	29.6	31.8	31.9	29.9	35.2
Eastern Cape	2.1%	4.1%	29.8	29.5	30.1	30.1	29.7	33.3
Free State	2.2%	2.8%	27.0	30.4	27.2	31.1	26.1	31.8
Limpopo	2.1%	4.2%	29.2	33.6	29.4	34.5	28.4	33.3
Mpumalanga	1.8%	3.0%	29.4	30.7	29.9	31.6	30.2	32.0
Northern Cape	1.1%	2.1%	29.4	29.0	29.8	29.9	28.7	30.0
North West	1.6%	2.8%	29.1	30.9	29.7	31.6	28.8	30.9
South Africa	**3.2%**	**5.2%**	**29.7**	**30.0**	**30.6**	**31.4**	**29.6**	**32.3**

Source data: Department of Basic Education (School Realities Reports) and Persal (GTAC-PEPA)

Conclusion

The Covid-19 lockdown resulted in significant disruptions in the basic education sector, as schools were closed for extended periods to curtail the spread of the virus. This resulted in the loss of school days and learning time. It is not yet clear what the permanent impact on learning will be, but Gustafsson and Deliwe (2020) identified two possible scenarios. In one, learners will have caught up with the pre-pandemic learning trajectory after three years of normal schooling. In the second scenario, learning losses remain unchanged for the rest of the learners schooling years.

In the 2021 Medium term Budget Policy Statement, National Treasury acknowledged that action to contain compensation budgets would continue to erode education services in the years ahead:

> Provinces have reduced compensation budgets and chosen not to fill all vacant posts, resulting in an increase in class sizes. More policy decisions are needed to bring compensation spending in line with available resources. Nonetheless, the lower number of teachers combined with lost learning days due to the COVID-19 pandemic will have negative effects on educational outcomes. (National Treasury 2021: 42)

In this difficult context, the impact of fiscal consolidation on the number of employees and their real income, and the learning materials, infrastructure and operating budgets that are essential to learning, does not appear to have been explicitly and clearly taken into account.

The trends reviewed above may also be a warning sign of greater inequality within the school system. As the number of government-employed educators stagnates, schools in affluent areas are able to deflect the impact of the burden of consolidation. While appearing to offset the overall decline in resource allocation (for instance as indicated by learner-educator numbers), in reality this implies that poorer schools face a disproportionate impact from fiscal consolidation. While purely indicative, these observations suggest rising inequality in the public school system, which is already marked by extreme levels of inequality.[5]

[5] See Spaull and Jansen (2019) for a review of inequality within the South African schooling system.

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4. HEALTHCARE

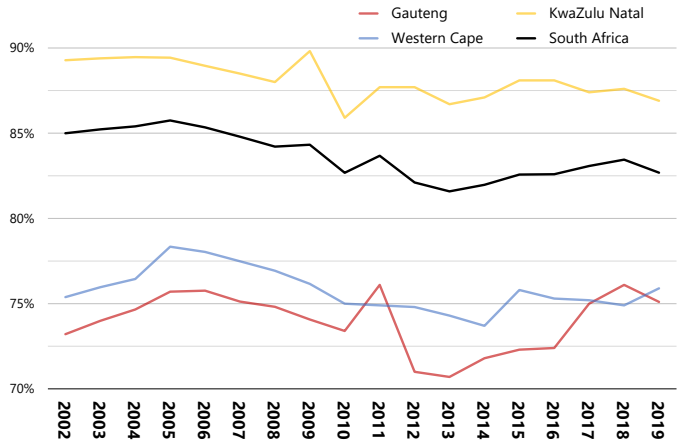
To analyse trends in the allocation of resources to the healthcare sector at the most aggregate level, we consider two metrics: first, we look at real spending trends by deflating expenditure outcomes and budgets according to price pressures in the sector; and second, we consider employees in the sector relative to the size of the uninsured population.

The analysis starts with the profile of health spending. This is followed by a review of real healthcare expenditure trends, and a detailed review of headcount trends. We also consider two elements of the distribution of this burden: real spending on each level of care in the healthcare system, and how spending evolves across the different provinces.

Social and economic conditions play a fundamental role in determining health outcomes, as well as the trends in the utilisation of public health services (WHO 2013). As socioeconomic conditions in South Africa are so extremely unequal, the health needs of the population are hugely diverse. South Africa's disease burden is characterised by very high levels of both communicable and non-communicable disease, including HIV/AIDS and tuberculosis, obesity and other non-communicable diseases; trauma cases, mostly a result of injury and violence; and high child and maternal mortality rates (ASSAf Standing Committee on Health 2020, Burger and Ngwenya 2021).

South Africa's healthcare system is segmented into a well-resourced private sector, financed with medical insurance premiums, and an overburdened public sector that serves the majority of the population and which is financed from general taxation (Nwosu and Odenubi 2021, Ewinyu and Mampane 2020).

Figure 21: People *without* private medical insurance (% of population)



Source data: **2002–2008**: Council for Medical Schemes, **2009–2019**: National Treasury, Budget Review, Annex W1 Risk-adjusted sub-component shares tables, various years

More than 80 percent of the population has no private medical insurance coverage. As unemployment has risen and economic activity stagnated in recent years, the uninsured population has grown faster than the general population. This trend has been particularly strong in Gauteng and the Western Cape, where higher levels of healthcare are concentrated, and where poorer South Africans increasingly relocate to access better services (see Figure 21).

An alternative source of data relevant to demand for healthcare services is utilisation rates. The factors that drive the utilisation of public healthcare services are complex and, while the uninsured population has increased, measures of the utilisation of services show different trends. In our view, utilisation data is less reliable than the measurement of the uninsured population. Moreover, trends in utilisation may well reflect supply-side factors (e.g., the length of queues at healthcare facilities) which are difficult to distinguish from demand for services. We have therefore chosen to focus on the risk-adjusted uninsured population as reported in national budget documents as the measure of potential demand for public healthcare services.

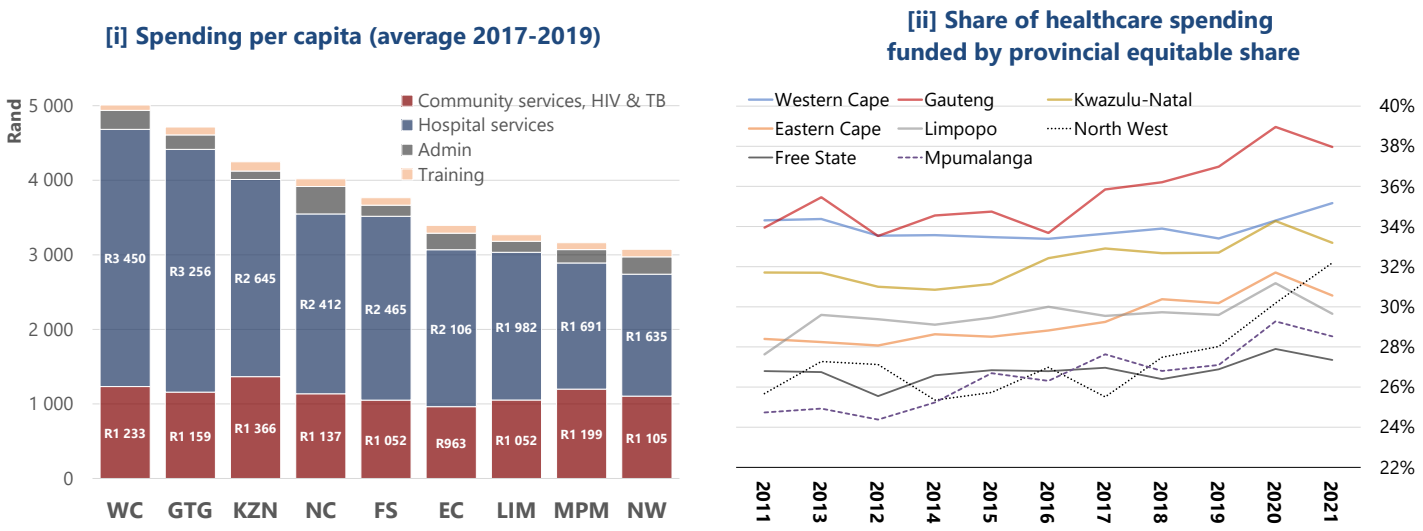
Provincial healthcare spending trends

Provincial allocations to healthcare vary. Figure 22 shows provincial healthcare spending in absolute terms. Primary healthcare allocations are relatively even across the provinces. KwaZulu-Natal spends about R1 370 per person on primary care, community services and combating HIV and TB. The Eastern Cape spends a surprisingly low R965 on the same programmes, with other provinces falling between. The main driver of the differences in healthcare allocations between provinces, however, is the intensity of hospital services. Most tertiary healthcare services are in the Western Cape, Gauteng and KwaZulu-Natal, and the allocation of resources across provinces accommodates this reality.

