

Contents

SUSTAINING REGIONS

EDITOR

1

CONTRIBUTED PAPERS

- Alaric Maude: Integrating environmental and social objectives into regional development programmes: what could we learn from Scotland and Sweden? 2
- Dean Carson: Some Comments on “Sustainable Australia – Sustainable Communities: A sustainable population strategy for Australia” 14
- Tony O’Malley: Notes on Judith Brett’s “Fair Share: Country and City in Australia.” Quarterly Essay. 15
- Rod Brown: Beware the bolting regions. A comment on the Grattan Institute “Investing in Regions” 17

CURRENT RESEARCH ABSTRACTS

- Australasian Journal of Regional Studies 18
- Papers in Regional Science 20

NEWSLETTER

REGIONS & PRACTICE

- From Regional Development Australia News Issues 15 and 16 23
- Our Cities National Urban Policy paper reviewed 27

UPCOMING CONFERENCES

28

ABOUT ANZRSAI

- Council Meeting 14 July 2011 29
- ANZRSAI Regional Innovation Network in South Australia 30
- ANZRSAI Council 2010-11 30

ANZRSAI 2011 Canberra 6-9 December

REGISTER NOW

<https://www.conferenceonline.com/index.cfm?page=booking&object=conference&id=16160&categorykey=A42368C5%2D17FD%2D4404%2D9C2A%2DFAD1AAA8F96B&clear=1>

EDITOR

The title Sustaining Regions has a proud history in Australian regional practice. ANZRSAI launched the publication in 2001 under a contract with the then Australian Government’s Research and Development Programmes for Rural and Regional Australia. Since Volume 5, Issue 3 in 2006, Sustaining Regions has not attracted sufficient articles to publish three issues per year. There have been two issues only: Volume 6, Issue 1 (2007) and Volume 7, Issue 1 (2009).

Changes in the funding of research institutions have removed the incentives for researchers to contribute articles to journals which are not refereed. At the same time there have been changes in regional practice in Australia with the emergence of EDA (Economic Development Australia), SEGRA (Sustainable Economic Growth in Regional Australia), and the Australian Government Department for Regional Australia, Regional Development and Local Government.

The Council of ANZRSAI has decided to place Sustaining Regions within the Newsletter, as an outlet for wide discussion of the social, environmental and economic conditions in the bounded localities in which all people live, and an input to development of debate, policy and research.

For this first edition of ANZRSAI Sustaining Regions and Newsletter Alaric Maude has contributed an excellent article on the design of regional development programmes.

We invite contributions relevant to urban and regional communities. These can be commentary, articles, book reviews, and descriptions of policy initiatives. Contributions must reveal the author; they will not be refereed, and will not enjoy the copyright protection of a refereed journal. Authors seeking refereeing and copyright protection should approach Australasian Journal of Regional Studies www.anzrsai.org.

CONTRIBUTED PAPERS

Integrating environmental and social objectives into regional development programmes: what could we learn from Scotland and Sweden?

Alaric Maude

Abstract

Governments and regional development agencies are often urged to include environmental and social objectives in the criteria they use to decide on projects to fund, but little has been written on how this might be achieved. This paper outlines the methods used in Scotland and Sweden to ensure that projects funded by regional development programmes satisfy all three sustainable development criteria (economic, environmental and social), the key elements of support that have made the implementation of these methods possible, and the evidence available on the outcomes. The methods reviewed could be used by governments in Australia to promote sustainable development by adding environmental and social objectives to a variety of regional development programmes.

Keywords: *Regional development programmes; sustainable development; environment; environmental integration; Scotland; Sweden*

1. Introduction

Regional development programmes of governments in Australia have sometimes included social objectives, such as the employment of particular categories of people, but rarely environmental objectives. For example, in the Sustainable Regions Programme of the Australian Government which ran from 2001 to 2008, the only mention of the environment in the project assessment criteria is that projects should comply with planning and environmental laws. Some regions, like Playford-Salisbury, established priorities that included environmental sustainability, but not all regions did so, and the Mid-Term Review of the programme reported that only 18 per cent of projects targeted the environment (Department of Transport and Regional Services, 2006). Similarly, the four objectives of the Regional Partnerships Programme, now terminated by the Labor Government, did not mention environmental sustainability, only help for communities to make structural adjustment in regions affected by major environmental change. The regional development programmes of the current national government are still being developed, but one of the inputs into this development, the Interim Report on funding regional and local community infrastructure, has no mention of environmental objectives (House of Representatives Standing Committee on Infrastructure, Transport, Regional Development & Local Government, 2008). The press release of the Australian Government minister responsible for regional development announcing the creation of Regional Development Australia

lists social inclusion as one of the areas of the rebadged Area Consultative Committees, but not the environment (Albanese, 2008).

In Europe, on the other hand, much work has been done to integrate environmental and social objectives into regional development programmes and the projects they fund. Sweden and Scotland have the reputation of being among the leaders in sustainable regional development in Europe, and so they were chosen for this study. The paper reviews some of the methods used in these two countries, as an example of what could be done in Australia. The discussion focuses on regional development funding programmes established by the European Union (EU) and national governments, and the methods used by regional agencies to administer these programmes. The information presented comes from an analysis of agency application forms and guidance notes, reports prepared by central government agencies to help regional development staff, independent evaluations of programmes, academic papers, and interviews with staff in three regional development agencies in each of Sweden and Scotland as well as a small number of central government staff and academic researchers. The paper focuses on the environmental aspects of sustainable development, but the methods described are the same for the social aspects. The term ‘environmental integration’ is used to refer to the integration of environmental objectives into non-environmental policies and programmes.

Methods of integrating environmental objectives into regional development programmes

This section outlines the key methods used in these countries to integrate environmental objectives into regional development programmes. These are:

- establishing programme principles and objectives that incorporate sustainable development
- developing environmental criteria for selecting projects for funding
- working with applicants to improve the environmental benefits of their projects
- monitoring projects during their implementation, and
- managing programmes through a partnership.

These methods are briefly discussed in turn.

Programme principles and objectives

Programme statements on the principles and objectives of sustainable development are important in that they explain what sustainable development means, and why it is important. They guide programme staff, boards of management and applicants about the concept and its significance, and set the framework for the methods developed to integrate environmental and social goals into the administration of the programme. For an example from Scotland see East of Scotland European Partnership (2002).

