



Australian Government
Department of Education, Employment and Workplace Relations

Associate Secretary
Robert Griew

Committee Secretary
Standing Committee on Economics
PO Box 6021
House of Representatives
Parliament House
CANBERRA ACT 2600

Dear Committee Secretary

I am pleased to send to you the Department of Education, Employment and Workplace Relations' (DEEWR) submission to the House of Representatives Standing Committee on Economics Inquiry into raising the level of productivity growth in the Australian economy. Thank you for your understanding in extending the due date for our submission. The submission:

- presents a review of the role of education, training, employment and workplaces in productivity growth;
- discusses the current reform agendas within the education, employment and workplace relations systems to boost productivity;
- outlines some key emerging challenges and opportunities within the education, employment and workplace relations systems for increasing Australia's future productivity; and
- addresses the Committee's terms of references about (d) the contribution made by microeconomic reform to the permanent improvement in the growth rate of productivity and the continuing effectiveness of the microeconomic reform agenda; (i) the adequacy of resources devoted to training and development of the labour force; and (j) the key reforms and measures that can be undertaken to lift Australia's permanent rate of productivity growth.

Should you require any further information about the Department's submission please contact Dr Nicholas Carroll (02 6121 7769) in the first instance.

Yours sincerely,

RG Robert Griew
31 August 2009





Australian Government

Department of Education, Employment and Workplace Relations

Submission

House Of Representatives Standing Committee on Economics

**Inquiry into raising the level of productivity growth in the
Australian Economy**

Summary

- *Australia's future living standards will be driven by productivity growth.* Boosting productivity is even more important in the light of the impacts on the economy from the global recession, the upcoming challenges related to climate change, increasing global integration and ageing. Australia's labour productivity is below that of the best-performing OECD countries.
- *Australia's productivity growth is linked to its people and their skills, and the application of these skills at work.* Firms with highly skilled workforces, with people engaged in their workplaces and their work are more innovative, more competitive and therefore have higher productivity.
- *The Australian Government, through its new relationships with the states and territories in the context of the Council of Australian Governments (COAG), is implementing a reform agenda to boost the skills of the population.* This agenda recognises that the foundations for later skill development are laid in early childhood, developed through school and tertiary education and applied in workplaces.
- *Australia has education, training and workplace relations systems that support high productivity and there may be areas to build on existing initiatives to continue boosting future productivity.*
 - Building resilience through the life-cycle needs to be at the centre of Australia's agenda for productivity over the upcoming decades. An agenda around building resilience might start with giving every child the best possible start in life through integrated health, development and care from birth with later interventions in the middle years and for Young Australians supporting this early investment.
 - Continuous improvement in our education systems to lift outcomes for all students, especially the most disadvantaged, and to ensure that all students reach their full potential and acquire key skills.
 - As Australia emerges from the domestic impacts of the global recession, there will be specific challenges to boosting productivity (including engaging the unemployed).
 - Supporting fairer, sustainable and more productive workplaces.
 - Planning for the needs of the growth economy of the future, including:
 - the emerging low pollution sustainability industry and growth in human services linked to population ageing; and
 - the skills requirements arising from adoption of high value technologies.

Introduction

The Department of Education, Employment and Workplace Relations (DEEWR) welcomes the opportunity to provide a submission to this inquiry into the level of productivity growth. This submission presents a brief review of the role of education, training, employment and workplaces in productivity growth, discusses the current reform agendas in those areas to boost productivity and presents some key emerging challenges and opportunities for Australia.

The submission's focus is on terms of reference: (d) the contribution made by microeconomic reform to the permanent improvement in the growth rate of productivity and the continuing effectiveness of the microeconomic reform agenda, (i) the adequacy of resources devoted to training and development of the labour force; and j) the key reforms and measures that can be undertaken to lift Australia's permanent rate of productivity growth.

Section 1: Australia's productivity performance

Overall productivity performance

Our productivity growth will drive our standard of living and economic growth in the upcoming decades.¹ For example, Australia's capacity to generate income to meet the costs of ageing will depend largely on productivity growth.² Across a wide range of social and economic policy questions about 'what is to be done' our answers will largely be formed by our ability to increase our productivity in a fair and environmentally sustainable manner.

