



*B*UILDING A NATIONAL STATISTICAL AGENCY
FROM THE CBCS TO THE ABS *1905–2005*

Cover image: This photograph shows the 1960 statistics cadets, many of whom went on to hold senior positions in the public sector and beyond. Pictured are (seated L-R) Chris Higgins, Chirapun Bhanich-Supapol (a Colombo Plan student from Thailand), Bill McLennan, Elizabeth Reid, Keith Blackburn; (standing L-R) Michael Singleton, David Leaver, Jack Maurer, Alan Brooks, Jim Barratt, Reg Gilbert, and Arch Crittenden.



BUILDING A NATIONAL STATISTICAL AGENCY

From the Commonwealth Bureau of Census & Statistics
to the Australian Bureau of Statistics

an extract from

INFORMING A NATION
The evolution of the Australian
Bureau of Statistics 1905—2005

Building a national statistical agency

From the Commonwealth Bureau of Census and Statistics to the Australian Bureau of Statistics

The Australian Bureau of Statistics (ABS) and its predecessor, the Commonwealth Bureau of Census and Statistics (CBCS), have been providing a statistical service to the Australian, state and territory governments and to the Australian community for 100 years.

The ABS is a valuable institution whose work and outputs are highly respected both nationally and internationally. The role of the ABS has been described, by Sir William Deane AC KBE (Governor-General 1996–2001), being ‘... to hold a mirror to society so they could see themselves’.

The type of service provided and the way in which it has been delivered has changed remarkably over 100 years.

In the early days the key national statistics produced by the CBCS were about population, births, deaths and marriages, shipping, foreign trade, banking, insurance, cost of living, and labour and wages. Other statistics were produced by the state statistical offices which still operated at that time. The first population census conducted by the CBCS was in 1911. By way of contrast, the range of economic, social and environmental statistics available today is extensive, providing a contemporary picture of a great many aspects of Australian life and of changes over time.

Most statistics were provided through Year Books and the annual statistical reports in those early days. Although printed publications still exist, including the Year Book, most users today obtain our statistics through electronic data services, particularly the ABS web site.

To commemorate its centenary, the ABS is producing a publication describing its history. To be titled *Informing a nation: the evolution of the Australian Bureau of Statistics*, the publication will be available later in 2005. The following article draws extensively on the chapter of the publication which will provide an overview of the organisational development of the ABS. It draws extensively from articles appearing in the Year Book relating to the history of the ABS, most notably:

- the article by Colin Forster and Cameron Hazlehurst ‘Australian Statisticians and the Development of Official Statistics’, *Year Book Australia 1988*, No.71; and
- the article by Bill McLennan (Australian Statistician 1995–2000) ‘The development of official statistics in Australia, and some possible future challenges’, *Year Book Australia 2001*, No.83.

Early days

Australia has produced statistics since the beginning of European settlement. Initially, progress in the colonies was monitored in the ‘mother country’ through the yearly dispatch of statistical details covering mainly the population and availability of food. Over the years the statistical content became more pervasive, as populations grew, colonies multiplied and farming emerged, followed by commerce. In 1822 the British Colonial Office set up a more formal system, known as the ‘Blue Books’, in which statistical requirements were prescribed. This led to the development, in the Australian colonies, of statistical officers and in time statistical offices. By the end of the 19th century, each self-governing colony had a functioning

statistical office headed by a 'Statist'. Although efficacy varied considerably between colonies, some produced statistics of a very high standard.

'To a considerable extent the achievement was, for a number of reasons, a legacy of British colonial rule. First, the colonies had been required to produce official statistics on an annual basis; collection was not based on periodic censuses as in the United States. Second, the statistics had to be of a range and quality to satisfy the British authorities, who required them for efficient administration. Third, the statistics had to be brought together by a single officer, the local Colonial Secretary, who took some final responsibility for their accuracy and their presentation; there was therefore a central statistical authority and this contrasted markedly with the British position. Finally the authority was required to present all the relevant statistics of the colony in a single volume – the Blue Book. As an offshoot of these developments, it was natural for the colonies to begin the production of a consolidated volume of annual statistics for their own use'.

Colin Forster and Cameron Hazlehurst, 'Australian Statisticians and the Development of Official Statistics' in *Year Book Australia 1988*, No. 71.

The Australian statistical landscape, prior to and immediately following Federation, was coordinated by frequent Conferences of Statisticians. These involved the Statists of each state meeting to discuss statistical issues and agree on measures to aid the consistency of statistics across the states. As early as 1861 this cooperation led to population censuses being held simultaneously in New South Wales, Victoria, South Australia and Tasmania. The Conference of Statisticians minutes show persistent attempts to reach broad agreement on the content of questions. By Federation, the Conference of Statisticians was chiefly concerned with ensuring uniformity of statistics from all states.

To prepare for the Federation Census scheduled for 1901 (the first census for the new nation) a Conference of Statisticians was held in March 1900 in Sydney. Timothy Augustine Coghlan, the NSW Statist, reported to Sir William Lyne (NSW premier):

'They consider that uniformity is especially desirable at the present time, ... as there is every probability that the figures obtained in the coming Census will ... be the basis of many important arrangements in regard to finance and electoral representation'.

Census of Australasia, 1901 Conference of Statisticians Report, March 1900.