Project selection criteria

Some regional development programmes simply ask applicants to indicate whether the environmental impact of their proposed project is positive, neutral or negative, using a checklist to make applicants focus on particular types of impact. Others have selection criteria and carefully worded questions that make applicants think much more precisely about the environmental impacts of their project, and how they might be managed. For example, in the Structural Funds programmes in Sweden the relevant question asked has changed from ‘will your project affect the environment’ to ‘how will your project help the environment’. This shifts the thinking of applicants from how to prevent economic development projects from producing environmental harm to how to design such projects so that they produce environmental benefits. This is the concept of environmental gain developed by Clement

(2000), which he defines as ‘the attainment of environmental benefit as a direct or indirect result of economic development activity’ (Clement, Bradley and Hansen, 2004, p. 126). Environmental gain is a proactive concept of integration, looking for projects which simultaneously achieve economic and environmental objectives, and it contrasts with defensive integration, which is concerned mainly to prevent environmental damage (and often simply to comply with environmental legislation), and restorative integration, which seeks to repair environmental damage and improve the economic value of the environment, with part of the budget devoted to projects whose main aim is environmental rehabilitation (adapted from McLeod, 2005, p. 320).¹

The East of Scotland European Partnership (ESEP) Programme for 2000-2006 had a particularly extensive set of questions. Three of the 12 core selection criteria for projects funded under this programme related to environmental issues, with applicants required to answer the following questions:

1. Describe in what ways the project will impact positively on the region’s infrastructure, for example by making use of serviced and/or brownfield sites; re-use of existing buildings; being in or adjacent to settlements and/or public transport; and making use of, or developing, existing services.

2. Describe how the project in its direct use of resources positively addresses one or more of the following:

- The efficient procurement and use of water, energy, raw materials and other inputs.
- The minimisation and management of waste.
- The production of green products and services, the development of cleaner technologies/processes, recycling and re-use activities, environmental monitoring and pollution abatement.

3. Describe how the project contributes to the enhancement or protection of the environment in which it is set, or seeks to minimise the negative impacts. (adapted from Birley, McLaren, Tamburrini and Llanwarne, 2004, pp. 74-77)

Each question was accompanied by a page of explanation and advice, with an emphasis on the economic as well as environmental benefits of minimising environmental impacts. Applicants were also directed to a range of specialist agencies that could provide technical advice on specific matters, and to case studies that illustrate good practice. The latter have been found to be particularly helpful in conveying the concept of sustainable development and what it means in practice.² The questions encourage applicants to make environmental considerations an integral part of project design, not something to be thought about after the project has been developed, and to consider how being more environmentally sustainable might add to the economic sustainability of a project rather than being a cost burden. For example, energy efficiency might reduce the operating costs of a building, a renewable energy project could create local jobs and reduce income leakage, and a socially conscious employment policy for a project might increase labour market participation. Applicants may also be given examples of actions that involve the integration of environmental objectives into their projects. Table 1 lists examples from the South of Scotland European Partnership.

¹ See also Taylor, Polverari and Raines, 2001, pp. 67-69.

² For examples of case studies see Scottish Natural Heritage and Scottish Environmental Protection Agency (2004).

Table 1: Project actions that have environmental benefits

Energy audits in relation to project activities
Reduced energy consumption resulting from project implementation
Use of energy from renewable sources
Listing of all reasonably identifiable environmental impacts
Reduced waste production and effective waste management to minimise environmental impact;
Incorporation of recovery, reuse or recycling of materials into project design and implementation
Development and use of cleaner technologies and processes
Use of locally sourced materials in a sustainable way
Reuse of vacant or derelict buildings
Location of projects on brownfield sites
Improving organisational awareness of environmental and/or social performance as part of a
Total Quality Management System
Development and implementation of an environmental policy
Capacity building regarding resource use and recycling
Sustainable management of important land or marine resources
Protection or enhancement of wildlife habitats, landscape or geological features in project
locations
Enhanced understanding and enjoyment of the environment
Development of environmental training, either directly or as part of other training programmes

Source: Scottish Natural Heritage and Scottish Environmental Protection Agency, 2004, p. 12.

The use of clear and detailed criteria may be one way to reduce a problem commented on in Sweden. This was that by the time projects were submitted for appraisal it was often too late to make more than minor improvements to their environmental outcomes (Eliasson, 2005; NUTEK, 2004; NUTEK, 2006). Effective environmental integration needs to start at the beginning of project development, and not tacked on at the end. If project developers know the criteria they have to meet from the start, and where to get advice, they may be better able to build environmental gains into their planning.

In the Scottish system advisory groups representing economic, social and environmental interests and expertise jointly review each application, and make suggestions on how each could be improved. They or the programme management score projects on each of the selection criteria, with the aim of achieving a balanced, objective and transparent assessment of each project.³ One issue relating to the environmental selection criteria is whether a project must achieve a satisfactory rating on these criteria to be eligible for funding. In a scoring system it is possible for a project with poor environmental outcomes to receive an overall satisfactory score because of high ratings on other selection criteria. In practice, however, interviewees said that projects with bad environmental outcomes would not be funded but, more importantly, that they would usually work with applicants to improve the environmental design of their projects.

A key feature of the Scottish and Swedish programmes is that all projects are evaluated for their environmental objectives, in contrast to the Sustainable Regions Programme in Australia where environmental objectives only applied to designated 'environmental' projects. This means that in the

³ For an example of a scoring method see Scottish Natural Heritage and Scottish Environmental Protection Agency, 2004, p. 8.

former countries environmental objectives are now incorporated or ‘mainstreamed’ into all projects and all sectors.⁴ Mainstreaming has the advantage of not only improving the environmental benefits of all projects, but also helps to educate people into thinking about sustainability, as explained in a Scottish report:

In practical terms, mainstreaming means encouraging decision makers and applicants to consider sustainable development as a matter of routine. So, one aim of mainstreaming is to bring about cultural change on the part of a wide range of stakeholders by making them think more about sustainable development in their activities. The second aim of mainstreaming is to deliver practical results that lead to sustainable development. (Scottish Natural Heritage and Scottish Environmental Protection Agency, 2004, p. 6)

If the Sustainable Regions Programme in Australia had followed the principles outlined above all projects would have been required to have environmental objectives, and all of the regional advisory committees would have had environmental representatives and support from environmental agencies.

Examples of projects funded in Scotland to which the environmental criteria outlined above have been applied include:

- Improving Environmental Management in SMEs
- Demand Responsive Angus Rural Transport Pilot Scheme
- Women’s Action to Gain Employment
- Gartcosh Regeneration (a local business regeneration project)
- Microelectronic Skills Development Centre
- Edinburgh Biomedical Research Institute
- Kilncraigs Mill (a building restoration project)
- School for Social Entrepreneurs.

These are projects comparable in size and funding to many found in Australia, and the list shows that there are opportunities for integrating environmental objectives into project design and selection criteria in a wide range of programmes.