Productivity is the ratio of outputs produced per input. More broadly, productivity captures the ability of a nation to harness its physical and human resources to generate output and income and raise living standards.³ Productivity is driven by a range of

¹ Krugman, P (1994); *The Age of Diminishing Expectations*. Treasury (2007); *Intergenerational report 2*, Commonwealth of Australia, Canberra.

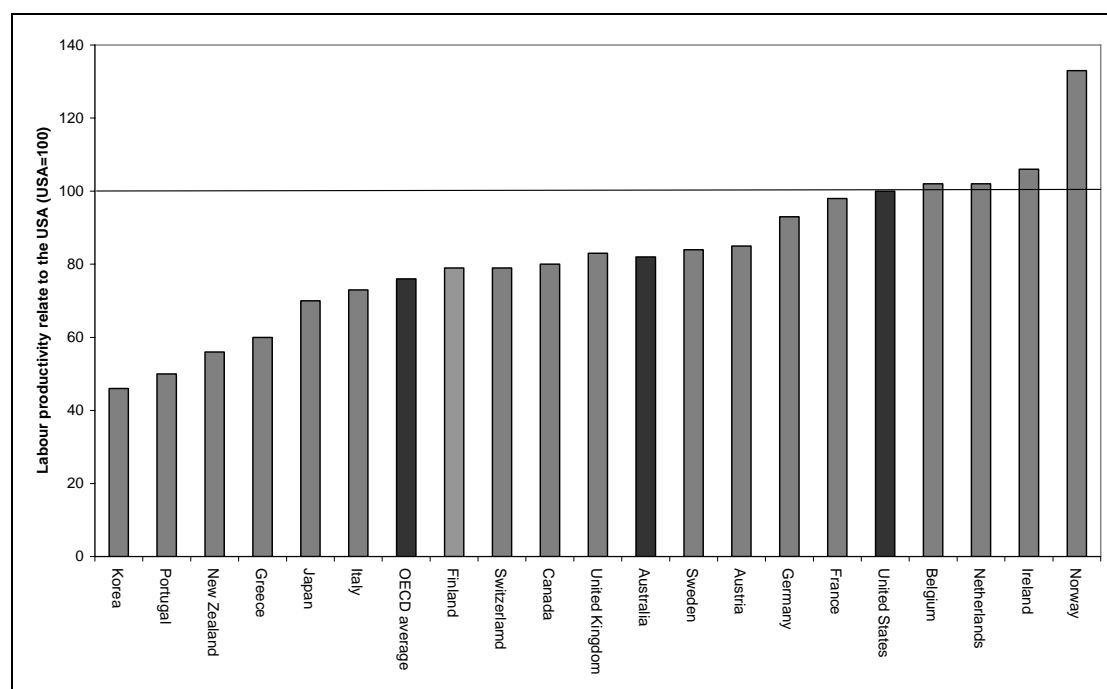
² Productivity Commission (2005) *Economic Implications of an Ageing Australia*, Productivity Commission Research Report, 24.03.2005

³ Banks, G (2002); *The drivers of Australia's productivity surge*, Speech to Outlook 2002; Productivity Commission.

factors, including investment in human capital, innovation, entrepreneurship and competition.⁴

Australia's labour productivity (GDP per labour input used) is below that of the best performing countries in the Organisation for Economic Cooperation and Development (OECD) (see Figure 1) and was 20 per cent below that of the United States in the mid 2000s.

Figure 1: Labour productivity across the OECD (2008)



Source: OECD Stats Extracts: <http://stats.oecd.org/Index.aspx?DatasetCode=LEVEL>

Skill accumulation over the life-cycle and productivity

Australia's productivity depends on its people and their skills. The percentage of the workforce with higher qualifications has a significant bearing upon labour productivity.⁵ Advanced skills and capabilities improve workplace productivity, as well as assisting the rate of innovation and the adoption of technology (and hence productivity growth).⁶ Access Economics has calculated that if the Australian workforce had on average 0.15 years of extra education and training productivity

⁴ Productivity Commission (2008); *Annual Report 2007-08: Enhancing Australia's productivity growth*; Annual Report Series, Productivity Commission.