The Census and Statistics Act

Although Conferences of Statisticians were held in 1902 and 1903 to discuss unifying statistics, progress towards unification was very slow. In framing the Constitution, the founding fathers had given the Parliament 'power to make laws for the peace, order and good government of the Commonwealth with respect to: ... (xi) census and statistics.' Rather vague on detail, the Constitution leaves the best way to exercise this power to the judgement of Parliament. The Government determined that a Commonwealth Bureau of Census and Statistics was required to ensure fair treatment of the states.



The Census and Statistics Act 1905 (Cwlth)
(photographed with permission of the Parliament of Australia, House of Representatives).

The *Census and Statistics Act 1905* (Cwlth) was given assent on 8 December 1905. Under the Act, the Census and some Commonwealth statistics became Commonwealth functions. Other general statistics were still to be collected by the states. A role remained for the Conference of Statisticians.

George Handley Knibbs was appointed in 1906 as Australia's first Commonwealth Statistician. Knibbs was given the responsibility to set up the Commonwealth Bureau of Census and Statistics and to unify the states' statistical collections.

The infant national statistical system

‘Two methods of procedure were open to the Federal Government. The first was the complete unification of all statistical organisations in Australia. If this had been adopted the Commonwealth would have controlled all statistical work, and would have been represented in each State by a Branch office which would have undertaken the collection and first tabulation of statistical data under the direction of the central bureau. A second method was to preserve the internal independence of the State Bureaux, and to arrange for them to furnish the Federal Bureau with data compiled according to a system agreed upon. The Federal Government chose the second method as being, at present, and in view of all circumstances, more suitable to the actual condition of Australian Statistics, and it was thereupon resolved to hold a conference of Statisticians which should discuss the arrangements to be made in order to satisfy the requirements of the State Governments as well as those of the Federal Government.’

GH Knibbs (Commonwealth Statistician 1906–1921), ‘The Development of the Statistical System of Australia’, unpublished paper, circa 1909–1911.

The new Bureau was established along the lines of the second option. Under this system the Commonwealth and state Bureaux shared responsibility for the collection of statistics. The role of the state bureaux is described by Knibbs in the first Year Book:

‘State Statistical Bureaux – The State Statistical Bureaux are now endeavouring, under the authority of the Census and Statistics Act, to collect and arrange all information under a common method and according to uniform categories. The State Bureaux will, therefore, have a double function, viz., they will collect – (a) for their immediate requirements as States, and (b) as integral parts of the Commonwealth.’

Commonwealth Bureau of Census and Statistics (CBCS), *Official Year Book of the Commonwealth of Australia, 1901–1907*, No.1.

Following a period of extensive touring of the Australian state statistical bureaux, Knibbs presided over his first Conference of Statisticians late in 1906. He submitted and gained approval for a series of prototype statistical forms to be used by each state. The intention was to streamline the statistics obtained from each state to maximise their ability to be compiled to form Australian statistics. Despite this in principle agreement, the states were by no means united in the promptness with which they supplied the

agreed data, and the Commonwealth Bureau was unable to produce complete collections until all state input was received. Knibbs was understandably frustrated by this situation. For their part, state Statisticians complained that Knibbs ignored Conference resolutions and did things his own way.

It soon became clear that the goal of uniform national statistics was not to be easily achieved, and the Commonwealth Bureau found it necessary to undertake original compilations and to take over responsibility for some branches of statistics where it was obvious that the state bureaux were either unable to provide the data in reasonable time, or lacked the will as the data were not critical to state priorities. The first of these was commerce statistics where it was arranged that shipping returns should be sent directly to the Commonwealth Bureau.

The second of these was vital statistics. It was quickly realised that these would be very late and meagre, and possibly inconsistent from one state to the next, if relying on the state Bureaux. So it was arranged for state registers of vital statistics to be made available direct to the Commonwealth Bureau.

Within the first decade, the Commonwealth Bureau was also producing banking, insurance, cost of living, and labour and wages statistics. However statistics of production, for example, agricultural, pastoral, dairying, mining, manufacturing, forestry and fishing, continued to be collected by the states.

Initial attempts at unification

‘Notwithstanding this early recognition that the Statistics of Australia should be developed on a uniform plan, the autonomy of each State led to divergences of domestic policy and practice. These divergences tended also to manifest themselves in the statistical technique, as well as in the facts collated. Even where there seemed to be unity of action, or identity in the data to be collected, the unity and identity were often more apparent than real. The comparative studies made by each Statistician revealed with more and more clearness, in proportion as they were thorough, the grave lack of uniformity in the statistical data and methods of the several States, however excellent these may have been considered alone.’
CBCS, *Official Year Book of the Commonwealth of Australia, 1901–1907*, No.1.

Conferences of state premiers in 1906 and 1918, attempting to end duplication, passed resolutions in favour of combining state and federal bureaux. However, these were frustrated by the state Statists who were

‘...unwilling to surrender the autonomy that they and their predecessors had enjoyed for so long.’
Colin Forster and Cameron Hazlehurst, ‘Australian Statisticians and the Development of Official Statistics’ in *Year Book Australia 1988*, No. 71.

The state Statists would have to be coaxed to relinquish this autonomy.

