Digital Education Revolution Program–National Secondary Schools Computer Fund

Department of Education, Employment and Workplace Relations

Canberra ACT
17 February 2011

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken an independent performance audit in the Department of Education, Employment and Workplace Relations in accordance with the authority contained in the *Auditor-General Act 1997*. Pursuant to *Senate Standing Order 166* relating to the presentation of documents when the Senate is not sitting, I present the report of this audit, and the accompanying brochure, to the Parliament. The report is titled *Digital Education Revolution Program—National Secondary Schools Computer Fund.*

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—http://www.anao.gov.au.

Yours sincerely

Ian McPhee
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office (ANAO). The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Australian Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

For further information contact:
The Publications Manager
Australian National Audit Office
GPO Box 707
Canberra ACT 2601

Telephone: (02) 6203 7505
Fax: (02) 6203 7519
Email: webmaster@anao.gov.au

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http://www.anao.gov.au

Audit Team
Mark Rogala
Mark Simpson
Emma Octigan
Belinda Dennis
Aaron McCreadie
Isabelle Favre
Alex Geue
Stuart Turnbull

Contents

Abbreviations

AICTEC	Australian Information and Communications Technology in Education Committee
ANAO	Australian National Audit Office
CIU	Cabinet Implementation Unit
COAG	Council of Australian Governments
DEECD	Department of Education and Early Childhood Development [*Victoria*]
DEEWR	Department of Education, Employment and Workplace Relations
DER	Digital Education Revolution program
FTE	Full Time Equivalent
ICT	Information and Communications Technology
IGA	Inter-governmental Agreement
MCEECDYA	Ministerial Council for Education, Early Childhood Development and Youth Affairs
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NEA	National Education Agreement
NPA	National Partnership Agreement
NSSCF	National Secondary Schools Computer Fund
NSWDET	New South Wales Department of Education and Training
OECD	Organisation for Economic Co-operation and Development

PAWG   Productivity Agenda Working Group

PBS   Portfolio Budget Statements

SPP   Specific Purpose Payments

Glossary

Block Grant Authority
Bodies that represent non-government schools in the states and territories for capital funding purposes. There are 14 Block Grant Authorities (BGAs), one for each of the two territories representing both the Catholic and independent sectors, and two in each state (one for Catholic schools and another for independent schools).

Digital Education Revolution program
Through the Digital Education Revolution program, the Government is providing $2.4 billion over seven years to 'contribute sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world'.

Education Authorities
Comprise the eight state and territory education departments representing the government education sector and the 14 Block Grant Authorities representing the non-government education sector.

National Secondary Schools Computer Fund
The Australian Government is investing $2.2 billion through the major component of the Digital Education Revolution program—the National Secondary Schools Computer Fund, to provide for new information and communications technology (ICT) equipment for secondary schools with students in Years 9 to 12. The objective of the program is to achieve a 1:1 computer to student ratio by 31 December 2011.

Outcomes
The results, impacts or consequence of actions by the Australian Government on the Australian community.

Performance information
Evidence about performance that is collected and used systematically. Performance information may be quantitative (numerical) or qualitative (descriptive), and should be verifiable.

Stakeholders   People or organisations with an interest in the operations, activities, results or resources of an agency. In the context of outcomes and programs, agencies' primary stakeholders are government and the Parliament. Other stakeholders include members of the public, special interest groups and non government organisations.

Summary and Recommendations

Summary

Digital Education Revolution

1.　　In January 2007, the then Opposition announced its intention to make policy on education one of three main priorities of a future Federal Labor Government. In a policy paper on the critical link between prosperity, productivity growth and human capital investment, the Labor Party (Labor) committed itself to 'lift the quantity of Australia's investment in education and the quality of education outcomes'[1] through an *Education Revolution*.

2.　　A key policy under Labor's education reform agenda, which it has pursued in government, is the Digital Education Revolution (DER) program.[2] The objective of the DER program is to contribute sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world.

3.　　The main components of the $2.4 billion DER program are:

- the National Secondary Schools Computer Fund (NSSCF) which provides for new information and communication technology (ICT) equipment for all secondary schools with students in Years 9 to 12 ($1.4 billion plus $807 million to cover the legitimate and additional costs of implementing the NSSCF);

- the High Speed Broadband to Schools initiative to support the deployment of high speed broadband connections to Australian schools ($100 million); and

- the Digital Strategy for Teachers and School Leaders initiative to support ICT professional development ($40 million).

4.　　As the Australian Government department responsible for education, the Department of Education, Employment and Workplace Relations (DEEWR) was given responsibility for implementing the Government's DER program policy. From the outset of the DER program, the Government

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1　　Australian Labor Party, January 2007, *The Australian economy needs an education revolution*, p. 27.

2　　Labor released its DER election policy in early November 2007, which was to provide capital grants to government, Catholic and independent secondary schools and schooling systems to assist them to provide world class ICT for every secondary student in Years 9 to 12.

recognised that success would require a partnership approach with stakeholders in the states and territories. In this context, DEEWR works through state and territory education departments and Block Grant Authorities[3] (collectively referred to as 'education authorities') to pursue the achievement of program objectives. These education authorities are responsible for working with government and non-government schools respectively, to deliver the program.

National Secondary Schools Computer Fund

5. The NSSCF accounts for a large majority of DER funding, and its implementation was given first priority among the components of the DER program. The objective of the NSSCF is to achieve a computer to student ratio of 1:1 for all Australian students in Years 9 to 12 by 31 December 2011. Under the DER program, the Government has also committed funding to sustain the 1:1 ratio through to 2013–14. NSSCF funding is to be used by schools, or education authorities on their behalf, to provide for new information and communications technology (ICT) equipment for secondary schools with students in Years 9 to 12.

6. The Government committed to opening the first application round of the NSSCF within 100 days of being sworn into office, and reached agreement with education authorities to conduct an audit of ICT in their schools so that initial funding could be directed to where it was *most needed* and where there was *capacity to use it effectively*. Three application based funding rounds took place in 2008 and 2009, with $295 million in funding provided to progress schools in need to a computer to student ratio of 1:2. The Government has also commenced provision of a further $1.1 billion in funding to education authorities on a per capita basis[4] for schools to achieve and sustain a computer to student ratio of 1:1.

7. The DER program policy approved by the Government in December 2007 did not include provision for the full costs associated with the effective

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[3] Block Grant Authorities (BGAs) are bodies that represent non-government schools in the states and territories for capital funding purposes. There are 14 BGAs, one for each of the two territories that represents both the Catholic and independent sectors, and two in each state (one for Catholic schools and another for independent schools).

[4] That is, based on students in Years 9 to 12 from the 2007 Schools Census.

deployment and support of the computers funded through the NSSCF.[5] In December 2007, the Government sought through the Council of Australian Governments (COAG), but did not gain, the commitment of the states and territories to provide for all the costs of technical training and support, maintenance of the computers, and infrastructure support such as electricity and suitable learning spaces.

8. Subsequently, the *Review of Legitimate and Additional Financial Implications of the National Secondary Schools Computer Fund* (the On-costs Review) estimated the full costs of computers funded through the NSSCF. Following agreement by COAG in November 2008 and based on the On-costs Review's findings, the Government announced an additional $807 million in funding for the on-costs of computers purchased using NSSCF funds. On-costs include expenditure necessary to support computers, and install and maintain network equipment.

Funding agreements

9. For the three applications based funding rounds of the NSSCF, the Government entered into funding agreements with education authorities to provide funding for successful applicant schools. Funding was provided upfront as a lump-sum, subject to education authorities meeting defined terms and conditions, among them, reporting to the department on a six monthly basis on schools' progress in the purchase and installation of computers.[6] Education authorities undertook centralised purchasing processes, or devolved responsibility for ICT purchases to schools, depending on their particular circumstances.

10. The DER program is now being delivered under the new federal financial relations framework[7], including through the *National Partnership Agreement (NPA) on the Digital Education Revolution*.[8] The NPA sets out high

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[5] The Labor Government was sworn into office on 3 December 2007. Cabinet met for the first time on 4 December 2007, at which time it approved the DER policy.

[6] On-costs funding was also provided to education authorities as a lump sum payment, under a separate funding agreement.

[7] The new framework for federal financial relations, which commenced on 1 January 2009, aims to provide clearer specification of the roles and responsibilities of each level of government so that the appropriate government is accountable to the community. It also aims to provide more transparent reporting of outcomes and outputs to drive better service delivery and reform.

[8] The states and territories are signatories to the NPA but the Block Grant Authorities are not.

level governance arrangements for the delivery of the program, including: objectives, outcomes and outputs; roles and responsibilities; and performance benchmarks and reporting.

11. The devolved delivery of the program by education authorities under the federal financial relations framework has been governed by the establishment of bilateral agreements with government education authorities (under the NPA), and separate funding agreements are in place with non-government education authorities. Under these agreements, education authorities are paid twice yearly, subject to defined terms and conditions, for all schools to achieve a computer to student ratio of 1:1 by 31 December 2011 and then sustain the ratio. Payments are linked to the completion of an education authority implementation plan, and DEEWR's acceptance of six monthly progress reports.[9]

Audit approach

12. The audit objective was to assess the effectiveness of the Department of Education, Employment and Workplace Relation's administration of the Digital Education Revolution program, focusing on the major component of the program, the National Secondary Schools Computer Fund. To form a conclusion, the ANAO assessed whether DEEWR:

- has established sound administrative and payment arrangements that are consistent with government policy;

- properly manages administrative and payment arrangements; and

- effectively monitors and reports on delivery and outcomes.

13. The main component of the ANAO's fieldwork was conducted in DEEWR's National Office in Canberra. The ANAO also met with selected education bodies, and visited government schools in New South Wales and Victoria to observe approaches adopted using computers purchased under the NSSCF.

14. The ANAO sought feedback from each of the 22 education authorities on aspects of DEEWR's administration of the NSSCF; and 21 education authorities provided feedback. Additionally, a survey was conducted of a

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[9] The progress reports include details on installation of computers by schools, and on addressing the four strands of change: leadership, infrastructure, learning resources and teacher capability.

random sample of 450 school principals across Australia that participated in the NSSCF application rounds, in order to obtain their opinions on aspects of the department's administration of the fund. Responses to the survey were received from 175 schools, a response rate of 39 per cent.

Overall conclusion

15. The Digital Education Revolution (DER) is a substantial program aimed at changing teaching and learning in Australian schools, to prepare students for further education and training; and to live and work in a digital world. The major component of the DER program is the National Secondary Schools Computer Fund (NSSCF), which provides funding to take all Australian secondary schools to a computer to student ratio of 1:1 for students in Years 9 to 12, by 31 December 2011. The NSSCF was initially devised to provide funding for new ICT in schools, before being extended to also provide for the on-costs associated with computers purchased, at a total cost of some $2.2 billion. In early 2008, at the outset of the NSSCF, 90 per cent of schools reported a computer to student ratio of worse than 1:2.

16. The department's administrative arrangements have had to support achievement of the NSSCF objective, while maintaining accountability for the use of government funding. This has involved DEEWR devolving delivery responsibilities to education authorities and schools best placed to undertake them; and the department establishing funding terms and conditions, and monitoring and reporting on delivery and progress.

Progress to date

17. Progress towards the objective of the NSSCF has involved a collaborative effort across governments, education authorities and schools. Education authorities have reported solid progress to date in the installation of computers purchased using NSSCF funding, indicating around 268 000 computers were installed from the three funding rounds.[10] For Round 1, a reported 97 per cent[11] of schools that received funding to achieve a computer to student ratio of 1:2 had done so by the target date of 30 June 2010. Further, as

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[10]   Data reported for: Round 1 is as at 30 June 2010; and for Rounds 2 and 2.1 is as at 30 September 2010.

[11]   There were legitimate reasons for another two per cent of Round 1 schools not meeting the 1:2 ratio by the required date. Funding requirements had changed for nine schools; seven schools had computers reallocated due to student movements; one school had been closed; and the registration of one school had been suspended.

at September 2010 a reported 80 per cent of schools from Rounds 2 and 2.1 had already achieved the 1:2 ratio, even though they were not required to do so until March 2011. Nevertheless, under the DER timelines, following the conclusion of application round funding agreements, schools must transition to a computer to student ratio of 1:1 in a relatively short period of time. As at 30 September 2010[12], the reported computer to student ratio across Australia was slightly better than 1:2, with 15 months remaining for schools to install another 438 000 computers to reach a 1:1 ratio by 31 December 2011.[13] Education authorities' progress, for students in their state/sector, towards the computer to student ratio of 1:1 ranged from around 1:1.3 through to around 1:2.5.[14] In this context, the then Minister for Education agreed to education authorities committing program funds by 31 December 2011 and completing computer installation early in 2012.

18. Early indications from the ANAO survey of school principals regarding the impact of the NSSCF on teaching and learning are broadly positive. School principals noted some encouraging changes in students' access and use of computers, engagement, and preparation for a digital world. There is also evidence from education authorities that the NSSCF has provided a catalyst for the modernisation and integration of ICT infrastructure in the secondary schooling sector.

Administrative effectiveness

19. To meet the Government's funding priorities and timetable for the NSSCF, DEEWR moved quickly to design and implement processes aimed at determining need and assessing capacity within schools eligible for funding. This enabled the department to open the first application round within 100 days of the Government being sworn into office, and to invite those schools determined as most in need of funding to apply.

20. The department, in partnership with education authorities, administered three application rounds and, by mid 2009, had allocated up-front funding for around 300 000 computers in 2802 schools across the government, Catholic and independent sectors, to achieve a computer to

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[12] Data reported for: Round 1 is as at 30 June 2010, Rounds 2 and 2.1 is as at 30 September 2010, and for the DER bilateral and funding agreements is as at 15 July 2010.

[13] This estimate does not allow for replacement of broken computers or growth in student numbers.

[14] Within states/sectors some schools have already achieved the computer to student ratio of 1:1.

student ratio of 1:2 in the schools. Subsequently, the department established ongoing funding arrangements with education authorities for all schools designed to achieve and sustain a computer to student ratio of 1:1. The importance of achieving value for money in delivering the NSSCF was recognised by the department, with agreements and guidelines encouraging centralised purchasing and collaboration across states and sectors. The extent to which education authorities were able to maximise their purchasing power through the achievement of economies of scale was, however, dependent upon their size and the model in place for procurement.

21. Overall, DEEWR's administration of the DER program has been effective in supporting progress through a partnership approach towards the NSSCF's objective of increasing the computer to student ratio for students in Years 9 to 12. Nevertheless, there were some aspects of the department's oversight of implementation that could have been strengthened. While DEEWR worked with education authorities to collect preliminary survey computer data as a basis for allocating application round funding, and required education authorities to verify and provide assurances about the accuracy of the data, DEEWR did not perform simple checks on the data to provide assurance over data quality. Further, unlike agreements with government education authorities, those with the non-government sector do not require annual acquittal of the use of funds, nor reporting on education authorities' or schools' on-going investment in schools' ICT.[15] More broadly, establishing one or two intermediate progress milestones for education authorities, based on their respective implementation plans, would have assisted DEEWR and stakeholders to better gauge progress towards the 1:1 target ratio and identify any delivery problems sufficiently early to allow remediation.

22. The implementation of programs premised on a partnership approach that involve the devolution of key implementation activities to funded organisations necessarily requires administering agencies to strike an appropriate balance between accountability and devolved responsibility. While the provision of flexibility to funded organisations to determine how best to use funding to achieve agreed objectives supports innovation and capitalises on expertise, administering agencies remain accountable to

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[15] Education authorities are required to contribute to maintenance of effort of 30 per cent of the total required future funding to sustain the computer to student ratio of 1:1.

responsible Ministers and the Parliament for the use of Australian Government funding. Opportunities for enhancement identified by the audit, and reflected in its recommendations, build on the DER program's partnership approach by seeking well-timed assurance over aspects of the program's delivery by education authorities, and strengthening of reporting on performance to stakeholders.

Key findings

Determining need and assessing capacity (Chapter 2)

23. DEEWR required accurate data to identify those schools most in need of ICT investment under Round 1 of the NSSCF, and to calculate the correct amount of funding for schools participating in application rounds. The department, in consultation with education authorities, developed a preliminary survey of ICT needs and provided the instrument to authorities to capture required data for each school within their state/sector.

24. Responses provided by school principals on the ease with which they completed the department's preliminary survey of computers in schools were generally positive. DEEWR relied on verification of preliminary survey data by education authorities. Within the time available, DEEWR could have improved the reliability of the survey data by: providing brief guidance on how to categorise different types of computers (such as leased computers); using simple systems-based data validation checks to minimise reporting errors; and following-up on unusual school computer numbers. This would have increased assurance over the appropriateness of allocated funding amounts and reduced the number of preliminary survey data revisions that occurred over time.

25. Discrepancies in preliminary survey data identified by the department's internal auditors in early 2009 and by the ANAO using the most up-to-date preliminary survey data in mid 2010, on which funding decisions have been based, are yet to be addressed.[16] The ANAO's testing revealed that there were 460 instances (16 per cent of 2929 schools) where schools had provided anomalous data. For the majority of these instances, the size of data

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[16] The reported number of desktop/laptop computers for student use (for curriculum use only) must equal the reported number of desktop/laptop computers that are less than/greater than 48 months old as of 30 June 2008. However, one in six schools provided conflicting data.

discrepancies was in the vicinity of 10 computers ($10 000 in application round funding) or less, although some discrepancies were greater.

26. The administration of the application rounds for the NSSCF by DEEWR was generally sound, with the department providing suitable guidance material in a timely manner to assist education authorities and schools participating in these rounds. The assessment of applications was devolved to education authorities, with the department quality assuring a selection of applications from each round. While DEEWR's quality assurance process enabled it to check education authorities' assessments of selected schools' applications based on data provided by schools, it did not allow the department to assess the accuracy of schools' application data.

27. The application process led to consideration by education authorities and schools of the factors needed to be put in place to support additional ICT. A large majority of schools advised through their applications that they met relevant capacity requirements (such as learning spaces to accommodate additional computers). Nevertheless, as would be expected, there was variability in schools' readiness to purchase and install NSSCF computers.

28. DEEWR advised that the approach adopted was for education authorities to be the bodies responsible for ensuring schools' readiness for the installation of computers, and considered that adopting a more hands on role in this regard would have been detrimental to progress.[17] As mentioned above, education authorities reported almost all successful Round 1 schools had installed computers to reach the ratio of 1:2 by the target date, indicating that variability in the readiness of these schools at the outset of the NSSCF did not affect their achievement of the target ratio.

Establishing delivery arrangements (Chapter 3)

29. The NSSCF involves a large number of separate agreements between the Australian Government, states and territories and the non-government education sector. This reflects the evolving nature of the fund, including supplementation for on-costs and the transition to an NPA arrangement under reforms to the federal financial relations framework. The complexity of

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[17] Round 1 funding agreements provided education authorities two years for schools to achieve a computer to student ratio of 1:2. Although for Round 1, education authorities (excluding the New South Wales Department of Education) were required to expend, or make reasonable efforts to expend 40 per cent of funding within six months.

accountability arrangements and administration has, as a result, increased, but will become more streamlined over time as application round funding agreements lapse. Importantly, DEEWR took the opportunity presented by the introduction of an NPA to consolidate strategic planning for the DER, including by emphasising the importance of the four strands of change.

30. The issue of responsibility for the on-costs associated with installation of computers purchased under the NSSCF was of significant concern to education authorities, with one authority withdrawing from a funding round due to the uncertainty. There was, however, limited opportunity for DEEWR to consult with education authorities on the issue of on-costs prior to the Government first agreeing the components of the DER (which excluded on-costs) in December 2007. DEEWR briefed the then Minister for Education on the issue of on-costs on several occasions during NSSCF implementation in 2008, including the positions taken by states and territories, and provided potential options to resolve the issue. On 29 November 2008, following the completion of a review into the financial implications of the NSSCF, the Government announced COAG's agreement to additional Australian Government funding of $807 million to assist education authorities with on-costs associated with ICT purchased under the fund.

31. The funding agreements established for the NSSCF included provisions to protect the Australian Government's interests, which were primarily designed to ensure that public money was used for its intended purpose. Steps taken by DEEWR included: articulating the purpose of the funding and related deliverables; outlining funding priorities and uses; and requiring progress reporting by education authorities, particularly in relation to the purchase and effective deployment of ICT. However, funding agreements with non-government education authorities to achieve the 1:1 ratio do not provide for annual audited financial acquittals. DEEWR should also explore opportunities with education authorities for non-government schools to report on their funding contribution to maintain the computer to student ratio of 1:1—education authorities are required to contribute 30 per cent of the total required future funding. These steps would assist DEEWR in obtaining timely assurance over the use of funding and complementary state/sector funding.

32. DEEWR provided up-front, lump sum application round and on-costs funding to education authorities to facilitate progress against the NSSCF objective. Subsequently, under bilateral and funding agreements with education authorities to achieve a computer to student ratio of 1:1, DEEWR has moved to six monthly payments on 'acceptance' of education authorities'

progress reports. The basis for DEEWR's 'acceptance' of progress reports and making of subsequent payments would have been strengthened by agreement on and monitoring against, one or two intermediate progress milestones, established through education authorities' implementation plans under the bilateral and funding agreements.

33. DEEWR was aware of the importance of value for money outcomes from the outset of the NSSCF and established mechanisms through agreements and guidelines to support the achievement of value for money. In particular, the department encouraged education authorities to adopt centralised purchasing processes for schools to achieve economies of scale and to collaborate across states and sectors. Where economies of scale were realised through bulk purchasing or other arrangements, DEEWR allowed the use of residual funds for the effective deployment of new computers and the purchase of complementary ICT equipment. The extent to which education authorities were able to maximise their purchasing power was closely linked to the size of the education authority and the model in place for procurement—that is, centralised versus decentralised purchasing. Consequently, the value for money outcomes for large education authorities that use a centralised purchasing model differed significantly from those obtained by smaller education authorities that have devolved purchasing to the school level.

Payments (Chapter 4)

34. Under the NSSCF, DEEWR will pay over $2 billion to education authorities from 2007–08 to 2012–13. Overall, DEEWR has effectively administered funds for each of the application rounds, on-costs, and in relation to payments under bilateral and funding agreements with government and non-government education authorities respectively.

Monitoring and reporting (Chapter 5)

35. In accordance with the Australian Government's budget reporting framework, agencies are required to establish in their Portfolio Budget Statements (PBS) deliverables and key performance indicators for each program.[18] In its 2010–11 PBS, DEEWR has not established key performance

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[18]   Deliverables represent the goods and services produced and delivered by the program in meeting its objectives, while key performance indicators represent the primary means by which agencies address and achieve government outcomes. Consequently, reporting on program performance provides stakeholders, including government, with an indication of the relative success of a particular program in achieving its outcomes.

indicators to measure program effectiveness for the DER. The sole key deliverable included in the statements for the DER—'number of schools assisted'—has a target of 2900 schools assisted in 2010–11. The absence of a balanced set of key deliverables and performance indicators for the DER, including the NSSCF, reduces the quality of DEEWR's annual reporting on program progress to stakeholders. The inclusion of a more representative set of performance information would assist the department to more effectively measure and communicate program progress.

36. The department has closely aligned its monitoring arrangements with the DER program and NSSCF objectives, through the provision of regular progress reports by education authorities focusing on computer installations and the four strands of change. As referred to above, under bilateral and funding agreements to achieve a computer to student ratio of 1:1, the department did not require education authorities to establish one or two interim progress milestones based on their implementation plans, against which education authorities would subsequently report. Such an approach would have assisted DEEWR to monitor progress and report to stakeholders on performance, and to identify implementation problems sufficiently early to allow remedial action to be taken.

37. DEEWR monitors the receipt of progress reports and computer installation data, and where necessary follows-up with education authorities where information is inconsistent, incomplete or problematic. DEEWR also draws on community feedback on the rollout of computers in schools to help identify unreported implementation issues. DEEWR proposes a review of computer installation numbers be conducted in early 2012 to verify that the computer to student ratio of 1:1 has been achieved. An audit of a small, targeted sample of schools would increase assurance over progress and provide valuable intelligence to inform future policy advice.

38. Analysis of education authorities' progress reports for computer installations, and the results of the ANAO's survey of school principals show that the majority of schools are progressing well towards the effective use of additional ICT in classrooms. Nevertheless, a small proportion of principals that responded to the ANAO survey raised ongoing issues in relation to achieving the 1:1 target ratio in time and the effective use of computers installed under the NSSCF. Key matters raised included the need to upgrade infrastructure and improve teacher training.

39.   Evaluating the DER, as a multijurisdictional program focused on changing teaching and learning in schools, is important and inherently difficult. The timetable for NSSCF implementation led to focus on key administrative activities, with an evaluation framework (and measurement approaches) considered later following completion of more detailed DER strategic and implementation planning. Nonetheless, it has taken some time for an evaluation framework to be finalised and DEEWR is continuing to work in this direction. Earlier investment in evaluation methodologies and associated data as the program evolved would have provided a stronger foundation for measuring the impact of the DER, particularly given the proposed focus of an evaluation of the four strands of change: leadership, infrastructure, learning resources and teacher capability.

Summary of agency response

40.   DEEWR provided the following summary response to the audit report:

The ANAO recognises the significant achievement by the Department of Education, Employment and Workplace Relations (the Department) in quickly establishing efficient and inclusive processes to implement the Fund. The ANAO survey of school principals provided early indications that the Fund is having a positive impact on teaching and learning within schools, and that students are becoming more engaged due to students' increased access to computers.

