

**South Africa**  
ID Case Study



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# About ID4D

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The World Bank Group's Identification for Development (ID4D) Initiative leverages global knowledge and expertise across sectors to help countries realize the transformational potential of digital identification systems to achieve the Sustainable Development Goals (SDGs). It operates across the World Bank Group (WBG) with global practices and units working on digital development, social protection, health, financial inclusion, governance, gender, and legal aspects, among others. The mission of ID4D is to enable all people to access services and exercise their rights by increasing the number of people who have secure, verifiable, and officially recognized identification. ID4D makes this happen through its three pillars of work:

- Thought leadership and analytics to generate evidence and fill knowledge gaps;
- Global platforms and convening to amplify good practices, collaborate, and raise awareness; and
- Country and regional engagement to provide financial and technical assistance for the implementation of robust, inclusive, and responsible digital identification systems that are integrated with civil registration.

The work of ID4D is made possible through support from the World Bank Group, the Bill & Melinda Gates Foundation, the UK Government, the Australian Government and the Omidyar Network.

To find out more about ID4D, visit [id4d.worldbank.org](http://id4d.worldbank.org)

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# Abbreviations

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AFIS	Automated Fingerprint Identification System
ASISA	Association for Savings and Investment South Africa
ATM	Automatic teller machine
CSG	Child Support Grant
CRVS	Civil registration and vital statistics
DHA	Department of Home Affairs
GDP	Gross Domestic Product
HANIS	Home Affairs National Identification System
HIV/AIDS	Human immunodeficiency virus infection and acquired immune deficiency syndrome
IEC	Independent Electoral Commission
ID4D	Identification for Development
KYC	Know Your Customer
MCS	Movement Control System
NGO	Nongovernmental organization
NPR	National Population Register
NIS	National Information System
OAP	Old Age Pension
PPP	Purchasing Power Parity
SABRIC	South African Banking Risk Information Centre
SASSA	South Africa Social Security Agency
SDG	Sustainable Development Goals
SITA	State Information Technology Agency
UNICEF	United Nations Children's Fund
UNSD	United Nations Statistics Division
URL	Uniform Resource Locator
WBG	World Bank Group

# Overview

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South Africa's approach to identification offers valuable lessons for countries looking to increase the coverage, robustness, and use of their ID systems. Since the end of apartheid, South Africa's national identification system has been transformed from a tool of oppression to one for inclusion and the delivery of social services. The ID system is now closely integrated with civil registration, boasts high coverage among all segments of the population, and has been instrumental for effective service delivery and a cost-effective electoral process.

Providing tangible benefits and clear incentives for obtaining an ID has been an important aspect of South Africa's successful road to universal civil registration and identification. The Child Support Grant, which was introduced to address income inequities, imposed the requirement of prior registration of birth for child beneficiaries and having a national ID for adult caregivers. The story of the improved coverage of civil registration (and the national ID) is thus very much the story of the rollout of the Child Support Grant. Another early impetus for registration were the country's first democratic elections in 1994, which had required a massive voter registration campaign and issuance of IDs (the so-called "green book"). To keep identification accessible for all, birth registration within 30 days and obtaining a birth certificate as well as one's first national identity document is free.

Nearly complete coverage of South Africa's population with a proof of legal identity, in conjunction with the central, digitized database of records held by the Department of Home Affairs, has allowed the government to more accurately and affordably identify and target the population for public service delivery, and to leverage its ID system for other important use cases such as financial inclusion, elections, and government data collection and planning inclusion. Online authentication services offered to selected private sector parties, e.g., the financial sector, have also enabled the Department of Home Affairs (DHA) to generate new revenues.

Some critical success factors that have played an important role in promoting a robust and inclusive ID ecosystem in South Africa are:

- Civil registration and identification services are closely integrated, including with the health sector.
- Identification services are kept accessible via a relatively large network of dedicated offices, supplemented by mobile units and hospital birth registration points.
- Linking the ID to social programs, such as the Child Support Grant, has provided a clear incentive for people to register the births of their children and obtain an ID, although mitigating exclusion risk remains a challenge.
- The ID system is well resourced due to a regular, annual budget allocation and continued political commitment to maintaining a robust system.
- The ID system operates based on strategic plans; key performance indicators are regularly monitored by the managers.
- The ID system is leveraging various digital technologies for effective service provision, with upgrades being implemented gradually.
- The introduction of identity verification services has enabled private sector entities to reap additional benefits, and for DHA to generate an additional revenue stream.

South Africa has reaped substantial gains from the improvement of its civil registration and ID systems, in terms of empowering virtually every citizen with a legal identity, substantial cost savings and greater integrity of elections, better administered social protection programs, and increased data quality and



volume for evidence-based decision making, as well as improved fraud detection and reduced transaction costs in the private sector.

### Savings summary

- South Africa was able to leverage its robust and high-coverage civil registration and ID system for elections, which has generated estimated savings of USD 314 million over the three election cycles from 2000 through 2014.
- Linking ID to the delivery of social protection programs has generated substantial indirect savings by the boost it gave to the coverage of birth registration and the national ID. The reregistration of beneficiaries of social grants cost USD 24 million, while generating savings of USD 173 million annually.
- High quality vital statistics, underpinned by South Africa's close to universal civil registration system, enabled authorities to conduct evidence-based policy making and improve development outcomes in public health and beyond. The availability of robust administrative data made it possible to skip the planned census of 2016. The census, if it had been held, was estimated to have a cost of ZAR 3 billion (USD 203 million).
- The use of online verification of identity by banks and insurance companies is believed to have reduced administrative costs and staff time spent on identification and contributed to a reduction in identity fraud.

# Introduction

Since the end of apartheid, South Africa’s identification system has been transformed from a tool of oppression to one for inclusion and the delivery of social services. Prior to 1994, the country had separate population registers and identity documents for Blacks, Whites, Coloureds, and Indians. Blacks were issued with “reference books” (see Figure 1), whereas Whites, Coloureds, and Indians were issued with “blue identity documents”. Although IDs were issued to all, only the black population was legally obliged to carry an ID.

The post-apartheid period became one of inclusion and eradicating segregation. “*Stand Up and Be Counted*,” a slogan of the Statistics Bureau, and President Nelson Mandela himself, promoted broad-based inclusion. The fragmented registration systems were unified into one national registration and ID system, for which one ministry—the Department of Home Affairs—took responsibility. This was a major first step in two decades of successful change management in civil identification services in South Africa and has helped overcome historic public resistance against identification.

**Figure 1. Identity Documents Used from 1960 to Date**



Source: DHA.

## Country context

On its journey to building an inclusive and robust identification system, South Africa has benefited from certain favorable conditions and features, such as:

- Average population density.** For countries with low population density, while the total number of vital events, e.g., births and deaths, may be high, their occurrence rate can still be considered relatively low on a per km<sup>2</sup> basis. Population density in South Africa is 46 per km<sup>2</sup> (2016), i.e., virtually the same as the average for Sub-Saharan Africa. In South Africa, where there are 574 permanent ID service points countrywide, the average service point has a service area of almost 2,100 km<sup>2</sup>. This implies a perimeter at a 26 km distance from each fixed service point on average, with some offices

having even larger areas to serve. As a result, hospital registration points and mobile service units have played a key part in ensuring that more than 90 percent of births and deaths can be registered.

- **Relative wealth.** The relative wealth of the South African citizen plays a positive role as well, rendering the transaction costs of registration (birth registration is free) relatively more bearable. In 2000 South Africa’s income per capita (USD 3,070) was six times the income per capita on average in Sub-Saharan Africa (but dropped to three times in 2016).
- **Urbanization.** Only one-third of South Africa’s population lives in rural areas, while the average for Sub-Saharan Africa is two-thirds. South Africa’s civil registration service points therefore can benefit from the fact that a relatively large part of the population is living in relatively high-density urban areas. This, obviously, also helps in providing universal access to health care, pre- and post-natal care and institutional delivery, and registration-related work in that environment.
- **High rate of institutional deliveries.** In South Africa, 96 percent (2011–2016) (versus 56 percent in sub-Saharan Africa) of deliveries take place in health facilities, which makes hospital notification and/or registration possible in over 9 out of 10 cases (UNICEF 2017).