Working with applicants to improve their project

Most regional development programmes in Scotland and Sweden put some effort into helping applicants to improve the environmental quality of their projects, such as by running workshops before applications are submitted, by working with applicants after submission to help them further

⁴ Taylor, Polverari and Raines (2001, p. 11) provide the following definition of mainstreaming:

‘Mainstreaming’ implies integrating a given issue or perspective fully and consistently into mainstream policies as they are developed, implemented and evaluated. The term has been most frequently and fully developed in the gender field, but is also applied here to treatment of the environment as a horizontal theme (HT). Mainstreaming aims to make relevant thematic considerations a regular part of the mainstream policy process and, in so doing, involves the issues in question being transformed from the exclusive concern of specialists to integral aspects of the day-to-day activity of all economic developers, understood and applied as a routine part of their work. At a basic level, economic developers are being asked to apply an environmental or gender ‘filter’ to all their policies, processes and decisions, assessing likely implications and making adjustments where appropriate.

develop their projects, or by providing project development toolkits (Taylor, Polverari and Raines, 2001, pp. 85-89). Macleod (2005) argues that the Scottish programmes emphasise performance rather than conformance, and writes that:

Scottish partnerships place emphasis on deploying selection criteria as a framework to stimulate awareness raising and positive action on applicants' part, rather than as a sanctioning tool for perceived non-compliance with these criteria (Macleod 2005, p. 324).

Ideally, programme staff should work with applicants from the beginning of project planning to ensure that environmental and social objectives are effectively and productively incorporated from the start. This would help to overcome the problem noted earlier with projects submitted for evaluation too late to make major improvements, but programme staff said that they generally lacked the time for this level of assistance.⁵

Monitoring of projects

Some programmes have developed methods of evaluation that include site visits to assess progress towards achieving the objectives of a project, including the environmental objectives. This may lead to further advice and guidance being given to the project sponsors to help overcome any difficulties and improve project outcomes.

Managing programmes through partnerships

Most of the regional development programmes studied in Sweden and Scotland were managed by partnerships, not by a government agency. The partners might include local government, an environmental agency or agencies, key government agencies operating at the regional level (such as the labour market organisation and the business development agency), business interests (such as the chamber of commerce), education providers, and community organisations. In Sweden local political parties are also included. Through the partnership the representatives of economic and environmental interests have to learn how to work together and integrate their different objectives into a sustainable form of development. This can make environmental agencies more aware of the significance of economic issues and the economic agencies more aware of environmental issues. The partners may then apply this social learning to situations other than the regional development programme and so help to spread understanding of sustainability and the much broader concept of sustainable development. As Macleod (2005, p. 326) writes:

... the partnership model has certainly raised the profile of sustainable development amongst programme stakeholders and facilitated a unique approach to sustainable development capacity building due to wide-ranging ownership of the programmes.

However, interviewees in both countries commented that environmental agency staff, with their historical role of regulation, protection and conservation, were not always well equipped to engage in this type of dialogue, and that a new type of sustainable development specialist may be needed. The second person appointed as the National Advisor on Sustainable Development in Scotland (referred to later in this paper) was in fact a social scientist, not an environmental scientist, who was perhaps better able to work within a sustainable development framework.

⁵ See Taylor, Polverari and Raines, 2001, pp. 76-84 for further ideas on this issue.

Making this happen

Three key factors have helped to get environmental and social objectives incorporated into regional development programmes in Sweden and Scotland. These are political direction, the representation of environmental and social interests in the management of programmes, and support for agencies in learning how to manage the integration of these objectives.

Political direction

In both countries the incorporation of sustainable development objectives into regional development programmes was national government policy, although also widely supported by local and regional interests. Sweden has a national policy on sustainable development, and has required this to be integrated into regional development policy. Scotland also had a sustainable development strategy, adopted in 2005 and called *Choosing Our Future* (Scottish Executive 2005), and this applied to the programmes discussed in this paper. A report by Scottish Natural Heritage and the Scottish Environmental Protection Agency, the two agencies responsible for the environment in Scotland, strongly recommended that:

Mainstreaming is unlikely to be successfully achieved unless there is formal, high-level commitment to the process on the part of key stakeholders. Such commitment shows that key decision makers take the process seriously and will work to make mainstreaming a reality (Scottish Natural Heritage and Scottish Environmental Protection Agency, 2004, p. 32)

High level government commitment ensures that sustainable development objectives are written into government funded programmes, as a guide for the agencies that administer these programmes. However, agencies are given the flexibility to adapt these guidelines to suit the specific conditions of their region.

The European Union (EU) has also promoted the incorporation of sustainable development into regional development, through the guidelines for programmes funded by them. These guidelines have required the issues of environmental sustainability and equal opportunities, referred to as the 'horizontal themes', to be addressed since at least 1994.⁶ Early efforts were relatively limited, but the requirement was considerably strengthened for the 2000-2006 programmes, some of which are examined in this paper (Taylor, Polverari, and Raines, 2001, p. 9). The EU regulation for the 2007-2013 Structural Funds includes the following statement:

The action taken under the Funds shall incorporate, at national and regional level, the Community's priorities in favour of sustainable development by strengthening growth, competitiveness, employment and social inclusion and by protecting and improving the quality of the environment. (Scottish Government, 2008a, p. 114)

In relation to environmental sustainability this requirement has been translated by the Scottish Government into specific programme objectives:

- to strengthen the mutual contributions of environmental sustainability and economic and social development in Structural Funds-supported activities; and

⁶ Scotland has recently split the social horizontal theme into two components: equal opportunities and social inclusion.

- to raise awareness of the role of environmental sustainability in project planning and policy development. (Scottish Government, 2008a, p. 121)

The EU, however, is not the only reason for the attention paid to the horizontal themes, as non-EU regional development programmes in both Sweden and Scotland have the same environmental and social objectives as those funded by the EU.

Inclusion of environmental interests in programme management

As stated earlier, in both Scotland and Sweden regional development programmes are generally managed by a partnership. The partners decide on the objectives and operating methods of the programme, within the constraints of national government or European Union policy, and approve the selection of projects, so it is essential that the environment is strongly represented in these partnerships. In Scotland, for example, the Scottish Environmental Protection Agency and Scottish Natural Heritage are both able to represent the interests of the environment within the central management groups of the partnerships responsible for formulating sustainable regional development policy in the Scottish regions. This produces a management body rather different to the normal Regional Development Agency Board or Area Consultative Committee in Australia. Some Scottish agencies also retain an independent consultant to help with environmental and social inclusion issues. In Sweden the County Administrative Board, which represents central government agencies at the county level (including the Swedish Environment Protection Agency), is likely to be involved in a regional development partnership. However, in Sweden the representation of environmental interests in the central decision-making group may be weaker than in Scotland (Hilding-Rydevik, Lahtenmaki-Smith and Storbjork, 2005; Östhol and Svensson, 2002). For example, in the three partnerships studied by Östhol and Svensson only one had a specifically environmental member, who was an environmental expert. It is also vital that environmental interests are represented on the advisory groups that view each application. Strong environmental representation at both the advisory group and management board levels is a check on projects being funded solely for their economic benefits.⁷

Support from central government agencies

Integrating environmental and economic objectives is a new task for regional development agencies, and one that needs support from higher level government agencies. In Sweden the Swedish Agency for Economic and Regional Growth (NUTEK) and the Swedish Environmental Protection Agency, in collaboration with several other central government agencies, have worked together on a number of projects and programmes to assist regional development agencies in this task. This has included pilot projects in selected regions, an evaluation of agency experience with methods of environmental integration, a seminar on conflicts and synergies between economic and environmental objectives, and a guide to 'best practice' in environmental integration. Some of their early work is outlined in an English language publication on regional sustainable development in Sweden (Hasselsten and Daléus, 2004). The regional development agencies interviewed agreed that these activities had been useful for them, and had enabled the regions to inform the centre as well as the centre to inform the regions.