The Report states that sound progress has been made in implementing the Fund, with 97 percent of schools achieving the computer to student ratio of 1:2 in Round 1 and 80 percent of schools achieving the 1:2 ratio in Rounds 2 and 2.1 in advance of the March 2011 deadline.

The Department agrees with the recommendations made in the report. The Report acknowledges the evolving nature of the Fund and the complexity of the accountability and administration that exists. The Report indicates that the Department has effectively administered funds for each of the application rounds, on-costs, and in relation to payments under bilateral and funding agreements with government and non-government education authorities respectively.

The Department notes the comments on the evaluation of the DER and adds that monitoring of the program has been undertaken from the beginning of implementation and will be central to the evaluation of the DER. The Department expects a DER Evaluation Strategy, endorsed by government and non-government education bodies, to be finalised in early 2011.

41. DEEWR agreed with each of the three recommendations in this report. DEEWR's responses to each of the recommendations are shown in the body of the report following the relevant recommendation. DEEWR's full response to the audit is included at Appendix 1 of the report.

Recommendations

The ANAO has made the following recommendations aimed at improving DEEWR's administration of the National Secondary Schools Computer Fund. Report references and abbreviated agency responses are included below, with the department's more detailed responses to each recommendation included in the body of the report.

Recommendation No. 1

Para 3.48

The ANAO recommends that DEEWR establish for future Digital Education Revolution program funding agreements, an obligation for non-government education authorities to provide an annual acquittal of program funds, including an independent audited statement that the funding was expended for the purpose of achieving the deliverables and performance benchmarks in accordance with the agreement.

DEEWR response: Agreed.

Recommendation No. 2

Para 5.15

The ANAO recommends that, in order to strengthen external reporting and help steer program direction, DEEWR establish a balanced set of Portfolio Budget Statements key deliverables and performance indicators to measure the effectiveness of the Digital Education Revolution program.

DEEWR response: Agreed.

Recommendation No. 3

Para 5.34

The ANAO recommends that DEEWR consult with education authorities to design and conduct an audit of a sample of schools funded under the Digital Education Revolution program, in early 2012 to assist in:

- providing assurance on the accuracy of information reported by education authorities on computer installations;

- confirming whether the schools have achieved the 1:1 computer to student ratio; and

- identifying any reasons for schools not achieving the 1:1 computer to student ratio, including any funding deficiencies.

DEEWR response: Agreed.

Audit Findings

1. Introduction

This chapter provides an introduction to the Digital Education Revolution program. It also outlines the audit objective, scope and methodology, and the structure of the report.

Digital Education Revolution program

1.1   In January 2007, the then Opposition announced its intention to make education policy one of the three priorities of a future Federal Labor Government. In a policy paper outlining the critical link between prosperity, productivity growth and human capital investment, the Labor Party (Labor) committed itself to 'lift the quantity of Australia's investment in education and the quality of education outcomes'[19] through an Education Revolution.

1.2   A key policy under Labor's education reform agenda, which it has pursued in government, is the Digital Education Revolution (DER) program.[20] The objective of the DER program is to contribute sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world.

1.3   The main components of the $2.4 billion DER program are:

- the National Secondary Schools Computer Fund (NSSCF) which provides for new information and communication technology (ICT) equipment for all secondary schools with students in Years 9 to 12 ($1.4 billion plus $807 million to cover the legitimate and additional costs of implementing the NSSCF); and

- the DER Projects element comprising:

    – the High Speed Broadband to Schools initiative to support the deployment of high speed broadband connections to Australian schools ($100 million);

    – the Digital Strategy for Teachers and School Leaders initiative to support ICT professional development ($40 million);

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[19]   Australian Labor Party, January 2007, *The Australian economy needs an education revolution*, p. 27.

[20]   Labor released its DER election policy in early November 2007, which was to provide capital grants to Government, Catholic and independent secondary schools and schooling systems to assist them to provide world class ICT for every secondary student in Years 9 to 12.

–   funding allocated to schools that had not benefited from the application rounds of the NSSCF ($21 million);

–   the Support Mechanisms for Schools component to deliver assistance for schools in the deployment of ICT ($10 million); and

–   support for other national DER projects ($10 million).

1.4   As the Australian Government department responsible for education, the Department of Education, Employment and Workplace Relations (DEEWR) was given responsibility for implementation of the Government's DER program policy. From the outset of the DER program, the Government recognised that success would require a partnership approach with key stakeholders in the states and territories. In this context, DEEWR works through state and territory education departments and Block Grant Authorities[21] (collectively referred to as 'education authorities') to pursue the achievement of program objectives. These education authorities are responsible for working with government and non-government schools respectively, to deliver the program.

National Secondary Schools Computer Fund

1.5   The NSSCF accounts for a large majority of DER program funding, and its implementation was given first priority among the components of the DER program. The objective of the NSSCF is to achieve a 1:1 computer to student ratio for all Australian students in Years 9 to 12 by 31 December 2011. NSSCF funding is to be used by schools, or education authorities on their behalf, to provide for new information and communications technology (ICT) equipment for secondary schools with students in Years 9 to 12.

1.6   The Government committed to opening the first application round of the NSSCF within 100 days of being sworn into office, and reached agreement with education authorities to conduct an audit of ICT in their schools so that initial funding could be directed to where it was *most needed* and where there was *capacity to use it effectively*. Three application based funding rounds took place in 2008 and 2009, with $295 million in funding provided to progress

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[21]   Block Grant Authorities (BGAs) are bodies that represent non-government schools in the states and territories for capital funding purposes. There are 14 BGAs, one for each of the two territories that represents both the Catholic and independent sectors, and two in each state (one for Catholic schools and another for independent schools).

schools in greatest need to a computer to student ratio of 1:2. The Government is also providing a further $1195 million[22] in funding to education authorities on a per capita basis[23] for schools to achieve and sustain a computer to student ratio of 1:1.

1.7   The DER program policy approved by the Government in December 2007 did not include provision for the full costs associated with the effective deployment and support of the computers funded through the NSSCF.[24] In December 2007, the Government sought through the Council of Australian Governments (COAG), but did not gain, the commitment of the states and territories to provide for all the costs of technical training and support, maintenance of the computers, and infrastructure support such as electricity and suitable learning spaces.

1.8   Subsequently, the *Review of Legitimate and Additional Financial Implications of the National Secondary Schools Computer Fund* (the On-costs Review) estimated the full costs of computers funded through the NSSCF. Following agreement by COAG in November 2008 and based on the On-costs Review's findings, the Government announced an additional $807 million in funding for the *on-costs* of computers purchased using NSSCF funds. On-costs include expenditure necessary to support computers, and install and maintain network equipment.

Funding agreements

1.9   For the three applications based funding rounds of the NSSCF, the Government entered into two year funding agreements with education authorities to provide funding for successful applicant schools. Funding was provided upfront as a lump-sum, subject to education authorities meeting defined terms and conditions, among them, reporting to the department on a six monthly basis on schools' progress in the purchase and installation of computers.[25]   Education   authorities   undertook   centralised   purchasing

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[22]   Payments cover the period from mid 2009 to January 2013.

[23]   That is, based on students in Years 9 to 12 from the 2007 Schools Census.

[24]   The Labor Government was sworn into office on 3 December 2007. Cabinet met for the first time on 4 December 2007, at which time it approved the DER policy.

[25]   On-costs funding was also provided to education authorities as a lump sum payment, under a separate funding agreement.

processes, or devolved responsibility for ICT purchases to schools, depending on their particular circumstances.

1.10   The DER program is now being delivered under the new federal financial relations framework[26], including through the May 2009 *National Partnership Agreement (NPA) on the Digital Education Revolution*.[27] The NPA sets out high level governance arrangements for the delivery of the DER program, including: objectives, outcomes and outputs; roles and responsibilities; and performance benchmarks and reporting. The NPA includes a commitment by the Australian, state and territory governments to addressing four strands of change first identified in the September 2008 *DER Strategic Plan*: leadership; infrastructure; learning resources and teacher capability.

1.11   The devolved delivery of the program by education authorities under the federal financial relations framework has been governed by the establishment of bilateral agreements with government education authorities (under the NPA), and separate funding agreements with non-government education authorities. Under these agreements, education authorities are paid twice yearly, subject to defined terms and conditions, for all schools to achieve a computer to student ratio of 1:1 by 31 December 2011. Payments are linked to the completion of an education authority implementation plan, and DEEWR's acceptance of six monthly progress reports.[28]

Roles and Responsibilities

1.12   The main roles and responsibilities of DEEWR, education authorities and schools in relation to the DER program are set out in Table 1.1. Responsibility for procurement and implementation of ICT equipment, associated infrastructure and support rests with education authorities and/or schools, depending on administrative arrangements at state or territory and school system level. A description of the governance arrangements is included at Appendix 2.

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[26]   The new framework for federal financial relations, which commenced on 1 January 2009, aims to provide clearer specification of the roles and responsibilities of each level of government so that the appropriate government is accountable to the community. It also aims to provide more transparent reporting of outcomes and outputs to drive better service delivery and reform.

[27]   The states and territories are signatories to the NPA but the Block Grant Authorities are not.

[28]   The progress reports include details on installation of computers by schools, and on addressing the four strands of change: leadership, infrastructure, learning resources and teacher capability.

Table 1.1

Roles and responsibilities of DEEWR and education authorities

NSSCF function	DEEWR	Education Authorities
Preliminary survey of computers in schools	- Design and manage survey. - Determine ICT needs based on survey results.	- Work with schools to provide survey data. - Quality assure schools' data.
Application rounds	- Manage application rounds, including developing guidelines, application form and assessment criteria. - Quality assure application assessments. - Allocate funding to schools based on need and capacity to benefit.	- Assess schools' applications.
Funding agreements	- Design funding agreements. - Make payments in accordance with funding agreements.	- Manage funding in accordance with funding agreements.
Procurement	- Encourage centralised procurement processes.	- Determine procurement approach.
Monitoring and reporting	- Monitor compliance with funding agreements. - Monitor schools' progress. - Report on progress to stakeholders. - Provide advice to Minister.	- Provide progress reports in accordance with funding agreements. - Acquittal of funds.

Source: ANAO analysis of DER program documentation.

Previous audits

1.13   Although no previous ANAO audits have specifically addressed the DER program, four recent audits have addressed school funding programs:

- Audit Report No 25 of 2010–11, *Administration of the Trade Training Centres in Schools Program*;

- Audit Report No 33 of 2009–10, *Building the Education Revolution;*

- Audit Report No 45 of 2008–09, *Funding for Non-Government Schools;* and

- Audit Report No. 45 of 2007–08, *Specific Purpose Payments: General Recurrent Grants for Government Schools.*

Audit approach

1.14 The audit objective was to assess the effectiveness of the Department of Education, Employment and Workplace Relations' administration of the Digital Education Revolution program, focusing on the major component of the program, the National Secondary Schools Computer Fund.

1.15 To form its conclusion, the ANAO assessed whether DEEWR:

- has established sound administrative and payment arrangements that are consistent with government policy;

- properly manages its administrative and payment arrangements; and

- effectively monitors and reports on program delivery and outcomes.

Audit methodology

1.16 The ANAO conducted fieldwork at DEEWR's National Office in Canberra. This included:

- examining Cabinet documents, policy documents, agreements, guidelines, procedures, operational documents, file notes and other records;

- examining program payments to education authorities;

- interviewing departmental staff; and

- analysing program data.[29]

1.17 The ANAO also met with the Independent Schools Council of Australia, the Catholic Education Commission Canberra/Goulburn, the New South Wales Department of Education and Training, the Victorian Department of Education and Early Childhood Development, and attended the National Digital Education Revolution Forum held for the states, territories and the department.[30]

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[29] The ANAO contracted Allanson Consulting Pty Ltd to assist with statistical analysis for the audit.

[30] The Digital Education Revolution Forum was held in Sydney from 1–2 December 2009. The objectives of the forum were to: share information on the pathway taken by each state to achieve the objectives of the DER, with specific reference to the four strands of change identified in the *DER Strategic Plan*; share information on the progress of the DER in each state, explore areas for possible collaboration; and set up networks to facilitate further collaboration.

1.18 Additionally, the ANAO visited government schools in New South Wales and Victoria to observe the approaches adopted by these schools in using computers purchased with NSSCF funds.

ANAO consultation with education authorities

1.19 The ANAO sought feedback from each of the 22 education authorities on aspects of DEEWR's administration of the NSSCF. Twenty-one education authorities provided information in this regard.

ANAO survey of school principals

1.20 The ANAO also conducted a survey of a random sample of 450 school principals across Australia in order to obtain their opinions on aspects of DEEWR's administration of the NSSCF. The ANAO audit sample was designed to produce statistically reliable estimates for the total population of schools involved in NSSCF application rounds. Responses to the survey were received from 175 schools, a response rate of 39 per cent.[31]

Audit cost

1.21 The audit was conducted in accordance with the ANAO's Auditing Standards.

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[31] The ANAO contracted Orima Research Pty Ltd to conduct the survey of school principals.

Report structure

1.22   The report includes another four chapters which examine key elements of DEEWR's administration of the DER program as follows.

Chapter	Chapter overview
2. Determining Need and Assessing Capacity	*Examines DEEWR's administration of the NSSCF preliminary survey of computers in schools, which was designed to gather information on schools' computer stocks, and its oversight of the NSSCF application process established to assess schools' capacity to deploy ICT equipment.*
3. Establishing Delivery Arrangements	*Examines DEEWR's establishment and management of agreements underpinning the delivery of the DER program.*
4. Calculating and Releasing Payments	*Examines DEEWR's administration of DER program payments to education authorities.*
5. Monitoring and Reporting Program Performance	*Examines the monitoring and reporting arrangements for the DER program focusing on the NSSCF and includes the perspective of school principals on program progress and achievements. The chapter also considers the department's role in establishing evaluation arrangements for the DER program as a whole.*

2. Determining Need and Assessing Capacity

This chapter examines DEEWR's administration of the NSSCF preliminary survey of computers in schools, which was designed to gather information on schools' computer stocks, and its management of the NSSCF application process established to assess schools' capacity to deploy ICT equipment.

Introduction

2.1   The NSSCF is open to eligible schools with Australian students in Years 9 to 12.[32] The Government gave first priority to funding those schools with the greatest ICT need where they had the capacity to receive the investment, and committed to opening the first application round within 100 days of being sworn into office.[33] Effective and timely identification of need and capacity to benefit was an important component of the program's roll-out.

2.2   The identification of high need schools, current and planned expenditure, and capacity was to be determined through the conduct of an ICT audit. The then Minister for Education endorsed a three stage audit process comprising:

- a preliminary survey of all schools to identify the computer to student ratio and age of computers in schools in order to determine those schools most in need of ICT investment;

- a systems [education authorities] level audit to ascertain current and planned ICT investment along with information on the current state of professional capacity among teachers; and

- a more detailed school level audit which would be part of the application process.[34]

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[32]   Funding is for eligible schools that: have Year 9 to 12 enrolments, meet financial and educational accountability requirements for Commonwealth and state legislation, and have a permanent full-time student population.

[33]   In January 2008, the then Minister for Education approved a staged process for implementation of the NSSCF. While all schools would benefit from the NSSCF over four years of funding, the first $100 million was set aside for expenditure in 2007–08 to target schools most in need of ICT.

[34]   The application process was to be used to obtain detailed data on schools' capacity to effectively use new or upgraded ICT, including existing infrastructure, broadband speeds and the professional capacity of teachers.

2.3   The ANAO examined:

- the approach adopted by DEEWR to prioritise the allocation of funding to those schools with the greatest need of ICT investment;

- the method used by DEEWR to ascertain current and planned ICT investment, and to determine the professional capacity of teachers;

- the department's management of the application process, including the guidance provided to education authorities and schools; and

- the assessment practices employed by DEEWR to allocate funding.

Determining need

Preliminary survey of computers in schools

2.4   At the outset of the NSSCF, DEEWR moved quickly to develop a preliminary survey of computers in schools in consultation with education authorities, finalising the design in January 2008. The basis for determining the ICT needs of schools was the ratio of senior students to computers, which was calculated as follows:

(a)   each school's full time equivalent (FTE) Years 9 to 12 students as a percentage of the school's total full time equivalent of students, based on 2007 School Census data [$\frac{Years\ 9\ to\ 12\ FTE}{Total\ School\ Population\ FTE} = X\%$];

(b)   this percentage was then applied to the total number of computers for student use that were less than 4 years old;

$[X\% \times Total\ No.\ of\ Student\ Use\ Computers\ Less\ Than\ 4yrs\ Old = Y]$; and

(c)   the resulting number of computers was then divided by the number of full time equivalent students in Years 9 to 12 to determine a ratio of computers to students [$\frac{Y}{Years\ 9\ to\ 12\ FTE} = Ratio\ of\ Computers\ to\ Students$].

2.5   In February 2008, following completion of the survey by schools, the then Minister for Education endorsed DEEWR's recommended definition of schools 'in need' as those schools with a computer to student ratio of 1:8 or greater. This allowed DEEWR to open Round 1 of funding on 3 March 2008, within the Government's 100 day deadline, and to invite those schools most in need to apply.

2.6   DEEWR also used the preliminary survey data as the basis for calculating schools' eligibility for Rounds 2 and 2.1 of the NSSCF and to calculate the amount of on-costs funding that schools would receive.

Specifically, on-costs funding was, in part, calculated on the number of computers that schools needed to obtain a computer to student ratio of 1:1. The calculation and payment of on-costs funds to schools is discussed further in Chapter 4.

Guidance on completion of the preliminary survey

2.7 DEEWR required accurate data in order to correctly identify those schools most in need of ICT investment for the application rounds of the NSSCF, and to accurately calculate on-costs funding. Given the importance of accurate data to funding decisions, appropriate guidance and a readily understood method to provide the data were essential.

2.8 On 18 January 2008, DEEWR advised education authorities that a completed preliminary survey of schools' computer stocks was required by 7 February 2008. The department populated the survey instrument (spreadsheet) with FTE student numbers for each school using data from the 2007 Schools Census[35] and requested the following information be provided by each school:

- the number of desktop computers available for student use (curriculum use only);

- the number of laptop computers available for student use (curriculum use only);

- the number of laptops/desktops that are aged less than 48 months for student use (for curriculum use only);

- the number of laptops/desktops that are aged more than 48 months for student use (for curriculum use only);

- the number of computers for use by the Administration team only (non curriculum use); and

- the number of computers for use by teachers only (non curriculum use).

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[35] DEEWR's calculation of NSSCF funding for schools is based on 2007 schools student census data. This means that the department must update this information in some instances, for example, when schools open, close, amalgamate or add year levels. The NSSCF administration team use departmental data from the General Recurrent Grants Section to update schools' enrolment data, where necessary.

2.9 DEEWR emailed the preliminary survey spreadsheet to education authorities with an accompanying letter that outlined the information required by the department. The then Minister subsequently wrote to school principals on 4 February 2008 outlining the implementation approach for the NSSCF and indicating that the survey data would be used to identify schools with the greatest need for ICT investment. The department did not provide guidance material to education authorities and schools to facilitate the completion of the preliminary survey, although some education authorities produced guidance for their schools and responded to school queries. DEEWR also assisted education authorities and school principals with queries regarding the survey via emails and telephone throughout the audit process.

2.10 Despite the lack of guidance material from DEEWR, most education authorities considered that guidance from the department had been sufficient. Of the 19 education authorities that provided feedback to the ANAO, 13 (68 per cent) considered that they had received clear guidance from DEEWR; five (26 per cent) noted that further clarification was required from the department; and six (32 per cent) education authorities, predominantly in the Catholic and independent sectors, indicated that little or no guidance was received. Three education authorities also commented on the timing of the preliminary survey, for example, reporting that:

> the timing did not take into account that schools were returning from holidays and settling into the new year; the staff that could give the most accurate answers were not available, and because of the limited time available, the education authority relied on school staff to complete the survey accurately.

2.11 DEEWR informed the ANAO that it was aware of the difficulties that schools faced when completing the department's preliminary survey over the school holidays in January 2008. However, the 100 day deadline established by the Government for the commencement of Round 1 of the program did not allow the survey to be conducted at a later point. The department identified the timing of the survey as a program constraint and a key risk to the initial phase of the program.

2.12 The extent of school involvement in the completion of the department's preliminary survey of computer stocks varied (see Figure 2.1). Most school principals that responded to ANAO questions considered that DEEWR's preliminary survey (spreadsheet) was easy to understand and complete (see Figure 2.2). A relatively small proportion of principals identified issues related to the classification of different categories of computers (such as leased

computers); and the treatment of computers used only by primary school students at a combined primary/secondary education school.[36]

Figure 2.1

Responsibility for completing the preliminary survey

My education authority completed the survey on my school's behalf 16%

Other 1%

My school completed the survey and submitted it to our education authority 83%
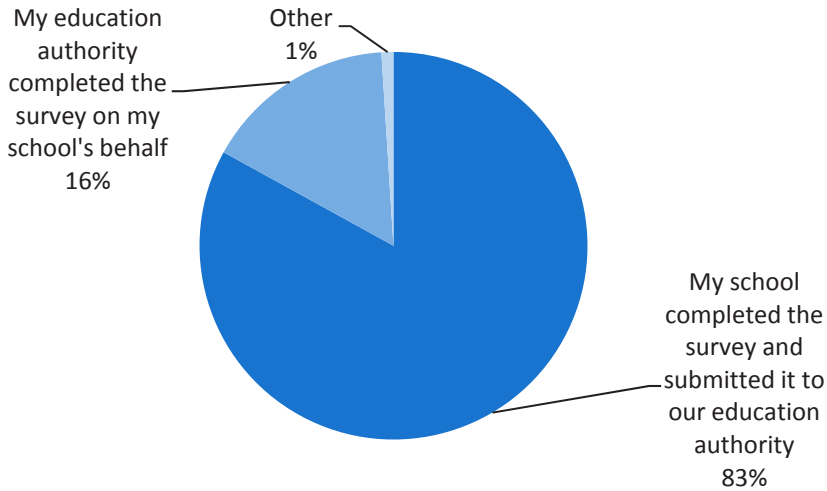
Source: Responses to the ANAO audit survey of school principals.

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[36]   Education authorities identified similar issues when providing feedback to the ANAO on DEEWR's administration of the NSSCF.

Figure 2.2

Understanding and completing the preliminary survey

Timeliness of survey completion

2.13   Twelve out of 22 education authorities responded to the department's preliminary survey by the due date of 7 February 2008. Of those education authorities that met the deadline, some did not have complete data for some schools within their state/sector. By mid February 2008, 96 per cent of schools had returned survey data (some schools, mainly independent schools, chose not to respond).[37] Considering the constrained timeline for completion of the survey, this was a high response rate.

2.14   Over time, education authorities provided revised survey data and data for schools that did not take part in the survey. The department established a *business case proforma* to facilitate data revisions and an *audit request form* to obtain data for new schools, schools that had new Years 9, 10, 11 or 12 or who had not yet responded to the preliminary survey.

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[37]   DEEWR provided these schools with subsequent opportunities to advise on their computer numbers and participate in the NSSCF.

Verification and updating of preliminary survey data

2.15　On 18 February 2008, DEEWR circulated to education authorities for their validation a list of schools eligible to apply for Round 1 of the NSSCF. The list was based on the data provided by education authorities in the preliminary survey and identified in need schools—those with a computer to student ratio of 1:9 or worse.[38] The computer to student ratio of 1:9 was an initial cut-off. Ultimately, Round 1 funding was provided to schools with a ratio of 1:8 or worse. The list was provided to enable each education authority to undertake 'face validation' of student and computer numbers and 'quality checks' on the estimated computer to student ratios for schools in their state/sector.

2.16　Education authorities were given two days to perform this task for potential Round 1 applicants (reflecting the need to move quickly and open Round 1). The short timeframe involved would have been challenging for larger education authorities, increasing the risk that their schools' computer data may not be properly verified. For example, in 2008 there were 819 government schools in New South Wales, 565 government schools in Victoria and 488 government schools in Queensland with students in Years 9 to 12.[39] Of the responses received, just under half reported changes to the data, although usually only for a very small number of schools. In some cases these changes meant that schools became ineligible to participate in Round 1.[40]

2.17　The approaches adopted by education authorities to validate schools' data varied. Six out of the eight government education authorities provided feedback to the ANAO that they were able to verify the data provided by schools in the preliminary survey by comparing the data against education authority records. The remaining two indicated that they were reliant on schools to complete the survey accurately and that any errors were being rectified. Seven of the 12 non-government education authorities reported that

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[38]　The list contained school level data on: student numbers (total and Years 9 to 12); numbers of computers (desktops and laptops); the age of computers available for curriculum use (less than and greater than 48 months); computers available for Years 9 to 12 students; the current ratio of computers to Years 9 to 12 students; the number of computers needed to reach the required ratio, and the associated funding levels.

[39]　Australian Bureau of Statistics, 42210DO002_2008 Schools, Australia, 2008 (Reissue).

[40]　On 21 February 2008, DEEWR circulated an updated list of schools eligible for Round 1 funding to education authorities based on their earlier responses. Education authorities were required to validate the revised list by 10am the next day (again reflecting the need to move quickly). Seven (out of nine) education authorities had responded by 25 February 2008.

they had performed checks on the accuracy of data provided by schools for the preliminary survey. Some of these seven authorities also commented on limitations to checking the accuracy of schools' survey data including:

> We did do some follow up with schools where the data appeared wrong but time precluded much follow up and January was a bad month to do the survey.