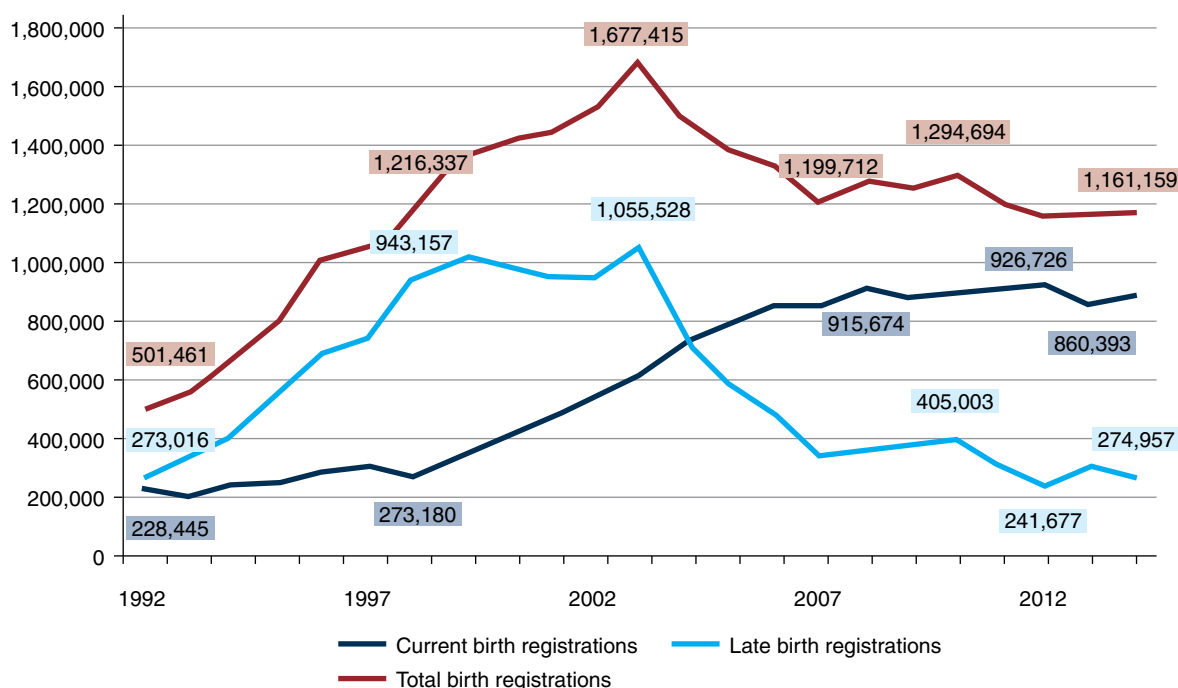
South Africa’s population density, relative wealth, high degree of urbanization, and high level of institutional newborn deliveries provide advantages that in other countries may have to be compensated for, for instance, through a larger service delivery (registration) network and greater emphasis on mobile service delivery (e.g., by itinerant registration services), as well as civil registration services offered in health facilities.

## Civil registration and identification coverage

### Birth registration

South Africa’s birth registration rate has increased rapidly from a low base of 40% in the early 1990s, achieving greater than 90 percent coverage in a decade (Figure 2). Whereas late registrations were

**Figure 2. Current, Late and Total Birth Registration, 1992–2014**



Source: Stats SA.

prominent until the early 2000s, by 2016 the number of births registered “in time” had increased to the number of births during the year.

South Africa has implemented a consequent policy of using opportunities to populate and correct registers to move toward completeness and accuracy of databases, or a “single source of truth.” For example, when a mother reports the birth of her child and she has no civil registration record or ID, the mother will be issued a birth certificate (following the procedure for late registration), which she can use to obtain a national ID. In a case like this, one new record facilitates the creation of two additional records.

However, even with the adoption of several inclusive policies and incentives, an estimated 11 percent of children under three were estimated to lack a birth certificate as of 2013. South Africa still has to reach some “children in rural areas; children whose caregivers do not have identity documents; children living in the care of grandparents and other extended family members; orphaned and abandoned children; and children born in South Africa to foreign national parents.” (Proudlock and Martin 2014).

In addition to continued efforts to increase the overall birth registration rate, the timeliness of birth registration is being bolstered by the close collaboration between the Department of Home Affairs and Statistics South Africa. This is reflected in the collaborative development of forms used for birth and death registration, the sharing of digital data and the sharing of paper-based data (birth and death registration forms) with articulated business processes in place to ensure that data are secure and that the risk of loss of forms shared is minimal.

The most current policy priority of the Civic Services section of DHA is to try and remove the backlog of late registrations, which it has done, for example, by offering mobile services. From 2009 through 2015 mobile teams performed about 750,000 late registrations. DHAs stationary registration offices performed late registrations as well. These efforts are proving to be successful, as the numbers for 2013 to 2016 illustrate (see Table 1). The legal timeframe for birth registration is 30 days. The data shows that the proportion of births registered within the legal timeframe increased from 55.5 percent in 2013 to 75.6 percent in 2016—a veritable leap forward.

Timeliness of data is of the essence for vital statistics, because it allows expeditious detection of important developments, for example in epidemics or child mortality, while supporting planning and policy making based on up-to-date evidence. But timely registration of births is important for another reason: recall, the longer the delay in registration, the more likely mistakes are made in particulars of the birth, e.g., in the date of birth and other details of the birth and registered child.

**Table 1. Birth Registration by Time from Birth to Registration, 2013–2016**

Number of	Number of birth registrations				Percentage				Cumulative percentage			
	2013	2014	2015	2016	2013	2014	2015	2016	2013	2014	2015	2016
0–30 days	643,480	686,803	706,191	732,672	56%	60%	65%	76%	56%	60%	65%	76%
31–364 days	339,952	305,235	245,323	169,495	29%	27%	23%	17%	85%	87%	88%	93%
1–14 years	105,769	88,248	76,280	40,234	9%	8%	7%	4%	94%	95%	95%	97%
15 years and older	69,421	61,989	56,717	27,014	6%	5%	5%	3%	100%	100%	100%	100%
Total	1,158,622	1,142,275	1,084,511	969,415	100%	100%	100%	100%				

Source: Stats SA 2016, p4.

## Death registration

Death registration coverage has traditionally been high in South Africa and increased from 89 percent in the early 2000s to 96 percent by 2016. The country has also reached a very advanced level of generating high-quality cause-of-death data. The importance of accurate death and cause-of-death reporting has been amplified by South Africa's battle against the HIV/AIDS epidemic.

Like all civil registration functions, the registration of deaths in South Africa falls under the mandate of the Department of Home Affairs. It is governed by the Births and Deaths Registration Act 1992 (Act No. 51 of 1992) (Republic of South Africa, 1992). The act has been amended several times, with the last amendment made in 2010 (Births and Deaths Registration Amendment Act, Act No. 18 of 2010). The principal act states that after a death occurs, notice of death should be given as soon as practicable.

To better enforce the registration of deaths, the 2014 regulations of the Act mandate the registration of deaths within 72 hours (three days) from date of occurrence (Republic of South Africa, 2014). The principal Act further states that a medical practitioner should prescribe the cause of death if satisfied that the death was due to natural causes. However, if there is doubt that the death was due to natural causes, such a death must be reported to the police. After an investigation as to the circumstances of the death in terms of the Inquests Act, 1959 (Act No. 58 of 1959), the medical practitioner shall certify the cause of death (Republic of South Africa, 1959).

Upon completion of death registration, a death certificate is issued to the informant. All death notification forms are subsequently collected by Statistics South Africa (Stats SA) from DHA biweekly for capturing, processing, assessment, analysis, and dissemination of statistical reports and datasets on mortality and causes of death.

South Africa's high death registration rates can be partly credited to the "demand side," in relation to factors that incentivize next-of-kin to register the death, such as life insurance, funeral insurance and other financial benefits that can be acquired following the death. Generally, it is also said that the deceased person is owed respect and a dignified funeral. However, South Africa has also put into place a system of controls that is as effective as it is smart. No funeral is possible without a burial order, and no burial permit is issued without a death notification, including the determination of the cause of death by a medical practitioner (in case of nonnatural cause of death the police will be involved). Undertakers will lose their license if they are not in compliance with the law, i.e., if a funeral takes place without a burial permit or if the burial register is not accurately maintained. It is thus in the self-interest of these, often small, entrepreneurs to know a death takes place in their area and to make sure that the funeral will take place according to the rules set out in the law.

Table 2 shows the latest data on death registration timeliness for 2016 compared with the first published data in this format from 2009. Death registration within 72 hours improved more than 10 percentage points in these seven years: from 68.6 percent to 78.8 percent.

**Table 2. Death Registration by Time Passed since Death, 2009 vs. 2016**

Number of days	Number of deaths		Percentage		Cumulative percentage	
	2009	2016	2009	2016	2009	2016
Within a day of death	64,314	72,083	11.2%	15.8%	11.2%	15.8%
1 day	141,739	141,014	24.8%	30.9%	36.0%	46.7%
2 days	107,089	85,838	18.7%	18.8%	54.7%	65.5%
3 days	79,859	60,659	13.9%	13.3%	68.6%	78.8%
4 days	55,189	35,590	9.6%	7.8%	78.3%	86.5%
5 days	35,019	20,471	6.1%	4.5%	84.4%	91.0%
6 days	21,736	11,488	3.8%	2.5%	88.2%	93.5%
7-20 days	49,483	21,572	8.6%	4.7%	96.8%	98.3%
21-30 days	4,870	1,689	0.9%	0.4%	97.7%	98.6%
31-364 days	13,012	6,061	2.3%	1.3%	99.9%	100.0%
1 year and over	363	147	0.1%	0.0%	100.0%	100.0%
<b>Total</b>	<b>572,673</b>	<b>456,612</b>	<b>100.0%</b>	<b>100.0%</b>		

Source: Stats SA 2011, Stats SA 2018.