Separately these agencies have also funded demonstration projects in the regions that combine economic and environmental benefits. NUTEK, for example, has assisted small companies to improve their environmental management, promoted the use of environmental management systems in small

⁷ There is evidence of environmental questions sometimes being ignored by decision-making officials in Sweden, because they are under pressure to approve projects and attract funding to the region (Emmelin and Nilsson 2006)

companies, and until recently ran a business development programme called Design for the Environment. This helped small and medium-sized enterprises to improve the design, manufacture and recycling of their products, as a way of both reducing environmental impacts and increasing firm competitiveness. Similarly, under the Local Investment Programme that began in 1996, the Swedish Environmental Protection Agency has funded projects in the municipalities with the primary aim of improving environmental sustainability in areas such as renewable energy, energy efficiency, waste management, transportation, sewerage and nature conservation. A secondary aim has been to increase employment, mainly in the construction of the projects, but some permanent jobs have been created in the operation of energy plants, waste sorting facilities and nature parks. Some of the projects have also reduced the leakage of income from regions, by replacing imported fossil fuels with energy produced from local renewable sources such as wood pellets or organic waste. The Programme therefore has both environmental and regional economic benefits. It was replaced by the Climate Investment Programme in 2002, which only funds energy projects.

In Scotland the Scottish Environmental Protection Agency and Scottish Natural Heritage jointly funded an Advisor on Sustainable Development, whose main task was to help the regional development agencies learn about the environmental aspects of sustainable development (Macleod, 2005). He was complemented by a National Advisor for Equal Opportunities. Again, the agencies interviewed considered that the Advisors had played an important role, and a review of the 2000-2006 Structural Funds Programmes highlighted their role as champions of the horizontal themes (Scottish Government, 2008b). The need for such an advisor seems to diminish as programmes gain experience and knowledge, and interviewees in the agencies in Scotland argued that mainstreaming meant that all their officers had to be competent in dealing with environmental integration, as well as with the social aspects of sustainable development, although they could still call on external specialist advice.

The Advisor on Sustainable Development is one example of the capacity-building needed if sustainable development is to be successfully integrated into regional development programmes. Programme staff, boards and applicants all have to develop new attitudes and gain new knowledge, and this requires time and funding, as recommended by Scottish Natural Heritage and the Scottish Environmental Protection Agency in their review of the pre-conditions for mainstreaming sustainable development in regional policy (Scottish Natural Heritage and Scottish Environmental Protection Agency, 2004, p. 34).⁸

Does environmental integration make any difference?

There has been limited evaluation of the outcomes of these strategies to integrate environmental objectives into regional development project planning, in both Sweden and Scotland. A Scottish report stated that:

The value of mainstreaming is further reinforced by Mid-Term Evaluations' findings that Scotland's European Structural Funds Partnerships are raising the profile of sustainable development in regional economic development. Equally encouragingly, Mid-Term Evaluations also show that the mainstreaming process is bringing tangible benefits to projects that have built sustainable development principles into their design and implementation. Examples of such benefits include the following:

⁸ See also Taylor, Polverari and Raines, 2001, pp. 46-59.

- Enhanced competitiveness and efficiency resulting from protection of environmental assets via environmental impact assessment, brownfield site development, reuse of existing buildings and responsible use of resources.
- Enhanced awareness of the relevance of sustainable development within project contexts.
- Added value as a result of community economic development organisations delivering environmental schemes to compliment local authority service provision.

In addition, it recorded that:

... the Mid-Term Evaluation Report of the Strathclyde European Partnership's Programme found that:

- Over a quarter of applicants surveyed had changed the design of their projects as a result of the mainstreaming process;
- A third of project applicants felt that mainstreaming had changed the behaviour of their client groups. (Scottish Natural Heritage and Scottish Environmental Protection Agency, 2004, p. 29)

Swedish evaluations were more pessimistic. Swedish officials and researchers interviewed were unanimously of the view that the extent of environmental integration in regional development was still unsatisfactory, although improving, and that economic considerations were still dominant in decision making. This view is supported by a mid-term evaluation of the Swedish Government's Regional Growth Programmes by the Swedish Institute for Growth Policy Studies which, in a generally favourable assessment, commented that 'few programmes succeed in integrating the issues of sustainability into the growth process' (Jonsson, 2006, p. 3).⁹ Apart from the pressure to approve projects noted earlier, other reasons for this situation identified by two Swedish researchers were that there were no clear directions from the central government on what sustainability means, or on how to integrate environmental considerations into the regional development programmes, and no prescribed tools or indicators to assist this process other than a simple classification of projects according to their environmental impact as assessed by the proponent (Emmelin and Nilsson, 2006). The methods outlined in this paper are designed to overcome these problems.

Conclusion

European experience, here illustrated by Scotland and Sweden, shows how to integrate sustainable development objectives into regional development programmes. The best developed programmes operate on the premise that all projects have environmental and social impacts, and all projects provide scope for improving environmental sustainability, equal opportunity and social inclusion. Consequently all projects should have environmental and social objectives and be assessed against the same environmental and social criteria. In this way sustainable development goals become mainstreamed into regional development programmes and projects, and not confined to specifically environmental or social projects. The key elements for successful integration are clear and transparent criteria, the availability of advice, and the involvement of environmental and social interests in programme management and decision making. These methods also help to generate a constructive dialogue between different interests that may have an impact wider than the individual projects being funded. Their aim is to change cultural attitudes towards development, and to show people that

⁹ Similar comments were made in the assessments of the EU Structural Funds Programmes operating in Sweden in the period 2000-2006 by NUTEK (2004), and by a research team from Nordregio, a Scandinavian regional development research institution based in Stockholm (Clement, 2005).

economic, environmental and social objectives can be complementary and support each other, rather than conflicting. The methods could be used not only in regional development programmes, but also in community, infrastructure, business, industry, tourism, agricultural and other programmes funded by governments.

Acknowledgements

I wish to thank the central government officers, regional development staff and researchers in Sweden and Scotland who took the time to answer my questions and explain their methods of environmental integration. Thanks also to Christer Gunnarsson for locating and translating several reports in Swedish. They are not responsible for my interpretation.