<p style="text-align:center">*   *   *</p>

> It is noted that schools were relied on to provide accurate data and that our only avenue for cross-checking appeared to be where the various components of data appeared to be mismatched, understated/overstated, or other "obvious" errors. There was unfortunately insufficient time and inadequate resources to visit each school to crosscheck data.

2.18   Within the limited time available prior to opening Round 1, DEEWR did not independently (of education authorities) take possible steps to gain assurance on the accuracy of the data provided by schools as part of the preliminary survey process. For example, through the use of simple system based data cross-checks (this is discussed in more detail in the next section) and following-up with education authorities or schools on unusual computer numbers.

2.19   As mentioned above, Round 1 of the NSSCF opened on 3 March 2008. At this time, education authorities continued to provide updated data for the department's preliminary survey. In response, the department began sending the business case proforma to those schools who wished to correct their survey data. The department required schools providing updated data for the preliminary survey to do so through their education authority. Education authorities responded with some corrections to the data including identifying schools that should not be included, schools that should be included and corrections to the data, especially to the number of computers that were less than four years old. The department used these revised data to recalculate the computer to student ratio for the relevant schools. For Round 2 the department did not specifically seek validation of preliminary survey data for relevant schools, but instead relied on case by case validation through the business case process.

2.20   DEEWR informed the ANAO that data changes to the preliminary survey data were allowed through the completion of the business case proforma up to 9 September 2008 (allowing Round 2 schools to do a final validation of their data), and in some instances later where exceptional

circumstance existed.[41] Departmental records show that a school, which had significantly underestimated the number of computers for Years 9 to 12, had a data change approved in March 2009—some 14 months after the preliminary survey was first issued and well after Rounds 1, 2 and 2.1 of the NSSCF had commenced. It was agreed that the education authority refund to DEEWR the excess Round 2 funding for the school.

Departmental audit of survey data

2.21 In February 2009, DEEWR's internal auditors commenced a department-wide audit of spreadsheets and purpose built IT systems that generate payment data, which included the spreadsheet used to capture preliminary survey data for the NSSCF. The audit made a number of observations and suggestions, including: the design of the survey could have benefited from the involvement of a person with survey expertise; the use of an online survey instrument would have been faster and more efficient, as well as reducing the risk of errors; and that instructions for users could have also been included. The audit also found that one in six schools had provided conflicting data in their response to the survey, with auditors concluding that greater use could have been made of simple system generated validation checks:

> The survey and spreadsheet could have made better use of simple self-checking routines. For example, the sum of the answers to Questions 1 and 2 must equal the sum of the answers to Questions 3 and 4 (one in six schools affected).

2.22 The internal audit test involving Questions 1 to 4 of the preliminary survey is shown in Figure 2.3.

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41 DEEWR required all schools seeking an amendment of survey data to provide a statement, on a departmental template, outlining the factors underpinning the need for a variation to the data. The department termed this a 'business case process'. DEEWR considered exceptional circumstances to include for example: new school Years 9 to 12, incorrectly counting administration/teacher computers, and incorrectly equating 48 months to two years old instead of four years old.

Figure 2.3

Internal audit test of the accuracy of preliminary survey data

(A)		(B)		(C)		(D)
Number Desktop Computers for Student Use (for curriculum use only)	+	**Number Laptops for Student Use** (for curriculum use only)	=	**Number of Desktop/ Laptops that are aged less than 48 months old as of 30 June 2008** (for curriculum use only)	+	**Number of Desktop/ Laptops that are aged more than 48 months old as of 30 June 2008** (for curriculum use only)
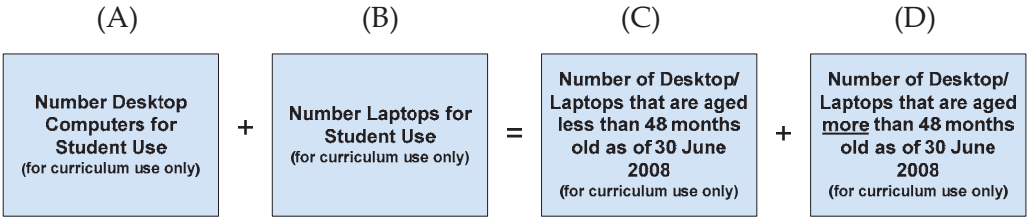
Source: ANAO from DEEWR information.

2.23   Overall, the department's internal auditors concluded that:

Although many of the errors in the spreadsheet are ultimately of little or no consequence, the unresolved anomalous data on the actual numbers of computers available for students in Years 9-12 results in a real risk that:

- a number of schools that should have been funded in Rounds 1 and 2 were not funded, or were insufficiently funded;

- a number of schools that were funded in Rounds 1 and 2 should not have been funded, or received more funding than they were entitled to at that time.

2.24   In response to the early findings of the internal auditors, the business area within DEEWR responsible for administering the NSSCF endorsed the approach that it had used to determine need. The business area concluded that the process that it had used to determine the computer to student ratios for the application rounds of the program was robust and that the business area was confident in the integrity of the data that was used.

2.25   The ANAO repeated DEEWR's internal audit test shown at Figure 2.3 using the department's computer stock data as at June 2010. The purpose of the ANAO's testing was to assess whether discrepancies in the data remained and, if so, to quantify the potential impact on funding levels. The ANAO's testing revealed that there were 460 instances (16 per cent of 2929 schools) where schools had provided anomalous data. That is, the data provided by 460 schools did not pass the internal audit test outlined above. As it was not possible to determine which data items in the department's spreadsheet were incorrect, the ANAO was generally unable to quantify over or under funding of schools. Figure 2.4 shows the distribution of schools providing anomalous data and the size of discrepancies.

Figure 2.4

Anomalous preliminary survey data by size of discrepancy
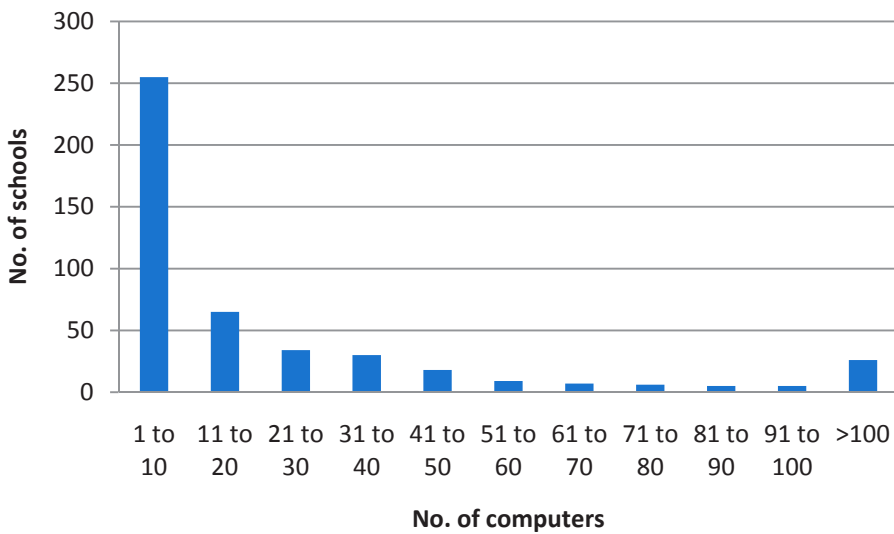
Source: ANAO analysis of DEEWR data.

2.26   Given the anomalous data provided by 16 per cent of schools, there was a need for DEEWR to follow-up with education authorities those instances that were considered significant. For example, where data discrepancies exceeded 10 computers (or $10 000 in application round funding), DEEWR could have provided education authorities with a list of the relevant schools and discrepancies for confirmation or amendment of preliminary survey data.

Understanding ICT investment and teacher capacity

2.27   The second stage of the three stage audit process agreed to by the then Minister for Education was a systems [education authorities] level audit to ascertain current and planned ICT investment, and obtain information on the current state of professional capacity among teachers. The purpose of the systems level audit was to obtain information to assist planning for and the sequencing of, the rollout of ICT to effectively build school capacity over time.

2.28   In January 2008, the then Minister for Education wrote to state and territory ministers for education, Chairs of the Independent Schools Council of Australia and the National Catholic Education Commission seeking:

•   a copy of ICT plans;

•   information on the means by which in need schools are determined;

- current and future strategies to deliver broadband connections to schools;

- information on workforce capability issues—that is, technical training and support, teacher capacity and capability; and

- information on levels of supporting infrastructure—that is, electricity availability, air conditioning and suitable learning spaces.

2.29 Less than half (10 out of 22) of the education authorities provided a response to the Minister's request. The department informed the ANAO that it analysed the material that was provided by education authorities and subsequently provided it to central agencies and the broadband section within DEEWR. The department indicated that the system level information revealed diverse levels of investment, targets and activities to support teacher professional development in ICT across different education authorities.[42]

Managing funding rounds

2.30 Government policy for the implementation of the NSSCF provides for:

- individual schools and school communities to set their priorities for ICT investments through applications;

- the highest priority in the roll-out of the initiative to be given to in need schools providing they have the capacity to receive the investment; and

- applications from individual schools and school communities to detail strategies ensuring the sustainability of the investment, with endorsement by the relevant education authority.

2.31 DEEWR invited schools to participate in three application rounds across 2008 and 2009. Opening and closing dates for each round are detailed in Table 2.1. Rounds 1, 2 and 2.1 were conducted through an application process which involved schools completing an application form.[43] The department developed application and assessment guidelines for Rounds 1 and 2 that

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[42] The department also advised that although less than half of the education authorities responded to the then Minister's request, the subsequent development of the DER Strategic Plan involved all states and territories and provided the opportunity to present a national picture of what needed to be achieved to fully benefit from the Australian Government DER investment.

[43] Education authorities were unable to assess schools' applications online for Round 1. However, education authorities were able to do this for Rounds 2 and 2.1 through the department's online Schools Service Point.

provided advice to potential applicants and assessors (education authorities). The application form, guidelines and assessment criteria for Round 2.1 were the same as for Round 2.

Table 2.1

Opening and closing dates for funding rounds

Round	Opening date	Closing date	Objective/Aim
Round 1	3 Mar 2008	4 Apr 2008	To take those schools with a computer to student of 1:8 or worse to a target ratio of 1:2.
Round 2	14 Jul 2008	9 Oct 2008	To improve the computer to student ratio of schools between 1:8 and 1:2 to 1:2.
Round 2.1	10 Dec 2008	11 Feb 2009	To provide funding for those schools that did not apply in Round 2 but were eligible to do so.

Source: ANAO from DEEWR information.

2.32 The NSSCF is now progressing towards the objective of achieving a 1:1 computer to student ratio by 31 December 2011. To do this, the Government is providing funding to schools on a per capita basis[44] through a National Partnership Agreement and bilateral agreements with government education authorities, and separate funding agreements with non-government education authorities. Schools are no longer required to take part in application rounds administered by the Commonwealth.

2.33 In reviewing DEEWR's management of the funding rounds the ANAO considered:

- the purpose of the application process and the information sought;

- the program guidance materials developed by the department to guide the application process; and

- additional departmental support.

Purpose of the application process

2.34 As discussed earlier, the Government established that the early priority for funding was schools with the greatest ICT need where they had the capacity to receive the investment. Consequently, it was necessary for DEEWR

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[44] That is, based on the number of students in Years 9 to 12 from the 2007 Schools Census data.

to assess whether schools were in a position to receive and use the additional ICT investment available under the NSSCF, prior to the provision of funding. Table 2.2 details the information sought by the department from each school as part of the application process. The information sought was the same for each round of the NSSCF.

Table 2.2

Information sought through the application process

Category of information	Details requested
ICT equipment sought	Desktop computers, laptop computers and/or thin clients were the first priority.
Core infrastructure	Electrical circuit capacity, learning spaces and networks.
Internet access	Details of access and, if not available, the timeframe in which it would be available.
Physical capacity to accommodate additional technology	If unable to accommodate, details of when the school could do so.
Security arrangements	If unable to secure equipment and data, details of when the school could do so.
Type of available ICT support	On-site technician, help desk/call centre, teachers, parents, administration staff.
Development of an ICT strategic plan	Indication of whether an ICT Plan was under development or complete.
Confirmation of consultation with the community and education authority	Yes/No answer.

Source: ANAO from DEEWR information.

2.35   The application process that DEEWR put in place was designed to provide assurance that schools had the necessary capacity to receive ICT funding. However, the following two aspects of the application process adversely impacted upon the quality of information available to the department:

- for Round 1, the application form was structured in such a way that schools were unable to respond that they did not have an ICT plan. If schools did not have an ICT Plan the only available response was 'developing a plan'. When this response was selected schools did not have to provide a copy of their draft plan. For Round 1, 423 schools (out of 896) had an ICT plan under development, but were not required to submit the draft plan for assessment as part of their application.

From Round 2, schools were required to provide a copy of their ICT plan with their application even if it was under development.[45]

- The application form (for each Round) did not allow schools the opportunity to provide definitive timeframes beyond six months to address existing capacity constraints, such as, to establish necessary electrical circuit capacity.[46]

2.36 The consultation approaches adopted by DEEWR for the application rounds were acknowledged by education authorities, with one authority stating that:

> We have been happy with the application process. We were consulted about the application process both at a national level through representation on forums and at a state level. Guidelines provided were clear and where we were unsure about particular things, DEEWR staff were available to assist. The school Entry Point was a useful tool…Given the variation of expertise in schools, the required strategic [*ICT*] plans were not of a consistent standard. As a result committee members were required to spend a significant amount of time with some schools to enhance the quality of plans. While this did put an administrative load on committee members and schools, it was a worthwhile process which has yielded positive results.

2.37 While the requirement for an application process was set by government, the usefulness of the application process for the NSSCF was questioned by some authorities, with one noting that:

> the application process appeared to be an unnecessary waste of time on the part of all concerned...It would have been far simpler for DEEWR to provide the [*education authority*] with a list of schools and their entitlements and for the [*education authority*] to enter into Grant Participation Agreements for the

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[45] The NSSCF Round 2 Guidelines stated that: 'If the strategic [ICT] plan is 'under development' it should at a minimum clearly outline the purpose of the proposed funding … If the ICT Strategic Plan does not meet or is not consistent with state, territory or non government education authorities (where appropriate) ICT plans, it will be assessed as 'under development'. Further development of the school's ICT Strategic Plan will be a key component of the funding arrangements between the school and the education department or BGA', p. 13.

[46] The NSSCF Round 2 Guidelines stated that: 'It is the Australian Government's policy that schools be ready to support the new ICT equipment. Indications of the timeframe are helpful in determining deployment of the new equipment and will be further advised via the Funding Agreement. Capability will be determined by two key factors: electrical capacity of the school and the physical capacity to accommodate additional technology. Schools have been asked to indicate their capability to utilise additional ICT in Part C and Part E of the application. Schools need to demonstrate their ability to ensure that the equipment sought can be installed and operational within the timeframe indicated on their application (<3 months, 3 – 6 months or >6 months). Assessors will ensure this information is correct', pp. 13 and 14.

approved number of computers where schools agreed to participate and agreed to the conditions of the NSSCF thus doing away with a time consuming application process.

Program guidance materials

2.38 Program guidelines should assist applicants to understand the application process, as well as the purpose and the context of the program. It is therefore important that the guidelines are readily accessible to applicants and accurately and succinctly convey program requirements (consistent with the program's policy objectives). In general:

> Program guidelines promote effective administration by encapsulating in one document all relevant information concerning the program. This includes the program's purpose, scope, objectives and desired outcomes; total funding available and the amounts individual applicants will be able to apply for…the entities that will be eligible to apply for funding and any that are not eligible; governance arrangements that will apply to the program's administration; the application and assessment process; and the obligations that funding recipients will be required to satisfy.[47]

Timeliness and accessibility of guidance materials

2.39 DEEWR developed and made available on its Internet site a range of guidelines for the DER program (see Table 2.3).[48] Round 1 and 2 guidelines were approved and made available to education authorities and schools prior to the commencement of the corresponding application round.

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[47] ANAO, *Implementing Better Practice Grants Administration, Better Practice Guide,* 2010, pp. 52 and 59.

[48] While it was initially planned for the then Minister for Education to submit the Round 1 NSSCF guidelines to the Expenditure Review Committee in early 2008 for endorsement, given time constraints the then Minister sought and received endorsement for the guidelines directly from the then Prime Minister.

Table 2.3

DER program guidance material

Document	Information provided
Principles and Guidelines for the NSSCF	• Program background and objective. • Funding—available uses of funding, and funds distribution. • Administration of payments by education authorities. • Conditions of funding. • Responsibilities and requirements.
Round 1 Guidelines[49]	• Program background and objective. • Funding—available uses of funding and eligibility. • Round 1application and assessment process, including assessment criteria. • Administration of payments by education authorities. • Role of funding agreements with education authorities. • Support provided by education authorities. • Guidance for schools in considering minimum specifications for ICT equipment.
Round 2 Guidelines	• Program overview. • Priorities and available uses of funding, including explanation of effective deployment. • Who can apply. • Round 2 application and assessment process, including assessment criteria. • Contracting and funding arrangements. • Monitoring and evaluation.
A Better Practice Guide: ICT in Schools	• Strategic ICT planning. • Implementation of ICT. • ICT infrastructure. • Managing, maintaining and evaluating ICT.
Digital Education Revolution Procedures Manual	• DER program implementation assistance for non-government education authorities. • Guidance for administration components.
National Secondary Schools Computer Fund Frequently Asked Questions	• Answers to commonly asked questions about the NSSCF on the department's website.

Source: ANAO from DEEWR information.

Suitability of guidance materials

2.40   The NSSCF guidelines articulated: the nature and objectives of the program; total available program funding and school funding limits; uses of

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[49]   The department also made publically available the *NSSCF Assessment Guide Round 1*.

program funding; application and assessment criteria; funding arrangements; and obligations of funding recipients.

2.41 While Round 1 guidelines were released prior to the application round, the short timeframe (100 days) for commencing the application process provided limited opportunity for DEEWR to consult with stakeholders about the program guidelines. This was reflected in the completeness and quality of the guidelines and contributed to some of the uncertainty among stakeholders about some program obligations.[50]

2.42 It was evident that DEEWR addressed the shortcomings of the Round 1 guidelines prior to the commencement of subsequent rounds, for example: providing greater clarity about how funding may be used, including defining 'effective deployment' and allowing residual funds to be used for effective deployment; and by clarifying what is meant by a 1:1 computer to student ratio. The Round 2 guidelines were more complete and informative than those of Round 1, which was possibly a reflection of the longer timeframe available for their completion, the opportunity for more stakeholder consultation, and the application of lessons learned from Round 1.

2.43 The provision of the better practice guide for ICT in schools in mid 2008, in time for Round 2 was an improvement on the limited guidance of specifications for ICT equipment available for Round 1.

2.44 For the most part, the guidelines were consistent with the policy principles established by the Government for the NSSCF, although, there were areas of ambiguity, including:

- *procurement*: the Government's preference (expressed in the NSSCF guidelines) was for centralised purchasing of ICT by education authorities in order to achieve economies of scale. In practice, different procurement approaches are being undertaken, from centralised to school-based, depending on the particular circumstances of education authorities and their schools. Given the difficulties experienced by several education authorities in attaining economies of scale, there would have been merit in the department reviewing the constraints on centralised purchasing and cross state/sector access to provider panels

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[50] The Round 1 guidelines did not clearly articulate the meaning of key elements of the NSSCF, such as effective deployment and the meaning of computer to student ratios.

in order to identify options to maximise purchasing power under the program; and

- *policy covering on-costs*: the Round 2 guidelines outlined that the Australian Government was continuing discussions with the states and territories on legitimate and additional on-costs associated with the NSSCF. As a consequence, Round 2 schools were not fully informed of the financial implications of participating in the program at the time they were deciding whether to apply for funding.[51]

2.45 The ANAO consulted education authorities about the extent to which DEEWR's program guidelines and implementation strategies had provided a sound framework for implementation of the NSSCF. Of the six education authorities that commented specifically on the framework, five responded that a sound framework had been promulgated by the department. In response to whether sufficient guidance had been provided, seven of 12 education authorities responded positively.

2.46 Two education authorities expressed concerns about the level of guidance available during the initial phases of the NSSCF: one commenting that limited guidance resulted in considerable interpretation to establish operational procedures and funding agreements for schools; and the other commented that information available to schools was open ended or lacking in clarity. A more substantial issue raised by an education authority concerned DEEWR's lack of clarity surrounding the number of application rounds to be conducted under the NSSCF:

> Critical within the application process was a perceived lack of clarity to both jurisdictions and schools that Round 2.1 constituted the last opportunity for schools to apply, with several of our schools not lodging an Application in the expectation of a subsequent Round 3. The intent of these schools was to review their situation and spend some time investigating what constituted 'good ICT options' for their site before making a commitment to the program. Unfortunately by doing this and then learning of no subsequent application round beyond Round 2.1 they have now been disadvantaged.

2.47 DEEWR informed the ANAO that in 2010 it conducted a business process to cater for schools that: did not participate in the application rounds,

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[51] NSSCF Round 2 Guidelines, p. 4. Round 2.1 was opened after the on-cost decision was made public.

but were entitled to; and did not apply for the full allocation of funding they were entitled to.

2.48 The ANAO survey of school principals also sought feedback on DEEWR's NSSCF guidelines. Overall, these results were favourable:

- 86 per cent of respondents indicated that their school used the program guidelines to assist in submitting an application for funding;

- 81 per cent of respondents agreed that the program guidelines were useful (only five per cent disagreed); and

- 33 per cent of respondents indicated their school had used the ICT in Schools better practice guide. Where it was used, 79 per cent of respondents indicated it provided useful information and advice. For those principals that indicated the guide had not been used, 74 per cent were not aware of the guide, highlighting that it could be better promoted by the department and education authorities.

Additional support

2.49 The implementation of the DER program was a cross-jurisdictional exercise that required a high degree of coordination between the Australian Government, education authorities and schools. In addition to program guidelines, a range of other support measures were necessary to facilitate delivery of the program, particularly given the timeframe established for implementing the program.

2.50 Support provided to education authorities and schools included web-based support which was made available to schools experiencing difficulties, with the then Minister for Education launching a dedicated website for the DER program in February 2008.

2.51 The DER program website provided information and links to the guidelines and the better practice guide. The website also provided contact information for the DER program Hotline, which could be accessed by education authorities and schools for further assistance, and the DER program email inbox for electronic queries. DER program Hotline call statistics for the period 14 July 2008 to 28 February 2009 show that hotline staff responded to 2 357 calls, with school principals accounting for 2 040 of these calls.

2.52 Further, to facilitate the application processes, DEEWR implemented an online application system from Round 2 and provided support to schools and education authorities to meet the deadlines within the established timeframes.

2.53 Of the 11 education authorities that responded directly to the ANAO's question about the adequacy of guidance and support provided by DEEWR, nine (82 per cent) indicated that the department had provided useful guidance. Of those that responded directly to the question about support, all seven (100 per cent) responded that the department had provided adequate support. One education authority commented that: 'The use of the web based system for the lodging and processing of applications for Rounds 2 and 2.1 were a great advance on the physical processing in Round 1'.

2.54 The ANAO survey of school principals revealed that 26.9 per cent of respondents had used DEEWR's web based support, with 84.1 per cent responding that the web based support was useful in assisting the school with technical difficulties in completing its online application. Additionally, 14.4 per cent of respondents reported that they had used the DER program Hotline (call centre), with 87.5 per cent agreeing that the service had been useful in supporting the school to complete the online application.

Assessing funding applications

2.55 Assessment criteria provide the basis on which it can be determined whether a compliant grant proposal merits funding under the relevant program, having regard for the program's objectives and the selection process set out in the guidelines. It is important that the assessment process incorporates appropriate advice to potential applicants and appropriate benchmarks and triggers that alert assessors to applications that would benefit from particular scrutiny.[52]

2.56 A key feature of the assessment process for the NSSCF was the devolution of responsibility for completing assessments of schools' applications to education authorities.[53] In Rounds 1, 2 and 2.1, education authorities were required to assess applications for funding that had been submitted by schools within their state/sector. DEEWR required assessors to check and verify the data on each application form and to assess applications against the assessment criteria provided by the department.

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[52] ANAO, *Implementing Better Practice Grants Administration*, Better Practice Guide, June 2010, p. 81.

[53] In March 2008, the then Minister approved the payment of an administrative fee of one per cent of program funds to non-government education authorities to compensate for the significant additional work resulting from their responsibilities under the DER.

2.57 All assessment criteria for Rounds 1, 2 and 2.1 were mandatory for assessment. The criteria were detailed in the NSSCF guidelines and included:

- the computer to student ratio;

- evidence of an existing or draft ICT Strategic Plan;

- the quality of a schools' ICT plan, its consistency with the education authority's (where appropriate) ICT plans, including the school's ability to ensure that equipment purchased can be operational in a timely fashion;

- the school's capacity to support and implement the proposed procurement (such as adequate power and cooling arrangements, network cabling and desktop space); and

- evidence that the application is supported by the school community (for example Parents and Citizens Associations).