## National ID coverage

The 2017 ID4D-Index survey indicates that 92 percent of the population aged 15 and above has a national identity document. More recent data provided by the Department of Home Affairs for the ID4D Global Dataset in early 2019 suggest that coverage of the national identity document is close to universal among those aged 16 and above (the minimum age for obtaining an ID), with almost 40 million ID holders. Combined with the current high birth registration rate, an estimated 90 to 95 percent of South Africa’s population will now have been captured in the population register and, for those 16 years and older, in the Home Affairs National Identification System (HANIS), a biometric database.

# Success factors and notable features

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## Closely integrated civil registration and identification services

Civil registration and the national ID system operate under the aegis of the same agency, the Department of Home Affairs (DHA), following reforms to harmonize the rather fragmented institutional arrangements that existed before 1994. DHA is not only responsible for civil registration and national identification, but also for immigration and border management, as well as refugee management. This implies that the department is the single, dedicated entity for identity management and the provisions of identification-related services to citizens, as well as to all nonnationals residing in the country.

Prior to 1994, civil registration, passbook, and travel document management were the responsibility of a patchwork of actors: the Department of Interior as well as six homelands and four Bantustans, with different registries and documents for the White, Indian, Coloured, and African population. In 1994, the newly elected democratic government of South Africa, under its new constitution, unified the eight apartheid departments that had previously carried out civil registration, and their population registers were merged within the new population register.

Over the next 10 years, the priority was to provide the Home Affairs services, previously reserved for 4.5 million citizens classified as white, to all South African citizens. Only six years after the transition, in 2000, DHA had 170 (currently 574) regional and district offices, a presence at 58 ports of entry, seven international airports, and 56 consulates abroad. A major achievement was the building of a national system connecting the offices of DHA to the National Population Register. In 2005, DHA launched a fleet of 67 (now 115) mobile offices with satellite links to serve as yet non-served communities.

DHA also works closely with the Department of Health, which is responsible for certifying the occurrences of births and deaths, as well as indicating the causes of death upon death registration. The collaboration between the two departments was formalized in February 2010, when an Intergovernmental Protocol was signed based on the Intergovernmental Relations Framework Act (Act No. 13 of 2005). The main objectives of the protocol are to foster cooperation and support information sharing and best practices in combating fraud in the process of issuing birth and death certificates; and to assist each other in areas of mutual interest. The collaboration includes health facility space made available for DHA birth registration points and ongoing work on the improvement of the collection of data on cause of death.

As of 2018, DHA's annual workload consists of a total 1.4 million registrations (of birth, death, and marriage) and the issuance of 3.0 million vital event certificates, 0.9 million passport and travel documents, and 2.6 million IDs (South Africa has a population of approximately 57 million). In addition, DHA performs 0.3 million registration updates and 2.6 million status updates annually, as well as about 50,000 citizenship cases handled yearly. DHA offices do not locally archive records. All records are collected frequently and regularly, and stored in a central facility, where records can be retrieved for verification.

## Large network of registration points

There are 574 civil registration and national ID offices across the country, operating under the jurisdiction of the DHA. This implies a service area of almost 2,100 km<sup>2</sup>, or a perimeter at a 26 km distance from each fixed service point on average, with some offices having even larger areas to serve. To ensure that

**Figure 3. Mobile Van with Satellite Connectivity**



Source: Jaap van der Straaten.

civil registration and identification services are accessible for the entire population, the setup of hospital registration points (390 connected online, and 132 manual collection) and use of mobile service units (115 and one 4x4) have played a key part (Figure 3). Offices often possess a means of transportation, or other arrangements, for outreach work.

Despite these efforts, serving rural populations through the current network of ID offices remains a challenge. The rollout of the new, smart ID card has also been progressing relatively slowly, due in part to the fact that only 179 offices have the live capture facilities needed for enrollment.

## Access to social programs as an incentive for registration

Access to social programs in South Africa has been a critical incentive for obtaining identity documents and for doing so in a timely manner. Multiple government agencies, including DHA, the Department of Social Development (DSD), and the South Africa Social Security Agency (SASSA), are working closely together to deliver social programs. Grants provided by the DSD include the older person's grant, disability grant, foster care grant, care dependency grant, child support grant, grant-in aid, and social relief of distress. For a person to receive any of these grants, one of the requirements is that the person should be in possession of a birth certificate (in case of children); and/or an identity document (from age 16 on); or a death certificate (e.g., for a foster care grant), which are all issued by DHA. Without the required documents, an individual might not be eligible for a grant unless some temporary arrangements are made while the person goes through the necessary processes to acquire these documents.

The introduction of the Child Support Grant (CSG) in 1998, in particular, has established a supreme financial incentive for registration (about USD 30/child currently, with a maximum of six children and means-tested). The CSG has not only helped bring timely birth registration close to completeness level, but it has also helped reduce the backlog of unregistered children and adults.

During the initial years of the Child Support Grant, much discussion took place about the eligibility requirements. South Africa's new constitution is rights-based, and children could not be excluded from the CSG for reasons of not having the requisite identity documents. To mitigate exclusion risks, in 2008 SASSA regulations on the administration of the CSG were revised to allow for grant applications to be



processed under alternative documentation requirements. The alternative documents accepted as proof of eligibility and identity for applicants and their children include a sworn statement (affidavit) from a reputable source or paperwork from DHA showing that the applicant has applied for the relevant identity documents. Between 2009 and 2011, 11,000 applications were processed using these alternative processes (DSD, SASSA, and UNICEF 2016). SASSA and DHA have also strengthened their collaboration to make it easier for refugees and their children to fulfill the program's documentary requirements. Refugees need to present their refugee card at the time of applying for a social grant. DHA now issues a document similar to a birth certificate for refugee children, which SASSA accepts for enrollment in the CSG.

Despite steady progress in expanding the program and efforts to make civil registration and identification more accessible, exclusion challenges remain. Fees for late registration when more than 30 days after birth have passed can make it difficult for the poorest families to register their children. Many children do not live with their biological parents and may have a caregiver who may not be able to register their birth. As of 2012, nearly 250,000 children were estimated to be excluded from the grant because caregivers believed that they lacked the proper documentation (DSD, SASSA, and UNICEF 2016).

SASSA is also responsible for close to 3 million elderly grant (pension) beneficiaries. For the termination of grants it is important that SASSA's data are updated in case of the death of the beneficiary. Death registration is compulsory as it is in most countries, but what is said to be the strongest incentive for death registration is that the license of an undertaker is revoked when they perform a funeral without a burial order (which cannot be obtained without a death certificate). Undertakers, most of whom are small business entrepreneurs, have a business incentive to know when a death occurs and to compete for the business of the burial of the deceased. There are other incentives for next-of-kin to register the dead as well, as certain benefits and insurances may only be paid upon the provision of a death certificate.

Finally, in discussing incentives, also disincentives need to be brought up. The government can go a long way in removing disincentives in the service infrastructure and fees, and in the regulatory framework for civil registration and identification—in “hassle” and in “cost.” This is what South Africa has generally done in a highly successful way. For instance, registration of birth within 30 days and the issuance of the birth certificate are free of charge. A person's first national identity document is also issued at no cost.

## Regular, annual budget allocation and continued political commitment

As noted above, the Department of Home Affairs is responsible for civil registration, the national ID system, immigration and border management, as well as refugee management. DHA has an annual budget of around USD 600 million (of which 81 percent, or USD 486 million are allocated for civic services, inclusive of its share in overhead costs) and employs a total of 9,000 staff, of which 7,287 for civic services (inclusive of a proportional share in overhead staff). Much of that budget is for civil registration, national IDs, passports, and immigration and border control, and the budget covers both the operations as well as the investment budget. DHA's budget is equivalent to USD 10.50 per capita, and 0.2 percent of South Africa's Gross Domestic Product (GDP).

DHA also operates within a supportive environment of government and governance, in dialogue with an active civil society and within a framework of law and order, and with checks and balances that include press freedom. This supportive environment, along with strong political commitment for the civil registration and identification sector, has helped ensure that DHA is provided with the resources required for developing robust and inclusive systems.

## Clear goals and regular performance monitoring

Any ID management authority that wants to achieve results cannot do so without measuring and monitoring progress toward those results. DHA works on the basis of strategic plans, annual plans, budgets, and performance plans that are disaggregated to lower levels. All this information is in the public domain and shown on DHA's website. Senior management monitors external and internal developments, and since 1994 new strategic priorities have been formulated in 2000, 2006, 2010, 2012, and 2015. Individual staff and offices are committed to overall departmental goals, the progress of which is measured and shared online on a real-time basis, allowing managers to monitor key indicators of internal performance continuously. Performance is evaluated, and course corrections are made. DHA's most recent priorities have been the reduction of late birth registration and accelerating the issuance of the new ID cards, for example.