Provinces with large academic hospitals allocate greater resources to healthcare, while all other provinces are far below the national average (see Figure 22, panel [i]). National budgets have been increasingly concentrated on community services and treatments for HIV/AIDS and TB. As a consequence, healthcare is increasingly financed from the provincial budget resources (Figure 22, panel [ii]). This trend can be observed in all provinces over the last decade but has been particularly strong in Gauteng, where healthcare has overtaken basic education as the single largest budget allocation. The share of healthcare spending financed from the provincial equitable share in the Western Cape has been stable but high.

Increased pay for employees has been an important driver of budget pressures across the healthcare system. We saw in the context of basic education that there has been a race between teacher pay and education budgets (Spaull et al. 2020). Similar dynamics have been at play in public healthcare.

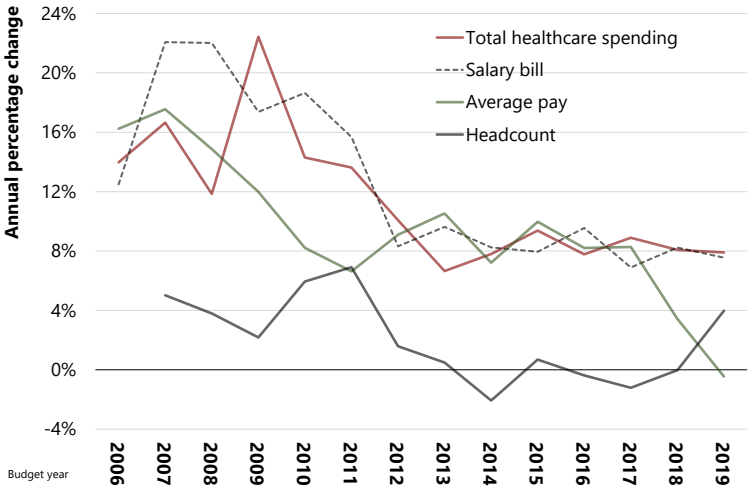
Figure 22: Healthcare spending by province



Note: Panel [i] shows average nominal spending on healthcare between 2017–2019 per risk-adjusted, uninsured population. Risk-adjusted uninsured population is calculated by applying risk weights from the 2022 budget to estimates of the uninsured population used to calculate the provincial equitable share. Admin includes district management services, Hospital services includes district, provincial, specialised and central, hospital support services (laundry, food, etc.) and related facilities and maintenance spending.

Source data: National Treasury (EPRE) and Budget Reviews (various years)

Figure 23: Nominal growth rates of healthcare spending, average pay and headcounts



Note: These figures reflect provincial governments spending and employment only

Source data: National Treasury (EPRE); Persal (GTAC-PEPA)

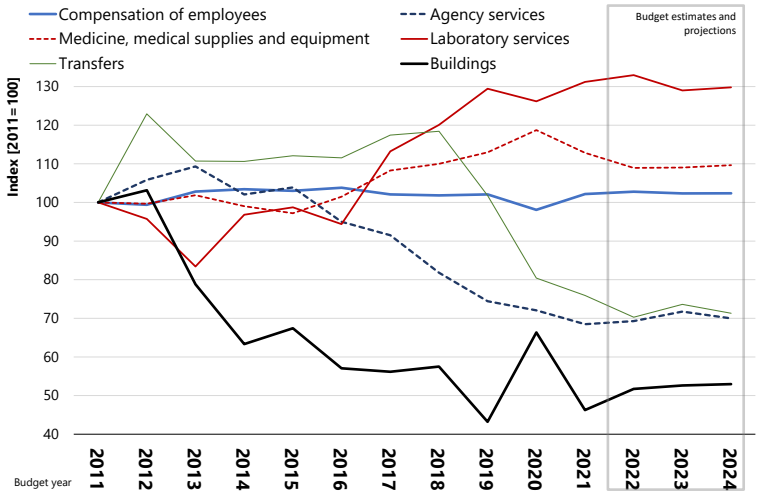
Figure 23 shows how these dynamics have played out in provincial health spending. Average pay increased at an annual rate of 15 percent (in nominal terms) between 2008–2010 – as OSDs were implemented – more than double the rate of consumer price inflation over the same period. The public health workforce continued to grow at around 5 percent per annum during this time, leading to an increase in the ratio of health workers to the population. Health budgets did expand to accommodate most of the pressure imposed by the OSDs, but the total budget did not keep pace with the rapid growth of compensation spending. Resources had to be shifted from other line items to finance improved remuneration. After 2011, average pay continued to outpace inflation. But as the economy began to stagnate and as fiscal pressures mounted, the growth in spending was brought down to an annual rate of about 8 percent. This allowed for increased pay, but only if employment was held constant or reduced. From 2012 onwards, therefore, headcount growth was substantially curtailed.

For the last decade the wage bill has been a stable share of the overall healthcare budget. But this has only been possible because employment has been held constant. An increasing burden has been placed on a reduced healthcare workforce, as personnel numbers have stagnated and fallen relative to the size of the population served.

Provincial departments have contained wage bill pressures by slowing recruitment, but they have also acted to protect spending on essential line items. Figure 24 shows that allocations to laboratory services, medicine, medical supplies and equipment have increased as a share of the total. Something had to give, however: the protection of essential expenditures in a context of rising resource constraints resulted in a curtailment of spending on buildings, maintenance, the employment of agency personnel and transfers.[6]

Figure 24: Shifts in composition of spending

Index of the share of total spending, 2011=100



Note: Based on total spending of all provincial health departments.

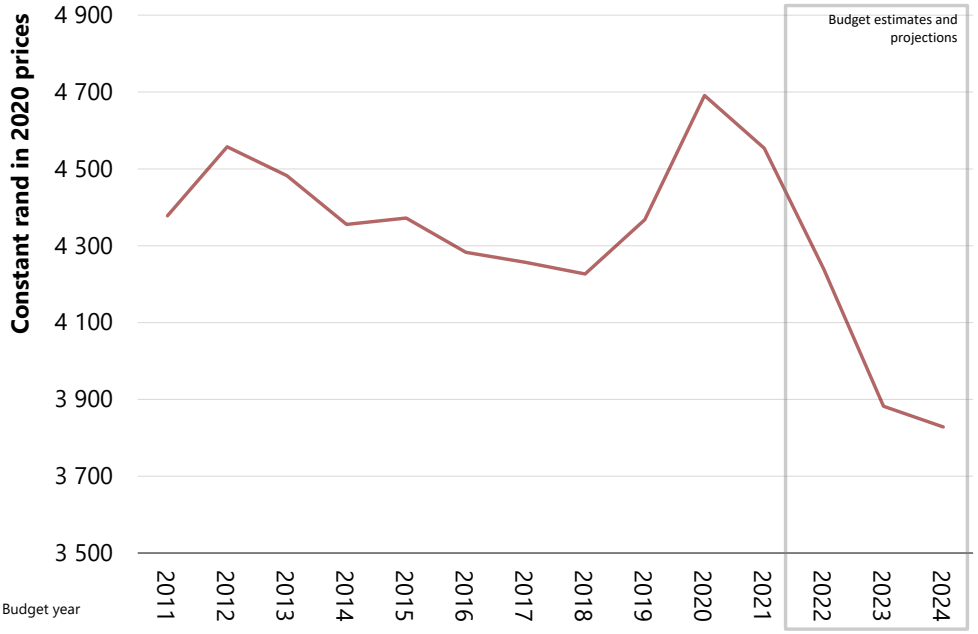
Source data: National Treasury (EPRE)

[6] Transfers are mainly funds allocated to municipalities and non-profit organisations. Agency services spending often reflects the hiring or nurses or other personnel to accommodate a shortage of employed staff.

Real spending per capita

Figure 25 shows our estimate of real spending per capita since 2011. Since 2012, expenditure has stagnated in real terms. Unsurprisingly, the response to the Covid-19 pandemic saw a temporary increase in spending in 2020. However, over the medium term, as government seeks to achieve fiscal consolidation, real expenditure per capita by provincial health departments is projected to fall even lower than its pre-pandemic level. This implies that not only will the healthcare system struggle to recover from the disruptive impact of the pandemic, but it will do so while simultaneously facing an historic shock to resource availability.

Figure 25: Real per capita spending on healthcare



As was the case with basic education, we have assumed that increasing average pay has not led to increasing productivity on the part of the healthcare workforce. As such, spending on **employee compensation** and **agency services** (which outsources employee functions) are deflated by average pay increases in the healthcare sector on Persal. Spending on **medicine, medical supplies, equipment** and **laboratory services** have been deflated using StatsSA's measure of medical products inflation. **Leases, property and operating payments** are deflated with the utilities and housing price index. **Transport, fuel and related** spending is deflated with the private transport operations index. **Food and catering** is deflated with the food price index, while other budgets have been deflated with CPI.