⁵ Productivity Commission (2008); *Annual Report 2007-08: Enhancing Australia's productivity growth*; Annual Report Series, Productivity Commission

⁶ Aghion P. and Howitt P. (1998); *Endogenous Economic Growth* Cambridge, MA: The MIT Press. Productivity Commission (2008); *Annual Report 2007-08: Enhancing Australia's productivity growth*; Annual Report Series, Productivity Commission.

could be increased in Australia by 0.62 per cent.⁷ McKinsey recently showed that, if the U.S. had matched the educational levels of countries like Finland and South Korea, its Gross Domestic Product (GDP) would have been up to 16 per cent higher.⁸

The development of skills and capabilities is a process that begins at birth, and develops through childhood into adulthood and throughout life. Skill accumulation occurs through early childhood learning, schooling, higher education, vocational education and training and work. A life-cycle approach to skill development is important because of the relationships between learning at different points in life and the importance of successful transitions through different life stages.⁹

The first five years of a child's life are crucial as this is when the brain undergoes rapid development leading to the setting up of capacities for undertaking effective learning pathways. If children miss out on the learning opportunities required to stimulate brain development at this stage they can be set back for life. Investment in early childhood development can therefore improve the effectiveness of later investments, as well as reduce the need for interventions focused on those with poor outcomes later in life.¹⁰

By building on early childhood learning, schooling provides a foundation for children as they develop towards adulthood. School attainment, particularly completion of Year 12 or equivalent, is important as a pathway to further education, and is positively linked to higher levels of social inclusion, employment and labour force participation, lower unemployment, higher labour force re-entry, higher wages, and higher levels of productivity.¹¹ There is evidence that students in Australia are performing well. In an international comparison of reading literacy of 15 year olds, Australians performed

⁷ Access Economics (2005); *The Economic Benefit of Increased Participation in Education and Training*; report for the Business Council of Australia and the Dusseldorp Skills forum.

⁸ McKinsey (2009); *Detailed findings on the economic impact of the achievement gap in America's schools*; http://www.mckinsey.com/clientservice/socialsector/detailed_achievement_gap_findings.pdf

⁹ Cunha, F., Heckman, J. J., Lochner, L. and Masterov, D. V., (2006); "Interpreting the Evidence on Life Cycle Skill Formation" in *Handbook of the Economics of Education*, Elsevier.

¹⁰ Cunha, F., Heckman, J. J., Lochner, L. and Masterov, D. V., (2006); "Interpreting the Evidence on Life Cycle Skill Formation" in *Handbook of the Economics of Education*, Elsevier.

¹¹ COAG National Reform Initiative Working Group (2006); *Human Capital Reform: Report by the COAG National Reform Initiative Working Group*. Kennedy, S (2007); 'Full employment in Australia and the implications for policy'; Address to the NSW Economic Society, 11 December 2007.

well above the average of participating countries, albeit with some fall in recent results for reading literacy, including a fall in Australia's performance relative to other top-performing countries (see Table 1).

Table 1: Reading literacy scores (15 year olds) in the top performing OECD Programme for International Student Assessment (PISA) countries

	PISA 2000	PISA 2003	PISA 2006
<i>Countries achieving significantly higher than Australia</i>	Finland	Finland Korea	Korea Finland Hong-Kong Canada New Zealand
<i>Countries with no significant difference from Australia</i>	Canada New Zealand AUSTRALIA Ireland Hong Kong-China Korea United Kingdom Japan Sweden	Canada AUSTRALIA Liechtenstein New Zealand Ireland	Ireland AUSTRALIA Liechtenstein Poland Sweden Netherlands

Source: OECD Programme for International Student Assessment (PISA) (2000, 2003, 2006)

The application of human capital in workplaces and productivity

Productivity growth, as well as being linked to the levels of skills and capabilities of the workforce, is driven by how these skills and capabilities are applied at work.¹²

Policies to support human capital and lift the quality of workplace practices are inter-related and both support Australia's productivity performance. The economic value of individuals' skills and capabilities are affected by:

- the breadth and depth of their skills;
- the relevance of their skills for the jobs available;
- their ability to locate and secure employment;
- the quality of the leadership and management they experience in their workplace;
- and
- their ability to cope with change and adapt successfully to life and work.