## Leveraging digital technologies and implementing continuous system upgrades

South Africa has made much progress in digitizing the civil registration process. Over the past years DHA has invested in the development of the National Population Register (NPR) and the Home Affairs National Identification System (HANIS), which serve jointly and seamlessly as the civil register-cum-population database for the national ID system. Registration offices are computerized and online. Mobile units have satellite connectivity. Service points in hospitals have all been brought online. Civil registration operations are moving toward a paperless approach. DHA and Stats SA use barcode scanning for process monitoring to ensure that any time a form moves from one workstation to another, its location and progress is logged.

Biometric data (10 fingerprints) are captured and stored in a digital format to enable the de-duplication of records in the national ID system, with the help of an Automated Fingerprint Identification System (AFIS). DHA staff also has to provide their own fingerprints in all work that they do for clients, i.e., no registration activity is done without a digital audit trail to the DHA employee(s) involved.

In the next phase of modernization efforts, the NPR and HANIS will be merged into the National Information System (NIS). Going forward, the operating model will incorporate an integrated digital platform that has at its heart a NIS linked to the Movement Control System (MCS) and other immigration systems. The NPR dating from the 1980s will then be retired.

In addition to modernizing the back end of the system, South Africa has launched an effort to replace its green barcoded ID books, which have been in use since 1986, with a new national e-ID in 2013. The green barcoded ID will remain valid, but once it expires, a new smart card ID will be issued in its place. Card issuance is based on the NPR and HANIS. Cards are issued for free the first time, while in case of replacement they cost ZAR 140 (about USD 9.60 at the 27 March 2019 exchange rate). The new South African national e-ID incorporates state of the art security technology to reduce the incidence of forgeries and enhance trust in the system. When the e-ID cards were launched in 2013, it was estimated that 38 million cards would be needed, while the cost of the project would be ZAR 5 billion (USD 496 million using the Oct 1, 2013 exchange rate) or about USD 13 per card. Currently, 179 DHA offices and 14 bank branches are offering enrollment for the new e-ID.

It is important to note that the rollout of the new smart card and the ability to use the DHA databases for the verification of identity are unlinked. This is not unlike the situation in India, where there is no ID card but just a paper slip that plays only a very limited role in online verification of identity (for which a person's biometrics are used instead).

## Provision of reliable, real-time identity verification services

Having a robust civil registration and identification system with universal coverage has made it possible for the Department of Home Affairs to start offering identity verification services to both public and private sector entities. Previously, identity verification would be based on the inspection of a person's identity papers, e.g., a bank would inspect the physical documents and the photo of a prospective bank account holder. DHA's current verification service allows other government agencies and private sector entities such as banks to conduct real-time verification of their customers against the identity records stored in DHA databases. This process is less labor intensive, less costly, and more reliable than the previous, 'manual' verification method. DHA only charges identity verification fees to third parties in a limited number of cases, and fee income is very small compared to the related expenditures.

# ID Use Cases

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## Social protection

South Africa has been, and is, a laboratory for social protection programs. The right to social security, including to appropriate social assistance, is enshrined in South Africa's 1996 constitution, and the country's social grant network is both extensive and progressively targeted. Overall, South Africa spends 10.1 percent (2015) of its GDP on social protection (ILO 2017).<sup>1</sup> Among the BRIC countries, Brazil (18.3 percent) and Russia spend more (15.6 percent), but India (2.7 percent) and China (6.3 percent) spend substantially less.

In financial year 2016/17 social grant expenditures (accounting for about 40 percent of overall social expenditure) reached USD 10 billion, covering over 17 million recipients, among which the Child Support Grant was the most important in terms of the number of grants (12 million child beneficiaries from 0–18), while the Old Age Pension (OAP) grant with 3.3 million recipients is second. In monetary terms the Old Age Pension grant is most important, accounting for USD 4.2 billion expenditure, versus USD 3.7 billion for the Child Support Grant (SASSA 2017).

### Identification for social grants prior to 1995<sup>2</sup>

In order to get a grant before 1995, an applicant had to have proof of identity, proof of citizenship or permanent residence, and proof of age. For the black population this was particularly complex. Proof of identity did not have to be the identity document ('ID book'). It could be a reference book (a form of identification and mobility control restricted to black people), passport, homeland travel document, or an ID book. Proof of citizenship on the other hand required the ID book. Permanent residence could be proven by having the permanent residence permit. Residents of the four Bantustans—Transkei, Venda, Bophuthatswana, and Ciskei—had to prove they had been living in South Africa at the date of their 'independence'. A section 10 stamp could be used to provide this proof, or a 'Farm Labourer' stamp in an old reference book or ID document, or a letter from a (white) farm owner saying how long the applicant had lived on the farm. In rural areas where tribal authorities held sway, grant applicants had to obtain a declaration from the local chief that the applicant was a resident of the chief's area.

Proof of age required a birth certificate, or certificate of baptism or marriage, or an ID book. Where there was no documentation, or problematic documentation, a pension official or district medical officer or two people known to, and older than, the applicant could assess age. Pension officials devised some ingenious locally based timelines for such assessment, based on indigenous knowledge and use. In one remote area, Maputoland, in the old Zululand, one such line included "the Great War" (First World War), "the German War" (Second World War), "the year of apartheid (1948) and "the time the government spraying DDT against malaria" (about 1952).

*(Continues)*

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1 Total social protection expenditure with exclusion of health spending. Data mentioned all for 2015.

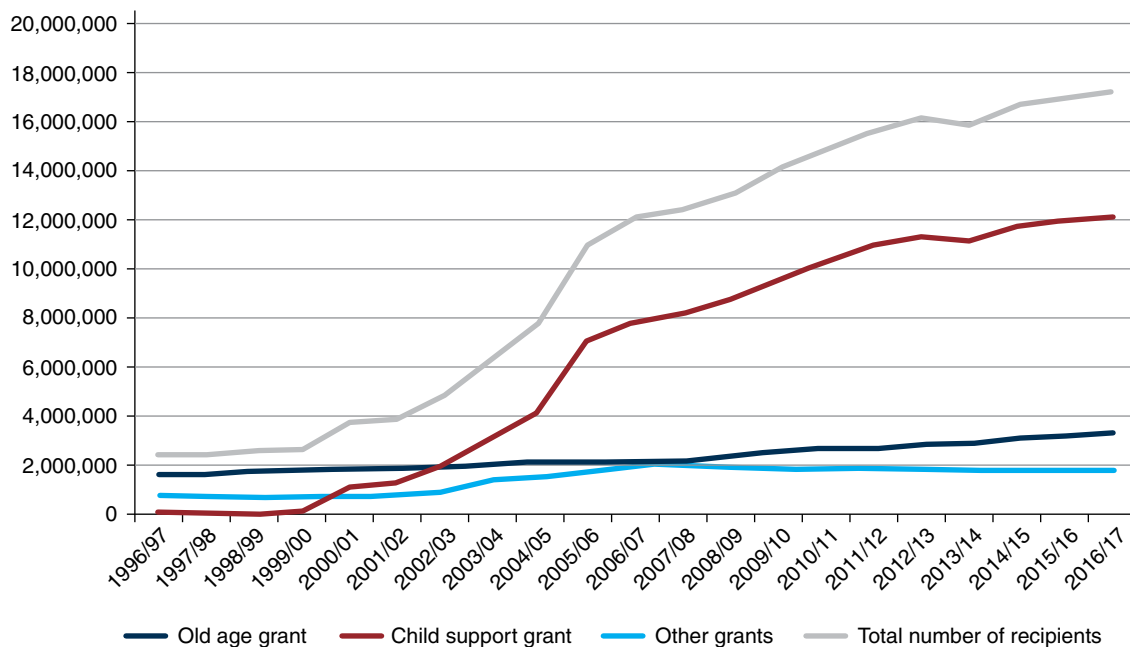
2 Lund (2012).

For individual applicants, it was extremely expensive in terms of time and money to access their entitlements, sometimes involving many visits to pension offices. Forms were complex, in the wrong language, interpreted differently by different officials, and frequently simply not available. Applicants had to supply fingerprints, and a written “X” could be used in place of signature. Prospective pensioners could only find out whether their application had been successfully processed every two months when pension delivery took place. If the pension had not been processed and awarded, the applicant was given no reason for the lack of success, and simply told to ‘come back next time’.

Social security policy implementation meets two, often bruising, real world challenges: (1) how to select beneficiaries, establish their identity, and reauthenticate their identity, and (2) how to transfer the benefits regularly, conveniently, reliably, and lowest possible cost to beneficiaries. While implementation in the past had had serious shortcomings, improvement had been achieved prior to 1994, and there were decades of experience of grant payment management. Even before Nelson Mandela’s election and the end of apartheid, a social welfare system had already been in place for almost 60 years. Pension payments had been a major grant-making effort, and beneficiaries had become accustomed to the requirement of being able to show their ID. But implementing the Child Support Grant would have challenged the readiness and would have tested the bearings of the most sophisticated organization. The graph below (Figure 4) shows the extraordinary growth in the number of grant recipients, from 2.4 million in fiscal year 1996/97 (the number is per end of the fiscal year) to 17.2 million in fiscal year 2016/17.