References

Albanese, A. (2008), *Regional Development Australia*. Statement by the Minister for Infrastructure, Transport, Regional development and Local government, the Hon Anthony Albanese, MP. Available at http://www.infrastructure.gov.au/regional/publications/pdf/Regional_Development_Australia_min_stmt_final_version_20Mar08.pdf.

Birley, T., McLaren, G, Tamburrini, S. and Llanwarne, A. (2004), *Mainstreaming sustainable development in regional regeneration; a review of the ESEP approach and guidance for applicants*, ESEP, Dumferline [Scotland]. Available at http://www.esep.co.uk/East0006/east_horizont/easthrzt_frame.html.

Clement, K. (2000), *Economic development and environmental gain*, Earthscan, London.

Clement, K. (2005), 'Environment and sustainable development in the EU Structural Funds: a review of Nordic performance', *European Environment*, vol.15, pp. 294-312.

Clement, K., Bradley, K. and Hansen, M. (2004), *Environment and sustainable development integration in the Nordic Structural Fund: an appraisal of programming documents*, Nordregio, Stockholm. Available at <http://www.nordregio.se/Files/r0407.pdf>.

Department of Transport and Regional Services (2006), *Stage Two Mid-Term Evaluation of the Sustainable Regions Program*, Analysis and Evaluation Section, Regional & Indigenous Policy Branch, Regional Services Business Division, Department of Transport and Regional Services, Canberra.

Emmelin, L. and Nilsson, J.-E. (2006), 'Integration of environment into regional growth policy—the lack of environmental consideration in implementation', in Emmelin, L. (ed.), *Effective Environmental Assessment Tools—Critical Reflections on Concepts and Practice*, Blekinge Institute of Technology, Research Report No 2006:03.

East of Scotland European Partnership (2002), *East of Scotland Objective 2 Programme 2000-2006: programme complement*, East of Scotland European Partnership. Available at http://www.esep.co.uk/East0006/east_dloads/east_compment/progcom_final.pdf.

Eliasson, F. (2005), 'For sustainable projects', *Inforegio Panorama* **16**, p. 16.

Hasselsten, I. and Daléus, M. (2004), *Regional Sustainable Development in Sweden: Developing Methods and Processes*, Swedish Environmental Protection Agency, Stockholm. Available at <http://www.naturvardsverket.se/Documents/publikationer/620-8176-4.pdf>.

Hilding-Rydevik, T., Lähteenmäki-Smith, K and Storbjörk, S. (2005), *Implementing sustainable development in the regional development context – a Nordic overview*, Nordregio, Stockholm. Available at <http://www.nordregio.se/Files/r0505.pdf>.

House of Representatives Standing Committee on Infrastructure, Transport, Regional Development & Local Government (2008), *Funding regional and local community infrastructure: Proposals for the new Regional and Local Community Infrastructure Program, interim report*, Parliament of the Commonwealth of Australia, Canberra.

Macleod, C. (2005), 'Integrating sustainable development into Structural Funds programmes: an evaluation of the Scottish experience', *European Environment*, 15, pp. 313-331.

Mackenzie, M. (nd), *Mainstreaming equal opportunities in Scottish Structural Funds Programmes*. Available at http://www.esep.co.uk/assets/files/EO_Report_Final.pdf.

NUTEK (2004), *EU's Strukturfonderna—Ett Verktyg för Regional Utveckling*, NUTEK, Stockholm [from the English summary].

NUTEK (2006), *Verktyg för Hållbar Regional Utveckling: Stöd och Tips för ett Lyckat Förändringsarbete* [Tools for sustainable regional development: Support and tips for a successful change in work], Nutek, Stockholm.

Scottish Executive (2005), *Choosing our future: Scotland's sustainable development strategy*, Scottish Executive, Edinburgh. Available at <http://www.scotland.gov.uk/Publications/2005/12/1493902/39032>.

Scottish Government (2008a), *Highlands and Islands Scotland: European Union Regional Development Fund 2007-2013: Structural Funds Operational Programme*, Scottish Government, Edinburgh. Available at <http://www.scotland.gov.uk/Resource/Doc/233690/0063976.pdf>.

Scottish Government (2008b), *The mainstreaming legacy of the 2000-06 Structural Funds Programmes*, European Structural Funds Division, Scottish Government. Available at www.hipp.org.uk/new/files/downloads/download393.doc.

Scottish Natural Heritage and Scottish Environmental Protection Agency (2004), *Linking sustainable development to regional development: learning lessons from Scotland's European Structural Funds experience*, Scottish Natural Heritage and Scottish Environmental Protection Agency, Stirling [Scotland]. Available at http://www.sepa.org.uk/scotlands_environment/data_and_reports/scientific_and_technical.aspx.

Taylor, S., Polverari, L. and Raines, P. (2001), *Mainstreaming the horizontal themes into Structural Fund programming*, IQ-Net Thematic Paper 10(2), European Policies Research Centre, University of Strathclyde, Glasgow. Available at [http://www.eprc.strath.ac.uk/iqnet/downloads/IQ-Net_Reports\(Public\)/10.2Horizontal%20Themes.pdf](http://www.eprc.strath.ac.uk/iqnet/downloads/IQ-Net_Reports(Public)/10.2Horizontal%20Themes.pdf).

***Some Comments on “Sustainable Australia – Sustainable Communities:
A sustainable population strategy for Australia”***

Dean Carson
18 May, 2011

Population policies are often very light documents because the levers available to government to make substantial and short term changes are few. The main lever in Australia has been international migration, and it is around this issue that the population strategy was politically formulated at least. What international migration tends to do – whether it is skilled migration, humanitarian migration or even 'open door' type policies – is to bring people of similar age/ sex mix to urban locations. The perceived crowding of these locations has been a secondary political driver for population strategy.