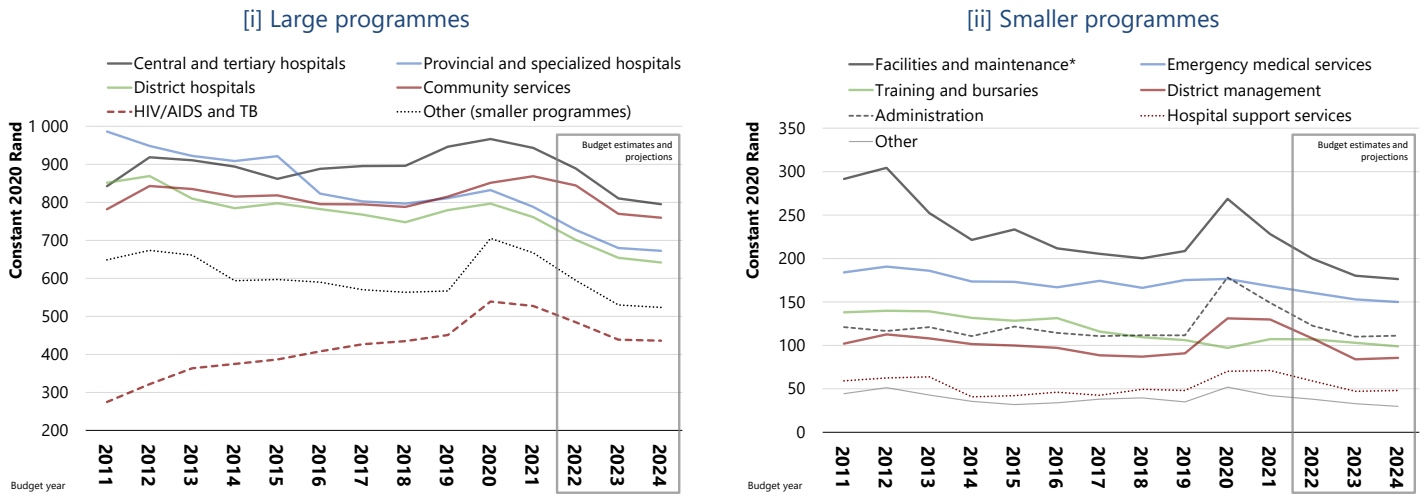
Source data: National Treasury (EPRE), Persal (GTAC-PEPA), StatsSA

Given the systemic inequalities within the healthcare system, this shock is likely to be unevenly distributed. Spending on central hospitals, community-based primary healthcare services and HIV/AIDS has improved in real terms in recent times, as shown in Figure 26. But spending on facilities, maintenance and training has fallen. Allocations to district hospitals, and especially provincial and specialised hospitals, have also fallen in real terms, and the burden of fiscal consolidation over the next few years looks set to fall strongly on district, provincial and specialised hospitals.

All elements of healthcare will be under pressure over the next three years if budgets are not adjusted. However, this pressure will be unevenly felt as regional, district and emergency healthcare services look set to carry the heaviest burden of fiscal consolidation. In contrast, primary healthcare and central hospitals have seen improvements in real resource allocation over the last decade. They too, however, will not escape the effects of fiscal consolidation, and thus also face a large shock to resource allocation over the medium term.

The fallout from the fiscal consolidation also looks different across provinces, as shown in Figure 27. Gauteng has followed the national average and this looks set to continue over the next three years. KwaZulu-Natal and the Western Cape on the other hand show a relatively large contraction in real resources. In both cases, this follows an extended period in which provincial allocations to healthcare have lagged the growth of the uninsured population. Limpopo and other more rural provinces have lower per capita budgetary allocations, which reflects the fact that they provide fewer expensive tertiary and central hospital services.

Figure 26: Real spending per capita by programme

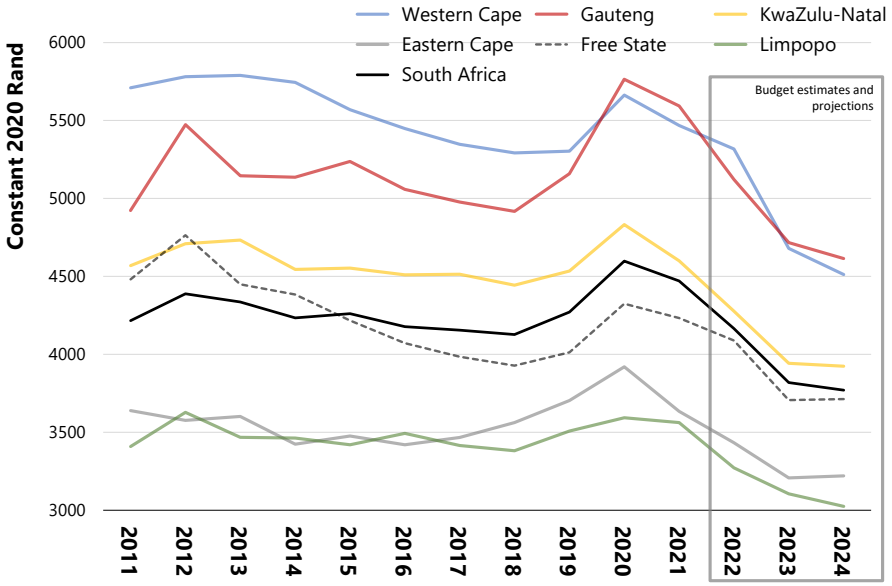


* Total spending on Facilities and maintenance is reported as a separate programme in panel [ii]. However, facilities and maintenance sub-programmes with respect to hospitals (e.g. facilities and maintenance in district hospitals) are included in the hospital programme amounts in panel [i].

Notes: See the notes to figure 25. The same deflators and price indices are used in this figure. Price indices have been weighted by the share of various types of expenditure in each programme (e.g. compensation, medicines etc) to arrive at a composite weighted deflation index specific to that programme.

Source data: National Treasury (EPRE), StatsSA (price indices and population estimates), National Treasury (estimates of share of uninsured population)

Figure 27: Real health spending per capita in selected provinces



Notes: In this figure the risk-adjusted uninsured population is used, apply National Treasury's risk weighting as updated in Budget 2022. Price indices used are the same as those used in figure 25 (see notes to that figure). Province specific deflators take account of the composition of spending on compensation, medicines etc.

Source data: National Treasury (EPRE), StatsSA (inflation indices and population estimates), National Treasury (share of uninsured population)

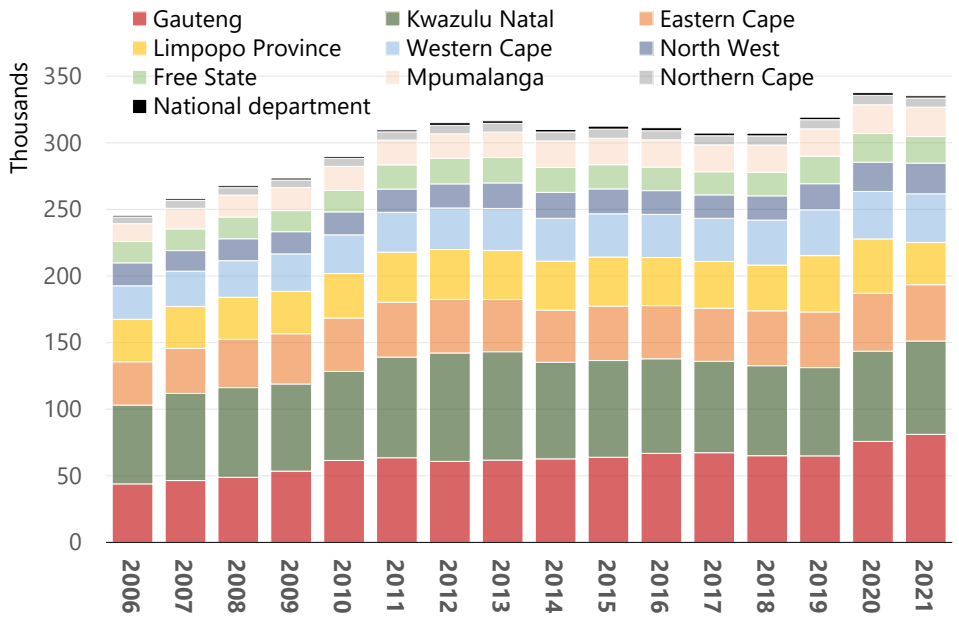
Healthcare employment trends

A second indicator of resource allocation is given by the number of healthcare workers employed in the public healthcare system. As we saw in Table 2, the government healthcare workforce grew robustly in the decade after 2002, adding nearly 100 000 employees to reach 313 000 by 2012. But employment stagnated thereafter, falling to 307 000 by 2018 (see Figure 28).

There has been a shift in the composition of employment, as shown in Figure 29. Nurses account for around 45 percent of employees, a figure which has been stable over the decade. Other healthcare professionals (doctors and allied healthcare workers on OSDs) have accounted for a rising share of employment. The number of other employees, including as essential workers such as cleaning staff, laundry staff, porters and food service staff in hospitals, have fallen in absolute terms, at least until 2018.