Over the two decades from 1996/97 through 2016/17 the number of grant recipients increased by more than 10 percent on average each year, and doubled each decade. This growth was given in large part by the Child Support Grant. Between 1999/2000 and 2005/06 the number of CSG beneficiaries grew at breakneck speed. Over time the age of eligibility for the CSG was pushed up from six years to, presently, 18 years.

**Figure 4. Number of Grant Recipients 1996/97–2016/17**



Source: SASSA 2008, 2017.

Across all social grants, there are 17.2 million recipients today who require more than 200 million payments annually. The administration of the grants is also faced by the challenge of the constantly changing stock of grant recipients due to the onboarding of newly eligible beneficiaries, and the removal of the deceased and beneficiaries who no longer satisfy eligibility requirements.

## Linking identification and social protection

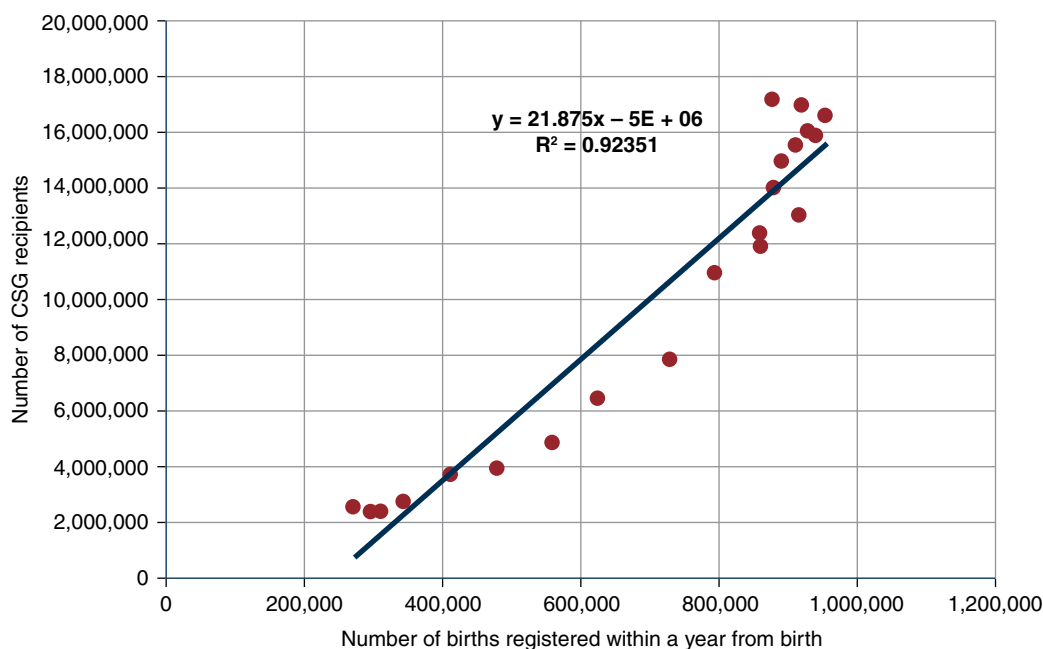
A key factor in South Africa's successful civil registration performance has been the link between social protection and civil registration. The collaboration with the Department of Social Development (responsible for policy) and the South Africa Social Security Agency (responsible for implementation) is crucial, and while there is a clear element of interoperability, the more important aspect is that this link has provided a strong incentive to register births (for beneficiary children) and avail of the national ID (for caregivers). Citizens who otherwise would have been most likely excluded from civil registration were now included.

The Child Support Grant has been administered based on certain principles that make its implementation more appropriate for local conditions and which have important implications for identification. One principle is *"follow the child"*—because children move between households—and another is to *"reach the child through the primary caregiver,"* allowing the grant to be paid to the primary caregiver. In turn, application for the CSG require the adult applicant (caregiver) to have the ID book and the birth of the child to have been registered. At the time the CSG was introduced, the birth registration rate was estimated to be only 20 percent. Coverage of the green ID book, particularly among the African population not yet qualifying for old age pension, is believed to have been low as well. The Birth and Death Registration Act No. 51 of 1992 had brought improvement (e.g., free registration) but the timeframe for timely birth registration was still only seven days and too short. Amendments brought it to one month by 1995. A grace period of three months allowed the grant to be paid while the identification process was conducted.

The prospect of a caregiver receiving financial support for a newborn child is a powerful incentive for the registration of the child. It may thus not be surprising that there is a high degree of correlation between the number of births registered in time and the growth in the number of CSG recipients (Figure 5). The birth registration rate rose from 30 percent in 1996 to 98 percent two decades later. The increase was especially robust in the 1998–2004 period, after which the annual increase slowed a little. Registration of births within one year from birth increased from just over 200,000 births in 1998, when the first Child Support grants were paid out, to reach its peak in 2014 at almost 1 million births registered. In parallel, births that occurred longer than a year ago add a significant number of registered births. Such "late registrations" peaked in 2003 at just over 1 million.

Initially nongovernmental organizations (NGOs) took issue with the identification requirements for their potentially exclusionary impact, in a time that the Department of Home Affairs was still falling short in service delivery. But many NGOs would turn around and began to support the identification effort. Vigorous campaigning by civil society organizations kept the bureaucracy's feet to the fire and ensured ongoing improvement, including in the coverage of birth registration, the enrollment for the issuance of the green book ID, the timeliness of registration, and the turnaround time of green book ID applications (Lund 2012).

**Figure 5. Correlation Birth Registered and CSG Recipients 1996–2016**



Source: Data Statistics South Africa and SASSA.

## Identity verification and authentication in social programs

Over the last two decades the DSD and SASSA have outsourced grant payment delivery and related services to the private sector. The contractor has established its own biometric database for the verification of the identity of beneficiaries, while the recipient file is compared on a regular basis with data from the National Population Register for biographic data and ID numbers. Biometric verification against records in HANIS, which would imply a re-insourcing, is planned for the near future. The gradual replacement of the green ID book by an e-ID is also expected to open new methods for offline authentication and reduce credential fraud. These changes will help address the dependency on a single private sector partner.

Historically, the South African social welfare system has struggled with curbing fraud and leakages. In 1999, the Department of Social Welfare estimated that it was losing close to 10 percent of its budget of ZAR 20 billion to corruption. This estimate was based on a benchmarking with Australia, a more developed country. Estimates of losses since then range from 7 percent to 2.5 percent of the social security budget. To address fraud and leakages in social protection programs, four different committees—“anti-corruption interventions”—were set up in four years, from 1996 to 2000 (Reddy and Sokomanie 2008).

In 2012, a new approach to fraud reduction was adopted in social programs, which required all social grant beneficiaries to reregister with SASSA (Bruni 2016). As may be expected, the reregistration process faced great opposition by some of the people who lost benefits because of fraudulent claims. Top personnel at SASSA were reported to have received death threats. The reregistration exercise, however, went ahead. Upon reregistration, beneficiaries’ data were (and still are for new beneficiaries) collected and stored on a biometric beneficiary ID card. Once a month, all beneficiaries need to present their proof of life by scanning their fingers or speaking into a voice recognition machine. The beneficiary ID also works as a debit card, linked to the account into which benefits are paid.

## Potential savings

Reregistration led to the removal of more than 640,000 ineligible beneficiaries (3.8 percent of the total in fiscal year 2014/15)<sup>3</sup> from the system and to savings of roughly ZAR 2 billion (USD 173 million) a year (Ensor 2014).<sup>4</sup> Almost half of ineligible beneficiaries withdrew voluntarily. According to media reports, the cost of the reregistration exercise was ZAR 275 million (USD 23.7 million), representing less than 15 percent of the yearly estimated savings (Yahoo Finance 2014). It is important to keep in mind, however, that while biometric deduplication can help ensure that each beneficiary is only registered once, under a single identity, ineligibility is not determined by a person's biometrics, but by the integrity—e.g., robustness of eligibility proofing processes and the evidence they rely on—of the reregistration process.

## Development impact

The evidence for the positive developmental effects of South Africa's social protection program is overwhelming. Research has shown that grant assistance has been central to poverty alleviation in post-apartheid years and has been sufficient to lift millions of households out of the poorest quintile (because of the size of the Old Age Pension grant). The grants have enhanced women's empowerment in very poor communities, while the Child Support Grant has a positive impact on school attendance, child nutrition, and health.<sup>5</sup> The cash grant system as a whole is strongly progressive and pro-poor, raising the market incomes of people in the bottom decile of the income distribution by a factor of 10. (World Bank 2014; Leibbrandt et al. 2010).

South Africa's Child Support Grant has also had a fundamental impact on the improvement in coverage of civil registration and identification of South Africans. The way the implementation of the CSG was designed required and also facilitated the registration of millions of South Africans—both caregivers of children and children themselves. The long-run impact has been the empowerment of beneficiaries by providing them with official identity documents. Individual as well as public second-order benefits flow from that, including the ability of South African children and youth to interact with government themselves when they graduate from the grant with a legal identity that opens doors to social protection and much more. This makes for greater self-reliance and a reduced dependency on government support. Those doors otherwise would have remained shut.