Charles Henry Wickens became the second Commonwealth Statistician in 1922. He had come from the Western Australian Government Statistician’s Office, where he worked on the 1901 Census, and had previously been Commonwealth Director of Census. He had experience in working directly with the states towards a common goal.

In May 1923, a Premiers’ Conference again passed a resolution in favour of creating one statistical authority for the whole of Australia. Details were to be decided later at a Conference of Statisticians, held in October 1923.

Opinion at the Conference was divided:

‘... the Governments of the states of Victoria, Queensland and Tasmania were in favour of the transfer of statistical functions to the Commonwealth, and... the Governments of the three remaining states desired to retain such functions.’

Conference of Statisticians Minutes, 1923.

In the period between the Premiers’ Conference and the Conference of Statisticians, Tasmanian Premier JB Hayes had initiated the process of transferring the Tasmanian Statistical Bureau to the Commonwealth. A future Commonwealth Statistician, Keith Archer, later suggested that Tasmania was going through a shortage of resources at the time, which provided the political will for the transfer, and that Lyndhurst Falkiner Giblin, the then Tasmanian Statistician,

‘... in his wisdom, saw this was a great opportunity to start on the integration.’

Keith Archer (Commonwealth Statistician 1961–1970), interviewed in 1971.

Following the 1923 Conference, Wickens and Giblin negotiated a fairly straightforward path towards transfer. The *Statistical Bureau (Tasmania) Act 1924* contained precise details

regarding the statistical responsibilities of the Tasmanian office and the duties to the Tasmanian state government and the Commonwealth Government.

Meanwhile, the states in the non-unification bloc maintained their stance, despite changes of government in two states (South Australia and Western Australia). By June 1924 they had all formally declined. Queensland, though originally agreeable, also declined.

Victoria came closest to transferring. The Commonwealth Government halted the process in September 1925 due to funding constraints. The Depression, and then the ill-health of Wickens, meant that he did not have the chance to finish the task of unifying Australian statistical offices.



Conference of Statisticians, Adelaide 1924.

Back row (L to R): HJ Exley (Secretary), LF Giblin (Tas.), WL Johnson (SA), HS Semmens (Secretary), S Bennett (WA)
Front row (L to R): J Porter (Qld), H Smith (NSW), CH Wickens (Commonwealth), M Frazer (NZ), AM Laughton (Vic.).

The Tasmanian connection

Following the departure of Wickens, Giblin was appointed acting Commonwealth Statistician and Chief Economic Adviser in 1931. His appointment was on the understanding ‘that I should be sufficiently relieved from administrative routine to be able to give the greater part of my time to special investigations required by the Minister’ (Forster and Hazlehurst, in *Year Book Australia, 1988*). During his tenure he appointed Roland Wilson as economist with the idea of quietly grooming him to be Commonwealth Statistician in the near future. He also encouraged several other young men to undertake university courses. Among them were KM Archer and JP O’Neill who both went on to be Commonwealth Statisticians.

LF Giblin, in the words of Keith Archer

‘Well I could talk for hours ... about Giblin ... You see Giblin was a Tasmanian scholar before a Rhodes scholar and, because he was a mathematician, he opted to go to Cambridge instead of Oxford. He became one of the wranglers at Cambridge, but he learnt to play rugby, play rugby for Cambridge and for England. During this time he’d become a ‘Fabian’ and always from that time wore a red tie ... He was lured over to the gold rush in the Klondike where his feet were very badly frostbitten and he always had a slight limp, very slight. He always wore puttees, puttees around his feet instead of socks. He also lumbered in Alaska and then came back to Tasmania, taught in his old school. But this great man – stripped at fourteen [stone] seven [pounds] when he was playing rugby for England – the boys just ran rings around him, he was hopeless as a teacher. So he went to this little holding at Seven Mile Beach where he had an orchard and a poultry farm. He became interested in politics; he entered Parliament as a Labor member, fought with the Labor Party over the conscription issue. He was then about 41 or 42. He proved his bona fides and he enlisted in Tasmania’s own 40th Battalion in the ranks, finished up with a Majority and a DSO. He came back to Tasmania, took his second-rate suit that they offered on demobilisation and was appointed Government Statistician and Registrar-General ... never having formally read economics he was appointed the first Ritchie Professor of Economics in Melbourne University. He was collaborator in *The Australian Tariff*, he prepared cases for Tasmania’s disabilities under Federation, he ultimately served on the Grants Commission and as a member of the Commonwealth Bank Board.’

Keith Archer, interviewed in 1983.

Edward Tannock McPhee, also originally from Tasmania, was appointed Commonwealth Statistician in 1932, seemingly with the aim of remaining only as long as his health permitted and hopefully long enough to get Wilson

‘bedded down’ (Keith Archer, interviewed in 1971). Wilson was appointed Commonwealth Statistician following McPhee’s retirement in 1936.

ET McPhee, in the words of Roland Wilson

‘Yes, he was one of nature’s gentlemen. He had been taken over from the state public service, which enjoyed the right to go on to the age of 70, which right he took with him when he joined the Commonwealth Public Service. He was a tall, warm, sincere, God-fearing gentleman in every sense of the term. He could have gone on to 70 but he chose not to. The reason he gave was not his real reason. He got very ill at one time – he lived up the street a bit – and was in bed for quite a few weeks. When he got back to work, he called me in and said, “Roland, I’ve decided to leave”. I said, “Well why do you want to do that, you’re only 68, you’ve got another couple of years left”. “Well Roland”, he said, “I lay in bed there thinking: now if I die, how would Mrs McPhee get the furniture back to Hobart?”, which was a bit of a laugh because she was infinitely more capable than he would ever have been of getting the furniture back to Hobart. The real reason was that he felt he was standing in my light and he was 68 anyhow. But that was the real reason – he thought he was holding me back.’