As a consequence, the framing language of the strategy is about 'regions' and 'communities' although the guts of the document is not at all about regions – and certainly not what we would consider to be 'regions' from a Northern Territory perspective. In fact, one 'region' mentioned as an example in the document is 'Melbourne's outer suburbs' – this is the kind of understanding of 'region' that has been reflected in some of the discussion documents prior to the strategy – mistaking fringe growth in Brisbane and Melbourne and Sydney and Perth for 'regional' growth, at least as we would perceive it. The Opposition spokesperson on population, Scott Morrison, is correct when he says that many centuries of population policy experience has shown that few measures work in attracting new migrants to regional areas. The large cities are always the focus, irrespective of the problems faced in managing growth in those places. In this strategy, however, there are three tactics for promoting regional population growth

1. Offer easier paths to permanent residency for immigrants who spend time in regional Australia. This is a temporary measure to address skills shortages in those regions – but again, if the 'regions' are Gold Coast and Penrith and Werribee, it means very little for us beyond the city fringes. We also see that once people have served their time and got their residency, they move to the cities anyway. This measure will have limited and temporary impact on distribution of the immigrant population across Australia. In fact, it is likely to speed up the flow of new migrants from regional areas to the cities. There are no accompanying initiatives speaking to retaining migrants in regional areas (education and family support etc.).
2. Provide some marketing assistance to regions who want to grow and who show they have plans in place for growth. This is hardly a population measure – regions (both prosperous and not) have been doing this to attract doctors and nurses and teachers and businesspeople for years and some succeed and most don't. More recent initiatives like offering free or peppercorn rent have again had some limited and localised impacts. This tactic is about abrogating what the government initially states as its responsibility (promoting regional growth) to the regions. If we look at the NT as an example here, we may be able to use some of these resources to grow Darwin a bit more, but we have tried all sorts of campaigns for our other regions with very little success.
3. The third tactic is not really a tactic at all – it was simply an observation that population growth in what we might call 'regions' (beyond the capital city fringe) has been narrowly confined to coastal Queensland which is about sea change, and two other areas around mining. The latter has been wisely linked in this document to growing long distance commute workforces and is acknowledged as likely to be temporary. This temporariness is linked to

‘development problems’ in the mining regions (affordable housing etc.), but there were no measures spelt out to try and convert this temporary growth to something more long lasting and ‘sustainable’ (in any sense). The flavour of the ‘regional’ discussion certainly reflected an east coast view of life beyond the metropolitan, which is disappointing.

What the strategy did do a good job of was tacitly acknowledging that the apparent regional focus of the rhetoric around the document has been misleading and that issues such as urban housing and transport systems were the real heart of the matter. Public angst about population growth in the urban fringes may be reduced if we have some more jobs there (an argument we have made about prospects for Weddell), if housing is more affordable and available there, and if people can get to and from work with less hassle. This strategy at least as a flag that the government wants to prioritise these urban developments is a good thing. There is no equivalent treatment of regions and their call for help in attracting or at least retaining population. So – urban growth = government will directly invest in hard infrastructure, regional growth = responsibility abrogated to the regions with some soft infrastructure funding.

What the strategy did a bad job of was 1) understanding the differences between ‘regional’, ‘rural’, and ‘remote’ in terms of their demographic characteristics and potentials, and 2) forgetting that women have babies and that people are generally living longer (although this was acknowledged in passing with regards Indigenous people).

What the strategy means for the NT is unclear. We could argue for more attention to Darwin's urban problems as they come to resemble those of southern capitals (operating at our own scale of course). We can take temporary advantage of the regional migration tactic recognising that the past pattern has involved a lot of ‘stop in Darwin to get the residency, and then move to Sydney’. We can perhaps use the framing language of the strategy to push our case for additional migration allowances. But there is little else in there that we can use to explore new ways to retain population in the Barkly region, or to push population in Alice Springs beyond the magic 30 000 mark. Of course, this assumes that the Northern Territory population policy continues to be one of encouraging growth, and encouraging growth regionally as well as in Darwin. The Federal strategy may be a trigger for a realisation that urban growth is the only easily achieved growth in a context where that growth is driven by (national and international) migration, and the NT may need to reconsider the 2030 Strategy in that light.

In summary though, I don't see the Federal strategy offering much new – except a statement that the government is committed to attracting more people to Australia, and will try and calm those who are uncomfortable about that by framing it as a ‘regional issue’ and by noting the need for investment in urban/ urban fringe jobs, houses and transport systems. Business as usual, but it is nice for demographers to see population taking such a front seat on the policy bus! I did look carefully for the commitment of research \$ to monitor things into the future – but with no luck.

Notes on ‘Fair Share’ by Judith Brett

Tony O’Malley

Judith Brett [(2011) ‘Fair Share: Country and City in Australia.’ *Quarterly Essay*, 42: 1-67.] argues that the city dweller under-values the services of the country. Early policy makers put a value on country wealth generation, extension of occupation and sovereignty across the continent, and the

powerful countrified mythologies of Australia, and used them to underpin policy settings which established a compact between city and country.

From the first two decades after federation until the 1970's and 1980's the five pillars of the Australian settlement were protection of manufacturers from import competition, wages set to be fair and reasonable rather than productivity related, state paternalism and state-owned enterprises, White Australia and defence reliance on a powerful ally. To these pillars put forward by Paul Kelly in *The End of Certainty*, Brett adds a sixth, a fair share of Australia's resources to country people as compensation for the costs of remoteness and sparse settlement (2011: 17-19), and she notes the omission of Australia's indigenous people from this compact.

During the 1980's and 1990's, the economy was opened, productivity and enterprise bargaining determined wages, government privatised and used markets to provide services, White Australia was repudiated, but defence retained a reliance on powerful allies. The compact with the country was removed and country people were encouraged to lift productivity and care for themselves; there was no change in indigenous omission. The jobs created by the productivity enhancing forces of urban agglomeration, the jobs lost through the growing productivity of agriculture, and materialism, then accelerated the growth of urban populations relative to country populations.

In 2011, the country is back on the political radar. Country Australia "...still believes that the nation can and should protect its prosperity and way of life" (2011: 55). Sustainability has been expanded to include the economic and social dimensions of rural Australia (2011: 56). "The nation needs to confront the possibility that rural and regional Australia might always need a fair degree of subsidisation, that it will always be more expensive to deliver services to many parts of Australia than to the city, that we do all live in a big country with a difficult geography, and that we do all need to share the cost." (2011: 56)

The country benefits the city through raw material and food production, spaces and environments for recreation and tourism, national imagery (Driza-Bones, the great outdoors), services and their growth through information and communications technology, occupying territory as the basis for national sovereignty of a vast and often uninhabitable land, indigenous land ownership and historical presence, ecological services protecting eco-systems, sequestering carbon, and more.

Brett provides a reasoned and well written history which every student of regional history and politics should read. Her conclusion is compelling: as citizens we need to bridge the gap with indigenous Australians, provide essential services to the 30% of the population living in rural and remote areas, and accept the obligation of a nation inhabiting a large and varied continent (2011: 62).

The country may not retain the political radar for long before the cities regain the political ascendance. (See below National Urban Policy Review in REGIONS & PRACTICE.)

Beware the bolting regions

The Cockatoo by courtesy Rod Brown

The Grattan Institute has just released a report recommending that governments should tilt funding towards fast-growing regions. Titled "Investing in regions: Making a difference", it argues that

government funding should steer away from slow growing regions without sustainable economic foundations, towards ‘bolting’ regions where people and jobs want to go.

The report also recommends that governments should cut funds to those regional universities making a modest economic impact, and subsidise students to attend higher education facilities in capital cities. It’s all reminiscent of Treasury economists in awe of Adam Smith’s doctrine of following the invisible hand of the market. I guess the Grattan Institute has only been around a couple of years, and has to make its mark. But peddling these sorts of recommendations is downright dangerous.