## Statistical information

While the procedures for recording births and deaths are primarily important for civil registration in legal terms—in providing evidence of people's official, legal identity and “civil status”—they serve the purpose of the generation of vital statistics and other relevant statistical information at the same time. Such quantitative information plays an important role in policy making, policy implementation, and the evaluation of policy.

Under apartheid, South Africa had a nontransparent and non-inclusive system of government that was accountable to only about 10 percent of the total population. Its statistics were highly skewed toward white interests in terms of products, data collection methods, geographical coverage, presence, and staffing. Official statistics were compiled largely from surveys and administrative records, covering only the white minority, and later the coloured and Indian population. Data on the rest of the population were based on limited records. As a result, information about the economic and social conditions of South Africa was

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<sup>3</sup> National Treasury (2014).

<sup>4</sup> In fiscal year 2014/15 total social protection grant spending was ZAR 120 trillion, or USD 10.4 billion, while the number of beneficiaries (= “grants”) was 16,642,643. The average spending per grant per year thus was USD 625. The savings annually would thus be USD 400 million, or 3.8 percent. The amount of annual savings of ZAR 2 billion (USD 173 million) indicates that the removed “ineligible beneficiaries” were receiving less than the average annual grant amount.

<sup>5</sup> See, for example, Patel (2011), Williams (2007), and Lund (2012).



partial, biased, and non-inclusive; data released by the authorities lacked credibility; statistics were used as a political tool to sustain a segregated and authoritarian system of government; and policymaking and implementation were not evidence-based, transparent, or inclusive.

The problems of statistics under the apartheid regime were mirrored in the civil registration sector. Civil registration covered only a very small part of the population and therefore did not provide a foundation for the production of vital and population statistics. The lack of basic data on the population posed a problem for the organization of the first democratic elections in 1994. Planning of the elections was challenging, for example, in terms of estimating how many polling stations would be needed, and where.

When the democratic government took office in 1994, there was a significant change in the policy focus. Because the statistical system was unable to provide the services the country needed, it required a complete overhaul. The national statistics office was transformed into Statistics South Africa (Stats SA) to provide more rigorous and representative statistics. Statistical offices are now located in all nine provinces of South Africa, the staff is demographically representative,<sup>6</sup> methodological weaknesses have largely been addressed, and the range of statistical products offered by Stats SA has been broadened in line with the government's policy focus on reducing poverty and inequality.

The work of civil registrars (of the DHA) and that of statisticians (of Stats SA) is interdependent. Stats SA has the responsibility to produce and publish statistics across all relevant sectors and phenomena, including statistics on civil registration (Statistics Act). The Department of Home Affairs does not itself produce and publish civil registration statistics. Only the data DHA needs for its own performance management are sourced from DHA databases (e.g., number of late registrations to be conducted, or number of new IDs to be issued, over a set period). If DHA did not perform its civil registration role adequately, there would be no civil registration and vital statistics data to share with Stats SA.

The secular advance in the completeness and quality of civil registration has thus greatly contributed to the development in South Africa's statistical capacity, particularly with regard to vital statistics. Vital statistics generated out of a coordinated and coherent system for registering and producing such statistics offer the most valuable regular, accurate, and relevant information on fertility and mortality, including for small areas; enable the computation of proximate population estimates and projections; enable the identification of fertility patterns at small area levels; and serve as the basis for cohort studies, and the construction of life tables. These are just a few of the many uses of vital statistics generated directly from civil registration. There are hard-to-measure advantages for more accurate planning and evidence-based policy making that generate savings from a better allocation of scarce resources.

## Potential savings

Countries with a well-functioning, high coverage civil registration system—and with a well-functioning statistical system and administrative systems more broadly—can consider replacing a normal population census by a so-called, “administrative census.” In doing so they can reap substantial savings in costs without sacrificing coverage of census topics or quality. For South Africa's planned census for 2016 a cost-benefit analysis was done to advise government whether the benefits would outweigh the costs (Spencer et al. 2017). With this evidence in hand, the government was able to decide not to conduct the 2016 census, but instead to improve data and capacity for producing post-censal estimates. The availability of the current population register and the data that can be obtained from it are part of the reason why the census did not have to be held. The census, if it had been held, was estimated to have a cost of ZAR 3 billion (USD 203 million). Per capita this translates into a cost of USD 3.63.

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6 During the early years, the office of Pali Lehohla as Statistician General, from 2000, an effort was made to retain the know-how of the mostly white staff, but over time the office workforce has become representative of the composition of the South African population.

## Development impact

Official statistics are a vital tool in evidence-based policy making and policy evaluation and in enabling citizens to exercise their fundamental rights. Data on deaths, including causes of death from the civil registration system, for instance, are the “gold standard” for mortality statistics as they are primary inputs in monitoring of health programs and development goals, and in formulating evidence-based health policies (UNSD 2014). Mortality statistics from adequate, high-coverage civil registration systems provide invaluable information at national and local geographic levels, thus allowing for the implementation and evaluation of public health at every administrative level. The statistics on mortality and causes of death provide information needed to combat infectious diseases such as tuberculosis and HIV/AIDS, which are prevalent in South Africa. They allow the estimation of demographic indicators such as infant mortality, child mortality, and maternal mortality.

Well-functioning civil registration and vital statistics systems are also essential for the measurement of progress toward the Sustainable Development Goals (SDGs) of the Agenda for 2030. With 15 of the 17 SDGs requiring civil registration and vital statistics systems data to measure their indicators, investing in these systems is a key step for SDG monitoring to be made possible.<sup>7</sup>

## Identity verification for the private sector

Being able to reliably verify the identities of customers has become an important concern for financial service providers in South Africa, as well as globally, as customer due diligence policies have grown increasingly stringent to prevent theft, fraud, money laundering, and terrorist financing. Financial institutions operate under rigorous global and local compliance requirements. Improving financial institutions’ ability to verify their customers and fight financial crimes were key drivers behind the establishment of the South African Banking Risk Information Centre (SABRIC). Four major banks, NedBank, ABSA Bank, First National Bank (FNB), and Standard Bank of South Africa established SABRIC in 2002, and membership (the group of SABRIC “clients”) has since grown to 19 as other banks have joined, together with three Cash-In-Transit and one ATM service provider.

## Real-time identity verification for the banking sector

In 2007, SABRIC and DHA signed a Memorandum of Understanding to fight identity-related crime together. At the time, banks would verify the identity of a customer on the basis of a visual inspection of the barcoded green ID book and visual comparison of the photo in the ID to the appearance of the (prospective) customer. However, difficult-to-detect forgeries of the green ID book were, and still are, common, making this ‘manual’ method of identity verification not as reliable as would have been preferred. To solve this problem, SABRIC members and the DHA collaborated to enable the verification of customers’ identities by matching their fingerprints directly against the DHA’s biometric HANIS database, which then sends back a ‘verified’ or ‘not verified’ response. A secure architecture for accessing the DHA database was established in participating bank offices with a secure connection via South Africa’s State Information Technology Agency (SITA).

The initiative was piloted in select bank branches that were provided with fingerprint scanners. Initially, there was uncertainty whether the quality of the biometric data in the DHA base would live up to the requirements for online biometric verification. This first pilot of the project proved the feasibility of the concept and reassured both sides about the quality of the biometrics in the DHA database. A second

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<sup>7</sup> See, for example, <https://crvsgateway.info/learningcentre/introduction-to-crvs-back-to-basics/crvs-and-the-sdgs> [URL as of 18 April 2018]: 15 of the SDG goals and 24 of the SDG targets require civil registration and vital statistics (CRVS) data for measuring their indicators, in particular numerators (births, deaths) and denominators (total population, live births, total deaths), and 14 SDG indicators specify cause-specific mortality.

pilot was then set up to verify the technical feasibility for real-world volumes of verification requests and multiple bank and bank office hookups, and to provide more information on the cost and savings aspects of e-verification.

The SABRIC-DHA project, called the DHA HANIS<sup>8</sup> Verification Service, is now in its 3rd stage. More banks (seven) and bank branches (more than 4,000 as of 2018) have been brought into the project. Certain providers now even allow for account opening online or at automated kiosks, with new customers' ID numbers and fingerprints being verified against HANIS.<sup>9</sup> The identity verification known as Know Your Customer (KYC) process is FICA-compliant and approved. The verification process also generates an audit trail and the system provides reliable management information. Currently, the number of verifications is about 3 million per month, and the process generates income for DHA since the banks pay for verification. Queries of the DHA database last typically between 4 and 16 seconds. Between 2 percent to 3.8 percent of e-verifications have not been successful because the person whose identity was verified lacked a biometric record in HANIS. These cases are given a follow-up that helps DHA further populate its systems and improve their completeness.

## Potential savings

While difficult to quantify in monetary terms because identity theft is an element in the modus operandi of multiple financial crimes, banks involved in the DHA HANIS Verification Service have reported a reduction in forged identity documents being presented to them. They attribute this to the verification service being a deterrent for identity-related crime. E-verification can also reduce bank-staff time spent on the verification process and eliminate much of the cost and staff time associated with copying, scanning, and archiving documentation for the preservation of an audit trail. More accuracy in the identification process also contributes to reducing the risk of financial loss from identity fraud and the cost of doing business more broadly.