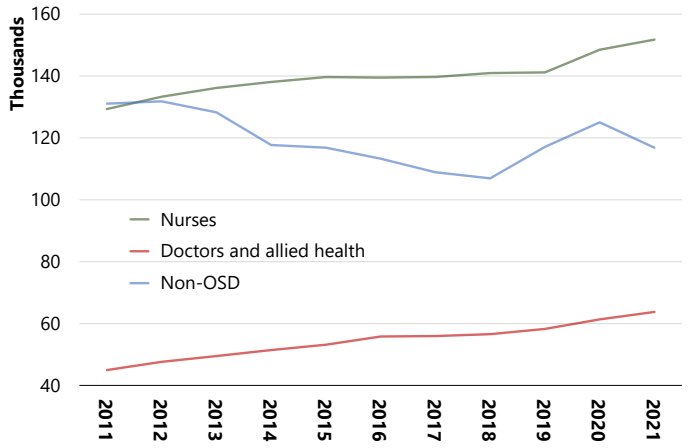
These patterns reflect a decade-long commitment to protecting "critical posts". While this is commendable, the fall in non-OSD staff is a serious concern for the provision of quality healthcare. As National Treasury has recently noted, "it is difficult to distinguish between critical and non-critical posts in the healthcare system because a range of skill sets is required to provide a good service. For example, cleaners play a vital role in ensuring that facilities comply with good hygiene practices which reduce the risk of hospital-acquired infections." (National Treasury 2020:77) Similar points could be made about porters, administrators and a range of other non-clinical staff, who are essential to ensuring the effective running of a healthcare service facility.

Figure 28: Healthcare employees by province



Source data: Persal (GTAC-PEPA)

Figure 29: Employees in govrnment healthcare



Source data: Persal (GTAC-PEPA)

As can be observed in both Figure 28 and Figure 29, there has been an increase in employment in the sector since 2018. An additional 28 000 employees were added to the payroll, and this appears to be concentrated on non-OSD employees. Interestingly, the increase in healthcare employment begins in 2019, before the onset of the Covid-19 pandemic. We suspect that this reflects the transfer of community health workers onto the government's payroll system. Community health workers numbered more than 50 000 in 2019 and are essential elements of the primary healthcare system (National Treasury 2020). The Minister of Health recently agreed to raise their remuneration to the minimum wage, and several provinces have moved to place them onto the payroll system. A second factor behind increased employment has been the response to the Covid-19 pandemic, which led to increasing headcounts in several provinces in 2020.

Healthcare workers and the uninsured population

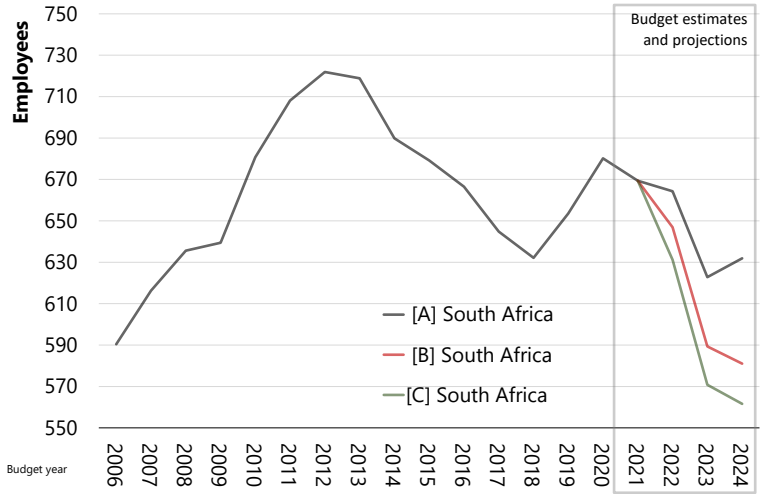
The absolute number of employees is a critical indicator of healthcare sector resourcing. However, it is important to also take the demand for their services into account, given the previous discussion about the rapid growth of the "uninsured population". Figure 30 shows the number of healthcare system employees on payroll per 100 000 uninsured people.

At the national level, the rise in healthcare sector employment meant that by 2012, there were more than 720 healthcare workers per 100 000 uninsured people. This ratio has steadily fallen since then, reaching 632 by 2018. Increased numbers on government's payroll over the next two years resulted in significant increases since 2018. However, our projection shows a reversal of this trend over the medium-term expenditure framework. In the best-case scenario, the increase in employment during the Covid-19 pandemic would need to be completely reversed. The worst-case scenario, where pay increases are in line with inflation but budgets are not adjusted, would require the number of employees per 100 000 people to fall below the 2006 level.

Figure 31 (on page 41) shows our calculations in respect of selected provinces. The deterioration in employee numbers relative to the population over the last decade has been particularly severe in the urban provinces, where tertiary and quaternary healthcare services are strongly concentrated. Given past trends, where critical posts are protected at the expense of other staff, there is likely to be a further deterioration in the employment of critical auxiliary staff in healthcare facilities, with direct consequences for healthcare provision and the workload of nurses and medical staff.

The situation in the Western Cape and KwaZulu-Natal looks particularly worrying, as the number of healthcare workers looks set to fall to unprecedented levels relative to the size of the population they serve. In fact, if average pay were to increase in line with consumer inflation, and compensation budgets were not adjusted to accommodate this, the shock would be that much worse, with the ratio falling to around 550 in both provinces.

Figure 30: Healthcare employees per 100 000 people



Note: The projected figures are based on our estimate of the number of employees that can be supported by the tabled budgets of provincial governments over the next three years in three different scenarios. As is the case for basic education above, scenario A assumes that average pay increases by 1.5 percent per annum over the next three years, which is the assumption upon which budgets were constructed. Scenario B assumes that average pay increases by Treasury's last estimate of inflation, and scenario C assumes that average pay tracks the South African Reserve Bank's most recent inflation forecast.

Source data: Persal (GTAC-PEPA), National Treasury (EPRE), StatsSA

Conclusion

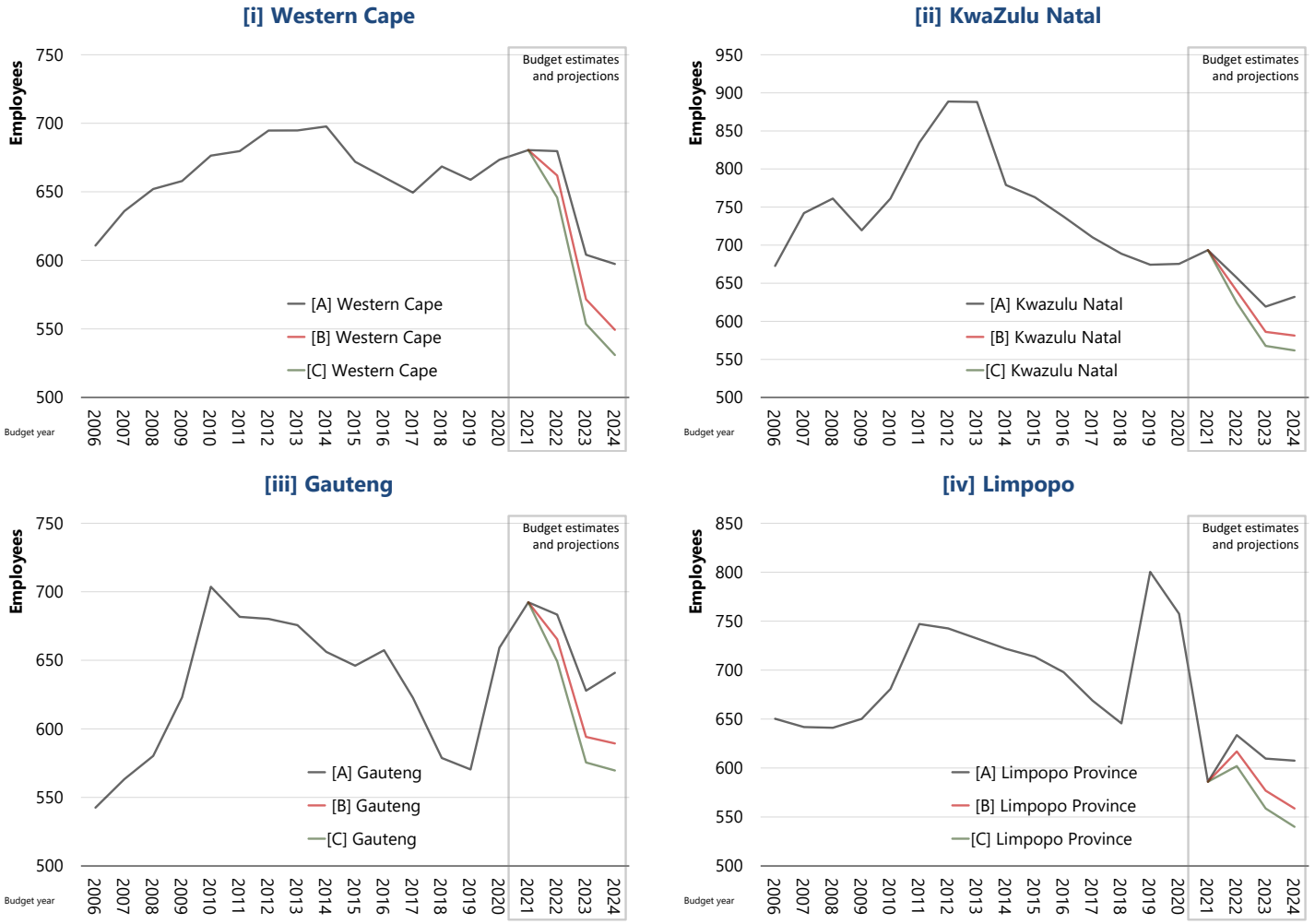
Healthcare involves a far more heterogeneous and complex set of budgets and expenditures than basic education. A huge variety of institutions and professions are organised into a complex system that provides a multiplicity of goods and services to populations with diverse needs, arising from varying burdens of disease and health risks. As rising unemployment and economic stagnation have taken their toll, increasing numbers of South Africans depend on the public healthcare system.