Bolting versus lagging regions

The fault with the Grattan analysis is that governments are duty bound to help lagging regions to adjust to market shocks and minimise social dislocation and distress. Every developed nation offers subsidies to lure labour-intensive firms into such regions. Examples here are northern Adelaide, northern Tasmania and more recently the Lower South East region of SA.

As regards redirecting expenditure, how do you define a bolting or lagging region, and over what period? The report lists Cairns as a bolting region – WRONG because the tourism market has now collapsed and unemployment is high.

The report also recommends that governments should forget about trying to attract investment into lagging regions on the basis that it’s a lost cause. Key Murray Basin cities – Mildura, Shepparton, Tamworth, Orange-Bathurst, Albury-Wodonga – that are now recovering from the drought are in that category!

Infrastructure

The Grattan report argues that infrastructure investment may only have a limited impact on a regional economy – this is at odds with scores of surveys of investor surveys. The report nevertheless says that bolting regions should have priority for such expenditure – this would consign lagging regions to a permanent state of disadvantage.

Universities

The report’s recommendation for a downscaling of regional universities is short-sighted. Regional Australia critically depends on building its skills base and development capacity. Along with Cooperative Research Centres, regional universities could be powerful ‘poles of competitiveness’ (as in Europe). If only we all realised it.

The better solution

Regional development is a messy, imperfect process. The interplay of economic and social factors is complicated by the intersection of local, state and federal politics. The result is a myriad of plans, strategies and programs peddled by scores of agencies.

Regional stakeholders are mesmerised by all this complexity. What they want is recognition and respect, and the knowledge that governments (plural) are systematically building their local economy and institutions. They intuitively know this will help them cope with company closures, droughts, floods, cyclones and the like.

In this context, the regional development approach being pushed by the federal government will hopefully deliver this recognition. It puts the onus on regional stakeholders to focus on their

competitive strengths, and to collaborate with state and local government, local businesses, universities etc. to develop sustainable growth paths. It also challenges regions to be persistent! This is good. These principles should become a permanent feature of regional development policy because it also puts the onus on the federal government to provide decent feedback to RDA applicants. And it sends a message to federal and state agencies to pay attention to projects that:

- Align with a region's competitive strengths.
- Are best practice.
- Measure up in terms of cost-benefit analyses and business plans.

So I suggest that councils assemble their ideas within this simple framework. Meanwhile, you might read the Grattan Institute report because it might be supplying oxygen to federal and state treasuries looking for cost savings.

CURRENT RESEARCH ABSTRACTS

Members of ANZRSAI have free access to these journals at the ANZRSAI and RSAI websites.

Australasian Journal of Regional Studies
Volume 17, Issue 1. 2011

pp7-21

Rural Regional Innovation: A Response to Metropolitan-Framed Place-Based Thinking in the United States

Brian Dabson

Vice President & COO, Rural Policy Research Institute; Director, RUPRI Rural Futures Lab; and Research Professor, Harry S Truman School of Public Affairs, University of Missouri, USA.

ABSTRACT: The purposes of this paper are to examine the origins of the place-based policy initiative introduced by the Obama Administration and the implications of this approach to rural America, and so provide a framework for emerging thinking in the United States around the idea of "rural regional innovation". The paper begins by discussing the measurement of rurality, and how that feeds into the prevailing public discourse about the contribution that rural America makes to national prosperity. The lack of a clear understanding of rural-metropolitan relationships provides the

background for a discussion about innovation and the current strong interest in regional innovation clusters. The paper then proceeds to suggest what rural regional innovation might entail and to present its key components, and concludes with some thoughts about the implications for regional science.

pp22-45

Australia's Changing Economic Geography Revisited

Robert J. Stimson

Director, Australian Urban Research Infrastructure Network (AURIN), University of Melbourne, Victoria 3010, Australia and Professor Emeritus, School of Geography, Planning and Environmental Management, University of Queensland, Australia.

ABSTRACT: For some time Australia has been exhibiting the hallmarks of a „two speed economy“ in which the sun-belt states are surging ahead fed by internal migration and the resources boom. But the nation has always been one in which marked regional differences economic performance have been evident, with the nature and magnitude of those differentials changing according to the level of aggregation/disaggregation used in analysis and modelling and also over time. This paper provides an overview of Australia's changing economic geography over the last two to three decades, highlighting the changing nature of

the socio-economic divides that have occurred, and speculating on what might lie ahead.

pp46-59

Locating People Spatially: 2006, 2010, 2100 and 2:36PM on Friday

Shelby Canterford

Geoscience Australia, GPO Box 378, Canberra, ACT 2601, Australia.

ABSTRACT: The National Exposure Information System (NEXIS) is a major national project being under-taken by Geoscience Australia (GA). NEXIS collects, collates, manages and provides the information required to assess multi-hazard impacts. Exposure information is defined as a suite of elements at risk from a hazard and includes populations, buildings, businesses and infrastructure. Understanding population exposure is essential for emergency planning and management. However exposure information can also be used for understanding climate change risk, assessing energy efficiency policy, urban planning and other spatial research. This paper focuses on the population aspects of NEXIS and recent work on estimation methods for the present day over any geographic extent. Plans for work on small area population estimates to the year 2100 will also be presented. Finally future work on activity modelling, the prediction of population movement throughout the day, will also be highlighted.

pp60-80

Metropolitan Growth Policies and New Housing Supply: Evidence from Australia's Capital Cities

Ralph B. McLaughlin

Lecturer, School of Natural and Built Environments, University of South Australia, GPO Box 2471, Adelaide, South Australia 5001, Australia.

ABSTRACT: This paper empirically examines the relationship between house price change, metropolitan growth policies, and new housing supply in Australia's five major capital cities.

Our hypothesis suggests capital cities with tighter regulations on new development will have fewer housing starts and price elasticities than those in less-regulated markets. The empirical procedure used in this paper utilises the Urban Growth Model of Housing Supply developed in Mayer and Somerville (2000a and 2000b) and employed in Zabel and Patterson (2006) by using quarterly data on housing approvals and house prices from 1996-2010. Data on metropolitan growth policies in Australia is borrowed from Hamnett and Kellett (2007). Preliminary findings indicate that new housing supply in Australian capital cities is elastic to housing price changes, as a one per cent increase in prices leads to an approximately 4-6 per cent increase in housing approvals over five quarters. While this indicates a properly functioning housing market, the estimated elasticity is about a third of other developed countries, such as the United States. Furthermore, the use of established growth policies, such as urban growth boundaries and urban consolidation, appears to have a greater impact on new housing approvals than adoption of new-style growth policies, such as development corporations and infrastructure levies. However, both types of policies decrease new housing supply.

pp61-99

Quantum Dreaming: The Relevance of Quantum Mechanics to Regional Science

Tony Sorensen

Adjunct Professor, Behavioural Cognitive and Social Science, University of New England, Armidale, NSW 2351, Australia.