## Real-time identity verification for insurance

In 2014, the South African insurance industry formed a similar partnership with DHA and signed a Memorandum of Understanding for identity verification, which went live on 9 September 2014.<sup>10</sup> The insurance industry was looking to address the problem of fraudulent and dishonest insurance claims. Interestingly, the number of fraudulent cases, which had declined from 8,306 in 2014 to 4,381 in 2015, climbed up again to 13,488 in 2016. At the same time, the value of fraudulent and dishonest long-term insurance claims increased to a record ZAR 1.03 billion (USD 70 million) in 2016, which represented about 3 percent of the total claims paid out that year. Figure 6 shows the number of dishonest and fraudulent claims in total, those for death and funeral, and the claims discovered as dishonest or fraudulent associated with fraudulent documentation.

The Association for Savings and Investment South Africa (ASISA) believes that the economic situation may have been the most important factor in the strong upswing of the number of claims, although on average they involved smaller amounts, both in ZAR as well as in USD. The average amount of dishonest and fraudulent claims prevented has also dropped from 2011 to 2016, from USD 16,300 to USD 5,200. Average fraudulent claim amounts associated with documentation fraud were much higher in 2011, at USD 40,400, and are still higher today, at USD 8,100, but the difference has shrunk as well.

The impact of online identity verification of claimants, their relationship to the deceased qualifying them to claim a payment (death and funeral claims), and on the discovery of fraudulent and dishonest claims

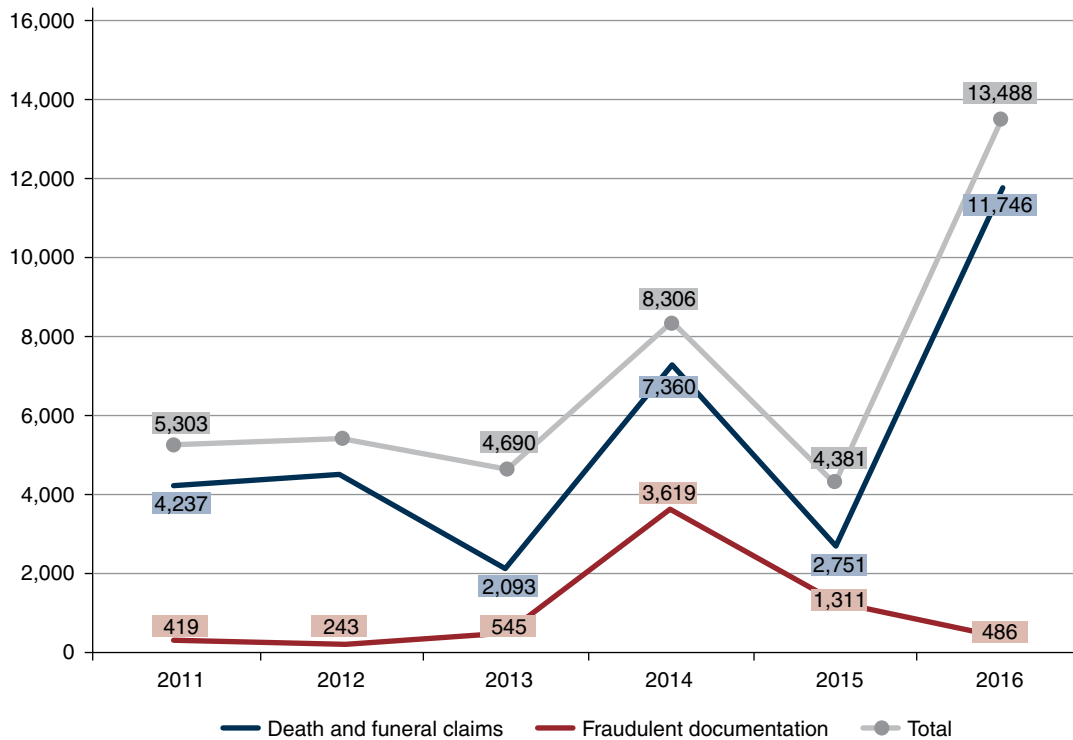
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8 HANIS holds the fingerprints of South Africans of 16 years or older.

9 See, for example: <https://businesstech.co.za/news/banking/283534/tymbank-everything-you-need-to-know-about-south-africas-first-digital-only-bank/>.

10 Ibid.

**Figure 6. Fraudulent and Dishonest Insurance Claims, 2011–2016**



Source: ASISA reports.

would require more detailed research of the ASISA data. The number of dishonest claims is the product of influences that on the one hand (economic situation) may follow from the urgency of the public’s financial need to commit fraud, while on the other hand (measures to deter fraud) will be influenced by how the public assesses the risk of discovery. It is possible that the upswing in the number of recorded fraudulent and dishonest insurance claims was in part due to the improved reliability of the verification processes, which have made it easier for insurance companies to detect fraudulent claims (and report them as such). However, more data analysis would be needed to test this hypothesis. In the very least, the use of more accurate identity verification methods seems to have contributed to a decrease in the use of fraudulent documentation since its peak in 2014.

## Opportunities for additional partnerships

The two initiatives presented above are examples of effective methods to fight economic crime in South Africa offered by partnerships forged between the Department of Home Affairs and actors in the financial industry. These initiatives still have room to expand and refine their identity verification approach. For instance, the SABRIC partnership is looking into the possibilities of expanding the rollout of the DHA HANIS Verification Service to verify bank customers applying for vehicle finance on the premises of car dealerships.

DHA’s partnership with banks has also led to a new type of collaboration, whereby DHA can use space in selected bank offices to issue first-time applicants with the new smartcard ID. Thus far 14 of these service points in banks have been opened. These service points in banks have the potential to improve DHA’s outreach efforts and make accessing ID services more convenient for the population. DHA has reached a similar agreement with the South African Postal Service, which has over 500 offices across the country, that could provide another way to improve its reach of underserved populations at an affordable cost.

# Elections

Governments in democratic countries conduct regular elections when governing mandates of the people's representatives are renewed and voters reconfirm or replace their representatives. Having a proof of identity, being of voting age, and having a proof of eligibility to vote (e.g., citizenship or residence) are some of the most common requirements to participate in elections. In addition, most countries have systems and procedures in place to ensure that one person will have (only) one vote.

In South Africa, from 1909 until the end of apartheid, a total of thirty elections and referenda were held (not counting the referendum of 1992 and elections in the Black Homelands or “Bantustans”).<sup>11</sup> None of these elections were open to all adults, while about one in four were for “Coloureds-only” and “Indians-only.” Before 1994, an elections administrator, or chief electoral officer, would prepare a voter roll based on data obtained from the population register. For the assembly election of 1989 (“Whites Only”) only 3.2 million voters were registered and only 2.2 million cast a vote, while the population was almost 28 million. The number of “Coloureds Only” registered for similar elections in 1989 was just 1.4 million.

South Africa's first democratic elections in 1994 were a conclusion of four years of expanded negotiations which had begun in 1990 with the unbanning of liberation movements, including the African National Congress, and a commitment to negotiated settlement by the ruling Nationalist Party. The 1994 election was the first election in which all South Africans, registered on one electoral roll, could vote. In contrast to previous elections, this time around the number of eligible voters was estimated at 22.7 million, almost seven times what had been customary previously, and voter turnout set an all-time voter turnout record—86.9% percent—for elections and referenda ever, and ever since, held in South Africa. It was estimated that 16 million eligible voters had never voted before.

## Identification challenges and cost of the 1994 post-apartheid elections

The election of 1994 was overseen by the Independent Electoral Commission (IEC). No formal voter register was prepared—a radical departure from the previous, and universal best practice norm. While voters were asked to present identity books, about 2.5 million eligible voters didn't have them. The issuance of temporary voter cards by DHA teams proved too slow to respond to the need, and 1,400 temporary issuance stations were set up in addition to the 400 (including 100 mobile units) DHA had deployed under a contract it had been given by the IEC. A total of 3.5 million temporary voter cards were issued. The inhabitants of the 10 homelands of voting age—about 8 million in total—were allowed to show their travel papers to vote.

The elections cost USD 283 million (963 million Rand), or about USD 14.35 per voter (see Table 3).<sup>12</sup> Per voter, the 1994 South African elections were only 5 percent more expensive than the average for special elections (USD 14.35 versus USD 13.71). Compared to election costs overall (including both special and ‘regular’ elections), South Africa's 1994 elections were close to four times the cost of the average election cost per voter in the world during the 1990s, and almost double the election cost per voter in Africa.

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11 African Elections Database [URL as of 15 April 2018: <http://africanelections.tripod.com/za.html>] and [https://en.wikipedia.org/wiki/Category:Elections\\_in\\_South\\_Africa](https://en.wikipedia.org/wiki/Category:Elections_in_South_Africa) [URL as of 15 April 2018].