2.58 Given the devolution of responsibility for application assessment to education authorities, it was important for DEEWR to implement a robust quality assurance process over the assessments. DEEWR informed the ANAO that there were a range of approaches adopted by the department to gain an assurance over the integrity of education authorities' assessment practices, including: regular teleconferences; routine contact in order to resolve issues; the establishment of assessment guidelines; the use of the Schools Entry Point System (SEMIS); and the conduct of a quality assurance process once assessments were complete. The intent of department's quality assurance process was to ensure the integrity of the assessment process (conducted by the education authorities) and to: 'provide adequate confidence that all information was correct and no school had been disadvantaged'.

Education authority assessments

2.59 Education authorities' assessment of schools' applications under Round 1 sought to identify any irregularities in the information provided. For example, of the 902 applications submitted in Round 1, education authorities recorded and advised DEEWR of irregularities for 298 (33 per cent) of applications. The main irregularities were:

- schools that had applied for more computers than advised by the department;

- ICT plans needing amendments;

- capacity timeframes needing extension;

- increases made to the funding amount sought; and

- changes to the type of computers applied for from desktops to laptops.

2.60 For Rounds 2 and 2.1, education authorities were able to perform their assessment of the applications through DEEWR's online Schools Entry Point (SEMIS) and record any comments directly into the system.

DEEWR quality assurance reviews

2.61 DEEWR performed a quality assurance process aimed at ensuring the integrity of the assessments completed by education authorities. DEEWR noted that the process also provided the opportunity to check the validity of information submitted by assessors and to ensure that no school had been disadvantaged during the process. The quality assurance process adopted by DEEWR for the NSSCF varied across each round, with differing elements under review and variable sample sizes examined.

2.62 For Round 1, DEEWR's quality assurance process involved reviewing 298 applications for which education authorities had identified application irregularities. In 69 cases (23 per cent of those reviewed), the department found issues such as schools applying for more computers than allocated or changes needed to the status of the ICT plan.

2.63 Of the 1423 schools that applied for funding under Round 2, DEEWR selected 78 (5.5 per cent) applications for assurance review. The department focused on issues relating to students with a disability and the number of computers for which schools had applied. The department identified 65 of the applications (83 per cent of those reviewed) as having a quality assurance issues. The majority of the issues related to inconsistencies in application data for schools with students with a disability.

2.64 In relation to Round 2.1, DEEWR's assurance review focused on:

- the timeframe for schools to receive computers (482 applications out of 512 were flagged for checking)[54];

- the quality of schools' ICT plans (62 applications were flagged for checking); and

- the number of computers for which schools had applied (14 applications were flagged for checking).

2.65 Departmental records show that quality assurance issues were identified for 28 applications under Round 2.1. Ten schools did not apply for the full amount of funding. The remaining issues related to students with disabilities.

2.66 Although the quality assurance process enabled DEEWR to confirm the education authorities' assessments of selected schools' applications based on data provided by schools, it did not allow the department to assess the accuracy of schools' application data. The department informed the ANAO that:

> Checking with schools the accuracy of the data was not viable for DEEWR and not deemed necessary given that at each step of the process declarations were made by the relevant officers as to the true and correct nature of the data.

2.67 There would have been benefit in DEEWR tailoring its quality assurance process to relevant assessment risks, such as the positioning of respective education authorities to conduct application assessments and the potential for the provision of inaccurate data by schools.

ANAO review of application assessments

2.68 The ANAO examined application records to determine whether those schools funded under the NSSCF met the criteria established by DEEWR to determine need and capacity. A large majority of schools advised through their applications they met relevant capacity requirements (such as learning spaces to accommodate additional computers). As would be expected, there was

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[54] The application form required schools to answer questions about their capacity to install the computers for which they had applied. For example, schools were asked 'Is the electrical circuit capacity sufficient to meet the needs of current and future ICT demands?' If a school responded in the negative, the school was asked whether it was awaiting an upgrade to its facilities. If the school responded to this question in the positive, the school was required to indicate the timeframe for the upgrade by selecting: < 3 months, or 3 – 6 months, or > 6 months.

variability in schools' readiness to purchase and install NSSCF computers. For example:

- For Round 1, 18 schools did not have sufficient secure storage capacity and were awaiting an upgrade in more than six months time. Additionally, 10 schools did not have sufficient secure storage space and were not awaiting an upgrade.

- For Round 2, 91 schools did not have sufficient electrical circuit capacity and were awaiting a capacity upgrade in more than six months time. Additionally, 17 schools did not have sufficient electrical circuit capacity and were not awaiting a capacity upgrade.

- For Round 2.1, 15 schools did not have learning space to accommodate the computers and were awaiting a capacity upgrade in more than six months time. Additionally, eight schools did not have learning space to accommodate the computers and were not awaiting a capacity upgrade.

2.69 Additionally, in the ANAO survey of school principals, 28 per cent of principals indicated that their school did not have all the necessary factors in place to effectively use the computers installed under the NSSCF. ICT equipment has a limited lifetime (in this case four years), and delayed utilisation reduces the economic value of the investment.

2.70 When asked what factors needed to be put in place for students to effectively use computers in the classroom, most principals addressed infrastructure needs and staff training. Examples of principals' comments included:

> While there is an overall commitment by staff to utilise technologies across the curriculum, some staff members still lack the confidence and/or technical competence; as confidence and/or competence grows, there is greater demand on infrastructure, for hardware and software; and technical support which places additional stress on the college budget.

<div align="center">*   *   *</div>

> System support eg wireless infrastructure (hardware) and the ability to access ongoing PD for teachers in areas which have not traditionally made much use of ICT. Access to more technician support to keep as much of the hardware up and running all of the time to give certainty to teachers when they go to a room to use computers.

2.71   Of those principals that indicated that their school did not have all the necessary factors in place to effectively use the computers, 51 per cent were not confident, or didn't know whether the necessary factors would be in place by the end of 2011. Examples of principals' comments included:

> Delays in installing wireless access points and data outlets, in my school due to [*education authority*] processes and procedures which have stalled progress.

<p style="text-align:center">*   *   *</p>

> Still waiting to hear from the [*education authority*] about infrastrucure improvements we asked for.

<p style="text-align:center">*   *   *</p>

> Storage and supervision, re charging etc will be an ongoing problem.

2.72   DEEWR advised that a: 'School's capacity was not an inhibitor to funding therefore a school being assessed as "not ready for funding" would have no impact on the quantum of funding for that jurisdiction'. DEEWR also advised that to mitigate risks associated with capability, funding agreements allowed a staged use of the funding, with education authorities/schools allowed up to two years to reach target computer to student ratios for each of the rounds. For Round 1 funding agreements (with the exception of the agreement with the NSW Government) schools were required to expend, or make reasonable attempts to expend 40 per cent of the funding within six months. Funding agreements are discussed in more detail in Chapter 3.

2.73   As is to be expected in a widely distributed environment, there was a diversity of ICT, support infrastructure and capability across states, territories and school systems at the outset of the NSSCF, with cash flow important to generating change. In this context, it was important to work closely with funded schools for which there were high risk capacity constraints. DEEWR advised that, consistent with the program's partnership arrangements, it was the responsibility of education authorities to ensure all necessary preparatory work was undertaken for schools to install the computers funded under the NSSCF.

2.74   Education authorities' progress reports show that 97 per cent[55] of all schools funded in Round 1 achieved a computer to student ratio of 1:2 as required by 30 June 2010. It was not possible to tell from the available data whether schools' capacity to receive the investment was in any way impeding the installation of computers for Rounds 2 and 2.1 and under the DER program NPA. Education authorities' progress reports indicate that schools' planning for and implementing of, capacity upgrades to achieve a computer to student ratio of 1:1 by 31 December 2011 is underway. Examples of education authorities comments include:

> Planning for the purchase and deployment of additional computers and supporting infrastructure required to move from the initial benchmark to the final 1:1 computer to student ratio is underway. An audit of the infrastructure required to support the participating schools has been completed with follow-on options analysis, pilot and testing activities occurring as well as ongoing discussions with Departmental suppliers for computers, network and other infrastructure.

<p style="text-align:center">*   *   *</p>

> Schools are being systematically upgraded to facilitate a ratio of 1:2 and then a 1:1 computer to student ratio. Whilst the primary focus of the upgrade work is to accommodate the increase in computers, the project is assisting schools with moving towards a more standardised environment which allows schools to make greater use of ICT infrastructure.

Conclusion

2.75   DEEWR moved quickly to issue a preliminary survey of computers in schools to establish a basis for determining schools' ICT needs, and to prioritise the allocation of application round funding in accordance with government policy. Responses provided by school principals on the ease with which they completed the department's preliminary survey of computers in schools were generally positive. DEEWR relied on verification of preliminary survey data by education authorities. Within the time available, DEEWR could have improved the reliability of the survey data by: providing brief guidance on how to categorise different types of computers (such as leased computers);

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[55]   There were legitimate reasons for another two per cent of Round 1 schools not meeting the 1:2 ratio by the required date. Funding requirements had changed for nine schools; seven schools had computers reallocated due to student movements; one school had been closed; and the registration of one school had been suspended.

using simple systems based data validation checks to minimise reporting errors; and following-up on unusual school computer numbers. This would have increased assurance over the appropriateness of allocated funding amounts and reduced the number of survey data revisions that occurred over time.

2.76 The application process led to consideration by education authorities and schools of the factors needed to be put in place to support additional ICT. A large majority of schools advised through their applications they met relevant capacity requirements (such as learning spaces to accommodate additional computers). As would be expected, there was variability in schools' readiness to purchase and install NSSCF computers. For example, out of 1393 schools funded for Round 2, 91 schools did not have sufficient electrical circuit capacity for the computers and were awaiting a capacity upgrade in more than six months time, with another 17 schools that received funding lacking the necessary electrical circuit capacity and not awaiting an upgrade.

2.77 DEEWR advised that the approach adopted was for education authorities to be the bodies responsible for the detail of ensuring schools' readiness for installation of computers, and considered that adopting a more hands on role in this regard would have been detrimental to progress.[56] As mentioned above, education authorities reported almost all successful Round 1 schools had installed computers to reach the ratio of 1:2 by the target date, indicating that the funding approach adopted was not detrimental to progress for these schools.

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[56] Round 1 funding agreements provided education authorities two years for schools to achieve a computer to student ratio of 1:2. Although for Round 1, education authorities (excluding the New South Wales Department of Education) were required to expend, or make reasonable efforts to expend 40 per cent of funding within six months.

3.   Establishing Delivery Arrangements

This chapter examines DEEWR's establishment and management of agreements underpinning the delivery of the DER program.

Introduction

3.1   The DER program was established under executive authority rather than by legislation. As such, high level program rules are set by government decisions supplemented by detailed operational rules prepared by the administering agency, in the form of program guidelines and other supporting material. The delivery of a program within the parameters of established rules is generally governed by the establishment of agreements setting out the conditions of funding.

3.2   Well-drafted funding agreements are necessary for the effective management of program activities and underpin sound governance and accountability structures. Funding agreements also provide an opportunity to clearly document the expectations of both parties in the delivery of programs. Typical elements of funding agreements include: an outline of deliverables; measures to protect the Australian Government's interests in ensuring that public money is used for the intended purpose; appropriate payment arrangements; and specify progress reporting requirements and acquittal procedures.

3.3   The introduction of reforms to federal financial relations in January 2009 means that, over the course of program implementation, funding agreements for the DER program have encompassed elements of traditional grant management and elements of the revised framework.

3.4   The ANAO examined DEEWR's establishment of funding agreements for Rounds 1, 2 and 2.1 setting out the conditions of funding under the NSSCF, including the events leading up to the Australian Government's agreement to fund on-costs under the program. The ANAO also examined the impact of the reforms to federal financial relations and the resulting National Partnership Agreement (NPA) and bilateral agreements with government education authorities, and separate funding agreements with non-government education authorities. Additionally, the ANAO assessed whether agreements established by DEEWR for the program:

- appropriately defined project deliverables, including reporting requirements;

- addressed program specific risks;

- protected the Australian Government's interests, including payment acquittal arrangements; and

- were designed to achieve value for money, specifically through arrangements that maximised purchasing power through the achievement of economies of scale.

Establishing funding agreements

3.5   DEEWR informed the ANAO that it was clear from the Government's decision on the DER program and the subsequent COAG decisions that the Government expected the department to adopt a partnership approach to the delivery of the NSSCF. In this regard, the department considers that it has adopted all of the key elements of the partnership approach set out in the documentation associated with the reforms to federal financial relations. Furthermore, the department also observed that such a partnership approach has been adopted from the outset of the program, even before this approach was mandated by reforms to inter-governmental program delivery.

3.6   DEEWR entered into funding agreements with education authorities in June 2008 for Round 1 and April/May 2009 for Round 2 of the NSSCF.[57] The department varied Round 2 funding agreements in May 2009 to accommodate Round 2.1. Under these agreements, education authorities were to procure and deploy ICT equipment under the NSSCF in a manner that enabled schools to achieve the target computer to student ratio of 1:2 for students in Years 9 to 12 by 31 March 2011.

3.7   On 29 November 2008, the Australian Government announced that as a result of a review of additional costs associated with the NSSCF (discussed later in this section), COAG had agreed to additional Australian Government funding of $807 million to assist education authorities with the costs associated with supporting computers and installing and maintaining network

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[57]   The New South Wales Department of Education and Training (NSWDET) did not enter into a funding agreement for Round 2 as it was concerned about the financial implications associated with implementing the NSSCF. The NSWDET subsequently entered into a funding agreement with DEEWR in May 2009 for Round 2.1.

equipment. Funding agreements covering the provision of on-costs support to education authorities were executed in late May and early June 2009.

On-costs

3.8 The briefing material prepared by DEEWR underpinning the Government's decision in December 2007 to establish the DER program indicated that the then Prime Minister would seek the states' and territories' commitment to DER program implementation at the December 2007 COAG meeting. Specifically, agreement of the states and territories would be sought to ensure that the rollout of computers was sustainable at the school level. This would include the states and territories:

- providing technical training and support,

- maintaining the computers and other ICT infrastructure, and

- providing infrastructure support such as electricity, air conditioning and suitable learning spaces.

3.9 In its advice to government, DEEWR indicated that in order to finalise funding agreements it would be necessary to ensure that there was clarity around the management of recurrent costs to support the DER program. There was, however, limited opportunity for DEEWR to consult with education authorities on the issue of on-costs prior to the Government agreeing on the components of the DER program (which excluded on-costs) in December 2007. The department informed the ANAO that:

> - The DER was announced as an election commitment by [the Prime Minister] Kevin Rudd in mid-November 2007.
>
> - The federal election was held on 24 November 2007.
>
> - The incoming Government was sworn in on 3 December 2007.
>
> - Kevin Rudd had announced that the Government would consider the DER at its first Cabinet meeting which was held on 4 December 2007 and the Cabinet Minute reflects that this did, in fact, occur.
>
> …the Minute…reflects the wording of the election commitment insofar as there was an Australian Government expectation that States would provide technical training, support and maintenance of computers and other supporting infrastructure such as electricity, air conditioning etc. The intention was that the PM [*Prime Minister*] would seek States' commitment to DER implementation at COAG–ie through engagement with First Ministers.

The timeline for the first Cabinet outlined above clearly precluded consultation with States and Territories. The implementation approach agreed at the meeting put the issue into the COAG frame in which context it would not have been appropriate for DEEWR to consult at an agency level.

3.10 In February 2008, DEEWR briefed the then Minister for Education on the outcomes of a meeting with Chief Executive Officers (CEOs) of state and territory departments of education, to discuss the progress of the DER program. The department's brief noted that while the CEOs were committed to supporting Round 1 funding applications for the NSSCF they had concerns about planning, budgets, timeframes and capacity.

3.11 In June 2008, before the announcement of successful schools from Round 1, DEEWR advised the then Minister that all states/sectors, except New South Wales, were likely to sign funding agreements for Round 1 of the NSSCF. It was the New South Wales Government's position that the Australian Government should meet all of the on-costs for activating computers purchased under the NSSCF. The department also advised the then Minister that the Victorian Minister for Education presented a paper at the 11 June 2008 Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) meeting calling for a halt to the implementation of the program until the issue of on-costs was resolved.

3.12 At this time, DEEWR advised the then Minister that there were significant on-costs associated with implementing the NSSCF, noting, however, that:

> funding recipients, particularly State Governments, can make savings and efficiencies using bulk purchasing arrangements and using the large injection of funds to standardise their computer fleets and operating systems.

3.13 DEEWR further advised the then Minister in June 2008 that:

> it would not be possible to satisfy the States' position that the Government meet all the costs of implementing the NSSCF within the $1.1 billion without going to a computer to student ratio of less than 1:2 (rather than 1:1).

3.14 DEEWR noted that it was not possible to calculate the exact 'trade off' required (between on-costs and the computer to student ratio) because the department did not have an accurate estimate of the extent of costs likely to be claimed by government education authorities.

3.15 Subsequently, other government education authorities advised DEEWR that they would not sign funding agreements for Round 2 until the issue of

on-costs was resolved. The department advised the then Minister of this development in August 2008. The department also received correspondence from the West Australian Department of Education and Training stating that it had informed its schools not to purchase computers until the issue of legitimate and additional on-costs was resolved.

On-costs Review

3.16   COAG agreed in March 2008 that where the Australian Government's election commitments have legitimate and additional financial implications for the states and territories, consideration of these costs would be included as an addition to the work of Treasurers in the final determination of new generation Specific Purpose Payments at the end of 2008.[58]

3.17   In response to the then Prime Minister's request for a report to be prepared on the 'legitimate and additional' financial implications for the states and territories arising from the implementation of the NSSCF, the Secretary of the Department of Prime Minister and Cabinet commissioned a review in July 2008. The review was chaired by the Department of Finance and Deregulation. The review report[59], which was published on 3 September 2008, concluded that:

> The achievement of a 1:1 computer to student ratio will involve additional costs for schools and education authorities. However, the establishment of the National Secondary School Fund has provided a funding source for investments that schools and education authorities would otherwise have had to make from their own resources, even in maintaining a lower computer to student ratio.

3.18   The review also made eight recommendations including:

> an appropriate level of supplementation for the legitimate and additional costs of the National Secondary School Computer Fund be determined by the Government and that this supplementation be provided through an increase in the level of funding per computer or through the proposed new schools Specific Purpose Payment.

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[58]   The Commonwealth provides payments to the states and territories for specific purposes to enable important national policy objectives in areas that may be administered by the states and territories to be pursued. These payments cover most functional areas of state and local government activity — including health, education, skills and workforce development, community services, housing, Indigenous reform, infrastructure and environment.

[59]   *Review of the legitimate and additional costs associated with the National Secondary School Computer Fund*, 3 September 2008.

Payment of on-costs funding

3.19   On 29 November 2008, the Australian Government announced that, in response to the recommendations of the On-costs Review, COAG had agreed to additional funding of $807 million to assist education authorities with the costs associated with the NSSCF.[60] The amounts of on-costs funding provided to education authorities are outlined in Chapter 4.

National Partnership Agreement, bilateral and funding agreements

3.20   Following the introduction of federal financial relations framework reforms in January 2009, the Australian Government entered into a NPA[61] and bilateral/funding agreements with education authorities to implement the DER program (the impact of the reforms to the federal financial relations framework is examined later in this chapter).

3.21   Table 3.1 provides a summary of agreements for Rounds 1, 2 and 2.1, the on-costs agreement, and agreements under the revised federal financial relations framework.

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[60]   The Review determined that a reasonable overall estimate of the cost of deploying each additional computer is $2500 (including $1000 for the cost of the computer) over four years. This mainly reflects the costs of supporting computers and installing and maintaining network equipment. The Department of Finance and Deregulation estimated that funding of $880 million was required in addition to the funding already appropriated for the DER. The Australian Government agreed to pay this as a lump sum and applied a net present value calculation to the lump sum payment. The effect of this was to discount the amount to $807 million.

[61]   COAG has previously agreed to a new form of payment—National Partnership (NP) payments—to fund specific projects and to facilitate and/or reward states and territories that deliver on nationally significant reforms.

Table 3.1

DER program agreements

Type	Aim	Party	Executed	Expiration
Funding Agreement: Round 1	Computer to student ratio of 1:2.	All education authorities.	June 2008	31 December 2010
Funding Agreement: Round 2	Computer to student ratio of 1:2.	All education authorities (except the New South Wales Department of Education and Training).	March/April 2009	30 September 2011
Funding Agreement: Round 2.1	Computer to student ratio of 1:2.	All education authorities.	May 2009	30 September 2011
National Education Agreement[1]	To provide for legitimate and additional costs of the NSSCF.	Government education authorities.	December 2008	20 September 2013
Funding Agreement for Provision of On-costs	To provide for legitimate and additional costs of the NSSCF.	All education authorities.	May/June 2009	30 September 2013
National Partnership Agreement[2]	Computer to student ratio of 1:1.	Government education authorities.	June 2009	30 June 2013
Bilateral [*funding*] Agreements[3]	Computer to student ratio of 1:1.	Government education authorities.	December 2009	30 September 2013
Funding Agreements 2008-09 to 2012-13[4]	Computer to student ratio of 1:1.	Catholic and independent education authorities.	June 2009	30 September 2013

Source: ANAO analysis of DEEWR information.
Notes: 1. The National Education Agreement (Schedule F of the Inter-governmental Agreement) included on-costs funding for the NSSCF.
2. The parties to the National Partnership Agreement are the Australian Government and the states and territories.
3. Bilateral agreements with government education authorities (for government schools).
4. Funding agreements with non-government education authorities (for non government schools).

Impact of reforms to the federal financial relations framework

3.22 Since the introduction of the federal financial relations framework in January 2009, the Australian Government entered into a series of agreements to implement the DER program.[62] These agreements include:

- the National Education Agreement (NEA), which included on-costs funding for the NSSCF;

- the National Partnership Agreement on the Digital Education Revolution (NPA); and

- bilateral agreements with government education authorities and funding agreements with non-government education authorities.

3.23 The Treasury (for government schools) and DEEWR (for non-government schools) now each receive appropriations to administer the DER program. The Treasury administers payments to state and territory government treasuries, based on advice from the department. DEEWR retains overall policy responsibility for the program.

3.24 The NEA is a schedule of the Inter-governmental Agreement (IGA) which includes provision for on-costs funding and covers a period of four years. The on-cost funding agreement requires education authorities to report on their progress towards the 1:1 computer to student ratio, as well as progress on the four strands of change.[63]

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[62] On 29 November 2008, the Council of Australian Governments (COAG) agreed, through endorsement of an Inter-governmental Agreement (IGA) on Federal Financial Relations, to substantial reforms to Australia's federal financial relations framework. The framework established under the IGA, which commenced on 1 January 2009, involved a major rationalisation of payments to the states and territories to support clearer specification of the roles and responsibilities of each level of government. The Australian Government considered that, in the past, 'blurred' roles and responsibilities between levels of government, as well as duplication and overlap, had been costly aspects of Australia's federal system, particularly where they have undermined accountability through cost shifting. In endorsing the IGA, the Australian Government committed to move away from prescription on service delivery in the form of financial or other 'input controls' which inhibit state and territory service delivery and priority setting. Australian Government of Australia, 2009, Budget 2009–10 (Budget Paper No.3-Part 1: Australia's Federal Relations), Canberra.

[63] The four strands of change include: Leadership—that ensures schools have a coordinated plan for the provision of infrastructure, learning resources and teacher capability to address the educational challenges of the 21st Century; Infrastructure—access to digital teaching and learning resources and tools for processing information, building knowledge and for communication and collaboration; Learning Resources—that stimulate, challenge and assist students in achieving desired learning outcomes, these include collaborative and interactive activities as well as instructional and reference materials; and Teacher Capability—teachers have the skills and tools to design and deliver programs that meet students' needs and harness the benefits and resources of the digital revolution.

National Partnership Agreement on the Digital Education Revolution

3.25   The establishment of an NPA for the DER program was seen by DEEWR as an opportunity to consolidate strategic approaches to implementation—drawing together the DER Strategic Plan, Implementation Roadmap and ICT funding. It also provided an opportunity to place an increased focus on progress against the four strands of change.

3.26   On 27 March 2009, MCEETYA endorsed the development process of an NPA for the DER program. DEEWR subsequently drafted an NPA covering the period 2008 to 2013, which encompassed all components of the DER program. The NPA was executed in June 2009.

3.27   The DER program NPA sets out the scope, intent, aims and objectives of the DER program as specified in the agreed DER Strategic Plan.[64] It also sets out funding levels, the mechanisms by which the funding is paid and the requirements for reporting and accountability. The NPA is underpinned by bilateral agreements with government education authorities.

3.28   As non-government education authorities were not signatories to the NPA, separate funding agreements were established to support their progress towards achievement of a computer to student ratio of 1:1 by 31 December 2011. These funding agreements contained similar progress reporting and payment arrangements to the bilateral agreements, although they did not require an annual independent audited statement and reporting on maintenance of effort by non-government education authorities (see discussion in the following section). They were also similar to the funding agreements used for the application round funding.

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[64]   In September 2008, the Productivity Agenda Working Group (PAWG) sub-committee of COAG agreed to a DER Strategic Plan to guide the implementation of the DER and related initiatives. The strategic plan outlines a vision for ICT enabled learning in schools and four strands of change appropriate for joint national action in association with the DER in order to achieve this vision: leadership; infrastructure; learning resources and teacher capability.

3.29 The large number of funding agreements established for the NSSCF, and more broadly the DER program, has implications for the administrative workload on education authorities and the department. This issue was raised by several education authorities, with comments including:

> The establishment of separate funding agreements with Block Grant Authorities (BGAs) to cover each Round of the National Secondary School Computer Fund (NSSCF) and a separate funding agreement for on costs has led to some inefficiency.