Australia's labour productivity remains below the best performing countries in the OECD, despite current Australian students demonstrating strong performance

¹² Productivity Commission (2008); *Annual Report 2007-08: Enhancing Australia's productivity growth*; Annual Report Series, Productivity Commission.

compared to the average across the OECD (see above). Therefore, there appears to be opportunities to make better use of human capital in workplaces and to develop the skills of our prime-aged and mature-aged adults.¹³

Developing a world class education system and driving development of a workforce that is highly skilled, flexible and adaptable in responding to increasing global competition is important for ensuring that skills are well utilised at the workplace level.¹⁴ The Australian Government has expressed its commitment to ensuring that the investment in training is targeted to skill needs across the economy thereby ensuring the maximum return for productivity.¹⁵

Productivity growth comes from innovation by enterprises, spreading these improvements to others and the reallocation of resources towards more productive activity.¹⁶ The application of our human capital and our workforces to the innovation processes within firms is therefore critical for productivity.¹⁷ Investment in excellent workplace practices (for example practices to enhance employee participation) helps firms to capitalise on their human capital and boost innovative activity.¹⁸

Social inclusion and productivity

In addition to boosting productivity through skill accumulation for the population overall, the Government and COAG have a significant reform agenda to promote social inclusion by assisting people from disadvantaged backgrounds, particularly Indigenous people, to actively participate and be more productive in the Australian community. Bringing those people currently at the margins of the workforce and

¹³ OECD (2008); *2008 Education at a Glance*; OECD.

¹⁴ DEEWR (2008); *Quality Education: The Case for an Education Revolution in our schools*; Commonwealth of Australia

¹⁵ Australian Government (2008); *Skilling Australia for the Future – Discussion paper 2008*. Treasury (2008); *Budget 2009-10*; Treasury.

¹⁶ Productivity Commission (2008); *Annual Report 2007-08: Enhancing Australia's productivity growth*; Annual Report Series.

¹⁷ National Innovation System Review Panel (2008); *Venturous Australia - building strength in innovation*; report prepared for the review of the National Innovation System

¹⁸ Society for Knowledge Economics (2009); *Leading Australia to More Innovative, Productive and Fulfilling Workplaces – The Role of Government*; A report commissioned by DEEWR.

those at-risk of future exclusion into the economy will lift GDP per capita, as these people will make more significant contributions to the Australian economy.¹⁹

It is important to support the disadvantaged to acquire the capabilities that are needed for productive economic participation. Research shows that children from disadvantaged backgrounds participating in quality preschool programs have higher earnings and lower levels of criminal behaviour.²⁰ Australia can therefore progress both productivity and social inclusion by supporting the outcomes of at-risk children.

Families are at the centre of capacity enhancement in early life.²¹ As children develop, their capabilities are developed (or restricted) by broader community, peer and social influences.²² Therefore, supporting at-risk families in their geographic and/or culturally defined communities is important for both productivity and social inclusion.

With an ageing population, we will need to engage with young Australians to ensure they feel they belong and are valued by society and thus are connected and contributing to mainstream Australian economy, society and culture.

Section 2: Productivity agendas in education, employment and workplace relations

The Australian Government, through its new relationships with the states and territories in the context of COAG, is implementing an ambitious reform agenda to boost the skills of the population. The COAG Human Capital agenda is a long-term, integrated plan across governments and portfolios to increase productivity and workforce participation. The Productivity Commission has calculated that current

¹⁹ DEEWR (2009); *Social Inclusion: Intergenerational Disadvantage*; <http://www.socialinclusion.gov.au/Documents/5IntergenerationalDisadvantage.pdf>.

²⁰ Heckman J. and Masterov D. (2007); *The Productivity Argument for Investing in Young Children*; NBER Working Paper 13016, National Bureau of Economic Research, Inc.

²¹ Cunha, F., Heckman, J. J., Lochner, L. and Masterov, D. V., (2006); "Interpreting the Evidence on Life Cycle Skill Formation" in *Handbook of the Economics of Education*, Elsevier. Bernal, R and Keane, M (2009); "Child-care choices and children's cognitive achievement: The case of Single Mothers"; paper presented to 2009 ANU conference on The Economics of Childcare, http://econrsss.anu.edu.au/~aleigh/pdf/ChildcareConf_BernalKeane.pdf.

²² Hanushek, E (2008); "Education Production Functions"; in *The New Palgrave Dictionary of Economics 2008 Edition*.

reforms in early childhood, education, skills and workforce development policies could boost productivity by up to 1.2 per cent by 2030.²³

Early childhood learning

High quality early childhood education and child care plays an important role in improving educational and developmental outcomes for children. The Australian Government's agenda for early childhood focuses on providing Australian families with high-quality, accessible and affordable integrated early childhood education and child care. The agenda has a strong emphasis on connecting with schools to ensure all Australian children are fully prepared for learning and life. The national strategy *Investing in the Early Years – A National Childhood Development Strategy* agreed by COAG will guide consideration of investment in future reforms to support children aged under eight and their families and implementation has begun.