Real spending in healthcare has not seen the kind of erosion that is evident in basic education. A large share of healthcare expenditure is concentrated in provinces that run central academic hospitals. These provinces have allocated a high and rising share of their own resources (from the equitable share) to offset budget pressures in healthcare. The sector has continued to prioritise spending on medicines, medical equipment and other essentials, but this has come at the expense of falling allocations to maintain healthcare facilities, and fewer resources to pay outsourced agency nurses and other personnel.

At the same time, average pay has outpaced the budget for employee compensation and forced the sector to slow recruitment. The commitment to filling "critical posts" is laudable, but in the context of a hard budget constraint this has effectively meant a contraction in auxiliary staff, who are essential components of any health service. Moreover, while real spending has kept pace with the growth in demand, healthcare workers began to decline relative to the population they serve from 2012. This decline was reversed with the absorption of community health workers onto the payroll from 2018 and the special circumstances created by the Covid-19 pandemic.

A key question arising from these developments is whether the elevated levels of employment achieved in the last two years can be sustained over the medium term. If budget allocations do not rise significantly above those tabled by provincial governments earlier this year, the answer is likely to be a decisive "no".

Figure 31: Healthcare employees per 100 000 people (selected provinces)



Notes: The principles set out in the note to figure 31 also apply to these estimates. Here we use the risk-adjusted uninsured population as a denominator, using risk weights updated in Budget 2022

Source data: Source data: Persal (GTAC-PEPA), National Treasury (EPRE), StatsSA

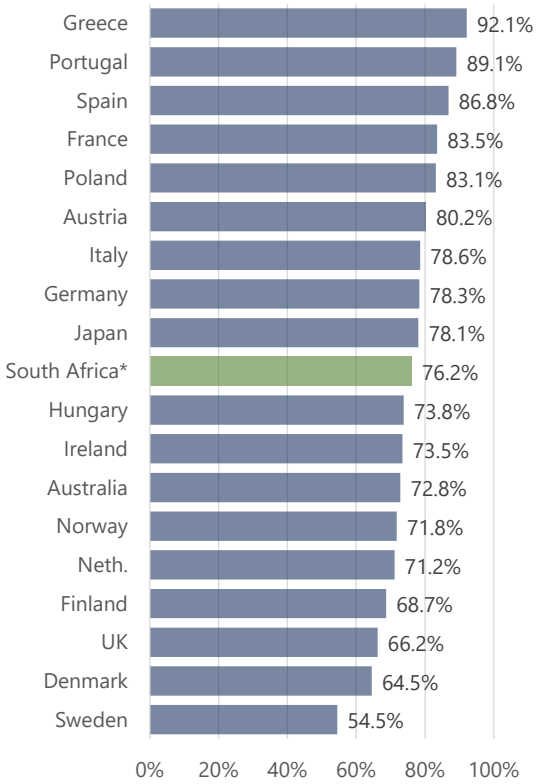
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5. POLICE SERVICES AND THE CRIMINAL JUSTICE SYSTEM

A recent assessment of organised crime in South Africa painted a chilling picture of the rise of violent networks embedded in society and the state, which have become "an existential threat to South Africa's democratic institutions, economy and people" (Global Initiative 2022). The decline in police numbers has eroded police capacity and public trust. But while budget cuts have impacted on police capacity over the last decade, "the drastic decline in performance has far outstripped the falling number of personnel". Failures of leadership, an absence of policy direction, widespread political patronage at all levels, and outright corruption and criminality have hollowed out the criminal justice system.

None of these problems can be overcome simply by allocating resources through the budget. Nevertheless, as pointed out by the Institute for Security Studies (ISS), current budget cuts are likely to worsen the situation as personnel numbers are further reduced (ISS 2021). As is the case for basic education and healthcare, employment levels are a critical indicator of resource allocation, and compensation of employees accounts for three-quarters of the police budget, which is broadly in line with OECD countries, shown in Figure 32.

Figure 32: Compensation as a % of public spending on police services



* South African data is for the consolidated national budget and therefore excludes local government. All other countries data are for general government.

Note on data sources: For all countries except South Africa: OECD.Stat: Total compensation of employees paid by the government for police services divided by total expenditure by general government in local currency units; average for 2015-2020. For South Africa: National Treasury, Consolidated account pivot (2018 and 2022): compensation of employees divided by total spending in the police services budget group, nominal rand terms, average for 2015 – 2020.

Source data: OECD. Stat; National Treasury (consolidated account pivot)

In this section we detail resource trends in the police and the broader criminal justice system. Our analysis looks first at real police spending per citizen. This is followed by a review of trends in the composition of police employment and then a focus on headcount projections. The section ends with a review of employment in justice, prosecutions and the courts, and correctional services.

Real police spending per citizen

A first gauge of resource allocation to the police service is presented in Figure 33, which shows real spending per capita. Our calculations attempt to capture three elements of the police budget: compensation of employees, transport costs (i.e., mainly police cars), and payments related to property (i.e., mainly police stations). As in previous sections, the compensation budget is deflated using increases in average pay. Transport costs are deflated with StatsSA estimates of inflation for private transport operators, while property payments are deflated with consumer indices of housing and utilities inflation. The rest of the budget is deflated using the headline CPI index.

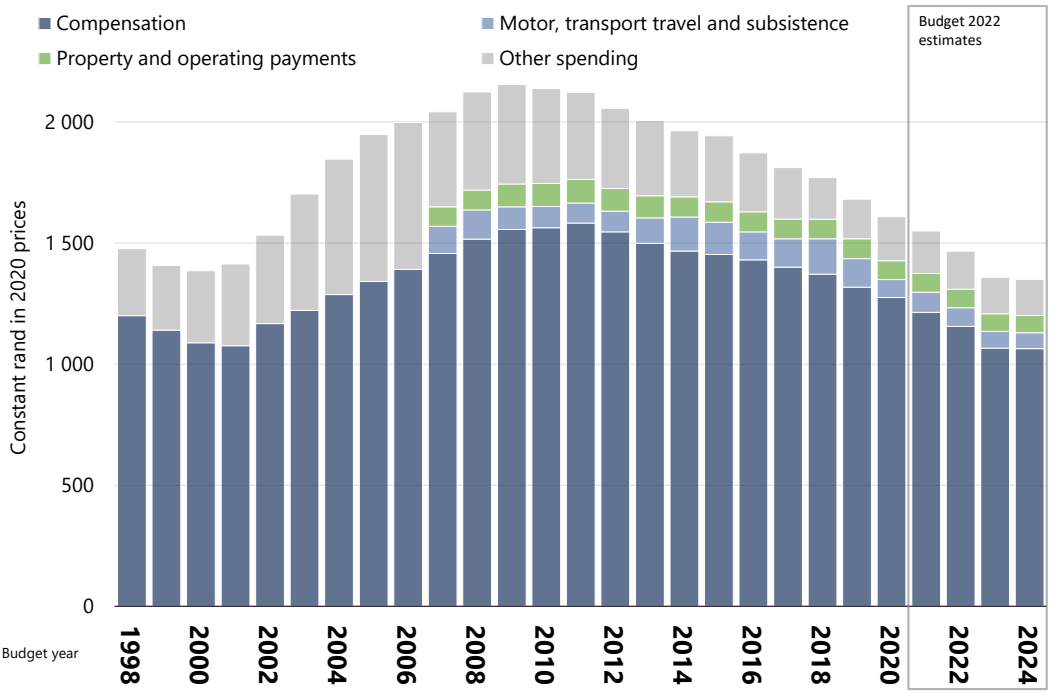
Our analysis shows that by 2010, the year the FIFA World Cup was hosted in South Africa, the level of spending had increased to more than R2 000 per citizen (in 2020 prices). This increase in spending was well motivated. Concerns about

crime, both as a social problem and a constraint to faster economic growth, were already widespread (see for instance Stone, 2006), underscoring the need for better resources of the police as an essential component of South Africa's development trajectory. But this increase in spending has now been almost completely reversed. By the time the Covid-19 pandemic hit in 2020, spending had fallen to below R1 700 per citizen, and if current budget plans are executed, police spending will fall even further in the years ahead, reaching its lowest point in the last 20 years.