Sir Roland Wilson, interviewed in 1984.

In setting up this succession, whether deliberately or just through his ability to choose the right people, Giblin was to have enormous influence on the Bureau's direction long after he left. His emphasis on economics and economic statistics put the Bureau in an influential position as the Australian economy diversified and gathered pace, and demand for economic statistics grew.

An expanding role for the Bureau

As Commonwealth Statisticians, Giblin, McPhee and Wilson each focused on economic and statistical issues and chose not to take on the task of unification of the remaining state statistical offices.

'I would have been quite certain, had we attempted to amalgamate them or take any drastic steps like that, that we would have failed utterly and ruined the pitch for the rest of time.'
Sir Roland Wilson, interviewed in 1984.

During Wilson's first six months at the Bureau he constructed the Australian Balance of Payments. Two years later he was appointed Commonwealth Statistician and Economic Adviser to the Treasury on 29 April 1936. As Commonwealth Statistician, he embarked on an energetic development program, later interrupted by the war, and introduced research officers to inject statistical and economic expertise into Bureau operations.

Early in 1941 Wilson was coopted into other war-related duties, and Stanley Carver, the NSW Statistician, became acting Commonwealth Statistician. Though Wilson was to return for short periods several times after the war, this effectively marked the beginning of the end of the Wilson period.

The immediate post-war period was characterised by Keynesian-style management of the economy. The pre-war work of Giblin and his protégés in developing economic statistics, such as putting values on theoretical concepts like national income and investment, placed the Bureau in a sound position to respond to post-war demands for economic statistics. As post-war reconstruction took off, governments

were interested in measuring the success of their policies.

'Australian economists, about this time, were developing a reputation of being "numbers" men.'
Frank Horner, interviewed in 2000.

Unification

Under the stewardship of Carver, amalgamation of the Commonwealth and state statistical offices was finally achieved. The process of bringing the remaining state bureaus into the Commonwealth Bureau of Census and Statistics (CBCS) was initiated by Prime Minister Chifley in 1949, in discussions with the premiers, and continued under Prime Minister Menzies.

Various arrangements for wartime management of the economy had resulted in increasing responsibility for the Commonwealth Government and a decreasing role for state governments. This was compounded by the move to the Commonwealth Government of responsibility for income tax collection. In an environment of greatly reduced budgets and no involvement in economic management, state governments' requirements for statistics diminished, and so, consequently, did the capacity of state statistical bureaus to produce them.

In the post-war period, as Commonwealth demands for statistics grew, the duplicative and cumbersome system started to crack at the seams. Conference of Statisticians minutes of 1945, 1949, 1950 and 1953 all commented on increasing demands for statistics and lack of resources. The 1950 Conference also noted 'with approval', moves initiated to prevent various Commonwealth agencies from collecting their own statistics without reference (or deference) to the CBCS. Both issues highlighted the need to have clear authority over statistics residing in one body.

Though the need to amalgamate the various statistical agencies across Australia's states was widely recognised, it was Carver's relationship with the other state Statisticians, and their trust in him, that finally allowed this amalgamation to take place.

Father of unification

Stanley Carver was widely regarded as being personally responsible for bringing about the assimilation of state statistical Offices into the Commonwealth Bureau in the 1950s. Two former Commonwealth Statisticians describe his role.

Keith Archer, who succeeded Carver as Commonwealth Statistician in 1961:

'Now the principal architect of this was Carver. There's no doubt about the fact that if he hadn't given his word, the states would not have come.'

Keith Archer, interviewed in 1971.

Roland Wilson, Treasury Secretary at the time of integration, and former Commonwealth Statistician:

'It was mainly due to his efforts ... and he played a very skilful game ... I was able to help him a bit by producing a bit of money ... Between the two of us we eventually got them in, but most of the job, 90 per cent of the job, was Stan Carver's.'

Sir Roland Wilson, interviewed in 1984.

The *Statistics (Arrangements with States) Act 1956* (Cwlth) was given assent on 12 May 1956. During the second reading speech, Sir Arthur Fadden (Treasurer) referred to discussions already taking place with Western Australia, South Australia and New South Wales. Subsequently, agreements authorised under the Act were made with all the states.

The legislation allowed for the provision of statistical services by the Commonwealth Bureau to state governments, in the same way that such needs had been provided by state Bureaus in the past. However in practice the assimilation of the state offices into the Commonwealth Bureau subsequently led to major changes to state statistics.

Relationship with the Treasury

In 1951, Wilson moved to Treasury and from then on the relationship between the Bureau, Treasury and the Commonwealth Government began to change. Wilson took his economic acumen and a number of economists with him and proceeded to build up the economic policy skills within Treasury. The role of the Bureau changed from providing economic advice to Treasury, to providing statistics to Treasury's economic advisers.