12 “Special” elections are those held, for example, in a post-crisis situation. The 1990 elections in Nicaragua followed, and ended, 10 years of Sandinista rule. The elections in Cambodia were organized by the United Nations following the Paris Accords of 1991 after two decades of violence that included genocide, and invasion, and civil war. The Bosnia-Herzegovina elections followed the Dayton Accords and the 3½-year long Bosnian war. Typical for most of these elections is that election security costs are high.

**Table 3. Election Costs 1992–2000**

	Election costs, USD market prices/capita	Election costs USD market prices/elector	Election costs, USD market prices/voter
South Africa, 1994	\$7.39	\$12.46	\$14.35
South Africa, 1999	\$4.07	\$9.92	\$11.28
Africa including special elections (16)	\$2.50	\$6.13	\$8.00
Africa excluding special elections (14)	\$1.55	\$4.12	\$5.64
Africa special elections (2)	\$6.48	\$12.04	\$13.83
Rest of the World including special elections (36)	\$1.34	\$2.17	\$3.42
Rest of the World excluding special elections (32)	\$0.95	\$1.55	\$2.46
Rest of the World special elections (4)	\$6.28	\$8.94	\$13.67
World including special elections (52)	\$1.47	\$2.46	\$3.83
World excluding special elections (46)	\$1.01	\$1.71	\$2.69
World special elections (6)	\$6.33	\$9.56	\$13.71

Source: Civil Registration Centre for Development (CRC4D) election cost database.

## Robust identification in support of voter registration

The improvement in civil registration and green book coverage from 1994 onward would allow the IEC to benefit more from data from DHA’s population register with every single election held. Given the civil registration and identification coverage now reached, the National Population Register has become a very useful source of voter data for the IEC. The IEC now updates its 20 million strong voter roll on a monthly basis using the NPR.

The cost of voter registration is a major cost in any election, but this is an area in which South Africa has successfully resisted the continent-wide trend of ever more expensive elections. While South Africa’s first post-apartheid elections can be considered relatively expensive, and the elections thereafter in 1999 still had a cost of about USD 170 million, these costs, in real terms (corrected for inflation) have come down over time. For the 1999 elections, the IEC managed to bring costs down, with 55 percent for the cost per capita, from USD 7.39 per capita to USD 4.07 per capita.

The country’s 2009 elections were done at less than two-thirds of the average cost per capita for African elections held since 2000 (Table 4). In fact, the total cost of voter registration for the 2009 elections has been estimated at ZAR 240 million, which translates to USD 0.35 per capita (at PPP—purchasing power parity, and 2013 prices) (Wall 2010). South Africa has, with this low voter registration cost, reached a level of rationalization that compares well with voter registration costs in European countries with well-functioning population registers such as those in Sweden, Norway, Germany, or the Netherlands, where voter registration costs are as low as USD 0.10 to USD 0.30 per capita (PPP, at 2013 prices). As was observed in a multi-country study of voter registration, this was like a windfall for the IEC: *“This is a relatively low figure for a sophisticated operation, and would to an extent reflect the economies to the IEC from having biometric information capture and proof of eligibility to vote document production paid for through the civil registration system.”* (Wall 2010).

**Table 4. Election Costs from 2000**

	Election costs, USD market prices/capita	Election costs USD market prices/elector	Election costs, USD market prices/voter
South Africa, 2004	\$3.89	\$8.98	\$11.89
South Africa, 2009	\$6.70	\$14.74	\$19.31
South Africa, 2014	\$5.89	\$12.52	\$17.26
Africa including special elections (39)	\$5.87	\$14.27	\$21.67
Africa excluding special elections (35)	\$4.83	\$12.30	\$18.80
Africa special elections (4)	\$18.46	\$29.11	\$42.21
Rest of the World including special elections (32)	\$1.18	\$2.07	\$3.23
Rest of the World excluding special elections (29)	\$1.11	\$1.95	\$3.04
Rest of the World special elections (3)	\$7.01	\$11.76	\$20.13
World including special elections (71)	\$2.01	\$3.70	\$5.76
World excluding special elections (64)	\$1.73	\$3.20	\$4.98
World special elections (7)	\$13.67	\$22.11	\$34.17

Source: Civil Registration Centre for Development (CRC4D) election cost database.

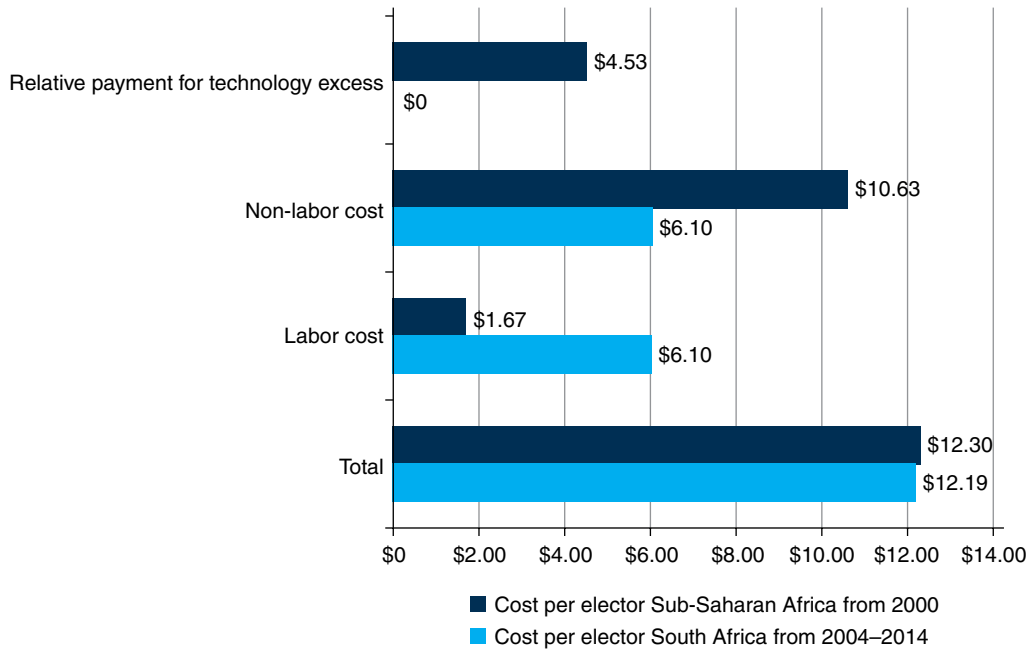
One of the reasons why South Africa has been able to maintain the cost of its elections at a relatively low rate is that its election management body has not needed to provide electors anew with biometric voter IDs for every new election. In South Africa there is no need to create a voter roll from scratch for every election because the voter register is updated on the continuous basis by an online feed from DHA’s population register, which is in turn updated with data from each birth and death registration. To a large extent this has been possible because of the improvements in the coverage and integration of South Africa’s civil registration and identification system. A study conducted in 2008 showed that 98 percent of the voting eligible population possessed the green book as a means of identification. In contrast, the cost of elections in many other countries without a robust and high-coverage ID system has been driven up by the need for repeated, one-off biometric voter registration and the issuance of voter identification credentials using sophisticated, but expensive, technology.

## Potential savings

The estimate for savings derived from being able to forego large-scale voter registration each electoral cycle is derived as follows. IEC accounts indicate that 50 percent of expenditures are for human resource costs. Human resources used for elections in South Africa cost more than human resources used for elections in Sub-Saharan Africa. Assuming that per capita income (USD 5,480 versus USD 1,505, or 100 versus 27.5) is a good proxy, then elections per elector in Sub-Saharan Africa should cost 36.25 percent less than in South Africa.<sup>13</sup> Because, in fact, the cost per elector is nearly the same (average cost South Africa over three elections compared to the Sub-Saharan Africa average after 2000), the nonhuman resource cost in Sub-Saharan Africa must have absorbed the “human resource cost advantage” in these countries.

<sup>13</sup> Assumed cost per elector in South Africa is 100 of which 50% = 50 is technology cost. Technology cost in Sub-Saharan Africa should be the same as in South Africa (50), while human resource cost should be 27.5 percent of 50 = 13.75. Total cost per elector in Sub-Saharan Africa thus should be 50 + 13.75 = 63.75. Sub-Saharan Africa cost then is 36.25 percent lower (63.75) than South African cost (100).

**Figure 7. Excess Cost of Election Technology Sub-Saharan Africa vs. South Africa**



Source: Civil Registration Centre for Development (CRC4D) election and database; IEC South Africa annual reports.

Figure 7 shows how an excess technology cost per elector of USD 4.53 in Sub-Saharan Africa results from the assumption that per registered voter the same human resource input (in terms of physical input) is required in South Africa as in Sub-Saharan Africa, while a unit of human resource input in Sub-Saharan Africa costs only 27.5 percent of what the same unit costs in South Africa. For 69.2 million registered voters in South Africa over the three election cycles (general elections only), this translates into a fiscal savings of 69.2 million times USD 4.53 = USD 313.7 million of savings for three general elections, and a saving of USD 104.6 million per general election.



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