As in the case of healthcare and basic education, rising average pay has absorbed a large share of budget increases. Aside from cost-of-living adjustments, government also agreed to delink promotions from performance appraisal in the police system, adding significantly to budget pressure (ISS 2021). The combination of rising pay and constrained budgets has led to a shift in the composition of spending over the last decade. As shown in Figure 34, spending on goods and services has fallen from 23 percent of total spending to just 16 percent in 2021. The share of spending on capital has also fallen (from 7 percent to 2.5 percent of spending). These shares have been pushed down as a greater share of resources are allocated to compensation, which increased from 70 percent of the budget in 2007 to nearly 80 percent today.

Remarkably, this crowding out of non-compensation spending has occurred even as the number of employees has fallen considerably. This implies that the trade-off between rising pay and contained budgets has had a strong negative impact on the composition of spending. Even though there are fewer employees, they are operating in an environment of declining resources for critical complementary inputs. As we show below, similar shifts in the profile of spending are observable in the courts and justice system.

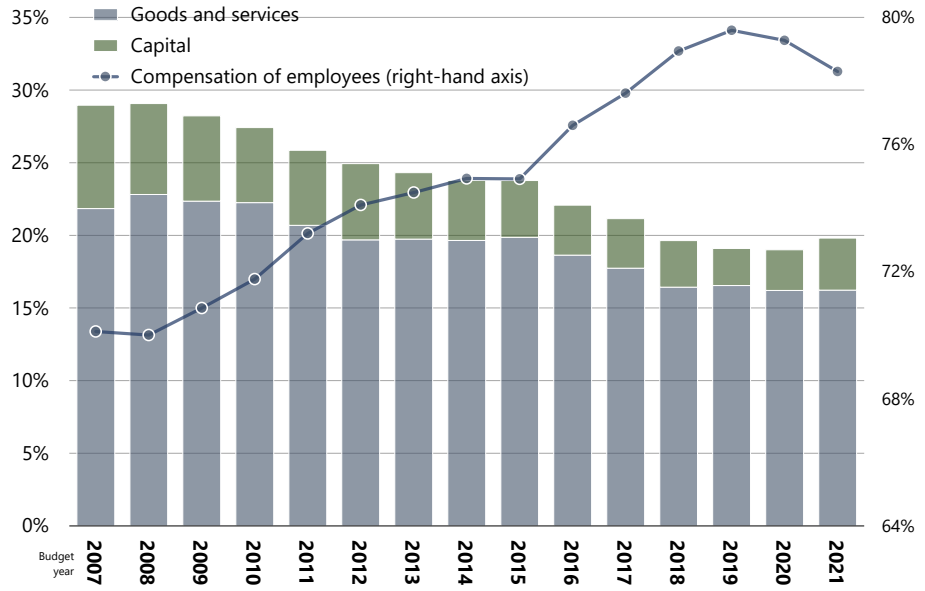
Figure 33: Police spending per capita



Notes: Spending data is deflated using the following price indices. **Compensation of employees,** we use average pay increases in the police services calculated from Persal data. **Motor transport, travel and subsistence,** StatsSA price index for private transport operations. Property and operating payments, StatsSA price index for housing and utilities. Other spending is deflated with CPI.

Source data: National Treasury (ENE), StatsSA (CPI and price indices, and population estimates)

Figure 34: Share of total spending



Source data: National Treasury (ENE)

Trends in the composition of police employment

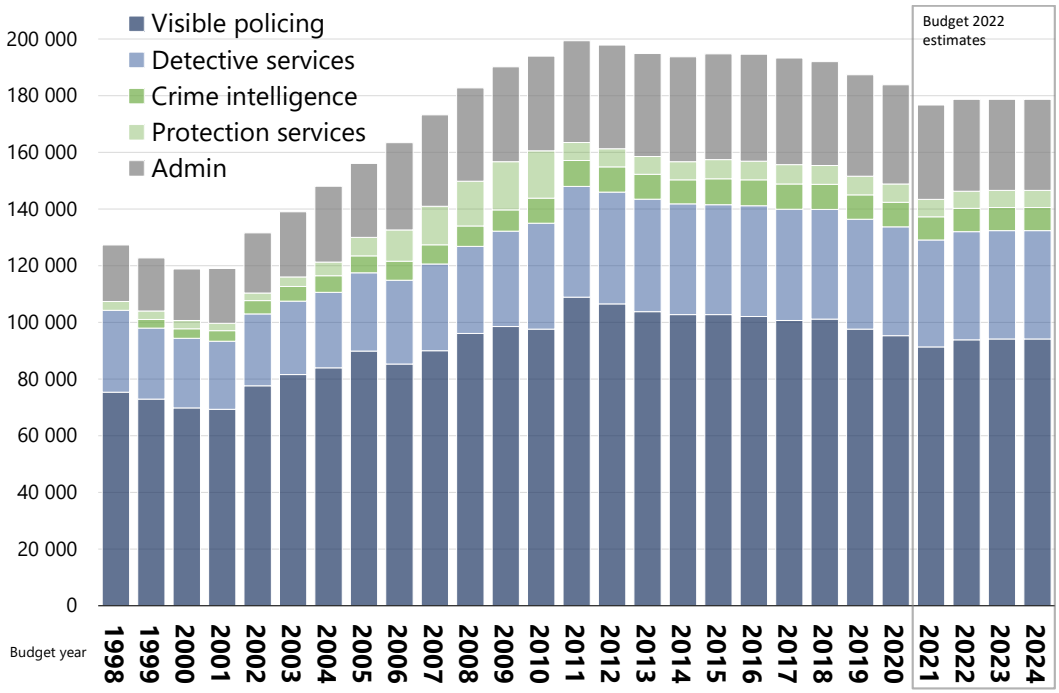
Figure 35 shows employment in the South African Police Service reported in national budget documents, showing the programmes to which employees are assigned. Total employment in the service reached a peak of around 200 000 in 2012, but has declined since then.

The visible policing programme accounts for about 52 percent of the total, although this has fallen somewhat over the period as personnel have been reallocated to detective services and, to a lesser extent, administration. Crime intelligence accounts for about 5 percent of employees and has been stable over the period. This stability masks the fundamental erosion of expert capacity in crime intelligence detailed in the report of the Global Initiative (Global Initiative 2022).

VIP protection services grew substantially after 2004, reaching a peak of nearly 17 000 employees, or 9 percent of total police employment, in 2009. Employment in this programme was, however, strongly curtailed thereafter, and personnel appear to have been reallocated to visible policing. Protection services now account for about 3.5 percent of employment, numbering about 6 500 personnel. About 35 000 employees, or 19 percent of the total, work in administration.

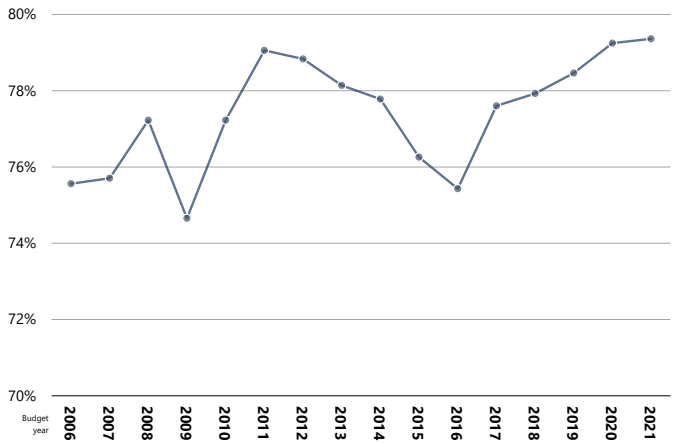
Employment by programme reported in Figure 35 does not tell us what work employees do, only the programme under which they are classified. For instance, those working in the detective services programme are not all detectives, as the programme also employs its own administrative personnel. The payroll system gives a better indication of the balance between police officers and civilian personnel employed in the service. This is clear in Figure 36, which shows the share of employees on payroll who are designated as police by an OSD. As can be seen, this share ranges between 75 percent and 80 percent of employees. No trend of increasing employment of civilian personnel is evident, and if anything, the most recent years show an increase in the share of officers employed.

Figure 35: Police service employment by programme



Source: National Treasury (ENE)

Figure 36: Police-officers as a % of total SAPS employees



Notes: Employees designated as police OSD divided by total employees on payroll. Full time equivalents

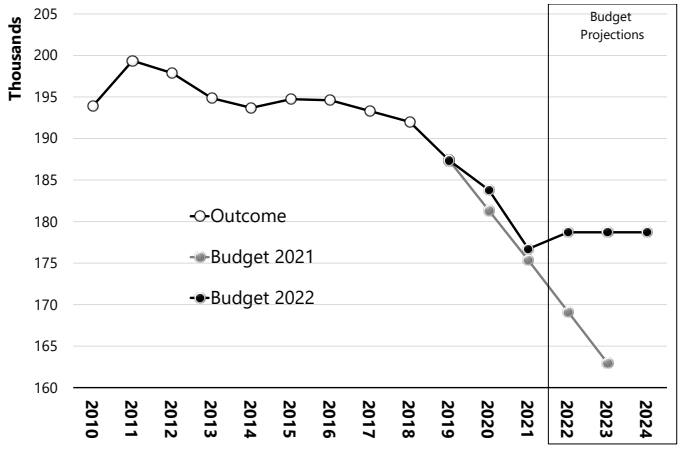
Source data: Persal (GTAC-PEPA)

Headcount projections based on the current budget

We now turn to projections of police employment. Headcount projections contained in the 2022 Estimates of National Expenditure suggest that the police are ambivalent about reducing headcounts and prefer to rely on the hope that sharp reductions in pay will keep the department within budget.