Schools

A schooling system that delivers excellence and equity in outcomes for all students is the foundation for supporting productivity and participation both now and in the future. The reforms being progressed by COAG and the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) will help build a schooling system that enables all Australians to reach their full potential and participate fully in Australia's society and economy, by ensuring that all have the key foundation skills necessary for higher level work, training and life long participation. Additionally, by using information and communications technology (ICT) to enhance learning and building ICT literacy, schooling will help Australia adapt to the digital economy and will provide a foundation for new ways of supporting productivity in the future.

High-quality schooling is critical to ensuring that all individuals have the skills, knowledge and resilience to prosper in the dynamic 21st Century environment in which they will live and work. Schooling is also a key element in building a more socially inclusive Australia, especially in terms of addressing educational

²³ Productivity Commission (2008); *Potential Benefits of the National Reform Agenda*; Commission research paper.

disadvantage through embodying a culture of high expectations and continuous improvement for all.

All governments in Australia, through COAG, have made a commitment to lift the Year 12 or equivalent attainment rate to 90 per cent by 2015. In addition, there are a number of key National Partnerships, which will contribute to increased productivity: Smarter Schools - Quality Teaching; Smarter Schools - Low Socio-economic Status (SES) School Communities; Smarter Schools - Literacy and Numeracy; Youth Attainment and Transitions; the Digital Education Revolution; and the Building the Education Revolution.

Youth transitions

The successful transition of young people from childhood to independence and adult life is central to Australia's economic and social goals. Through partnerships between a number of its agencies, the Australian Government is pursuing a positive and integrated agenda for young Australians. In addition, COAG has agreed to a Compact with Young Australians, which requires young people to complete year 10 and then be in full-time education, training or employment and provides an entitlement to training for all 15-24 year olds. This compact, part of the broader National Partnership for Youth Attainment and Transitions, will complement efforts within schools to better position all students to make successful transitions to post-school work or training.

Vocational education and training (VET)

COAG also agreed to a new National Skills and Workforce Development Agreement which sets out to increase the skill levels of all Australians, including Indigenous Australians. The agreement includes targets to halve the proportion of 20-64 year olds without qualifications at Certificate III level by 2020 and double the number of higher qualification completions by 2020.²⁴

The Australian Government has funded the Productivity Places Program which will deliver 711,000 training places over 5 years in areas of skills shortage. In addition, the

²⁴ COAG (2008); *COAG Communique* ' 29. November 2008
http://www.coag.gov.au/coag_meeting_outcomes/2008-11-29/attachments.cfm#attachmentb

2009-10 Budget provided a \$3.8 billion investment in Australian Apprenticeships over four years. To ensure all young workers with trade qualifications in Australia possess the green skills of the future, the Commonwealth is negotiating a new National Green Skills Agreement with the states and territories. This Agreement will make practical sustainability training a fundamental part of all vocational education and training (VET) programs.

VET has a critical role in knowledge diffusion by raising the capacity of the workforce and firms to absorb new knowledge, and increase their ability to adapt improvements. VET does this through teaching (imparting practical skills and underpinning knowledge of processes); acting as a technology intermediary (putting companies and services in touch and encouraging technology transfer and information exchange); and in being a leading source of technical expertise”.²⁵

Higher education

To create a highly educated workforce and boost productivity, the Australian Government has set the following targets:

1. By 2020, 20 per cent of higher education enrolments at the undergraduate level will be of people from a low socio-economic status background. With this target in mind, student income support is being redesigned to more effectively support students from low socio economic backgrounds; and
2. By 2025, 40 per cent of all 25 to 34 years olds will hold a qualification at bachelor level or above. This will produce around 217,000 additional graduates by 2025.