<div align="center">*   *   *</div>

> There are now in place a number of separate Funding Agreements that reflect particular stages of the program roll-out. With this number of agreements in place, administration and reporting requirements now prove somewhat cumbersome as each agreement differs slightly in terms of some requirements such as reporting dates.

3.30 DEEWR informed the ANAO that, in the early stages of program implementation, the department had considered the appropriateness of adopting a single funding instrument comprising a common set of terms and conditions and different schedules to accommodate each funded activity. As the department did not have a clear understanding—at that time—of the terms and conditions that would apply in subsequent rounds, it did not proceed with the single funding instrument. Consequently, changes in the coverage of different agreements and the adoption of revised guidelines for latter rounds led the department to conclude that it was not feasible to adopt a multi schedule agreement.[65]

Defining program deliverables

3.31 Program deliverables were defined through the establishment of DER program and NSSCF objectives, which are reflected in the funding agreements. Education authorities are required to report against these objectives, specifically the extent to which they have achieved the desired computer to student ratio. DEEWR's administration of reporting requirements for the DER program are discussed in Chapter 5.

3.32 DEEWR advised the then Minister for Education in March 2008 that there was varying capacity across education authorities to fully use the

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[65] DEEWR advice: 17 February 2010.

Australian Government Round 1 NSSCF funding. In particular, some states/sectors had advised the department that there was insufficient infrastructure in schools to support the deployment of new equipment, such as limitations relating to space, security, power supply, air conditioning and/or technical support. They further advised that this may result in some schools and states/sectors not participating in Round 1 of the NSSCF or some schools receiving funding for computers without the capacity to effectively deploy them, particularly in the short term. Delays between the acquisition of computers and attaining the capacity to install and effectively use them are problematic as they reduce the benefits derived from the investment.

3.33   DEEWR developed and negotiated funding agreements for each of the application rounds that allowed approximately two years to use program funding, to enable education authorities to use the funding in accordance with their capacity to effectively deploy computers. For Round 1, funding agreements allowed education authorities approximately two years to reach the target ratio. However, under Round 1 of the program, education authorities were also required to expend 40 per cent of the application round funding or make reasonable endeavours to do so, in the first six months of the program, that is, by December 2008.[66]

3.34   The requirement to expend 40 per cent of funds in the first six months of the Round 1 funding agreements reduced flexibility with regard to a staged use of funding, depending on capacity to effectively deploy computers. In response to the ANAO's findings, the department advised that 61 per cent of all schools that applied for funding in Round 1 reported in their application they would be ready for installation of additional computers within six months.[67]

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[66]   The New South Wales Department of Education and Training (NSWDET) negotiated different requirements to other education authorities regarding the expenditure of funding and the effective deployment of computers in the first six months of the NSSCF. The agreement between the Australian Government and the NSWDET included a requirement that funds would be expended in line with a schedule agreed by both parties. NSW had requested more flexibility in the timeframe due to the large amount of funds received (approximately $57 million) and also noted that installation and deployment could not be effective until the requisite infrastructure, such as Internet connectivity was in place.

[67]   DEEWR further advised that, excluding the New South Wales Department of Education and Training, 92 per cent of schools indicated they would be ready for installation within six months.

Addressing program specific risks

3.35 Risk management guides strategies and activities designed to maximise administrative effectiveness subject to available resources. Effective risk management necessitates active management of risks to take account of changing circumstances through the various phases of program implementation, with review of risks occurring at key stages. Risk planning was performed for the NSSCF at the following stages of program development and implementation:

- policy development for the NSSCF;

- implementation and management of NSSCF Round 1;

- implementation and management of NSSCF Round 2;

- stakeholder management phase of the program; and

- implementation and management of the NSSCF and DER program National Partnership.

3.36 In addition to risk assessments completed by DEEWR at key stages of the program, DEEWR also developed risk plans for its Digital Education Group that was administering the NSSCF. DEEWR identified the following risk in its *Digital Education Group Strategic Risk Assessment* for which funding agreements (and their monitoring) were recorded as controls:

> *Risk:*   Poor program design allows for fraudulent applications for funding.
>
> *Control:*   Clearly articulated funding agreements which outline the:
>
> - responsibility of recipient;
>
> - deliverables and milestones; and
>
> - terms and conditions of the allocated funding.

3.37 The funding agreements established by DEEWR for the DER program incorporated appropriate terms and conditions that adequately addressed the above controls outlined in the risk assessment.

Protecting the Australian Government's interests

3.38 Well-designed funding agreements protect the interests of the funding body by establishing terms and conditions which provide assurance allocated funds are used for their intended purpose. DEEWR sought to protect the Australian Government's interests through the inclusion of terms and

conditions in the funding agreements for the DER program that articulated the purpose of the funding[68] and the objective[69] of the NSSCF. In particular, the funding agreements specified funding priorities, with the major focus of funding (excluding on-costs funding) on the purchase of laptop computers, desktop computers and thin clients with virtual desktops. Residual funds were to be used on the deployment of purchased computers. Further residual funds could be used for the purchase of whiteboards, data projectors, digital cameras and network infrastructure.

3.39   Additionally, DEEWR sought to protect the Australian Government's interests through the inclusion of agreement clauses covering:

- management of funding;

- repayment of funding;

- restriction of purchase and creation of assets to those detailed in the agreement;

- reporting requirements;

- indemnity clauses for loss or liability;

- conflict of interest;

- dispute resolution; and

- termination.[70]

Payment arrangements

3.40   Program management practice to protect the Australian Government's interests through funding agreements often involves linking payments with the achievement of specified performance benchmarks or progress milestones. In the case of the DER program, DEEWR adopted an alternative payment approach. Payment arrangements for Rounds 1, 2 and 2.1 of the NSSCF

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[68] The NSSCF provides grants for new ICT for secondary schools with students in Years 9 to 12.

[69] For example, the funding agreements for Rounds 1, 2 and 2.1 state that the objective of the fund is to ensure every secondary school in Australia is a digital school, equipped with the educational tools of the 21st Century. The funding agreement for Round 1 of the NSSCF states that the objective of Round 1 is to take those schools with a computer to student ratio of 1:8 or worse to a target ratio of 1:2. The funding agreements for Rounds 2 and 2.1 of the fund state that the objective of these rounds is to increase the proportion of computers to students in Years 9 to 12 in all schools, to a national target of 1:2.

[70] For application round funding agreements with all education authorities, and subsequent funding agreements with non-government education authorities.

delivered all funding as up-front lump sum payments, which provided education authorities or schools with flexibility in determining how to deploy funding. DEEWR considered that the payment approach was essential as any delays in releasing funding or withholding funding would mean that computers would not be purchased and the target computer to student ratio of 1:2 would not be achieved in time.

3.41   Under the NPA, bilateral and funding agreements with education authorities to achieve a computer to student ratio of 1:1, payments are made on a six monthly basis. The first payment was made upon the execution of the agreements. The second payment was linked to authorities providing an acceptable implementation plan and progress report to the department. Subsequent six monthly payments are linked to authorities providing an acceptable progress report. The basis for DEEWR's 'acceptance' of progress reports and making of subsequent payments would have been strengthened by agreement on and monitoring against one or two intermediate progress milestones, established through education authorities' implementation plans under the bilateral and funding agreements.[71]

Acquitting program funding

3.42   Payment acquittal is an integral part of sound risk management and provides a degree of assurance that public funds have been expended for their intended purpose and in accordance with the terms and conditions of the funding agreement. Table 3.2 shows the acquittal arrangements established by DEEWR for the DER program.

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[71]   Education authorities' implementation plans generally provide considerable narrative description of approaches, but often less by way of targets and milestone dates for key implementation actions against which progress could be objectively assessed. The use of progress milestones to support program management and external reporting is discussed in Chapter 5.

Table 3.2

Payment acquittal arrangements

Funding Agreement	Annual Independent Assurance	Final Audit Report
Rounds 1, 2 and 2.1 (all education authorities)	No arrangement.	A final audit report six months after the end of the funding agreement period (approximately two and a half years after the agreement commenced).
On-costs (all education authorities)	No arrangement.	A final audit report six months after the end of the funding agreement period (approximately four years after the agreement commenced).
DER program Bilateral Agreement (government education authorities)	Audited annually by state/territory Auditors-General or their authorised representative in relation to the funding. The state/territory is required to provide DEEWR with a copy of the audit report on 15 January of each year of the agreement. The audit report is to include a: • detailed statement of income and expenditure for the funding for the previous financial year, which must include a definitive statement as to whether the financial accounts are true and fair, and a statement of the balance of the funds held; and • statement that the funding was expended for the purpose of achieving the deliverables and performance benchmarks and in accordance with the agreement.	A final audit report approximately four years after the agreement commenced.
DER program Funding Agreements 2009–10 to 2012–13 (non-government authorities)	No arrangement.	A final audit report six months after the end of the funding agreement period (approximately four years after the agreement commenced).

Source: ANAO analysis of DEEWR information.

3.43   The absence of an annual acquittal arrangement with education authorities for Rounds 1, 2 and 2.1 funding agreements, and under DER program funding agreements with non-government education authorities, means that DEEWR does not receive timely independent assurance. Under the agreements, independent assurance that the funding was expended for the

purpose of producing program deliverables, performance benchmarks and in accordance with the terms and conditions of the agreement is obtained approximately:

- two and a half years after the commencement of agreements with all education authorities for NSSCF funding rounds, and

- four years after the commencement of DER program funding agreements with non-government education authorities for the period 2009-10 to 2012-13.[72]

Monitoring maintenance of effort

3.44 The DER program policy included a requirement for education authorities or schools to maintain current and planned levels of investment for ICT in schools over the life of the DER program. Specifically, this involves contributing 30 per cent of the total expenditure required to maintain the computer to student ratio of 1:1 once it is achieved (referred to as 'maintenance of effort').

3.45 DEEWR's agreements for Rounds 1, 2 and 2.1 did not include a requirement for education authorities to report on maintenance of ICT investment, other than government education authorities funded under Round 1.

3.46 A requirement for maintenance of effort reporting is included in the NPA and the underpinning bilateral agreements with government education authorities. Specifically, the bilateral agreements include the requirement for government education authorities to progressively report on their: 'contribution to maintenance of effort of 30 per cent of total required future funding'. No such reporting requirement is included in the funding agreements with non-government education authorities to move from a computer to student ratio of 1:2 to 1:1.

3.47 To assist in obtaining timely assurance over complementary state/sector funding, DEEWR should explore opportunities with education authorities for non-government schools to report on their funding contribution to maintain the computer to student ratio of 1:1.

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[72] Annual acquittals have been adopted by DEEWR for other Australian Government school funding programs that are administered by education authorities, including: the long running Capital Grants program; the Building the Education Revolution; and Trade Training Centres.

Recommendation No.1

3.48 The ANAO recommends that DEEWR establish for future Digital Education Revolution program funding agreements, an obligation for non-government education authorities to provide an annual acquittal of program funds, including an independent audited statement that the funding was expended for the purpose of achieving the deliverables and performance benchmarks in accordance with the agreement.

DEEWR response

3.49 The Department agrees with this recommendation and will establish an obligation for non-government education authorities, in future DER program funding agreements, to provide an annual acquittal of program funds.

Achieving value for money

Supporting value for money outcomes

3.50 The ICT market in Australia is highly competitive with numerous suppliers offering a range of computing solutions from which schools and education authorities can purchase. Consequently, there are opportunities for schools and education authorities to achieve value for money when purchasing ICT under the NSSCF, particularly through economies of scale.

3.51 The concept of value for money was initially raised as an expectation of the Government in December 2007. Under the funding agreements established for Rounds 1 and 2, DEEWR encouraged government education authorities to undertake centralised purchasing processes for schools. The funding agreements for Catholic and independent education authorities stated that the use of centralised purchasing processes across sectors would assist in achieving economies of scale.[73] Collaboration across states/sectors was also seen as important to facilitating economies of scale, and the department encouraged this approach through the guidelines and the funding agreements.

3.52 Another element in purchasing considerations was the determination of a unit price for each computer funded under the NSSCF. A unit cost of $1000 was determined in consultation with central agencies when developing

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[73] Funding agreements for non-government education authorities include a one per cent administrative payment to cover costs associated with facilitating bulk purchasing arrangements as well as: assessing ICT strategic plans and ICT capability in schools; managing funding agreements for schools; and managing the effective deployment of purchased ICT.

the Round 1 guidelines. Based on the unit price, a school requiring 10 computers to achieve a 1:2 computer to student ratio received $10 000 in application round funding. The guidelines stated that:

> The unit cost used to calculate funding needed to improve the computer to student ratio is $1,000. This figure is an average and takes into account the range of equipment which can be acquired under this program.[74]

3.53 DEEWR provided additional incentives to drive value for money outcomes through funding agreements. As mentioned above, education authorities were allowed to use residual funds from the purchase of computers to ensure the effective deployment of purchased computers. Residual funds could also be used for the purchase of complementary ICT equipment, such as interactive whiteboards, data projectors, digital cameras and network infrastructure.

Maximising purchasing power

3.54 The ability to achieve economies of scale was dependent upon the purchasing power of each education authority, with larger authorities better positioned to negotiate significant price reductions on ICT purchases. In contrast to the discounted pricing that was able to be achieved by larger education authorities, a smaller education authority informed the ANAO that it had experienced difficulties purchasing appropriate equipment within the fixed allocation of $1000 per unit:

> Unfortunately at the same time the GFC [*Global Financial Crisis*] was starting and with the drop in the $Aus the purchase prices actually went up and for some time it cost more than the $1,000 allocated by the Commonwealth.

3.55 Several smaller education authorities, both government and non-government, indicated that there were barriers to the achievement of value for money outcomes, including:

> smaller jurisdictions were effectively 'penalised' in terms of scale and efficiencies that might otherwise be achieved.

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[74] Department of Education, Employment and Workplace Relations, *NSSCF Round 1 Guidelines, 2008–11*, February 2008, p. 5. The unit cost was determined in consultation with central agencies as part of the development of the guidelines.

> We don't believe the guidelines established by DEEWR for the NSSCF facilitate the achievement of economies of scale and administrative efficiencies, as due to state Government purchasing guidelines we could not purchase off interstate panels, and thus could not leverage off the total number of computers being deployed across either Australia or even a single state such as Victoria or NSW.
>
> *　　　*　　　*
>
> in practice, vendors make it difficult for smaller BGA's to access pricing negotiated by larger BGA's.

3.56　In May 2008, DEEWR sought clarification from government education authorities on whether their bulk purchasing arrangements were available across sectors in their state or territory. Of the six that responded, two at that time confirmed this was possible.

3.57　Additionally, education authorities that operated a centralised model of ICT management were in a better position to achieve value for money outcomes through bulk purchasing. Generally, education authorities in the Catholic and independent sectors were not well positioned to direct schools to participate in centralised processes. In some states/sectors purchasing was undertaken primarily at the school level.

3.58　On this issue, seven out of 10 (70 per cent) of the independent and Catholic education authorities that responded to the ANAO indicated that: they had not been directly involved in negotiating with contractors; or were not involved with schools' purchasing decisions to enable economies of scale to be achieved, although these principles were encouraged. Two of these authorities commented that schools in their state/sector had leveraged off arrangements provided by government education authorities. In the government sector all education authorities, with one exception indicated that economies of scale had been facilitated, either through existing or newly negotiated arrangements.

Conclusion

3.59　The funding agreements established by DEEWR for the DER program identify funding objectives, assist in managing risk and include a range of terms and conditions to protect the Australian Government's interests. However, funding agreements with non-government education authorities to achieve the 1:1 ratio do not provide for annual audited financial acquittals. DEEWR should also explore opportunities with education authorities for

non-government schools to report on their funding contribution to maintain the computer to student ratio of 1:1—education authorities are required to contribute 30 per cent of the total required future funding. These steps would assist DEEWR in obtaining timely assurance over the use of funding and complementary state/sector funding.

3.60 The approaches adopted by DEEWR to encourage value for money were generally sound. In particular, allowing residual NSSCF funding to be used for the effective deployment of purchased computers and further residual funds to be used for the purchase of complementary ICT equipment provided a strong incentive for education authorities and schools to seek value for money outcomes. It also provided a degree of flexibility to education authorities and schools to use available funding in a manner that supported the objectives of the NSSCF and more broadly the objectives of the DER program. In practice, differences in purchasing power between larger and smaller education authorities have produced differing value for money outcomes across states/sectors.

4. Calculating and Releasing Payments

This chapter examines the department's administration of DER program payments to education authorities.

Introduction

4.1   The Australian Government will pay over $2 billion to education authorities for the DER program in the period 2007-08 to 2012-13. Funding agreements with education authorities provide for, and specify the terms and conditions for, the payment of program funding.

4.2   Payment arrangements for the DER program are as follows (see also Figure 4.1):

- DEEWR paid funds allocated under Rounds 1, 2 and 2.1 to each education authority, as a one-off payment for each round;

- on-costs were paid by or through the Treasury as a one-off payment to each education authority (the Treasury held the appropriation for the government schools sector and DEEWR held the appropriation for the non-government schools sector); and

- funds under the NPA for government education authorities, and separate funding agreements with non-government education authorities for 2009–10 to 2012–13 are paid on a six monthly basis by or through the Treasury (the Treasury holds the appropriation for the government schools sector and DEEWR holds the appropriation for the non-government schools sector). The first payment was due upon the execution of agreements. The second payment was linked to education authorities providing satisfactory implementation plans and progress reports to DEEWR by September 2009. Subsequent payments are linked to education authorities providing satisfactory progress reports in July and January each year. Funds are released from the Treasury to state and territory treasuries for on-forwarding to state and territory departments of education, and through these departments to BGAs.[75]

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[75]   DEEWR advised that in some cases, payments are made directly from state and territory treasury departments to BGAs.

Figure 4.1

Payment structure for the application-based rounds and under the NPA, bilateral agreements and funding agreements

Payment flow under the application-based rounds
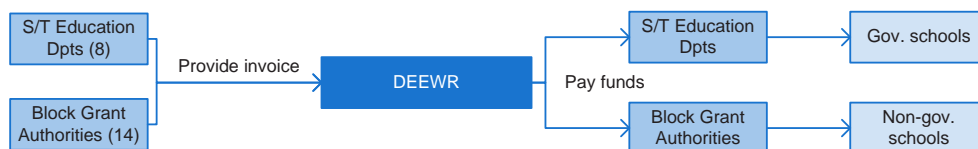
Payment flow under the NPA, bilateral agreements and funding agreements
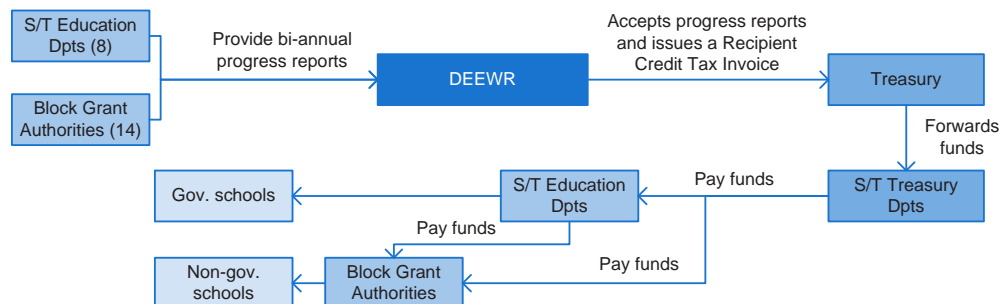
Source: ANAO from DEEWR information.

4.3   The ANAO examined whether the department had:

•   properly executed agreements with education authorities before making DER program payments;

•   approved education authorities' implementation plans and progress reports (as required under the NPA and funding agreements for 2009–10 to 2012–13) before making DER program payments; and

•   correctly calculated DER program payments for Rounds 1, 2 and 2.1 of the NSSCF, on-costs and under the NPA and funding agreements.

Execution of agreements with the education authorities

4.4   A properly executed agreement provides written evidence that the parties have agreed to the terms and conditions within the agreement including for example, the amount and timing of payments, and the conditions under which payments will be made.

4.5   The ANAO examined the funding agreements entered into by the Australian Government with education authorities (Rounds 1, 2 and 2.1 of the

NSSCF, the NPA, bilateral and funding agreements for 2009–10 to 2012–13) to ascertain whether these agreements were:

- signed by an Australian Government signatory and witnessed;

- signed by an education authority and witnessed;

- correctly dated; and

- executed before a payment was made.

4.6 The ANAO found that (see Table 4.1):

- all agreements were signed by the parties although three agreements were not witnessed;

- in Round 1 payments were made to two non-government education authorities and three government education authorities before agreements were signed by both parties;

- in Round 2 payments were made to three non-government education authorities before agreements were signed by both parties;

- on-costs payments were made to two non-government education authorities and two government education authorities before agreements were signed by both parties;

- the NPA was not dated by three government education authorities; and

- funding agreements with non-government education authorities were not signed before the first payment was made. The agreements were signed one to three days after the first payment.

4.7 On 26 June 2009 the Treasury advised DEEWR that the then Prime Minister had signed the NPA and that the NPA had been given to the Treasurer for counter signature. On the basis of the NPA being signed, the first payments were made by the Treasury to state and territory governments.

Table 4.1

Execution of agreements between the Australian Government and the education authorities

Agreements were…	…signed by a Australian Government signatory	…signed by education authority	…correctly dated	…executed before a payment was made
Government education authorities				
Round 1	✓	✓	✓	5/8
Round 2	✓	✓[1]	✓	✓
Round 2.1	✓	✓	✓	✓
On-Costs	✓	✓[2]	✓	6/8
NPA	✓	✓	5/8[3]	5/8[4]
Non-government education authorities				
Round 1	✓	✓	✓	12/14
Round 2	✓	✓	✓	11/14
Round 2.1	✓	✓	✓	✓
On-Costs	✓	✓	✓	12/14
DER program FA	✓	✓	✓	0/14

Notes: 1. One agreement was not witnessed.

2. Two agreements were not witnessed.

3. Three state and territory governments did not date the NPA.

4. Three education authorities had not dated the NPA so it was not possible to confirm that the agreement had been executed before a payment was made.

Source: ANAO analysis of Treasury and DEEWR information.

4.8   The administrative impact of some of these errors may be low. However, for those instances where payments were made before agreements had been signed by the Australian Government, the potential exists for issues to arise such as dispute over what was agreed by the parties.

Approval of education authorities' implementation plans and progress reports

4.9   As mentioned above, under the NPA (including underpinning bilateral agreements) and funding agreements for 2009–10 to 2012–13, payments are made on a six monthly basis, with the first payment due upon the execution of the NPA or funding agreement. The second payment was linked to education

authorities providing satisfactory implementation plans and progress reports to DEEWR by September 2009.[76] Subsequent payments are linked to education authorities providing a satisfactory progress report.

4.10 The ANAO examined whether the Minister's delegate had approved education authorities' implementation plans and progress reports before second payments were made.

4.11 Table 4.2 shows that DEEWR has not always acted in a manner consistent with the requirements of the funding agreements. Specifically, payments were made before the Minister's delegate had approved the implementation plan of one government education authority and the progress reports of ten non-government education authorities. In view of this analysis, there is merit in DEEWR strengthening its controls around future payments under the DER program to education authorities.

Table 4.2

Implementation plan and progress report approval process

	Block Grant Authorities	State and Territory Education Departments
Implementation plan is approved before a second payment is made.	✓	7/8
Progress report is approved before a second payment is made.	4/14	✓

Source: ANAO analysis of DEEWR and Treasury information.

4.12 DEEWR acknowledged that the minute approving the progress reports was signed after the payment date of the 21 November 2009. However, DEEWR also advised that 'by the 21 November 2009 payment date, the relevant implementation plans had all been approved and its internal assessment of the progress reports clearly indicated that it would be recommending that the delegate approve them'.

Calculation of payments

4.13 As a result of the model established for the implementation of the DER program (three application-based rounds to reach a computer to student ratio of 1:2, followed by a per capita funding model to reach a ratio of 1:1) and the

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[76] An implementation plan sets out the state/sector approach to the implementation of the DER, including the process and timeframe for installation of computers to reach a computer to student ratio of 1:1.

additional funding established to cover on-costs, payment calculation followed different approaches for each of the components.

Accuracy of payments for Rounds 1, 2 and 2.1 of the NSSCF

4.14   In order to calculate the NSSCF funding entitlements, DEEWR used data from a range of sources including:

- 2007 school census data (provided by government and non-government schools); [77]

- preliminary survey data (provided by schools through education authorities); and

- application data for Rounds 1, 2 and 2.1 (provided by schools and assessed by education authorities).

4.15   DEEWR used this data to determine the funding needed for applicant schools to reach a computer to student ratio of 1:2 (based on the unit price of $1000). Some schools applied for fewer computers than needed to reach the 1:2 ratio, with DEEWR's funding calculation requiring adjustment accordingly. Schools were able to apply for more than one round to reach the ratio of 1:2.

4.16   The department recorded the data collected in a Master File (a stand-alone spreadsheet). The ANAO examined this spreadsheet to assess whether, the spreadsheet program correctly calculated schools' funding for Rounds 1, 2 and 2.1 of the NSSCF, based on the data provided by schools and recorded by the department.

Schools that were not funded or underfunded in Rounds 1, 2 and 2.1 of the NSSCF

4.17   The ANAO identified that a small minority of schools that were eligible to apply, had not applied for funding (76 schools). Another 33 schools had been allocated a smaller amount of funding than required to reach the 1:2 ratio because they had not sought their full entitlement through the application process.