While the 2021 budget anticipated that police numbers would fall by 25 000 over the medium term, the 2022 budget presents an entirely different outlook, with numbers falling by around 8 500 and then stabilising at 178 000 employees (see Figure 37). To compensate for this revision, the 2022 budget assumed that average pay in the police will fall by 3 percent over the next two years. This would far exceed the restraint achieved in 2020 when average pay increased by 1 percent. Given that average pay in the department increased by 8.1 percent in 2021, strongly in line with its historical average, it is hard to see how the reductions envisaged in the budget will be achieved in the years ahead, especially without a clear and explicit plan.

Figure 37: Police headcount projections in successive budgets

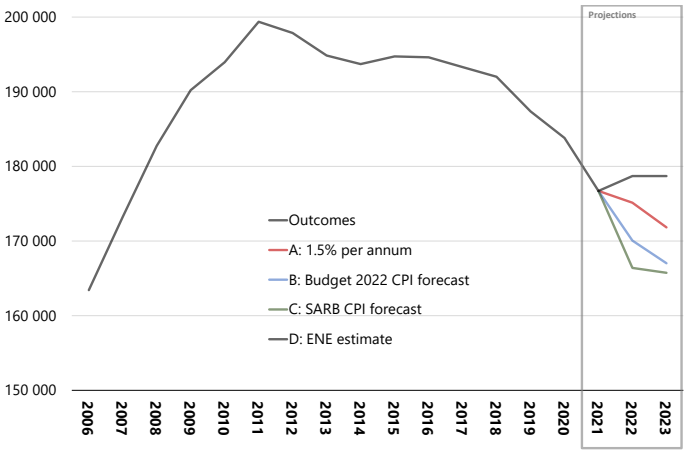


Source data: National Treasury (ENE)

In Figure 38, we show our own projections based on current budgets and various assumptions about the increase in average pay over the next two years. The last Estimates of National Expenditure estimate, with headcounts stabilising at 178 000, is shown as one scenario. However, if pay increases by 1.5 percent per annum and the police budget for compensation remain unchanged, personnel numbers would need to fall to by around 12 000 personnel over the next two years. If average pay should increase in line with current expectations of inflation, keeping within budget would require headcounts to fall by about 18 000.

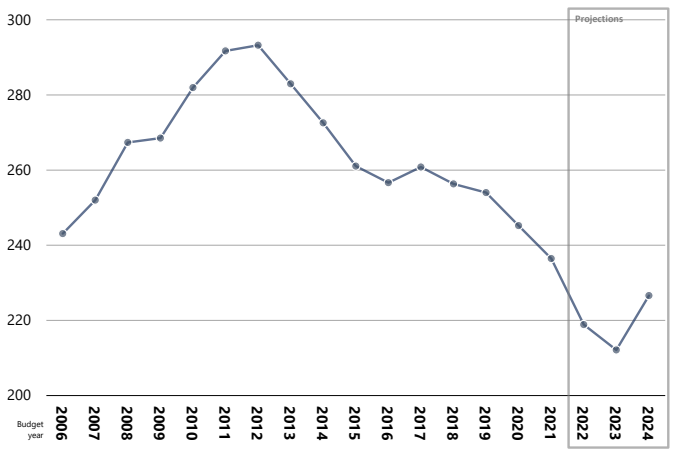
Figure 38: Police service headcount under various pay increase assumptions

[i] Total employment level



Source Data: National Trasury (ENE), South African Reserve Bank (CPI forecast), Persal (GTAC/PEPA)

[ii] Police officers per 100 000 citizens



Note: ENE numbers used for total employment, Persal is used to specify the ratio of police officers to other employees. Persal data over the period 2016–2021 is used to find the average ratio of police officers to civilian employees, which is applied total employment estimates to find the number of police officers.

Source: National Treasury (ENE), Persal (GTAC-PEPA), StatsSA (Population Estimates)

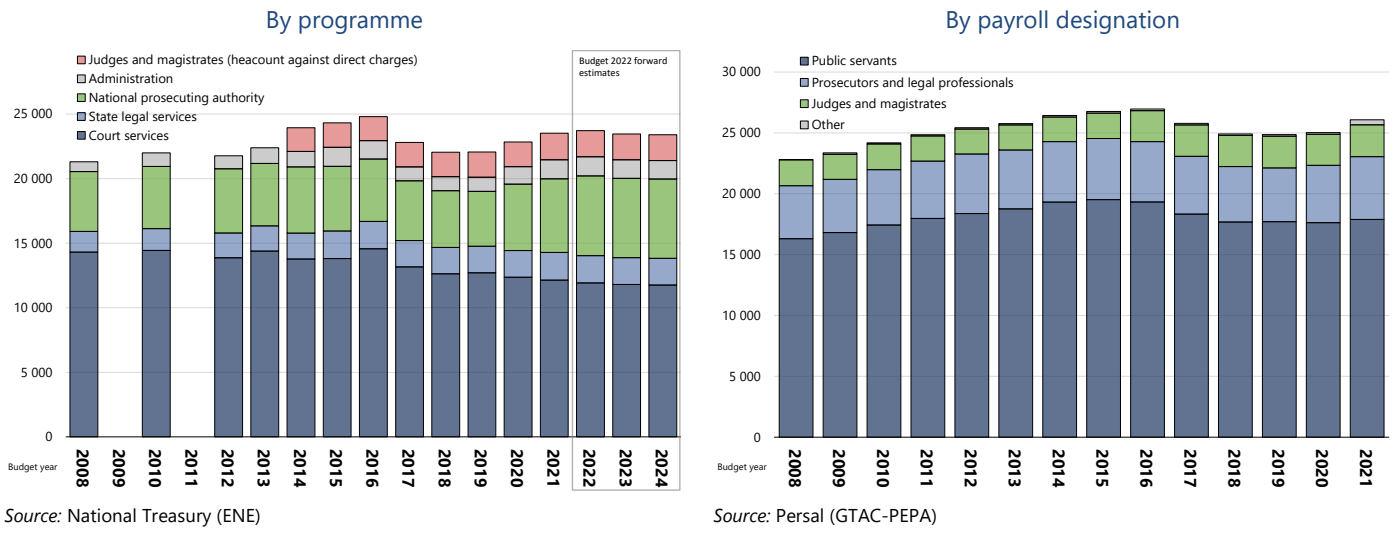
In the nine years between 2011 and 2020, employment in the police service fell by 15 000 – an 8 percent reduction. Assuming budget estimates remain unchanged, there is set to be an unprecedented decline in employment of between 12 000 and 18 000 over the next two years. To place the impact of these trends in perspective, Figure 38, panel [ii] shows the number of police officers on payroll per 100 000 people living in South Africa. This ratio has fallen from a high of 293 in 2012 to around 220, which is implied by the 2022 budget.

Justice, prosecutions and the courts

Similar trends are evident in employment levels in the Department of Justice and Constitutional Development. Overall, employment levels have stagnated since 2016 (see Figure 39).

The one area where employment has increased is for the National Prosecuting Authority (NPA). The NPA employed 4 400 personnel in 2018. Data from the Estimates of National Expenditure shows that this increased to 5 700 in 2021, with plans to add an additional 500 employees over the medium term. While undoubtedly welcome, this increase has been absorbed within the department, with the result that employment in court services has been reduced. Employees in the court services programme peaked at 14 500 in 2016 but this number has been reduced to around 12 000 personnel on current estimates.

Figure 39: Employment in the Department of Justice and Constitutional Development

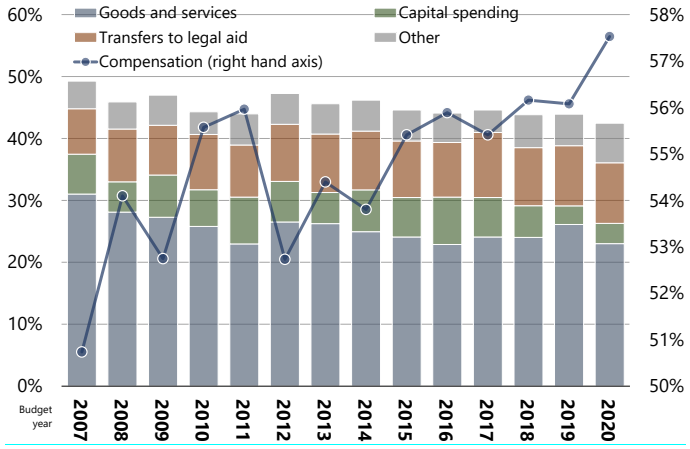


Source: National Treasury (ENE)

Source: Persal (GTAC-PEPA)

As was the case for the police, the Department of Justice and Constitutional Development has shifted its budget considerably to manage the rising pay of its employees, even while their total number has remained stable. Figure 40 shows that compensation spending now accounts for nearly 58 percent of the budget, up from 52 percent a decade ago. This has led to lower spending on goods and services and capital. Transfers to legal aid – the other major component of the department's budget – appear to have maintained their share of expenditure, even though these budgets have not generally kept pace with need.