The Australian Government will invest \$5.7 billion in higher education and innovation over the next four years and will commit substantial additional resources over the next 10 years. Initiatives under the reform agenda include strengthening quality teaching and research and uncapping the number of public university places (from 2012) to allow universities to offer a place to all eligible students. The Education Investment Fund (EIF) has a mandate to support capital expenditure and renewal and refurbishment in universities and vocational institutions, as well as in

²⁵ Rosenfeld S. (1998); *Technical colleges, technology deployment and regional development* Organisation for Economic Cooperation and Development, Modena, Italy.

research facilities and major research institutions. The Government is also exploring how to enhance the effectiveness of skilled migration to Australia's skills needs.

Maximising participation and productivity

The Government has emphasised that maximum participation in economic, social and community life is a defining characteristic of an inclusive society. A key aspect of boosting participation is capacity building. This involves supporting individuals' personal capacity to address issues that arise over the course of their lives, make independent decisions and negotiate priorities through participation in workplaces, neighbourhoods and communities. Systems and services need to ensure individual needs are met. The Government's Social Inclusion agenda is underpinned by a whole-of-Government approach to delivering tailored services and cross jurisdictional participation.

The Government's \$4.9 billion, national employment service, Job Services Australia, commenced on 1 July 2009. The new arrangements aim to assist all job seekers, regardless of their level of disadvantage, by providing individually tailored assistance to develop pathways to sustainable employment. There is a stronger focus on skills acquisition and training, and greater incentives for meeting employer demand. Reformed Indigenous employment services also commenced on 1 July 2009 aiming to deliver more effective local employment solutions for Indigenous Australians. Assistance for people with disabilities to gain employment will also be improved through the implementation of the new Disability Employment Services from 1 March 2010.

COAG has established six targets to close the gap between Indigenous and non-Indigenous Australians. Meeting these targets will have important reconciliation and social objectives and help to lift economic participation to ensure that Indigenous Australians are able to contribute more effectively to the Australian economy. COAG has committed funding of \$4.6 billion toward meeting the targets. The six targets are:

- To close the gap in life expectancy between Indigenous and non-Indigenous Australians within a generation.

- To halve the mortality gap between Indigenous children and other children under age 5 within a decade.
- To provide access to early childhood education for all Indigenous four-year olds in remote communities within five years.
- To halve the gap in literacy and numeracy achievement between Aboriginal and Torres Strait Islander students and other students within a decade.
- To halve the gap between Indigenous and non-Indigenous students in rates of Year 12 attainment or an equivalent attainment by 2020.
- To halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade.

Workplaces and productivity

The *Fair Work Act 2009* provides the regulatory framework for fair, cooperative and productive workplace relations to meet the challenges of a modern, open economy. A fair and simple safety net of legislated national employment standards and modern awards will reduce red tape for employers and ensure equity for employees nationally. Central to the new workplace relations framework is collective bargaining in good faith at the enterprise level driven by productivity gains. There is a clear body of evidence linking collective bargaining with higher rates of productivity growth. Collective bargaining enables employers and employees to negotiate arrangements suited to their particular needs and respond to external pressures.²⁶

The new workplace relations framework will also support people of working age to participate in the labour force. Providing protection for parents in the workplace (as well as providing parents with the means to balance work and family responsibilities) will assist in creating an environment in which people are confident to start a family, and confident to participate in paid employment whilst managing their roles as parents. To support this agenda, the Fair Work Act introduces a range of new provisions designed to assist parents to balance work and family responsibilities. The

²⁶ Productivity Commission (1999); *Microeconomic Reforms and Australian Productivity: Exploring the Links, Volume 2: Case Studies*, Research Paper, AusInfo, Canberra, 1999.
A Johnston, D Porter, T Cobbold and R Dolamore (2000); *Productivity in Australia's Wholesale and Retail Trade*, Productivity Commission Staff Research Paper, AusInfo, Canberra.
Y-P Tseng and M Wooden (2001); *Enterprise Bargaining and Productivity: Evidence from the Business Longitudinal Survey*, Melbourne Institute Working Paper No. 8/01, July 2001, page 28.

Government is also introducing Australia's first comprehensive paid parental leave scheme at a cost of \$721 over five years.²⁷

The Australian Government is continuing to work with states and territories to put in place a national workplace relations system for the private sector which will reduce complexity for employees, employers and small businesses. This will further help improve productivity through reduced compliance costs for business. By moving towards a seamless national economy through the reform of business and other regulation, COAG's reforms will make it easier for businesses and workers to operate across State and Territory borders.