4.18   DEEWR advised that schools were given the opportunity to apply for funding through Rounds 1, 2 and 2.1 and may have decided not to do so.

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[77]   The enrolment data is originally sourced from the 2007 Non-Government Schools Census (enrolments based on first Friday of August 2007) and the 2007 government enrolments provided by each state and territory late in 2007.

Further, in 2010, the department conducted a business case process inviting those schools that had not yet benefited from the NSSCF, or had not benefited to their full entitlement, to apply for funding to move to a ratio of 1:2. Some of the 33 schools that had received less than their full entitlement applied for extra funding under this process, and have subsequently received the extra funding through a variation of the funding agreements.

Schools that were overfunded

4.19 Analysis identified that only four schools were overfunded and had received a total of $76 000 more than would have been necessary to achieve the ratio of 1:2. The overfunding was either due to transposing errors in DEEWR's Master File, or to an identified underestimation, by individual schools, of the number of computers available for use. In each case, the overpayments had been identified by DEEWR and processes had been developed to ensure that the funding to be received in the future by these schools to reach the 1:1 ratio would be reduced to factor in the over allocation provided during the round-based funding.

Schools that were funded over multiple rounds of the NSSCF

4.20 The ANAO's analysis showed that 63 schools were funded over multiple application rounds of the NSSCF. All schools were correctly funded except for only one school which was underfunded by $26 000 (26 computers).

Variances between applications and approved funding

4.21 A substantial majority of schools (93 per cent) were funded for an amount corresponding to the number of computers for which they applied (see Table 4.3).

Table 4.3

Comparison of applications and allocated funding

	Round 1		Round 2		Round 2.1		Total	
	No.	%	No.	%	No.	%	No.	%
Schools applying	**902**	**100**	**1423**	**100**	**512**	**100**	**2867**	**100**
Received what they applied for	786	87	1357	95	493	96	2636	93
Received more than applied for	20	2	31	2	19	4	70	2
Received less than applied for	90	10	5	0	0	0	95	3
Were not successful	6	1	30	2	0	0	36	1

Source: ANAO analysis of DEEWR Information.

Note: Totals may not add up to 100 per cent due to rounding.

4.22   A small number of schools received funding amounts that differed from the number of computers for which they applied. Across the three rounds, 36 schools were not successful and 95 schools received less funding than was applied for. The only schools that were not successful were those that already had a computer to student ratio in excess of 1:2. Further, DEEWR informed the ANAO that the only reason schools received less funding than applied for, was that they had applied for more computers than was required to reach the 1:2 ratio.

4.23   The ANAO also identified that 70 schools received more funding than they applied for. In response, DEEWR noted that:

> During the application based rounds schools were encouraged to apply for the full allocation of funding to reach the 1:2 ratio. Schools that did not apply for the full allocation were encouraged to do so in the assessment process by their education authorities. This resulted in many schools increasing the number of computers they applied for (usually up to the full allocation).

On-costs funding payment calculation

4.24   On 29 November 2008, the Australian Government announced that, as a result of the On-costs Review[78], COAG had agreed to additional funding of

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[78]   *Review of the Legitimate and Additional Costs Associated with the National Secondary School Computer Fund*, 3 September 2008.

$807 million to assist education authorities with the costs associated with the NSSCF. The On-costs Review determined that a reasonable overall estimate of the cost of deploying each additional computer was $2 500 (including $1000 for the cost of the computer) over four years. This mainly reflected the costs of supporting computers and installing and maintaining network equipment.

4.25 The Australian Government's policy was to only provide funding for those costs associated with the deployment of computers. That is, computers deployed to move schools to a 1:1 computer to student ratio by 2011, and which are additional to those computers identified in the preliminary survey as being less than four years old as at 30 June 2008. The additional funding was to be provided as a one-off payment before the end of 2008–09.

4.26 Each state and territory was required to pass on nominated amounts to the Catholic and independent BGAs in their state or territory in accordance with Schedule D of the *Intergovernmental Agreement on Federal Financial Relations*. The nominated amounts were to be advised by the department.

4.27 In relation to Rounds 1, 2 and 2.1, the share of funding provided to education authorities for on-costs was to be determined by the actual number of computers provided under the funding rounds. The aim was that at the conclusion of the rounds, all schools in Australia would have been provided with the opportunity to obtain funds to bring them to a computer to student ratio of 1:2, including funding to address on-costs associated with the deployment of the computers.

4.28 The allocation of funding for both computer purchases and on-costs was, after the conclusion of the rounds, to be based on each education authority's share of the total number of students enrolled in Year 9 to 12 in the 2007 Schools Census.

Department of Finance and Deregulation's (Finance's) calculation of on-costs funding

4.29 Based on the findings of the On-costs Review, Finance calculated that, in addition to the funding already appropriated to the DER program, additional funding of $880 million was required for on-costs. In recognition of the fact that the funding would be provided up-front as a lump sum payment, Finance applied a net present value calculation which reduced the total funding to $807 million. Table 4.4 shows the amounts of on-costs funding calculated by Finance to be allocated by DEEWR to education authorities.

Table 4.4

On-costs funding provided to education authorities

State	Government ($'000)	Independent ($'000)	Catholic ($'000)	Total ($000)
NSW	188.6	36.4	60.0	285.0
Victoria	118.9	24.9	41.6	185.4
Queensland	103.9	26.6	28.4	158.9
Western Australia	47.0	15.0	17.7	79.7
South Australia	37.8	11.0	10.0	58.8
Tasmania	12.1	2.2	3.3	17.6
ACT	8.3	4.3	2.4	15.0
Northern Territory	4.9	0.7	1.0	6.6
Total	**521.5**	**121.1**	**164.4**	**807.0**

Source: Department of Finance and Deregulation.

4.30   Analysis shows that based on the data provided by DEEWR, Finance correctly calculated the funding amounts for on-costs for the education authorities. Additional analysis showed that the department had correctly calculated Round 1 on-costs funding for a sample of non-government education authorities at school level[79], and had correctly reflected these amounts in funding agreements.

Calculating payments under the NPA and funding agreements

4.31   The NPA (including underpinning bilateral agreements) with state and territory governments, and separate funding agreements with non-government education authorities, provide funding on a per capita basis to achieve a computer to student ratio of 1:1 by 31 December 2011, and funding in subsequent years to contribute to the sustainment of that ratio.

4.32   To calculate the number of computers to be allocated to each school to reach and sustain this ratio, DEEWR used 2007 Schools Census data on the number of full-time equivalent Year 9 to 12 students.[80] This number was then

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[79]   The sample included ACT independent schools and NSW Catholic schools.

[80]   Education authorities have an opportunity to update the census data on an annual basis to inform DEEWR of school closures, the opening of new schools and other significant changes to the 2007 Census.

divided by two, to account for the application-based rounds already providing schools with a computer for every two students. The number of students obtained in this way was then multiplied by $1000, the allocated unit cost of each computer.

4.33 The census data was also used to determine the split of Year 9 to 12 students in:

- the government sector (63 per cent) and the non-government sector (37 per cent);

- each state and territory in the government sector; and

- the Catholic sector (56 per cent) and the independent sector (44 per cent) for non-government schools.

4.34 The splits derived from the Census data were applied, for each year of the duration of the agreements, to the amount of funding available ($1 104 million), based on:

- for 2008–09, the allocation still available after the funding of the three application rounds had been deducted ($199 million); and

- for 2009–10 to 2012–13, the appropriations as reflected in the forward estimates (for the four years, $905 million).

4.35 The ANAO's analysis indicates that this methodology was correctly applied by the department.

Conclusion

4.36 Under the DER program, DEEWR will pay over $2 billion to education authorities from 2007–08 to 2012–13. Overall, DEEWR has effectively administered program funds for each of the application rounds, on-costs, and in relation to payments under bilateral and funding agreements with government and non-government education authorities respectively.

5.   Monitoring and Reporting Program Performance

This chapter examines the monitoring and reporting arrangements for the DER program focusing on the NSSCF, and includes the perspectives of school principals on progress and achievements. The chapter also considers the department's role in establishing evaluation arrangements for the DER program as a whole.

Introduction

5.1   A sound monitoring regime is a critical element in the effective administration of government programs. Monitoring is important throughout the life of a program, from implementation through ongoing management and post-implementation evaluation. It enables administering agencies to determine the extent to which funded organisations are complying with the terms, conditions and rules established in funding agreements and program guidelines, while also providing important information to allow agencies to assess and report to stakeholders on progress towards achieving program objectives.

5.2   The ANAO examined DEEWR's:

- establishment of a performance monitoring framework, including performance measures and targets;

- arrangements to obtain progress information from performance reporting by education authorities;

- analysis and reporting of program performance; and

- contribution to evaluating the DER program overall.

5.3   The ANAO also sought the views of education authorities on program progress and achievements and surveyed school principals to obtain their perspectives on the program.[81]

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[81]   The audit survey sample was designed to produce statistically reliable estimates for the total population of schools that took part in application rounds.

Monitoring framework

5.4 An effective performance monitoring framework that enabled DEEWR to reliably monitor and routinely report on progress towards achieving NSSCF objectives was important given the government requirement to achieve a set computer to student ratio by a fixed date. Additionally, the large number of agreements combined with the transition from grant management to an NPA mid-way through program implementation, heightened the importance of an integrated performance measurement framework.

5.5 The ANAO examined DEEWR's portfolio budget statements[82], and DER program plans and agreements to determine the extent to which these elements formed the basis of a sound performance monitoring framework.

Portfolio Budget Statements

5.6 In accordance with the Australian Government's budget reporting framework, agencies are required to establish in their Portfolio Budget Statements (PBS) deliverables and key performance indicators for each program. Deliverables represent the goods and services produced and delivered by the program in meeting its objectives, while key performance indicators represent the primary means by which agencies address and achieve government outcomes. Consequently, reporting on program performance provides stakeholders, including government, with an indication of the relative success of a particular program in achieving its outcomes.[83]

5.7 In its 2010–11 PBS, DEEWR has not established a balanced set of key performance indicators to measure program effectiveness for the DER program. The sole key deliverable included in the statements for the DER program—'number of schools assisted'—has a target of 2900 schools assisted in 2010–11.

5.8 The absence of a balanced set of key deliverables and performance indicators for the DER program, including the NSSCF, reduces the quality of DEEWR's annual reporting on program progress to stakeholders. The existing performance framework outlined in the PBS does not cover the measurement of installation progress, other components of the DER program or progress

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[82] The foundation for agency accountability and transparency is performance information presented initially in agency Portfolio Budget Statements with results being reported later in annual reports.

[83] Department of Finance and Deregulation, 2010, *Portfolio Budget Statements Constructors Kit*, Canberra, pp. 62–65.

against the four strands of change.[84] It also does not provide an adequate framework within which to integrate performance reporting arrangements established for education authorities under the large number of funding agreements for the program. The inclusion of a more representative set of performance information would assist the department to more effectively measure and communicate program progress and also to identify implementation problems sufficiently early to allow remedial action to be taken.

Program plans

5.9   The development of a DER program implementation plan was a requirement of government, with DEEWR required to prepare, in consultation with the Cabinet Implementation Unit (CIU)[85], a detailed implementation plan that included milestones and key measures of success. The plan, which was to be completed by the end of January 2008, was the basis on which the department would report progress to the Prime Minister and to the Cabinet. DEEWR informed the ANAO that the DER program implementation plan, which is dated 26 February 2008, was provided to the CIU and formed the basis of quarterly progress reporting.

5.10   In August 2008, the *DER Strategic Plan* was published, which is designed to guide the implementation of the DER program and related initiatives. The plan states that:

> …the DER provides a once-in-a-generation opportunity to establish and enable a new future-directed vision for education in Australia and the role that digital technologies should play in delivering better educational outcomes for all school students and to set the broader vision and strategic plan to optimise this investment.[86]

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[84]   As outlined in Chapter 3, the four stands of change are: Leadership, Infrastructure; Learning Resources; and Teacher Capability.

[85]   The Cabinet Implementation Unit is part of the Strategic Policy and Implementation Group in the Department of the Prime Minister and Cabinet. The Unit was established in October 2003 to help the Prime Minister and the Government manage and deliver the Government's strategic reform priorities, including reporting to the Prime Minister on progress with the delivery of these priorities across the Australian Public Service.

[86]   *Success through partnership*, *Achieving a national vision for ICT in schools*, *Strategic Plan to guide the implementation of the Digital Education Revolution initiative and related initiatives*, 5 August 2008.

5.11 Subsequently, in January 2009, the Australian Information and Communications Technology in Education Committee (AICTEC)[87] published the *Digital Education Revolution Implementation Roadmap*. The Roadmap aims to:

> …identify priority areas where a national, collaborative and cross-sectoral approach is required to underpin and facilitate the implementation of the DER and to drive substantive improvements in how technology is being used across Australian education and training to improve educational outcomes for students.[88]

5.12 The ANAO reviewed these plans to determine whether they established a performance monitoring framework against which performance could be objectively assessed. The implementation plan predated the development of other components of the DER program, the provision of on-costs funding, and the development of the NPA, and consequently did not take account of these program developments. The plan does not include an appropriate set of measures and key performance indicators against which the success of the program can be assessed. DEEWR last reported to the CIU on the installation of computers in January 2010. In general, the strategy and roadmap established high level aspirational goals, enablers to achieve the national vision, indicative and desirable outcomes and broad timelines for DER program priorities.

Program agreements

5.13 The *National Partnership Agreement on the Digital Education Revolution* states that: 'This agreement supports the implementation of the DER Strategic Plan and Implementation Roadmap to achieve technology enriched learning environments to assist students to achieve high quality learning outcomes and productively contribute to our society and economy'. The NPA sets out high level objectives, outcomes and outputs for the DER program, with these to be

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[87] The AICTEC is responsible for providing advice to all Australian Ministers of Education on the economic and effective use of information and communications technologies in Australian education and training. AICTEC has representation from the schools, vocational education and training and higher education sectors, and includes both public and private education and training sector interests. AICTEC's revised terms of reference, endorsed by the then the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) on 17 April 2008, extend its role to include the provision of strategic policy advice on the implementation of the DER. The Chair of AICTEC is the Group Manager, Education and Youth Transitions Group, Department of Education, Employment and Workplace Relations. The department also provides secretariat support to AICTEC. Further information on governance arrangements for the DER is provided at Appendix 2.

[88] *Digital Education Revolution Implementation Roadmap*, *Advice to the Productivity Agenda Working Group Schooling Sub-group from the Australian Information and Communications Technology in Education Committee's (AICTEC)*, p. 3.

achieved through cooperative strategies employed by the Australian Government, states and territories.[89] The NPA includes what are termed 'performance benchmarks and indicators', but essentially represent requirements and indicative actions. Table 5.1 shows an example of a performance benchmark and indicator.

Table 5.1

NPA performance benchmarks and indicators

Requirements	Indicative Actions
Achieving a 1:1 ratio of computers by 31 December 2011.	The continuing installation reports will allow DEEWR to monitor progress and inform advice to schools.

Source: DER program National Partnership Agreement.

5.14   The NPA, bilateral and funding agreements specify that education authorities are to reach a computer to student ratio of 1:1 by 31 December 2011. However, DEEWR did not require education authorities to specify any progress milestones towards achieving these ratios in their implementation plans. Such a requirement would have provided DEEWR with an objective basis against which it could measure and report education authorities' progress towards achieving the ratio of 1:1, and to identify any delivery problems sufficiently early to allow remediation.

Recommendation No.2

5.15   The ANAO recommends that, in order to strengthen external reporting and help steer program direction, DEEWR establish a balanced set of Portfolio Budget Statements key deliverables and performance indicators to measure the effectiveness of the Digital Education Revolution program.

DEEWR response

5.16   The Department agrees with this recommendation and have commenced work to establish a balanced set of Portfolio Budget Statements key deliverables and performance indicators.

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[89]   *National Partnership Agreement on the Digital Education Revolution*, p. 5.

Monitoring arrangements

5.17   DEEWR has established progress reporting obligations for education authorities for the DER program through program funding agreements. Table 5.2 shows the timeline for education authorities to provide progress reports for: Rounds 1, 2 and 2.1 of the NSSCF; on-costs; and under the NPA, bilateral and funding agreements. DEEWR has provided education authorities with pre-populated (school names and where appropriate units/funding provided) progress reporting templates for completion and return to the department in accordance with the reporting timeline agreed for the DER program.

Table 5.2

Progress reports specified in agreements for: Rounds 1, 2 and 2.1, on-costs, and the NPA and bilateral and funding agreements

Date	Rounds 1	Rounds 2 and 2.1	On-costs, NPA, Bilateral and Funding Agreements
31/12/2008	✓		
30/6/2009	✓		
30/9/2009		✓	✓
31/12/2009	✓		
15/1/2010			✓
31/3/2010		✓	
30/6/2010	✓		
15/7/2010			✓
30/9/2010		✓	
31/12/2010	✓		
15/1/2011			✓
31/3/2011		✓	
15/7/2011			✓
30/9/2011		✓	
15/1/2012			✓
15/7/2012			✓
15/1/2013			✓
30/9/2013			✓

Source: ANAO analysis of DEEWR agreements.

Progress reporting for funding rounds

5.18 The funding agreements established by DEEWR for Rounds 1, 2 and 2.1 of the NSSCF required education authorities to provide progress reports to the department as shown in Figure 5.1. The agreements also required that education authorities notify DEEWR a reasonable time beforehand the dates on which ICT equipment will arrive or be installed.

Figure 5.1

Program performance reporting requirements for funding rounds

Progress report	Performance and financial measures
Progress Report 1	Expenditure of 40 per cent of NSSCF funds by 31 December 2008 or reasonable endeavours to do so, and purchase and effective deployment of computers within the first six month period (Round 1 only). Delivery and installation of the specified number of computers to schools funded.
Progress Reports 2 and 3	Progress on the purchase and effective deployment of computers and ICT equipment to achieve the target computer to student ratio of 1:2. Delivery and installation of the specified number of computers to schools funded.
Progress Report 4	Expenditure of 100 per cent of the funds. Delivery and effective deployment of the specified number of computers to schools funded.

Source: ANAO from DEEWR information.

Progress reporting under the federal financial relations framework

5.19 For funding agreements under the federal financial relations framework (on-costs funding agreements, and bilateral and funding agreements to achieve a computer to student ratio of 1:1) education authorities are also required to provide progress reports to DEEWR. Key matters to be covered by these progress reports include:

- an installation report advising DEEWR that computer installation has occurred and outlining the future dates on which the ICT equipment will arrive and be installed[90];

- information on how the education authority will achieve the 1:1 computer to student ratio by 31 December 2011;

- advice on the education authority's contribution to maintenance of effort of 30 per cent of total required future funding (for government education authorities only);

- progress towards addressing the four strands of change identified in the DER Strategic Plan to guide the implementation of the DER program; and

- how on-cost funding has supported the effective deployment of computers provided under the NSSCF, and in achieving a computer to student ratio of 1:1 by 31 December 2011.

5.20 To minimise education authorities' reporting obligations under the on-cost funding agreement and the DER program bilateral/funding agreements, education authorities were advised to incorporate the reporting requirements of the on-cost funding agreement with the reports required under the bilateral/funding agreement.

Appropriateness of progress reporting obligations

5.21 Ninety-five per cent of education authorities (20 out of 21) that responded to the ANAO in relation to progress reporting considered that DEEWR provided clear guidance on the information required in reports, the timing of reports and the format to be used for the reports. Meanwhile, 60 per cent of education authorities (12 out of 20) considered that the monitoring and reporting arrangements implemented by DEEWR were manageable, with comments including:

> In regards to progress reports for the NSSCF, DEEWR has been clear on the information required, when it is required by, and the format it needs to be in. [*education authority*] has also found the monitoring and reporting arrangements implemented by DEEWR thus far manageable and not burdensome.

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90   The installation reports are designed to allow DEEWR to monitor progress towards achieving a 1:1 ratio by 31 December 2011

5.22 Those education authorities that found the reporting process more difficult to manage made comments such as:

> The breadth of reporting of the program has made the preparation difficult with those responsible for reporting from schools generally being Business Managers or ICT Coordinators who have specific but possibly limited expertise across the four reporting areas [four strands of change] to DEEWR.

5.23 A key area of concern for those education authorities that found the reporting arrangements difficult to manage was the frequency and timing of reporting. Examples of comments include:

> It would be far more effective for the reporting cycles for each funding agreement to be aligned so that a single six monthly report can be produced which covers all funding agreements.

5.24 The frequency and timing of progress reports flowed from the staged roll-out approach of the NSSCF and the establishment of funding agreements that covered specific parts of the DER program. With the completion of Rounds 1, 2 and 2.1 and the finalisation of related reporting, ongoing reporting arrangements should become less onerous.

5.25 The department has closely aligned its monitoring arrangements through progress reporting with the DER program and NSSCF objectives, particularly the incorporation of key dates by which a computer to student ratio of 1:2 and 1:1 are to be achieved. However, as referred to above, the department did not require education authorities to establish progress milestones in their implementation plans to support program management and external reporting.

5.26 Education authorities' implementation plans generally provide considerable narrative description of approaches, but often less by way of targets and milestone dates for key implementation actions against which progress could be objectively assessed. DEEWR advised that it assesses progress reports against commitments made in implementation plans, but this is made difficult by the design and make-up of many of the plans.

Accuracy of progress reporting

5.27 Accurate reporting on the number of computers installed in schools is necessary to properly monitor progress towards achievement of the NSSFC program objective and report progress to internal and external stakeholders. In particular, accurate information is necessary to ensure that public statements

on program progress, such as those by the Minister and departmental officers, correctly reflect the status of program progress.[91]

5.28   DEEWR's application round guidelines for the NSSCF include the following requirements:

> All parties must keep adequate records to verify the provision of services. Records must be sufficient to justify all claims for payment.
>
> In particular, parties must keep reports, which adequately record the details of all ICT equipment purchased with Australian Government funding. These must include:
>
> •   progress on the purchase and effective deployment of computers and ICT equipment to achieve the target computer to student ratio of 1:2; and
>
> •   delivery and installation of the specified number of computers to the schools.[92]

5.29   The significant majority (84 per cent) of the 19 education authorities that responded to the ANAO on the issue of data validation described their processes to manage risks relating to the completeness and accuracy of computer installation data provided by schools. Government education authorities outlined several processes, including centralised program management, an annual census of computer stocks or site audits, and cross checking of the consistency of schools' progress reports. The primary mechanism used by non-government education authorities was the delay of payments to schools until the receipt of documentation, such as invoices, that demonstrated that schools had purchased computers.

5.30   DEEWR provided the ANAO with the following explanation of the procedures and processes it has established to verify the accuracy of the data used for reporting on the DER program:

> Data on installation comes to DEEWR through two sources; ongoing provision of data from schools[93] and regular reporting through progress reports. We cross check data and contact education authorities on discrepancies.

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[91]   For example, on 4 June 2010, the then Minister for Education issued a joint media release advising the delivery of the 300 000th computer as part of the Government's Computers in Schools initiative. The media release also advised that by the end of 2011, 780 000 computers will have been delivered taking the number of computers in schools for those grades to almost 1 million.

[92]   Department of Education, Employment and Workplace Relations, *National Secondary School Computer Fund, Digital Education Revolution, Round 2 Guidelines*, 14 July 2008, p. 18.

…the procedures offer assurance—we acknowledge that there will be time delays from when expenditure is released from education authorities to schools and when schools actually expense funding. We acknowledge that education authorities can often only provide forward projections of when computers may be installed and that these can be subject to change. We believe that the provision of installation advice from schools/education authorities to DEEWR gives a second level of assurance on the number of computers installed in schools.

5.31   DEEWR also draws on community feedback on the rollout of computers in schools to help identify unreported implementation issues. Nonetheless, the department's monitoring of computer installations primarily relies on self reporting by education authorities and schools.

5.32   The department informed the ANAO that:

It is true that DEEWR has relied on authorised officers such as school principals, the Executives of Block Grant Authorities and Chief Information Officers of State and Territory education authorities to sign off on data and has relied on assurance from those officers that the data is correct. DEEWR considers that this is entirely appropriate within the governance and contractual arrangements that exist.

5.33   DEEWR proposes a review of computer installation numbers be conducted in early 2012 to verify that the computer to student ratio of 1:1 has been achieved. An audit of a small, targeted sample of schools drawing on community intelligence, the differing approaches taken by education authorities, and the department's broader experience with school funding programs, would increase assurance over progress and provide valuable intelligence to inform future policy advice.

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93   In addition to providing progress reports, education authorities are required to also provide reasonable notice of the arrival or installation of the ICT equipment.

Recommendation No.3

5.34 The ANAO recommends that DEEWR consult with education authorities to design an audit of a sample of schools funded under the Digital Education Revolution program, in early 2012 to assist in:

- providing assurance on the accuracy of information reported by education authorities on computer installations;

- confirming whether the schools have achieved the 1:1 computer to student ratio; and

- identifying any reasons for schools not achieving the 1:1 computer to student ratio, including any funding deficiencies.

DEEWR response

5.35 The Department agrees with this recommendation for an audit in 2012. The scope and methodology for the audit will be developed in consultation with education authorities.