While he remained in Treasury, Wilson supported the Bureau's economic expertise. However the relationship had permanently

altered and, under successive Treasury heads, Treasury's economic capacity grew and the Bureau's role solidified as provider of statistics.

Foundations for the future

In 1959 'the growing need for professional statisticians led to the introduction of a Statistical Cadetship Scheme.' (John Miller, interviewed in 2000). This initiative involved the selection of around twelve outstanding students who were brought to Canberra to undertake Honours Degrees, with majors in statistics, mathematics and economics. This scheme and its later companion the Graduate Cadetship Scheme, were to produce many leaders, both in the Bureau and more broadly in the Australian Public Service.

'I... set up the Cadet scheme in the Bureau and we lived through two or three traumatic years in developing it, but then it really flourished. There are now three permanent heads that came out of that Cadet scheme. The Bureau can't keep them all, but we got them. The Keatings and the Codds and the Thorns, you name it. They were all from the ANU, because it was a condition they had to do it in the ANU until Mike Codd, who was one of the best of them, couldn't for family reasons come to Canberra and we let him do it in Adelaide. Then we found that there was merit in letting them do it in their own universities because their matriculation standards were geared to the university.'

Keith Archer interviewed in 1983.

Keith Archer's kindergarten

The CBCS established two cadet schemes: the statistical cadet scheme began recruiting in 1959, and the Graduate Cadetship Scheme began in the mid-1960s. Keith Archer is regarded as the father of these schemes.

Both schemes aimed at attracting highly qualified people to complete their studies, at Bureau expense, prior to taking up appointment with the Bureau.

From the beginning it was recognised that there was a need within the Bureau for staff trained and skilled in statistics. Knibbs and Wilson both held this view, and expressed it on record.

This presented a dilemma, as the public service had a policy of recruiting only School Certificate graduates (16 year olds) and returned soldiers. Wilson is said to have invented research officers in the 1930s. He faced much opposition, but was eventually successful in getting the idea across the Public Service Board.

Without doubt the success of the cadet schemes in the Bureau was partly due to the earlier lobbying by Roland Wilson to allow university graduates into the public service.

First hand accounts of the scheme speak of the valuable role it played in giving matriculants greater choice in their university careers. By all accounts the scheme experienced some teething problems, but by the second year, participants were well looked after and their studies well supervised.

'Well, in those days, basically a salary at age of entry for matriculant clerks. So it was base grade clerk at age 17/18 – the age we were starting. University fees were paid. We were full time students doing a university year, expected to work in the Bureau during vacation, although the sort of work planned for us was meant to be educational as much as useful.'

David Leaver, interviewed in 1999.

In keeping with its family minded philosophy, the Bureau seems to have tried very hard to give cadets the chance to undertake their vacation work at the office nearest their home.

Throughout the 1960s and 1970s these schemes ensured a flow of skilled graduates into the Bureau, and often from there into the wider Australian Public Service. Some of these people have gone on to hold very senior positions within the public sector and business in Australia and abroad. Examples within the Bureau are Bill McLennan, Dennis Trewin, Rob Edwards and Susan Linacre. Examples from the broader public service and beyond are Chris Higgins, Mike Keating, Mike Codd, Elizabeth Reid, Andrew Podger, Vince Fitzgerald and John Hewson.

'We in the Bureau are the beneficiaries of Keith's vision, because many of our most talented statisticians and senior managers are people who came to the Bureau as a direct outcome of Keith Archer's initiative. But the Australian Public Service, and therefore the Australian community as a whole, have also greatly benefited. Indeed, the commanding heights of the public service today are held by graduates from Keith Archer's kindergarten.'

Ian Castles (Australian Statistician 1986–1994), 'Address at the launch of the Colonial Microfiche Project, 12 October 1989', unpublished speech.



This photograph shows the 1960 cadets.

Pictured are the previous Australian Statistician, Bill McLennan (centre, seated) with: (Seated L to R): Chris Higgins, Chirapun Bhanich-Supapol (a Colombo Plan student from Thailand), Elizabeth Reid, Keith Blackburn; and (Standing L to R): Michael Singleton, David Leaver, Jack Maurer, Alan Brooks, Jim Barratt, Reg Gilbert, and Arch Crittenden.

(National Archives of Australia (NAA): A1200, L35565)

Following successful use of probability-based sample surveys in official statistics in the United States, the 1950s saw their emergence as an important innovation for the Bureau's official statistical work. This allowed statistically valid sample surveys to be undertaken by the Bureau at a lower cost than complete enumerations.

'In the early to mid 50s, even monthly and quarterly statistics were collected on a full census basis. Some attention was given to the possibilities of sampling, but serious consideration awaited the arrival of Ken Foreman who provided leadership in mathematical statistics and sampling throughout his career.'

John Miller (Acting Commonwealth/Australian Statistician 1974–1975), interviewed in 2000.

Released from the onerous necessity of conducting a census for every collection (apart from those based on administrative data), the Bureau could produce more statistics than it had before, so satisfying the increasing demands of Treasury and the Commonwealth Government. The development of surveys also facilitated the growth of social statistics from the late 1960s and through the 1970s, based on the Bureau's household survey program.

While this freed resources and allowed the Bureau to establish many new collections, it did not necessarily mean an improvement in the service provided to state governments. A consequence of increased surveys was that there

was an increase in the range of available statistics to state governments, but small area data became more difficult to obtain.