Figure 40: Composition of spending on justice



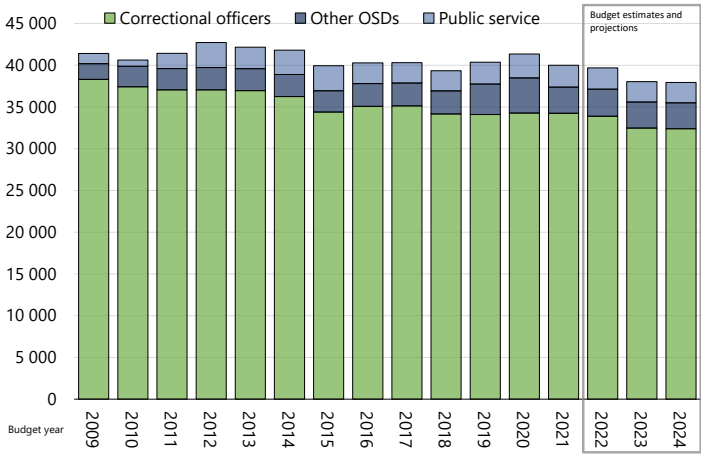
Source: National Treasury (ENE)

Correctional services

Staff numbers at the Department of Correctional Services have remained stable over the last decade, as shown in Figure 41. According to the payroll data, however, the number of correctional officers has fallen in this period, from about 38 000 officers in 2009 to 34 000 in 2021. This has been offset by the growth of other OSD employees – mainly nurses, social workers and educators – who have increased in number over the same period, with the share of public service employees remaining stable at around 6 percent during the period.

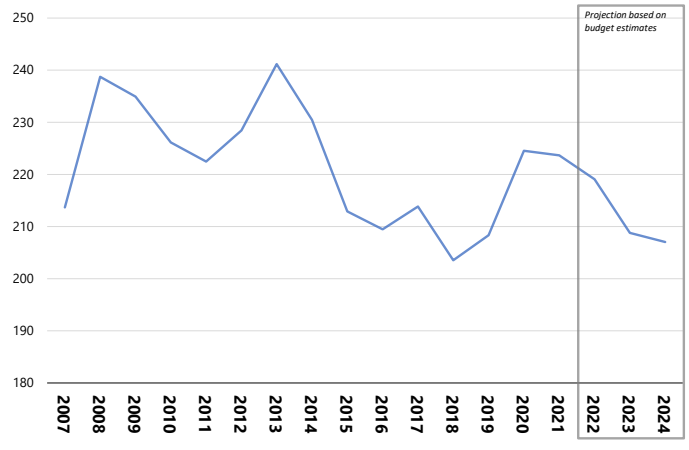
The overall stability in headcounts may well be justified in the case of correctional services, as the population of prisoners has also remained broadly stable over the same period. As a result, the number of correctional officers per incarcerated person has fallen over the last decade, but not dramatically, as shown in Figure 42. The 2022 budget estimated that the headcount would fall over the next three years by around 2 300 personnel, and this would lead to a reduction in correctional officers per prisoner.

Figure 41: Headcounts in correctional servcies



Source: Persal (GTAC-PEPA)

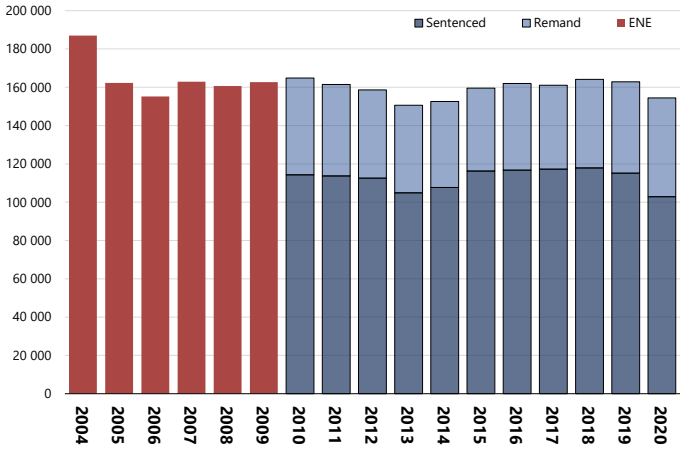
Figure 42: Inmates per correctional officer



Source: Persal/GTAC-PEPA, National Treasury (ENE)

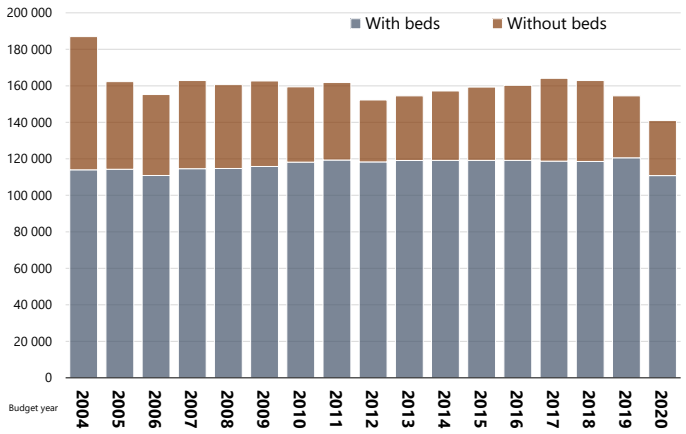
Figure 43: Incarcerated people in South African prisons

Sentenced and awaiting trail/on remand



Source: National Treasury (ENE), Department of Correctional Services annual reports.

Prisoners with beds and without beds

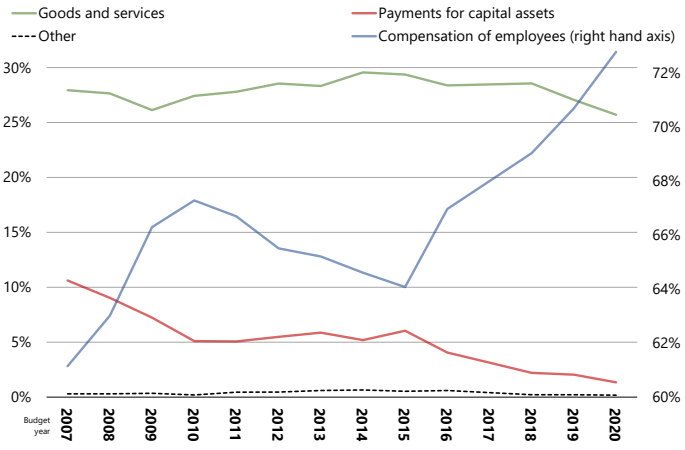


Source data: National Treasury (ENE), Correctional Services Vote performance indicators, various years.

The increase in prisoner numbers is constrained by the number of beds available in South Africa's prisons. Around 40 000 people are incarcerated without beds, as shown in Figure 43, and the overall bed capacity within prisons has barely increased in recent years. Seen in this light, the binding resource constraint facing the prison system is not the ratio of employees and prisoners but the extent to which budgets allow for the building of additional prison facilities and the provision of these facilities with the appropriate number of personnel.

Seen from this perspective, the role of the compensation budget in crowding out other essential expenditures is critically important. Figure 44 shows the composition of the department's budget. Compensation spending increased from around 64 percent of the budget five years ago, to more than 72 percent in 2020. To accommodate this increase, capital spending has been pushed down to almost nothing. This means that additional facilities cannot be built and additional prisoners cannot be accommodated, but the number of prison guards can remain stable, with rising average pay. This resolution of the problem externalises the costs of fiscal consolidation onto society.

Figure 44: Correctional services: composition of spending



Source data: National Treasury (ENE)

Conclusion

Binding resource constraints are one element of an overall crisis in South Africa's criminal justice system. Over the last decade, since 2010, there has been a large fall in the number of police officers. Increased employment at the National Prosecuting Authority has come at the expense of falling employment in court administration. The prisoner population has remained static (despite increasing population and rates of crime) as capital budgets have been cut to accommodate rising pay for correctional officers. Added to this, as we noted in section 2, magistrates and judges have seen their real pay substantially reduced over the last decade.

These resource constraints are by no means the only reason for the deep crisis in the system. But economic sense suggests that they have played an important role. If current budgets are executed as tabled, further falls in personnel numbers are likely to combine with even greater pressure to curtail non-personnel budgets. The resource base of the criminal justice system will continue to decline, and the ability of government to rebuild the system will be undermined as low morale, insufficient budgets for essential goods and capital spending, and falling headcounts conspire to worsen outcomes.

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