Analysing and reporting progress

5.36 DEEWR monitors the provision of progress reports and follows-up with education authorities on issues such as: overdue progress reports and issues relating to the content of the reports. The department analyses computer installation data to monitor progress and identify particular states/sectors where progress is slow. Progress reports are also analysed for broader changes in the four strands of change, with the department indicating that this information will inform policy development and the evaluation.[94]

5.37 The installation data from progress reports also provides the basis of routine briefings to the Minister. The ANAO obtained copies of ministerial briefs that reported the following information aggregated at state and territory level:

- the total number of schools funded under the program;

- the total number of computers approved for purchase;

- the total number of computers delivered/installed; and

- the percentage of computers delivered/installed.

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[94] 'Evaluation' refers to an evaluation of the impact of the DER.

5.38   In early March 2010, the department briefed the then Minister for Education on the progress of education authorities towards a computer to student ratio of 1:1. The brief included the following statement:

> The Catholic and Independent sectors are responsible for the purchase and installation of 36 per cent of the computers under the Fund. Overall, the non-government sector is quite well advanced in its implementation and appears to be on track to achieve the target ratio. DEEWR is working with two of the Block Grant Authorities where implementation is slow.
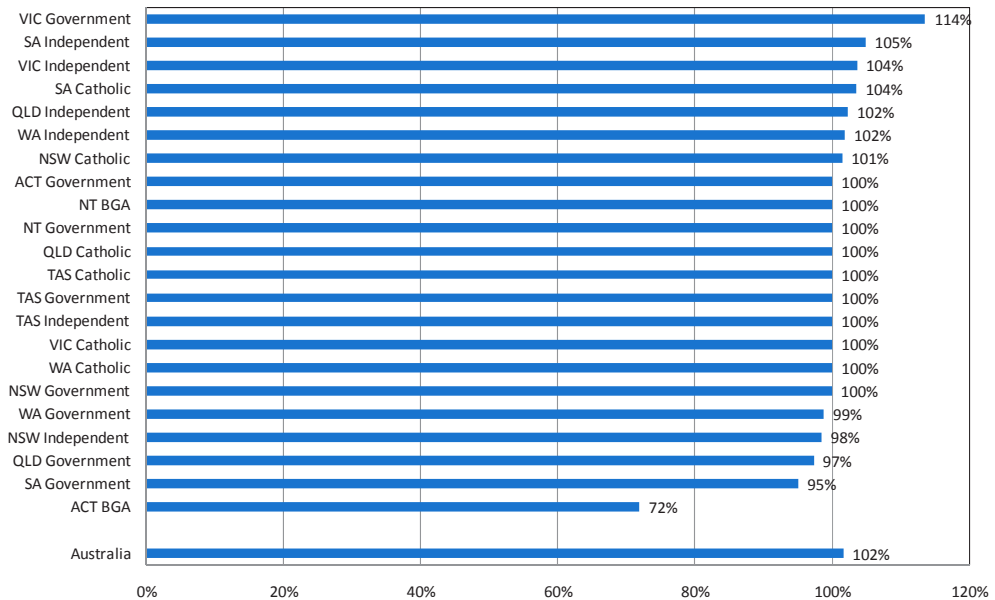
5.39   On the basis of advice from the department, the then Minister wrote to government education authorities in early March 2010 either recognising program progress, or in some instances, seeking an assurance that the 1:1 computer to student ratio would be met by 31 December 2011 (including seeking information on how this was to be achieved).

ANAO analysis of installation progress

5.40   The ANAO analysed installation progress using education authorities' progress reports as at 30 June 2010.

Round 1 installation progress

5.41   In Round 1 of the DER program, 892 schools received funding for the purchase and installation of a total of 116 834 computers. Under Round 1 funding agreements the computers were required to be installed by 30 June 2010. As at 30 June 2010, these schools reported that they had installed 118 775 computers (that is, 2 per cent more than the total for which these schools had been funded). Figure 5.2 shows for each education authority, the proportion of Round 1 approved computers that had been installed as at 30 June 2010. The ACT Block Grant Authority was the only education authority that reported that it had not yet installed a significant proportion (28 per cent) of Round 1 approved computers as at 30 June 2010.

Figure 5.2

## Proportion of approved computers (Round 1) that had been installed as at 30 June 2010

Education authority	Proportion
VIC Government	114%
SA Independent	105%
VIC Independent	104%
SA Catholic	104%
QLD Independent	102%
WA Independent	102%
NSW Catholic	101%
ACT Government	100%
NT BGA	100%
NT Government	100%
QLD Catholic	100%
TAS Catholic	100%
TAS Government	100%
TAS Independent	100%
VIC Catholic	100%
WA Catholic	100%
NSW Government	100%
WA Government	99%
NSW Independent	98%
QLD Government	97%
SA Government	95%
ACT BGA	72%
Australia	102%

Source: ANAO analysis of DEEWR data.

Rounds 2 and 2.1 installation progress

5.42   In Rounds 2 and 2.1 of the DER program, 1174 schools received funding for the purchase and installation of 176 371 computers. Under Rounds 2 and 2.1 funding agreements the computers were required to be installed by 31 March 2011. As at 30 September 2010, these schools reported they had installed 149 127 computers (85 per cent of approved computers). Figure 5.3 shows for each education authority, the proportion of Round 2 and 2.1 approved computers reported as installed as at 30 September 2010. Two education authorities (the Queensland and Western Australian Governments) had installed less than two-thirds of Round 2 and 2.1 approved computers as at 30 September 2010.

Figure 5.3

Proportion of approved computers (Rounds 2 and 2.1) that had been installed as at 30 September 2010
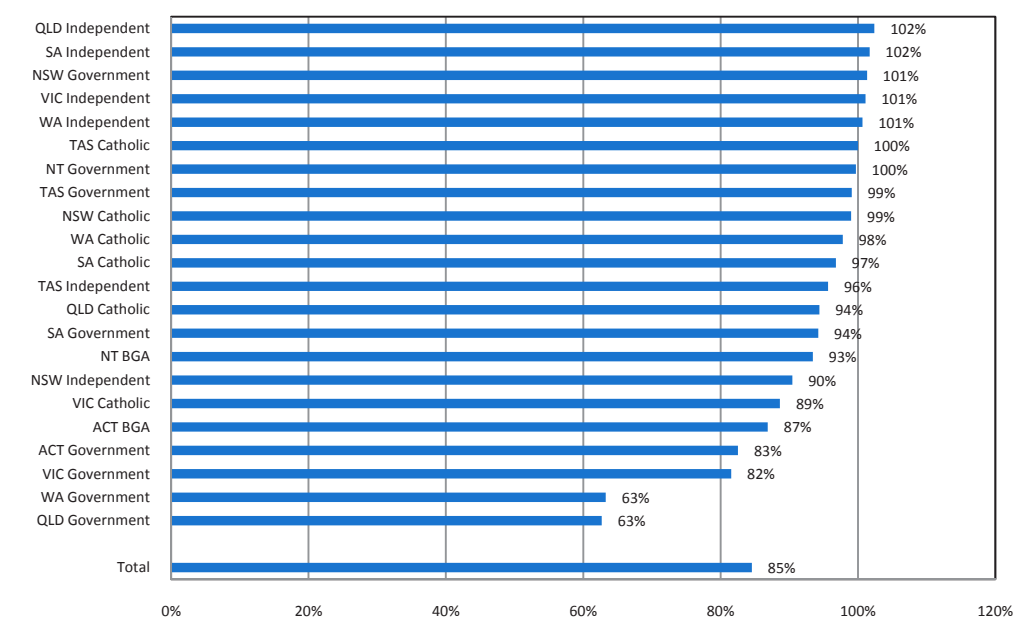
Source: ANAO analysis of DEEWR data.

5.43   Figure 5.4 shows education authorities' progress towards achieving a computer to student ratio of 1:1 by 31 December 2011.

Figure 5.4

Education authorities' progress towards achieving a computer to student ratio of 1:1 by December 2011
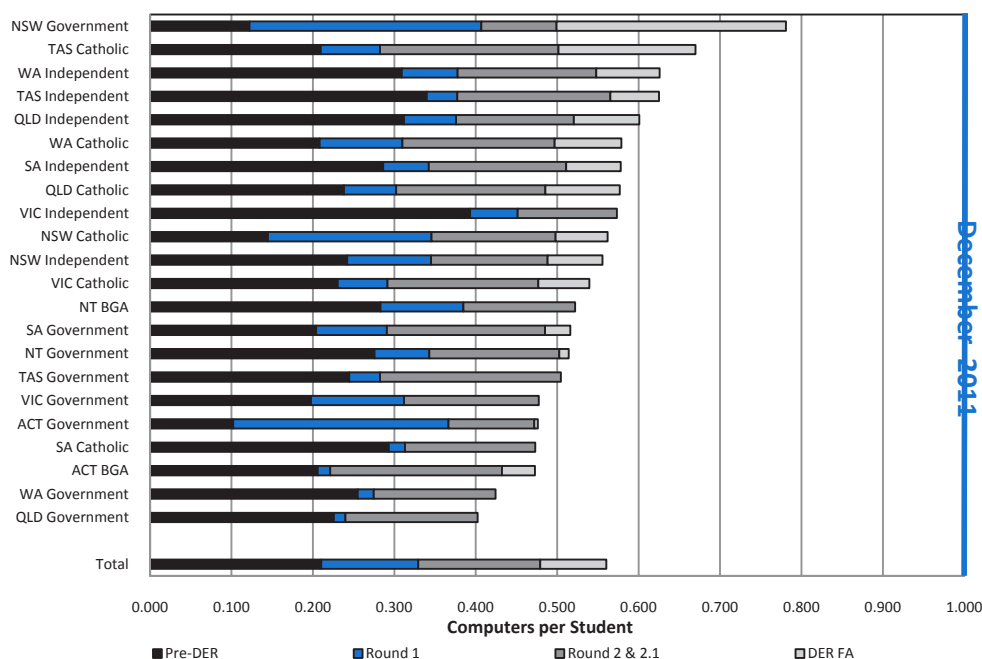
Source: ANAO analysis of DEEWR data.

Note: 1.   Data reported for: Round 1 is as at 30 June 2010, Rounds 2 and 2.1 is as at
               30 September 2010, and for the DER Bilateral and funding agreements
               is as at 15 July 2010.

         2.   Pre-DER data reflects adjustments made by DEEWR in consultation with education
               authorities, to the original preliminary survey data.

Principals' perspectives on program progress

5.44   As part of the ANAO survey, school principals were asked whether all computers purchased with NSSCF funds for their school had been installed ready to use in a timely manner. Seventy-seven per cent of school principals responded in the positive, while 20 per cent responded in the negative. The main reasons given for the delays related to: the lack of supporting infrastructure, particularly wireless networks; supplier delays; and the completion of building projects.
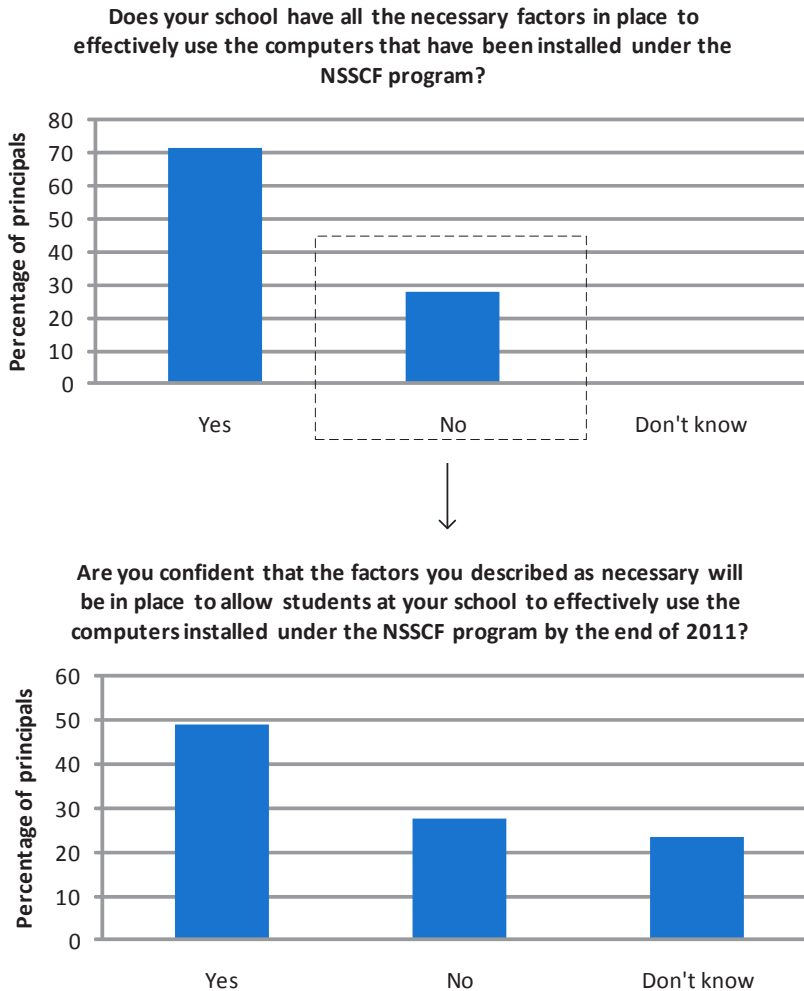
5.45   Of the 20 per cent of school principals responding in the negative, 76 per cent of these principals also indicated the length of the delays. The most common length of delays was one to two months (27 per cent of respondents), while eight per cent of respondents had experienced a delay of greater than 12

months. Further, of the 20 per cent of school principals responding in the negative, just over half (11 per cent of all respondents to the survey) advised that the issues causing the delays had not been resolved; and where issues remained, just under half of these respondents (five per cent of all respondents to the survey) considered that on-going delays would affect their school's ability to achieve a student to computer ratio of 1:1 by the end of 2011.

5.46   In order for students to effectively use computers in the classroom, a number of factors need to be in place, for example: the necessary hardware; software; system support; and teachers with the knowledge and skills to make the most of the ICT environment when delivering lessons. Figure 5.5 shows that 71 per cent of school principals considered that their school had all of the necessary factors in place to effectively use the computers that have been funded under the NSSCF. Of the 28 per cent responding in the negative[95], around half were confident that the required factors will be in place by the end of 2011. The other half were either not confident that the factors[96] would be in place by end 2011, or unsure.

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[95]   Just under one per cent of surveyed principals responded 'Don't know'.

[96]   These factors included: power outlets; wireless networks; cabling; furniture; teacher training; and technical support.

Figure 5.5

Response to Principal Survey: Perspective of school principals on factors affecting the use of computers by students

Does your school have all the necessary factors in place to effectively use the computers that have been installed under the NSSCF program?

Are you confident that the factors you described as necessary will be in place to allow students at your school to effectively use the computers installed under the NSSCF program by the end of 2011?

Source: ANAO survey of school principals.

5.47 Analysis of computer installations and the results of the survey of school principals show that the majority of schools are progressing well towards the use of additional ICT in classrooms. Nevertheless, there is a small, but important minority of schools that are making slower progress.

5.48 In this respect, it is important that DEEWR's progress reporting arrangements garner sufficient intelligence on school level progress and reasons for any variability, to enable the department to inform stakeholders

and take remedial action. The ANAO noted evidence of DEEWR analysing progress reports and engaging with education authorities on issues of concern regarding the progress of individual schools.

Performance information provided to the Parliament

5.49 Consideration of budget estimates by the Senate's legislation committees plays a key role in the Parliamentary scrutiny of the performance of the executive branch of government.[97] Accountability is as much about explanation as it is about information. The provision of facts and figures is a necessary but not sufficient condition of accountability. What is needed to complete the picture is for the relevant officials to explain, not only the details of the 'what' and the 'how' but also the 'why' of departmental administration.[98]

Provision of information to the Senate Education, Employment and Workplace Relations Committee

5.50 On 3 June 2010, as part of its consideration of the budget estimates for 2010–11, the Senate Education, Employment and Workplace Relations Committee sought advice from DEEWR on the progress of the DER program. Specifically, the Committee asked the department whether a computer to student ratio of 1:1 would be achieved by 31 December 2011. The department responded that the DER program was on track to achieve that target.

5.51 While not strictly in line with the originally announced timetable, DEEWR has pursued a pragmatic approach to allow education authorities to achieve the computer to student ratio of 1:1 early in the 2012 school year, where this timing is suitable given education authorities' preferred implementation approach. DEEWR sought agreement on this approach in a briefing to the then Minister for Education on 23 April 2010:

- education authorities have recently asked for clarification on the date to meet the 1:1 target ratio;

- they have noted that the 31 December is a target date for the Government however for schools it presents some practical issues:

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[97] In our system of government, ministers and public servants are accountable to the Parliament for the use of the public resources with which they have been entrusted. It is through the twice-yearly consideration of agencies' budget and additional estimates by Senate committees that accountability is most directly manifested.

[98] Parliament of Australia, Senate, Senate Brief No 5 - May 2010, Consideration of Estimates by the Senate's legislation committees. See http://www.aph.gov.au/senate/pubs/briefs/brief05.htm#3.

- o there are no students at school on 31 December 2011;

- o Year 12 students will have officially completed their schooling in October 2011;

- o depending on the implementation strategy, a ratio of 1:1 may have been achieved by 31 December 2011 for all students in Years 9, 10 and 11;

- o funding under the DER is sufficient for the incoming Year 9 students for 2012 to receive computers; and

- o education authorities would prefer to provide the incoming Year 9 students with computers early in 2012.

- • therefore, early in the 2012 school year, the 1:1 target would be achieved for students in Years 9 to 12;

- • education authorities have sought advice from DEEWR as to whether a commitment of all DER funding by 31 December 2011 is acceptable, with installation occurring in early 2012; and

- • DEEWR supports this proposal. The alternative is that schools would be required to have made purchases before the end of 2011 for students who will not need the devices until the new school year starts. This presents logistical and security concerns for computers sitting in unattended buildings.

5.52 The then Minister agreed to education authorities committing DER program funds by 31 December 2011 and completing computer installation in early 2012. DEEWR has not yet specified a revised date by which schools are to achieve a computer to student ratio of 1:1. DEEWR informed the ANAO that the department will discuss the date at which the ratio should be evident with education authorities, taking into account the different commencement dates for term 1 in 2012.

Annual reporting

5.53 A key mechanism to report the performance of government programs is through the publication of departmental annual reports. The Department of the Prime Minister and Cabinet's *Requirements for Annual Reports for Departments, Executive Agencies and FMA Act Bodies* states that:

> The primary purpose of annual reports of departments is accountability, in particular to the Parliament. Annual reports serve to inform the Parliament (through the responsible Minister), other stakeholders, educational and research institutions, the media and the general public about the performance

of departments in relation to services provided. Annual reports are a key reference document and a document for internal management. They form part of the historical record.[99]

5.54 The information that DEEWR included in its annual report for 2009–10 provided stakeholders with some detail on the performance of the DER program, particularly for Round 1. The report's narrative coverage of the program states that:

> Over 300 000 computers have been installed since the commencement of the National Secondary School Computer Fund. The first round of the fund concluded on 30 June 2010. This round targeted schools most in need of investment in ICT which had computer to student ratios of 1:8 or worse. By 30 June 2010, the 896 schools targeted in Round 1 achieved a computer to student ratio of 1:2, dramatically increasing access to ICT for students in Years 9 to 12. The schools will continue to receive funding to achieve a 1:1 ratio by the end of 2011.[100]

5.55 Analysis of progress reports shows that for Round 1, a reported 97 per cent[101] of schools that received funding to achieve a computer to student ratio of 1:2 had done so by the target date of 30 June 2010. DEEWR could have more accurately reported on the outcome of Round 1 of the NSSCF by including the aforementioned information. DEEWR informed the ANAO as follows:

> The reasons why computers have not been installed have been provided by education authorities and in most cases the reason was due to building works at the school or installation of the network. It is DEEWR's view that this is acceptable and it would be counter to the aims of the Fund to insist that computers were installed when the infrastructure was still being built. We would note that advice was also provided on when the computers would be installed.

> DEEWR notes that the 2009-10 Annual Report states "By 30 June, the 896 schools targeted for Round 1 achieved a computer to student ratio of 1:2,

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[99] Department of the Prime Minister and Cabinet, *Requirements for Annual Reports for Departments, Executive Agencies and FMA Act Bodies*, Approved by the Joint Committee of Public Accounts and Audit under sub-sections 63 (2) and 70 (2) of the *Public Service Act 1999*, p. 2. Available from <http://www.pmc.gov.au> [accessed 4 June 2009].

[100] Department of Education, Employment and Workplace Relations, 2010, *Annual Report 2009–10*, Canberra, p. 56.

[101] There were legitimate reasons for another two per cent of Round 1 schools not meeting the 1:2 ratio by the required date. Funding requirements had changed for nine schools; seven schools had computers reallocated due to student movements; one school had been closed; and the registration of one school had been suspended.

dramatically increasing access to ICT for students in Years 9-12". We would note that this text was drafted before the receipt of the 15 July Report and that it would have been more accurate to have stated that we anticipated that by 30 June, the schools would have reached the target ratio.

5.56   DEEWR's annual report for 2009–10 did not report on: the progress being made by Rounds 2 and 2.1 schools towards achieving a 1:2 computer to student ratio, the progress of all schools towards a computer to student ratio of 1:1[102], the use of on-costs funding, or program progress against the four stands of change. The absence of an appropriate PBS performance measurement framework, as outlined earlier in this chapter, has contributed to weaknesses in the coverage of program performance in DEEWR's annual report.

5.57   There is scope for DEEWR to improve its annual reporting of program progress. This would include: establishing and reporting against a balanced set of PBS performance measures and indicators for the DER program.

Evaluating program performance

5.58   Program evaluation is a valuable tool for administering agencies that are seeking to strengthen the quality of programs and improve outcomes. Evaluating the DER program, as a multijurisdictional program focused on changing teaching and learning in schools, is important and inherently difficult. The timetable for the implementation of the DER program led to a focus on key administrative activities, with an evaluation framework (and measurement approaches) considered later following completion of more detailed DER program strategic and implementation planning.

5.59   The *Digital Education Revolution Implementation Roadmap* outlined the need for an evaluation and monitoring plan to track progress in implementing the DER program and to assess its effectiveness and efficiency. The Roadmap also recognised that an evaluation of the DER program implementation strategy as a whole was also required. Specifically, AICTEC noted that:

> while strategies for individual DER initiatives will be developed in accordance with normal public accountability requirements, an overarching monitoring and evaluation strategy be developed for the DER in 2009. To assist the

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[102] Schools funded in Rounds 2 and 2.1 are to achieve a computer to student ratio of 1:2 by 31 March 2011. All schools are to achieve a computer to student ratio of 1:1 by 31 December 2011.

[*COAG PAWG*[103]] Schooling Sub-group, AICTEC will convene a workshop of key stakeholders and advisers in early 2009, following COAG's agreement to the DER Strategic Plan and Implementation Roadmap, to inform development of advice on an evaluation methodology for the DER.[104]

5.60   AICTEC convened a workshop on 31 March 2009 to discuss the development of a framework for DER program monitoring and evaluation.[105] The workshop reached some limited conclusions on the focus of evaluation and monitoring activity to measure the success of the DER program. However, it did not discuss how evaluation and monitoring might occur, nor articulate the level of detail needed to define evaluation questions, monitoring strategies and data sources. It was proposed that a project-specific AICTEC working group (the DER Evaluation and Monitoring Working Group) be established.[106]

5.61   The DER Evaluation and Monitoring Working Group (of which DEEWR is a member), once established, agreed that the evaluation and monitoring plan must cover the four strands of change identified in the DER Strategic Plan and in the Roadmap. The working group noted that finding consistent measures across all states/sectors would be problematic. The working group agreed that it would be appropriate to develop an evaluation framework that allowed for existing measures that are used in states/sectors to be used, with statements showing how these measures contribute to the national plan. The working group aimed to have proposals for an evaluation and monitoring plan, and a section for the Roadmap, ready by the 12 November 2009 AICTEC meeting.[107]

5.62   In November 2009, DEEWR engaged a consulting firm to develop an evaluation framework for the DER program.[108] The consulting firm provided

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[103]   COAG established the Productivity Agenda Working Group (PAWG) to pursue its strategy of improving national productivity and workforce and social participation. It was the role of the PAWG to oversee the DER as a strategic means to progress this agenda, making recommendations on implementation to COAG.

[104]   *Digital Education Revolution Implementation Roadmap*, *Advice to the Productivity Agenda Working Group Schooling Sub-group from the Australian Information and Communications Technology in Education Committee's (AICTEC)*, p. 16.

[105]   AICTEC convened the *Using data: Evaluation and monitoring workshop* for members and advisers in Canberra on 31 March 2009.

[106]   AICTEC Executive Meeting, Agenda Item 4.2, *AICTEC's advice on DER monitoring and evaluation— proposed way forward*, prepared by Technology in Education Section, DEEWR, 20 April 2009.

[107]   AICTEC, *DER Evaluation and Monitoring Working Group*, *Notes from Working Group meeting*, 9 June 2009.

[108]   The objectives of the project were to:

DEEWR with its report in March 2010 that outlined an evaluation framework for the DER program. The report adopts the four 'strands of change for national action' (discussed earlier) used by AICTEC as foundation elements of the proposed DER program evaluation framework. This approach was taken as these elements were recognised and supported by program stakeholders. The report also identified three or four aspirations for each framework element and performance measures for each aspiration.