The harmonisation of occupational health and safety regimes has been identified as a key issue for business for both productivity and safety. In July 2008, COAG leaders signed an Intergovernmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety. Through this agreement, the Commonwealth, State and Territory governments have agreed to adopt uniform OHS laws, complemented by consistent approaches to compliance and enforcement, by 2011.

Section 3: Future directions for productivity

In summary the information presented above shows that our education, employment and workplace relation systems are central to supporting Australia's future productivity and that there is a significant reform agenda underway to increase productivity. It is important that Australia builds on these reforms to deal with the emerging challenges and opportunities for Australia's future productivity.

Building resilience from birth into adulthood and through-out the life-cycle

According to Professor James Heckman, skills formation over the life cycle is a dynamic process and early interventions can give later ones a better chance of success.²⁸ Often the focus on skill formation is in relation to the development of

²⁷ FaHCSIA *Implementing Australia's paid parental leave scheme – employer, employee and community consultations*

<http://www.fahcsia.gov.au/sa/families/progserv/Pages/PaidParentalLeave.aspx>

²⁸ Cunha, F., Heckman, J. J., Lochner, L. and Masterov, D. V., (2006); "Interpreting the Evidence on Life Cycle Skill Formation" in *Handbook of the Economics of Education*, Elsevier. Bernal, R and Keane, M (2009); "*Child-care choices and children's cognitive achievement: The case of Single*

cognitive skills (the ability to think, study and learn) while less attention is paid to the role of non-cognitive skills (such as motivation and resilience). Emerging evidence is showing that these non-cognitive skills over the life cycle have important implications for productivity.

A positive sense of wellbeing has also been identified as an important contributor to productivity. The work of Professor Martin Seligman shows that people with a positive sense of wellbeing have better performance in work, school and sports, are less depressed, have fewer physical health problems, and have better relationships with other people.²⁹

In conjunction with, and building on current initiatives, an agenda to boost productivity through resilience and wellbeing starts with giving every child the best possible start in life through integrated health, development and care from birth. It is then necessary to follow up the early support provided with later investments in the middle years through to young adulthood to enhance and build a young person's resilience as evidence suggest that non-cognitive skills can be influenced at later ages.³⁰

Fostering resilience earlier in the life-cycle needs to be at the centre of Australia's agenda for productivity over the upcoming decades, building on current initiatives such as the Compact with Young Australians and the new COAG National Partnership to improve youth attainment and transitions. Particular and additional effort should focus on the most disadvantaged, to build resilience and support strong foundations and transitions from home, through schooling and between later education, training, work and family responsibilities.

Mothers"; paper presented to 2009 ANU conference on The Economics of Childcare, http://econrsss.anu.edu.au/~aleigh/pdf/ChildcareConf_BernalKeane.pdf.

²⁹ Seligman M.E.P (2002); *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfilment*, New York: Free Press

³⁰ Heckman J. and Cunha F. (2006); *Formulating, Identifying and Estimating the Technology of Cognitive and Noncognitive Skill Formation*, available at <http://cowles.econ.yale.edu/conferences/labor-macro/papers/cunha-heckman.pdf>

Emerging from the global recession

As Australia emerges from the domestic impacts of the global recession, there will be specific challenges to boosting productivity. These challenges include: engaging the unemployed and people who are outside of the labour market in jobs or in pathways such as training to employment to support participation; and ensuring that the education and training system meets the needs of a post-recovery economy. We can meet these challenges through learning the lessons from previous downturns and recoveries and building our knowledge of what our future skills requirements might be. The Government's approaches to addressing the challenges of the global economic recession are outlined in the Interim Keep Australia Working report.³¹ In the schools sector, for example, this has included \$14.7 billion of funding to support employment in local communities through the Building the Education Revolution initiative. A final Keep Australia Working report is expected by the end of September. This report is expected to provide further analysis of the impact of the Global Recession on employment and what short-term and long-term approaches may be needed to support recovery.

Longer-term challenges and opportunities

We need to plan for the future so that Australians are well-prepared for the challenges and opportunities, and can respond with high productivity solutions. In general, the Australian economy and labour market have been remarkably resilient to a number of large changes over the past 50 years, or so. Moving forward, Australia will face numerous new challenges, some of which will be anticipated, others of which will not. Some of the anticipated challenges are: the ageing of the population; the need to up-skill large numbers of people; increasing global integration causing increased competition and falling prices of products that require low skilled labour intensity; and increased rates of technological change resulting in increased work complexity.³²

While economic and labour market modelling of the future is subject to uncertainty, there has been a long-term labour market shift into services, particularly those that

³¹ Available at: <http://www.deewr.gov.au/Employment/KeepAustraliaWorking/Pages/home.aspx>.