Under Keith Archer (Commonwealth Statistician 1961–1970), and following much research, the Bureau's first computer was installed in 1961. To properly exploit the possibilities this created, a large number of programmers were recruited from the United Kingdom. They were to form the basis of the Bureau's fledgling computing team, and many stayed on as members of the Bureau community.

The Bureau was among the first Commonwealth agencies to acquire a computer, and the capacity of this computer was initially greater than the Bureau's need. As part of the deal, initially to help justify the cost of the computer, the Bureau took on the processing of administrative records in many areas, such as health and trade. The side effect of this policy was that the Bureau was able to make use of the administrative by-product statistics thus produced. This responsibility was to remain with the Bureau for the next two decades.

The 1960s

This decade was an era of great change. Although legally accomplished by the end of the previous decade, the task of assimilating the various state offices and the Commonwealth office into one organisation took many years. In practice it was probably not completed until the late 1970s when Roy Cameron, Australian Statistician from 1977 to 1985, made special efforts to bring closure to this issue.

The decade saw a major push within the Bureau to integrate its economic statistics collections, first the censuses and later the sample surveys. It had been increasingly apparent that there was a need to provide for users a range of statistics that were comparable, so that

'... you could relate employment to production and wages, and... you could... relate overseas investment to these other categories of macroeconomic statistics, which is partly a matter of standardising the units in which they were collected and standardising the concepts.'

Frank Horner, interviewed in 2000.

The twin aims of the integration of economic statistics were to provide comprehensive, reliable, high quality industry statistics and data for use in compiling the national accounts. The model for the project was the United Nations

System of National Accounts. Achievement of that goal took a lot of the energy of the Bureau for a number of years. As with many enormous and innovative undertakings, the initial results were disappointing. The first integrated economic censuses, for the financial year 1968–69, took far longer to process than originally envisaged. However in time the value of the integration of economic statistics came to be fully recognised.

The introduction of household surveys was another major initiative, with the initial aim of providing comprehensive estimates of the Australian work force at quarterly intervals between population censuses. The survey estimates also supplemented the existing statistical series of employment (derived from employer surveys) and unemployment (derived from administrative data about recipients of unemployment benefits). Subsequently this became the basis for producing the official monthly labour force series and a much more extensive range of social statistics.

A new beginning

In 1973, the Whitlam Labor Government established the Committee on Integration of Data Systems, known as the Crisp Committee after its chairman, LF Crisp. The Government had been concerned about recent discrepancies in statistics from various Commonwealth departments and the lack of statistical data on key areas of the economy, and believed that this could interfere with its reform agenda. As a result, the Committee ‘undertook wide ranging investigations of Australia’s statistical system’. (John Miller, interviewed in 2000.)

Within the Treasury portfolio, the Bureau was reliant on Treasury for funding, even though the power to collect statistics was conferred on the Bureau by the Census and Statistics Act. The Commonwealth Statistician consequently had freedom to initiate new statistical collections, but operated within the practical constraint that funding would be more assured if these collections were supported by Treasury.

The Crisp Committee reported in March 1974. It recommended the establishment of the Australian Bureau of Statistics as the central statistical authority with full statutory powers, administratively independent of any department and thereby perceived to be policy neutral. The Australian Statistician was to be a statutory appointee vested with the powers of a head of

department under the Public Service Act. This led to the development of the Australian Bureau of Statistics Act under the guidance of Jack O’Neill, the Commonwealth Statistician of the time.

Under the Australian Bureau of Statistics Act, the Australian Bureau of Statistics was established with the role of central statistical authority for the Australian Government and, by arrangements, for the governments of the states. It provides statistical services for those governments on a number of levels:

- by collecting, compiling, analysing and disseminating statistics and related information
- by ensuring coordination of the operations of other official bodies in the collection, compilation and dissemination of statistics and related information – with particular attention to avoiding duplication, attaining compatible and integrated statistics, and compliance with standards
- by providing advice and assistance to official bodies in relation to statistics
- by providing for liaison between Australia and other countries and international organisations, in relation to statistical matters.

The Australian Bureau of Statistics Act also established the Australian Statistics Advisory Council. Its role is to advise the Minister and the Australian Statistician on the improvement, extension and coordination of statistical services provided for public purposes, and annual and longer term priorities and programs of work that should be adopted in relation to major aspects of the provision of those statistical services. The council consists of a part-time Chairman, the Australian Statistician (ex officio), and between 10 and 22 part-time members, including one nominee of each state premier and the chief ministers of the two territories. Generally, Bureau staff prepare the agenda papers for council meetings.

Greater independence

Bill McLennan, (Australian Statistician 1995–2000) observed:

‘For the first time Australia’s statistical agency was organisationally independent of any department of state. Further, the Statistician was given the powers of a Departmental Permanent Head in respect of the Public Service Act. Perhaps, at this stage, it could be considered that the integrated

statistical service had just reached adulthood.' Bill McLennan, 'The development of official statistics in Australia, and some possible future challenges', in *ABS, Year Book Australia 2001*, No.83.

In the 1970s, across the public sector, emphasis started to be placed on improving responsiveness to clients and on cost-cutting. The Bureau

embraced this two pronged and potentially contradictory approach to service provision. User consultation was introduced. At the same time the cost cutting mentality made surveys a more palatable way of providing current and new statistics. There is always a balance to be struck between new areas of statistics and the mass of ongoing statistical series.