5.63　With regard to measuring learning outcomes, the report stated:

> Some debate has occurred regarding the addition of 'learning outcomes' to the framework. While a great deal of research has been undertaken on the impact of ICT on student learning outcomes, with encouraging results emerging, it is not appropriate at this stage to add learning outcomes as a separate element in the DER evaluation framework. Based on the experience of others, proving a causal link between the DER and learning outcomes [would be difficult]…

5.64　DEEWR informed the ANAO that work is continuing with education authorities to inform approaches to evaluate the DER program in the future. Specifically, by end August 2010 consultation on a draft work plan to operationalise the evaluation framework and a set of evaluation indicators, finished. Consultation on a revised set of indicators and discussion paper was to commence in October 2010. Notwithstanding the understandable initial focus of the program on establishing administrative and funding arrangements, it is taking some time for an evaluation framework to gain traction.

5.65　Overall, it has taken some time for an evaluation framework to be finalised and DEEWR is continuing to work in this direction. Earlier investment in evaluation methodologies and associated data as the program evolved would have provided a stronger foundation for measuring the impact of the DER program, particularly given the proposed focus of an evaluation of

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- • gather and organise DER outcomes identified in the Strategic Plan, the Roadmap and other relevant documents;

- • consult stakeholders in DEEWR and across states/sectors to identify outcomes to be measured as well as data that already exists and that realistically can be collected to support measurement;

- • collate findings to create an evaluation framework that is comprehensive, aligned with DER strategy and can be practically implemented to measure the impact of the DER and its achievements, and

- • develop an evaluation framework, including methodology to be adopted and communications strategy.

the four strands of change: leadership, infrastructure, learning resources and teacher capability.

5.66 Consistent with the approach suggested by the DER Evaluation and Monitoring Working Group, there is merit in DEEWR leveraging off the evaluation work of education authorities. For example, the NSW Department of Education and Training informed the ANAO that it is undertaking a longitudinal evaluation, in conjunction with the University of Wollongong, of the effects of the laptop program on pedagogy, student engagement and outcomes. Base line data from surveys of 35 738 students, together with case studies, will also be available online. One focus of the evaluation will be the impact of the one-to-one laptop program on students showing characteristics of low-engagement in learning. The evaluation will continue with Year 10 in 2011 and Year 11 in 2012.

Early perspectives on achievements

5.67 Education authorities have taken different approaches towards implementing the DER program and have different perspectives on progress to date. For example, some education authorities have adopted a more decentralised approach towards implementation whereas others have taken a more centralised approach. Figures 5.6 and 5.7 show the approaches taken and the perspectives of, the New South Wales Department of Education and Training and the Victorian Department of Education and Early Childhood Development in implementing the DER program.

Figure 5.6

Case Study

New South Wales Department of Education and Training

The New South Wales Department of Education and Training (NSW DET) determined that a centralised approach to the implementation of the NSSCF was the only way to keep the total cost of ownership [of the computers] at a manageable level. The model is based on the provision of a wirelessly enabled, next generation netbook to all Year 9 to 12 students.

NSW DET embarked on a worldwide procurement process for the wireless network solution and the learning device. The aim was to seek guidance from industry as to what was the best technical solution for the program and then to maximise our purchasing power through scale. All technical components of the final solution are based on full enterprise scale agreements and contracts with single suppliers for each component. NSW DET also works closely with suppliers to ensure adherence to Service Level Agreements.

To date, DER–NSW has delivered 66 398 (2009) and 63 657 (2010) wireless enabled laptops and other computers to students in 558 NSW government schools. A wireless network has been installed to provide the same level of access to all program schools throughout the state. It includes approximately 22 000 access points installed across 463 schools. In addition, NSW DET negotiated Enterprise Agreements with Microsoft and Adobe to ensure that the netbook has the latest software for use by students.

NSW DET has also created an onsite Technology Support Officer structure to support the program. Ten DER–NSW Regional Managers and 47 DER–NSW Regional Technology Support Officers have been appointed. These officers provide day-to-day support for the 461 school based (full-time and part-time) Technology Support Officers. In addition, 50 DER–NSW ICT Cadets have been appointed to support the DER–NSW program across all regions.

Policies and Implementation Procedures are in place to assist schools as is an extensive suite of Professional Learning and Curriculum Support materials.

Web based resources include curriculum examples of how the technology can be used in a variety of Key Learning Areas and provide access to archives of instructional videos and digital learning objects. A series of video conferences and chat rooms have been organised to further support teachers in skill development.

A Digital Citizenship Program has been developed by DER–NSW and posted online. It consists of lessons, resources, professional learning, parent information and videos. The target for 2010 is Year 10 and social networking. Materials for Kindergarten to Year 9 begin development in 2011.

As the website is publically available, it has received 54 000 hits in its first fortnight of operation (October 2010) from across Australia and all over the world – including more than 900 from Ireland, 900 from the USA, 250 from the UK and 100 from Germany.

A three-hour Digital Citizenship accredited online professional learning course is available for teachers.

Source: NSW Department of Education and Training.

Figure 5.7

Case Study

Victorian Department of Education and Early Childhood Development

Rounds 1, 2 and 2.1 of the NSSCF provided funding to schools with students in Years 9 to 12 in order to achieve a 1:2 computer-to-student ratio for these students.

In moving from a 1:2 computer-to-student ratio to 1:1 by the end of 2011, the Victorian Department of Education and Early Childhood Development (DEECD) will continue to distribute funds to schools through 'rounds' – Round 3 (Pilot 1:1), Round 4, Round 5 and Round 6. A school's eligibility for future rounds of the NSSCF will be determined by that school's 'capacity to implement' the rollout of computers to move to a 1:1 ratio.

In Round 3 (Pilot 1:1), approximately 20 schools will be funded to move to a 1:1 computer-to-student ratio as well as have their wireless infrastructure upgraded to support these devices. The schools that participate in Round 3 will act as models for other schools in moving to a 1:1 computer-to-student ratio. The program would also provide opportunities for staff, parents, other schools and the community to learn more about the benefits of a 1:1 ratio, which will help to foster support for the implementation of 1:1 across the Victorian schools sector.

In rounds 4, 5 and 6 DEECD will continue to distribute funds to schools such that all schools will reach a 1:1 ratio by the end of 2011. DEECD expects that these rounds will be conducted in late 2010, early 2011 and mid 2011. Schools will need to demonstrate in their School ICT Progression Strategy a timetable and processes for deploying computers such that 1:1 can be achieved within those schools by the end of 2011. As per Rounds 1, 2 and 2.1 of the NSSCF, the effective deployment of NSSCF devices will remain the responsibility of schools themselves.

DEECD has recommended to Victorian Government schools that NSSCF funds be used to purchase Netbook devices up to the value of $600 each based on the need for schools to achieve a 1:1 computer-to-student ratio by the end of 2011, and the costs involved in effectively supporting these devices over a four year period.

As per Round 1, 2 and 2.1, schools will be required to purchase NSSCF devices from the purchasing panels established for this purpose by DEECD. These panels have been mandated in accordance with the Commonwealth's recommendation that bulk purchasing opportunities are achieved with NSSCF grants.

Victorian Government schools will be required to agree to purchase from these panels in a Memorandum of Understanding (MOU) with DEECD. The MOUs will also outline other Commonwealth and State requirements that are conditional upon schools receiving NSSCF funds.

In order to support the expansion in the portable computer fleet, DEECD will significantly enhance the wireless network in secondary schools. The secondary schools wireless network upgrade (eduSTAR.net) will be implemented in two phases. Phase 1 of eduSTAR.net has deployed 3,000 Wireless Access Points to secondary schools to support those devices acquired in Rounds 1, 2 and 2.1 while Phase 2 of the upgrade will deploy an enterprise-class wireless network to support a 1:1 computer-to-student ratio across all Years 9 to 12 students.

Source: Victorian Department of Education and Early Childhood Development.

Perspectives of school principals

5.68 The ANAO's survey of school principals sought their views about progress and achievements for the NSSCF. Many principals noted that the program remained in its early stages and, therefore, it was difficult to give definitive answers at the time the survey was conducted. Initial indications are broadly positive, including in relation to students' access and use of computers, engagement, and preparation for a digital world (Figure 5.8 and Figure 5.9).

Figure 5.8

Response to Principal Survey: Perspective of school principals on students' use of computers
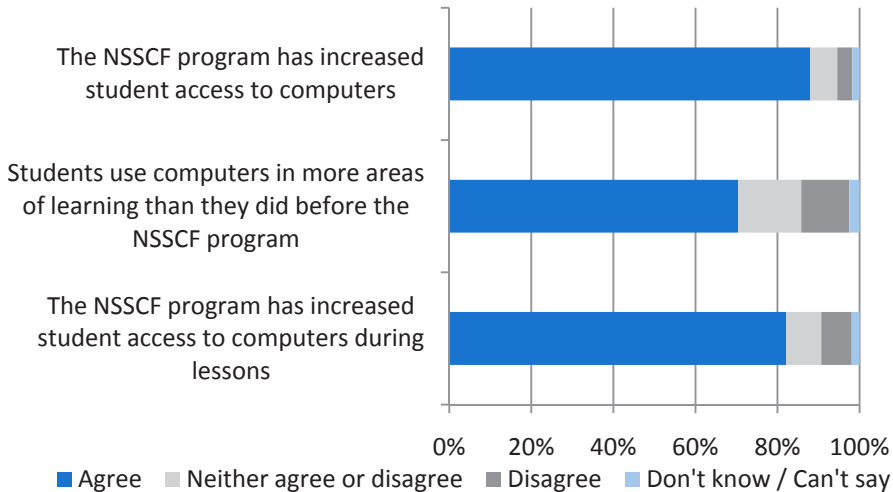
Source: ANAO survey of school principals.

Figure 5.9

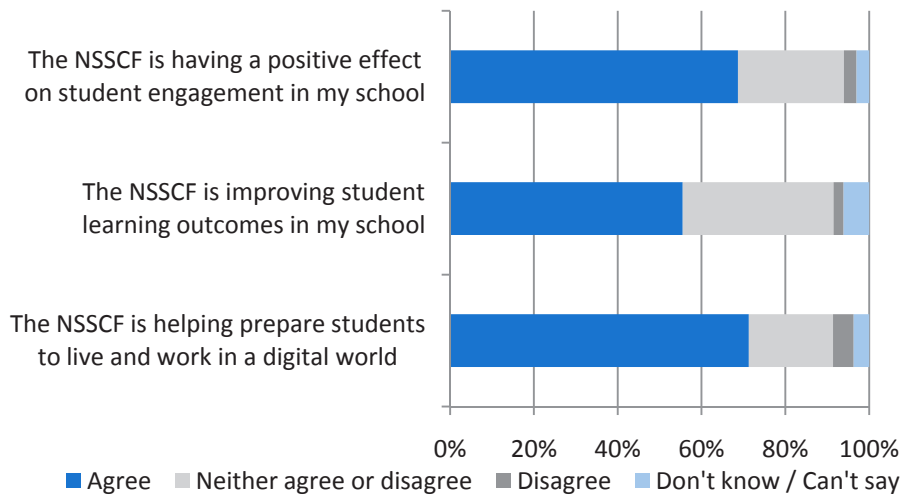**Response to Principal Survey: Perspective of school principals on the impact of the NSSCF**

5.69   School principals provided a broad range of comments on the NSSCF, including:

> I often believe that our students immersed in a digital world are more engaged when IT is used. However, they still have to learn the matter and apply it to fresh situations and that demands quality teaching and learning, as well as strong relationships with teachers. IT of itself, does not cause educational outcomes. It is a valuable tool.

<div align="center">*   *   *</div>

> Great for students–most do not have computers/Internet at home, has opened up their worlds.

<div align="center">*   *   *</div>

> At this early stage it is difficult to say with confidence that student learning outcomes have improved but it is looking very hopeful, given the excitement around students receiving their laptops. Teacher engagement and professional learning is a significant impediment. Despite the professional learning investments by the [*education authority*], some teachers are having trouble engaging and investing in the necessary expertise to enable them to use the technology productively in the classroom. As a low ICSEA [*Index of Community Socio-Educational Advantage*] school, the commitment of many students to the

technology is obvious seeing a significant number have little or no effective access to the Internet at home.

<div align="center">*   *   *</div>

The computers alone do not make a huge difference–it is the planning, the pedagogy and the impact of teacher's professional development and expertise that makes the difference.

Conclusion

5.70 The absence of a balanced set of PBS key deliverables and performance indicators for the DER program, including the NSSCF, reduces the quality of DEEWR's annual reporting on program progress to stakeholders. The inclusion of a more representative set of performance information would assist the department to more effectively measure and communicate program progress.

5.71 The department has closely aligned its monitoring arrangements with the DER program and NSSCF objectives, through provision of regular progress reports by education authorities focusing on computer installations and the four strands of change. Although, DEEWR's monitoring would be more effective if education authorities' implementation plans established progress milestones against which progress could be monitored. An audit of a small, targeted sample of schools drawing on community intelligence, the differing approaches taken by education authorities, and the department's broader experience with school funding programs, would increase assurance over progress and provide valuable intelligence to inform future policy advice.

5.72 In addition to progress monitoring arrangements, DEEWR is working with education authorities to establish an agreed evaluation methodology for the DER program. Earlier investment in evaluation methodologies and associated data as the program evolved would have provided a stronger foundation for measuring the impact of the DER program, particularly given the proposed focus of an evaluation of the four strands of change: leadership, infrastructure, learning resources and teacher capability.

Ian McPhee   Canberra ACT

Auditor-General   17 February 2011

Appendices

Appendix 1:   Agency Response

Department of Education, Employment and Workplace Relations

The aim of the Digital Education Revolution (DER) is to contribute sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world. One of the key elements of the DER is to provide for new information and communication technology (ICT) equipment for all secondary schools with students in years 9 to 12 through the National Secondary School Computer Fund (the Fund).

The ANAO recognises the significant achievement by the Department of Education, Employment and Workplace Relations (the Department) in quickly establishing efficient and inclusive processes to implement the Fund.   The ANAO survey of school principals provided early indications that the Fund is having a positive impact on teaching and learning within schools, and that students are becoming more engaged due to students' increased access to computers.

The Report states that sound progress has been made in implementing the Fund, with 97 percent of schools achieving the computer to student ratio of 1:2 in Round 1 and 80 percent of schools achieving the 1:2 ratio in Rounds 2 and 2.1 in advance of the March 2011 deadline.

The Report notes that the Department has taken the opportunity presented by the introduction of a National Partnership Agreement to consolidate strategic planning for the DER, including the importance of the four strands of change.

The Report indicates that overall the Department has effectively administered funds for each of the application rounds, on-costs, and in relation to payments under bilateral and funding agreements with government and non-government education authorities respectively.

In terms of data checks, decisions on funding were based on two sets of information provided in the preliminary survey; the number of computers/laptops less than 48 months old available to students (for curriculum use only) and the number of computers/laptops greater than 48 months old available to students (for curriculum use only). These two data sets were checked and cross checked by the Department, education authorities and schools throughout the first two rounds of the Fund. Within the timeframe, the Department carried out all checks which could be made to ensure the accuracy of this data. Significantly, no issues have arisen about the accuracy of this data.

The Department notes the comments regarding the evaluation of the DER and adds that monitoring of the program has been undertaken from the beginning

of implementation and will be central to the evaluation of the DER. The Department expects a DER Evaluation Strategy, endorsed by government and non-government education bodies, to be finalised in early 2011.

Appendix 2: DER Program Governance Arrangements

Roles and responsibilities

Council of Australian Governments

1. COAG is the peak intergovernmental forum in Australia[109] whose role it is to initiate, develop and monitor the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments (including the DER program).[110] In March 2008 COAG agreed that the Australian Government will work in partnership with State and Territory Governments and education authorities and the Catholic and independent schools sectors, and cooperatively with the higher education and vocational and technical education sectors to implement the DER program.[111]

Productivity Agenda Working Group

2. COAG established the Productivity Agenda Working Group (PAWG) to pursue its strategy of improving national productivity and workforce and social participation.[112] It was the role of the PAWG to oversee the DER program as a strategic means to progress this agenda, making recommendations on implementation to COAG.

3. In September 2008, PAWG agreed to the *DER Strategic Plan* to guide the implementation of the DER program and related initiatives. The strategic plan outlines a vision for ICT enabled learning in schools and four strands of change appropriate for joint national action in association with the DER program in order to achieve this vision: leadership; infrastructure; learning resources and teacher capability.

Ministerial Council for Education, Early Childhood Development and Youth Affairs

4. The Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) has national leadership and coordination responsibilities that cover secondary education and cross-sector educational

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[109] COAG comprises the Prime Minister, State Premiers, Territory Chief Ministers and the President of the Australian Local Government Association.

[110] COAG website, available at www.coag.gov.au, accessed 12 June 2010.

[111] DER Implementation Plan, endorsed by COAG 28 March 2008.

[112] AICTEC, January 2009, *Digital Education Revolution Roadmap*, p. 3.

matters.[113] MCEECDYA worked closely with the PAWG in implementing the DER program.

Australian Information and Communications Technology in Education Committee

5. The Australian Information and Communications Technology in Education Committee (AICTEC) provides advice to all Australian Ministers of Education and Training on the economic and effective use of ICT in Australian education and training. COAG gave responsibility to AICTEC for providing advice on cross sectoral issues so that investments in the DER program can benefit education as a whole, and on strategies to integrate investments in ICT with wider educational objectives. In January 2009 AICTEC completed the *Digital Education Revolution Roadmap* to advise the PAWG on implementation of the DER program.[114]

Department of Education Employment and Workplace Relations

6. As the Australian Government Department of State responsible for education, the department facilitates implementation of the Australian Government's DER program policy through its leadership role and by working in collaboration with other stakeholders.[115] The department's main responsibilities for the DER program have been to:

- design and manage the survey of computers in schools;

- develop program guidelines and the application process;

- process applications and recommend schools for receipt of funding to the responsible Minister;[116]

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[113] The Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) was established on 1 July 2009 following agreement of the Council of Australian Governments (COAG) to a realignment of the roles and responsibilities of two previously existing councils—the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) and the Ministerial Council for Vocational and Technical Education (MCVTE).

[114] The Chair of AICTEC is the Group Manager, Education and Youth Transitions Group, Department of Education, Employment and Workplace Relations. The department also provides secretariat support to AICTEC.

[115] Shortly after the Government finalised its policy directions for the DER, a DER Inter-Departmental Committee (IDC) was formed, which included representatives from DEEWR, and the Departments of the Prime Minister and Cabinet, the Treasury, Finance and Deregulation and Broadband, Communications and the Digital Economy. to support a whole of government approach to early implementation of the DER, including provision of advice on the rollout of the NSSCF, and in relation to risk assessment, financial management, evaluation and monitoring. The IDC held its first meeting on 7 December 2007.

[116] The Minister for Education.

- develop funding agreements with education authorities;

- provide funding as appropriate (funding arrangements are discussed below); and

- monitor implementation, report on progress and provide policy advice to the Minister.

Education authorities

7.   Education authorities comprise State and Territory departments of education and Block Grant Authorities established to administer and distribute Australian Government Capital Grants to non-government schools. Education authorities' main responsibilities for the DER program have been to:

- assess applications for funding from schools in their state/sector, making recommendations for funding approval to the department;

- determine the procurement approach for their state/sector, which may involve centralised purchasing of ICT or devolution of this responsibility to schools;

- enter into funding agreements with the Australian Government, and receive, manage and disseminate program funds in accordance with these agreements and their procurement approach, including by establishing arrangements to ensure that funds are properly used; and

- provide progress reports and acquit program funds in accordance with funding agreements.

Governance documentation

Partnership and funding agreements

8.   Governance arrangements for the DER program are based on a range of agreements between the Australian Government, states and territories and education authorities. In particular, the introduction of the new *Intergovernmental Agreement on Federal Financial Relations* from January 2009, following the commencement of the NSSCF application rounds, led to revised partnership and funding arrangements. Figure A2.2 provides a timeline of DER program events, and includes periods covered by partnership and funding agreements.

NSSCF Round 1, 2 and 2.1 funding agreements

9.   For Rounds One, Round 2 and Round 2.1 of the NSSCF, DEEWR established funding agreements with education authorities.[117] In return for Australian Government funding, the agreements require education authorities to report to the department on a six monthly basis on progress in the purchase and installation of computers, and acquit program funds at the conclusion of each agreement.

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[117]   For these application rounds the department received appropriations and administered payments for both the government and non-government sectors.

Figure A2–2

Key milestones for the DER program

20/12/2007
COAG agrees States
to conduct an audit of
computers in schools

1/01/2009
New Federal Financial Framework takes effect

1/06/2009 - 30/09/2013
National Partnership and Bilateral Agreements between C'Wlth and States,
and Funding Agreements with non-government education authorities

31/12/2011
Computer to student ratio of 1:1 to be achieved

30/09/2013

25/05/2008 - 30/06/2010
Round 1
Funding Agreement

14/11/2007
Labor opposition announces
DER as election commitment

Round 2.1
variation announced
31/03/2009

1/06/2007
Federal election
- Labor victory
24/11/2007

National Education
Agreement takes effect
9/01/2009

Round 2
Funding Agreement
11/03/2009 - 31/03/2011

On-costs Funding Agreements with education authorities
1/06/2009 - 30/09/2013

COAG agrees to computer
rollout in schools
26/03/2008

Source: ANAO from DEEWR information

Intergovernmental Agreement on Federal Financial Relations

10. The *Intergovernmental Agreement on Federal Financial Relations* (IGA) provides an overarching framework for Australian Government financial relations with the states and territories. The aim of the IGA is to improve the quality and effectiveness of government services by reducing Australian Government prescriptions of service delivery by the states and territories, providing them increased flexibility in the way they deliver services to the Australian people. The IGA also aims to provide a clearer specification of the roles and responsibilities of different levels of government, and an improved focus on accountability for outcomes and service delivery.[118]

11. Under the new Federal Financial Relations framework, both the Treasury and the department receive appropriations to administer remaining NSSCF payments and NSSCF on-cost payments. The Treasury administers payments to government schools based on advice from the department, while the department directly administers payments to non-government schools. In both cases, payments are made through the Treasury to state and territory treasuries, for on-forwarding to education authorities.

National Education Agreement

12. The IGA was accompanied by a major rationalisation in the number of Specific Purpose Payments (SPPs) to the states and territories from 90 to five, including the National Schools SPP which is associated with a *National Education Agreement* (Schedule F to the IGA). The NEA contains outcomes, outputs and performance indicators, and clarifies the roles and responsibilities of the Australian Government, states and territories, in relation to education.

13. Through the *National Education Agreement* (NEA), the Australian Government and State and Territory governments have committed to the objective of raising overall educational attainment so that all Australian school students acquire the knowledge and skills to participate effectively in society. This objective is underpinned by five high level outcomes which include that young people make a successful transition from school to work and further study. As foreshadowed by COAG, Schedule A of the NEA, *The Digital Education Revolution – National Secondary Schools Computer Fund: Additional*

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[118] See http://www.coag.gov.au/intergov_agreements/federal_financial_relations/.

Funding for On-Costs, establishes the terms and conditions for provision of Australian Government funding for NSSCF on-costs to education authorities.

14. As part of the on-cost agreement education authorities are required to report back to the department on a six monthly basis on use of the funding to support effective deployment of computers; their progress towards achieving a 1:1 computer to student ratio; and progress in addressing the four strands of change identified in the DER Strategic Plan.

National Partnership Agreement on the Digital Education Revolution

15. National partnership agreements are a new form of agreement under the IGA that define objectives, outputs and performance benchmarks related to the delivery of specified projects, to facilitate reforms or to reward those jurisdictions that deliver on national reforms or achieve service delivery improvements.[119] In May 2009 the Australian Government and State and Territory governments agreed to the DER program National Partnership to facilitate implementation of the DER program and contribute to achieving the objectives, outcomes and targets for schooling under the COAG participation and productivity agenda and the NEA.[120]

16. Under the *DER National Partnership* the Australian Government, states and territories have committed to achieving a 1:1 computer to student ratio for schools with students in Years 9 to 12 by 31 December 2011, and to addressing the four strands of change identified in the *DER Strategic Plan*. The *DER National Partnership* establishes that funding will be provided annually under *Bilateral Agreements* with State and Territories on a per capita basis.[121] In return, the partnership sets out a framework for six monthly reporting similar to that required under the on-cost agreement, and establishes the requirement for states and territories to develop implementation plans, the details of which are included in *Bilateral Agreements*. The *DER National Partnership* also requires that the Australian Government evaluate the progress of reforms implemented

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[119] Intergovernmental Agreement on Federal Financial Relations, Schedule A - Institutional Arrangements

[120] By delivering system-wide reforms in education that ensure students are equipped for learning in a digital environment, and enable schools to better access the benefits of technology for their students. *Digital Education Revolution - National Partnership*, May 2009, p. 2.

[121] After the 1:1 computer to student ratio is reached, funding will be provided to contribute to sustainment to replace additional computers purchased after four years of use. (Digital Education Revolution – National Partnership, May 2009, p. 13.

through the partnership to support program management and monitoring efforts.

Bilateral Agreements with states and territories and Funding Agreements with Block Grant Authorities

17.   *Bilateral Agreements* between the Australian Government and the states and territories, and separate *Funding Agreements* with Block Grant Authorities for the non-government sector, set out Australian Government payment arrangements to reach a 1:1 computer student ratio and beyond, monitoring and reporting requirements, and any auditing arrangements considered necessary by the parties. The agreements include education authorities' *Implementation Plans* which outline their approach to implementing the DER program, including how they will deploy computers to reach the one to computer to student ratio in the required timeframe.

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