³² O'Leary, D and Oakley, K (2008); *The Skills Paradox*; Demos. Richardson, S and Teese, R (2008); *A well-skilled future*; NCVER.

require strong inter-personal and presentation skills (for example, retail and hospitality services) and knowledge skills (for example, education, health and financial services). These trends are likely to continue and will mean that more Australians (from the highly skilled to those with more limited qualifications and skills) will need these skills while employment is expected to continue to contract in other industries such as manufacturing.³³

The move to a low-carbon economy will mean that there will be an increased demand for some skills, particularly those related to some design, project management and trade skills. The OECD notes that productivity enhancing reforms are needed not only to attenuate the impact of the current recession but also to get global economies on a low carbon economic growth pathway.³⁴

The emergence of China and other developing countries in the global economy means that Australians who are less skilled will face increasing competition, while those with higher skills will probably find increasing demand for their services, continuing recent trends. (Over the past decade the percentage of Australian workers in low and semi-skilled occupations has fallen from 20 per cent to 17 per cent, continuing a longer term trend.) While there will be overall benefits to the Australian economy and society, it is important that those people at risk of poor outcomes are supported through well-targeted interventions that address the cause of the problems.³⁵

In order to secure high productivity in the face of these trends and challenges, we need to support the transition to new growth industries and occupations, ensure our skills development is linked to long-term sustainable outcomes, and we boost the accumulation of higher skills in those areas of future demand. This means that we need to ensure our education, training and workplace relations systems remain responsive to people's needs and have the flexibility to adjust as new challenges arise.

³³ DEEWR (2008); “*New Jobs - Employment trends and prospects for Australian industries*”; <http://www.skillsinfo.gov.au/NR/rdonlyres/5BDEFA73-1096-43A9-9532-46139FE7C520/0/NewJobs2008Publication.pdf>

³⁴ OECD (2009); *Strategic Response to the Financial Economic Crisis: Contribution to the Global Effort*; <http://www.oecd.org/dataoecd/33/57/42061463.pdf>; OECD.

³⁵ Australian Government (2009); *Social Inclusion Principles for Australia*; <http://www.socialinclusion.gov.au/Principles/Documents/SIPrinciples.pdf>.

Supporting productive workplaces

The knowledge and capabilities of firms (Intangible firm's assets) are increasingly driving firm value and productivity and we therefore need a greater focus on ways to support firms to make best use of those assets.³⁶ Innovation will continue to be a key driver of productivity. The skill sets that will be required include interpersonal, communications, management and entrepreneurial skills. These are all necessary, together with increased skills utilisation through high performance workplaces and 'learning climate', to increase innovation and create more fulfilling and productive workplaces.³⁷ Our future education, training and employment system will need to increasingly support the development of these skills. In addition, to support innovation it is important to have strong workplace practices (as achieved through leadership, culture and management) that deliver employee engagement and productivity improvements and competitive advantage to enterprises providing the foundations for sustainable long-term growth.³⁸

Summary - towards a strong, fair and productive Australia

Australia is currently performing well in its education and training systems, but recent evidence tells us that there are some areas for further focus in the upcoming years. These areas include: enhancing early childhood outcomes through quality learning environments; quality schooling that meets the needs of the most able to the most disadvantaged; a tertiary system that is attuned to the future productivity needs of the economy; systems that support effective transitions between life-stages and through education, training and work; addressing the disadvantages of individuals; building skills for jobs in growth areas and supporting workplaces to build a fair, sustainable and more productive Australia.

³⁶ Society for Knowledge Economics (2009); *Leading Australia to More Innovative, Productive and Fulfilling Workplaces – The Role of Government*; A report commissioned by DEEWR.

³⁷ Smith, A, Oczkowski, E, and Selby Smith, C (2008); *To have and to hold: Retaining and utilising skilled people*; National Centre for Vocational Education Research (NCVER) research report.

³⁸ Society for Knowledge Economics (2009); *Leading Australia to More Innovative, Productive and Fulfilling Workplaces – The Role of Government*; A report commissioned by DEEWR.