*The senior management of the ABS at the retirement of John Miller late in 1975.
Back row (L to R): David Leaver, Fred Von Reibnitz, Peter Howell, Keith Watson, Mike Giles, Keith McAlister (On exchange From Statistics Canada, replacing Don Anderson who was in Canada at this time), Keith Blackburn, Fred Bagley, Alan Bagnall, TR (Bob) Jones, Ivan Neville, Bill McLennan, LC (Col) Clements, Max Booth, Aiden Roche.
Front row (L to R): Alex Whittington, Alan Taylor, Frank Stewart, PNS (Noel) Atcherley, Don Youngman, John Miller, Frank Homer, Ken Foreman.*

In the late 1970s, Bureau senior management implemented a rolling forward work program. Designed to force the incorporation of long-range strategic planning and thinking into Bureau decision-making, it enabled the Bureau to foresee changes to its external environment. This has resulted in a greater ability to quickly respond to changing community statistical needs and changing government budgetary policy. The Bureau operates on a constantly reworked three year forward work plan.

Some important amendments

The establishment of the Australian Bureau of Statistics, and implementation of the legislation, further entrenched the shift away from a decentralised, state-based statistical system. Though this trend could be said to have started with the Census and Statistics Act in 1905, and was certainly solidified with the merging of the state statistical bureaus into the Commonwealth Bureau, the Australian Bureau of Statistics Act was a major move towards centralisation of

statistics in Australia. As such, it reflected the belief of key players in the Australian community in the efficacy of a centralised system of statistics. At a more practical level, the legislation, by giving the Australian Statistician the powers of a head of department, further raised the status of that position relative to the heads of state offices, and so gave the Australian Statistician greater authority over the statistical system.

In 1979, the Law Reform Commission released a report *Privacy and the Census*. This highlighted the need for a review of the terms of confidentiality in the statistics legislation.

1981 saw the passing of substantial amendments to the Census and Statistics Act which, amongst other things, incorporated the recommendations of the Law Reform Commission. It provided the opportunity to thoroughly rework the Act, incorporating the original Act and subsequent amendments into a more coherent framework, using more modern language and terminology. These amendments legislated those powers, given to the Australian Statistician in the

Australian Bureau of Statistics Act, to determine the timing and method of statistics collection. They also obliged the Statistician to compile, analyse, publish and disseminate collected information, and made possible the release of unidentifiable data in unit record files.

A major purpose of the amendments was to make possible the release of a wider range of information. There are many instances where release of these data is appropriate, either because no details for private individuals are thereby exposed, or for businesses, the data in question are already within the public domain or were proven to be non-sensitive. However the legislation as it stood did not allow such releases. It was recognised that releases of such data should be treated as exceptions to the secrecy protections contained in the Act, and governed by very tight and specific safeguards which might vary from one release to another. This level of detail was not considered appropriate within the legislation. The potential to release data was achieved by making provision within the Act for the Minister, in a written determination, to authorise the Australian Statistician to make specific information releases. Determinations of this nature must be tabled in Parliament, and once a determination has been made it remains the final decision of the Australian Statistician whether to release the particular information.

A period of change

In 1981 the Committee for Review of Commonwealth Functions chaired by Phillip Lynch, the then Treasurer, released its report. It recommended that sweeping cuts be made to the entire public sector, which in an operational sense translated into significant budget reductions. Following several years of debate at the Conference of Statisticians, in 1982 the Statistician decided that the Bureau would no longer be a processing agent and handed the coding, data capture and editing of administrative records back to the relevant administering authorities, some of which were state government authorities. This freed Bureau resources to be used elsewhere, for example in the burgeoning household surveys. The administrative authorities, faced with finding alternative means of processing their records, were less than appreciative.

In the early to mid 1980s, under Roy Cameron, the Bureau subjected itself to rigorous external examination, in the form of the Joint Management

Review, which was convened to examine the effectiveness of the top management structure of central office and the state offices, with the aim of guiding the Bureau soundly through current and future challenges, properly using state and central office resources and adequately addressing client needs. Conducted by Touche Ross Services and the Public Service Board, the review identified a number of key areas for improvement. Its recommendations shaped subsequent management planning, contributed to the integration and modernisation of the Bureau and made it more outward looking.

‘There is an inherent tension between the need for a single ABS control of projects and resources and the need for a separate control to be exercised in each Division and in each state office.’

Roy Cameron, (Australian Statistician 1977–1985)

‘Responsibilities in Central and State Offices’, unpublished paper, 1982.

Prompted by the findings of the review, the Australian Statistician implemented a form of matrix management. Under this policy, division heads within the Bureau were responsible to the Australian Statistician for the work of their division, both within central office and throughout the state offices of the Bureau. State office heads were seen as responsible for ensuring that the state components of each division’s work were carried out effectively, that the particular needs of their state were represented in Bureau decisions, that links with state clients were adequately supported and, as the major communicators with respondents, that data quality was maintained. The document outlining this strategy paved the way for a strong corporate focus that complemented and enhanced the effectiveness of the forward work program. This form of management is still largely in place today.

The Bureau comes of age

Throughout much of its history, the Bureau was run with each area producing its own statistics with little reference to the work of other areas. This is understandable in the light of the level of complexity involved in producing each area of statistics, and particularly developing new statistics and new methodologies. However, as the Bureau grew and became involved in a much wider range of statistics, it became necessary to forge a deeper relationship between these areas, both to avoid duplication of effort and to ensure a unity of purpose across the organisation. Emphasis has therefore been placed on building

a corporate mentality at all levels within the Bureau.

With the new corporate identity came a questioning and reassessment of the purpose of the Bureau, and an acknowledgment that it was more than a factory for publications. Out of this process emerged the mission statement, the concept of corporate objectives and a commitment to statistical coordination and analysis. These were conveyed in the Bureau's first corporate plan, developed under the guidance of Bill McLennan while he was Deputy Statistician. Throughout this period the Bureau increasingly focused on efficiency, producing more with the same or fewer resources. In the 1988–89 Annual report this issue was clearly enunciated with the paper 'A quart out of a pint pot' which spelt out the significant gains in the range and quality of statistical output which had occurred in the Bureau over the previous decade while resources had remained static.

The Bureau's first marketing plan was released in 1989. It followed a government decision that part of the Bureau's budget should be funded through cost recovery. The plan outlined a major rethink in the way the Bureau regarded its products and its clients. The second marketing plan in 1992 maintained the emphasis on products and the importance of establishing that they were really needed, and out of this emerged the concept of focusing on clients' needs. The third plan in 1996 placed great emphasis on clients. In this way marketing became an important plank in the orientation of the Bureau as an outwardly focused, forward looking agency.

Important in this process was the growth in the Bureau's analytical capacity. Here the influence of Ian Castles (Australian Statistician 1986–1994) was paramount. He strongly believed that the Bureau could add considerable value to its statistics by judicious use of analysis and analytical methods.

'It is increasingly becoming accepted that national statistical agencies themselves have an important role in the analysis of the data they collect. The further that analysts are from the available microdata, the more likely it is that the full potentialities of the data will not be exploited and the greater is the possibility that the data will be misinterpreted.'

Ian Castles, Speech of welcome to the Eleventh Asian and Pacific Conference, February, 1987.



Ian Castles (Australian Statistician 1986–1994) with Chris Higgins (Secretary to Treasury 1989–1990 and ABS cadet 1960–1963) at the 11th Conference of Commonwealth Statisticians, 1990 (Irene Dowdy, ID Photographics).

The Bureau started to devote more publication space to the analysis of its statistics. The emphasis on 'informed decision-making' in the mission statement in 1987 had highlighted the need for greater effort in this area, but the authority came from the Australian Bureau of Statistics Act. In 1995 an analysis unit was established, recognising the potential of statistical methods and models for producing official statistics, improving methods or better understanding statistical relationships

Throughout the 1980s and into the 1990s, Conferences of Statisticians continued to be held, despite the major governance changes that had occurred to Australian statistics throughout the previous 40 years. At the 1996 Conference, the Australian Statistician

'... expressed his opinion that the Conference in its present form was not effective and that there must be better ways for the ABS to assess on state (and territory) statistical needs and priorities.'
ABS, 'Policy Secretariat Branch Report', unpublished paper, September 1996.

This was driven in large part by the reducing seniority of the representatives of the states. It was subsequently decided that more thorough use of the Australian Statistics Advisory Council, and greater involvement of the heads of the state offices in identifying state government requirements, would render the Conference of Statisticians unnecessary.

In 1992, as part of its drive to improve efficiency, the Bureau introduced a new approach for data processing and use of state office resources. Under this new system, National Project Centres, with responsibility for all data collection, processing, output (of standard products) and associated support and development activities for specific areas of statistics, were set up in state offices. This realised the advantages of concentrating data collection and processing operations, such as economies of scale and improved data quality, and avoidance of problems with data quality and inconsistency that can arise through decentralised data collection.

Throughout the 1990s there was an increasing emphasis on the use of administrative by-product data. This was influenced by Bill McLennan's period as Director of the United Kingdom National Statistical Office, where he noted the much more extensive use of administrative data in the UK statistical system. The relationship with the Australian Taxation Office, in particular, grew strong and a number of cooperative agreements enhanced the usability of taxation data to derive statistics.

Today

A number of important initiatives have been implemented with a view to the future. In 2002 the National Statistical Service was initiated with the specific aim of better coordinating and using those statistical resources residing in other agencies. In 2003 the various forums in which communication was maintained between the state and central offices of the Bureau were formalised into the State Statistical Forum. This new approach involves state and territory advisory council representatives and Bureau Regional Directors meeting to discuss specific statistical matters relating to states and territories.



Australian Statistics Advisory Council (ASAC) on the occasion of its 50th meeting in March 1993.

Also in 2002, the Bureau embarked on the Business Statistics Innovation Program. This is a three-year program which involves, through the use of innovative technologies and methodologies, a major re-engineering of the way the Bureau conducts its business statistics processes. The program aims to achieve improved provider relations and data quality, increased capacity to respond to emerging statistical needs, provision of a better National Statistical Service, enhanced opportunities for staff and significant budget savings. Similar initiatives have now started in the household survey program.

The last quarter century has been a period of great change. The result is a modern statistical bureau, with solid legislative underpinning, capable of meeting the challenges and needs of the information age.