ABSTRACT: Regional scientists are familiar with such concepts as Wicked Problems and Social Messes, which describe a human world of great complexity and uncertainty. Both dramatically affect the accuracy and effectiveness of our analysis of regional economic process and policy prescription alike. This paper adds additional layers or dimensions to Wicked Problems and Social

Messes via analogy with concepts derived from Quantum Mechanics, a branch of particle physics itself shrouded in great complexity and uncertainty. Heisenberg's (1930) uncertainty principle, for example, asserts the impossibility of stating accurately both the location and velocity of matter on account of its simultaneous wave- and particle-like behaviour, ideas that appear to apply to economic systems. Quantum mechanics also entertains the weird notions of entanglement and superposition, the latter of which led to Schrödinger's famous mind-game in which he proved a cat could be simultaneously alive and dead and Einstein's disparaging remarks about the entire field. Yet our spatial economic systems seem to embody elements of both entanglement and superposition. So Quantum Mechanics has potentially strange implications for theoretical development in regional science and ensuing public policy.

Papers in Regional Science

Volume 90, Issue 3, August 2011

451-472

Urban sprawl and productivity: Evidence from US metropolitan areas

Belal N. Fallah
Mark D. Partridge
M. Rose Olfert

Abstract: This paper draws on urban agglomeration theories to empirically investigate the relationship between the economic performance of US metropolitan areas and their respective amounts of sprawl. To measure urban sprawl, we construct a distinctive measure that captures the distribution of population density and land-use within metropolitan areas. Using both ordinary least squares (OLS) and instrumental variables (IVs) approaches, we find that higher levels of urban sprawl are negatively associated with average labour productivity. This pattern holds even within given industries or within given occupational classifications.

473-502

External economies of localization, urbanization and industrial diversity and new firm survival

Henry Renski

Abstract This paper explores how external economies influence the survival of new, independent business establishments in the continental United States using a confidential, establishment-level dataset on new firm longevity. Industrial localization has a positive influence on new businesses survival in five of the eight industries examined. Regional industrial diversity is also beneficial to new firms in five study industries, particularly those that are more knowledge-intensive. The benefits of city size are limited to two study industries, with diseconomies of size found for an additional three.

503-527

Amenities and skill-biased agglomeration effects: Some results on Italian cities

Alberto Dalmazzo
Guido de Blasio

Abstract By exploiting the Roback model, we analyze the impact of agglomeration on both production and consumption. We postulate that the evaluation of urban amenities may vary across skill-groups. Empirically, we use the Bank of Italy's survey of household income and wealth (SHIW) dataset, and find evidence of a substantial urban rent premium, while we do not find support for an urban wage premium. We conclude that urban agglomeration is predominantly a source of positive amenities for residents and, in particular, highly-educated individuals seem to care about the welfare effects of agglomeration more than their less-educated counterparts. Survey results also suggest that urban skilled workers benefit from jobs of higher quality, and from shopping possibilities and cultural consumption opportunities, such as cinemas, theatres, and museums.

529-548

**Regional wage differentials in Portugal:
Static and dynamic approaches**

João Pereira
Aurora Galego

Abstract This work aims to study regional wage differentials from both a static and a dynamic perspective. The usual Blinder and Oaxaca static decomposition does not provide clear information about the factors which explain changes in regional wage differentials over the years. To overcome this problem the Juhn, Murphy and Pierce decomposition is employed. The paper analyses the case of Portugal for 1995 and 2002. The results show that, although the changes in the interregional wage inequality were small, they were caused by important and counteracting factors.

549-571

The returns to job mobility and inter-regional migration: Evidence from Germany

Florian Lehmer
Johannes Ludsteck

Abstract This paper provides an extensive analysis of the wage effects of inter-regional mobility within Germany. Comparing skilled region-type movers with skilled non-migratory establishment movers we find clear evidence of an additional effect of inter-regional mobility which becomes fully effective after three years. The highest returns are obtained by young workers and by rural-urban movers. The introduction of fixed district and establishment effects tackles the notorious nuisance of regional price-level differences and reveals that the mobility returns can be decomposed into roughly equal contributions of human capital accumulation and search gains.

573-588

Overeducation in the Finnish regional labour markets

Signe Jauhiainen

Abstract A spatially limited job search area is considered to be one of the explanations for overeducation. Previous studies have observed that living in a small labour market increases and spatial mobility reduces the probability of overeducation. This paper examines the influence of region and mobility on the risk of overeducation for men and women. Overeducated individuals are identified with a statistical measurement method. In total, 9.6 percent of all workers are overeducated. A probit model that controls for sample selection bias is used in the empirical analysis. The probability of overeducation seems to depend on the region. In other words, living in a large regional labour market decreases the probability of being overeducated.

589-602

Patent licensing in a model of spatial price discrimination

John S. Heywood
Guangliang Ye

Abstract This paper demonstrates that it can be optimal for innovators that also produce to license via a fixed fee rather than a royalty in a model of spatial price discrimination. This reversal of the typical result emerges when reduced willingness to pay by consumers limits the competitive location advantage associated with differential production costs. Thus, in our duopoly model the innovator can earn more via the fixed fee than either no licensing or licensing by royalty, even though this requires accepting symmetric locations and the associated equality in production costs.

603-612

Taxation and predatory prices in a spatial model

Stefano Colombo

Abstract Using a spatial model with two separated markets, this study looks at how taxation alters the incentive to prey of an

incumbent firm facing a potential entrance by another firm. The paper shows that for intermediate levels of the transportation costs, the higher are the taxes, the lower are the expected gains from the predatory strategy. This study shows that under some conditions setting a positive level of taxes may induce a duopolistic equilibrium instead of a monopolistic one, and this ultimately increases welfare.

613-628

Spatial Cournot equilibria in a quasi-linear city

Takeshi Ebina
Toshihiro Matsumura
Daisuke Shimizu

Abstract We investigate equilibrium locations of a spatial Cournot competition model that includes both circular city and linear city models as special cases. We find that the equilibrium location is discontinuous with respect to parameter β ($\beta=0$ implies circular and $\beta=1$ implies linear), and multiple equilibria appear for some range of β . The location pattern becomes exactly the same as that of the linear city for a wide range of β , while it exactly matches that of circular city only when $\beta=0$. This implies the property of the linear city holds for non-measure zero case, while circular city does not.

629-662

Multiple dimensions of regional economic growth: The Brazilian case, 1991-2000

Guilherme Mendes Resende

Abstract This paper seeks to understand how the determinants of economic growth in Brazil may manifest themselves differently on various spatial scales between 1991 and 2000. Analysing this issue sheds light on the modifiable areal unit problem (a measurement issue). In addition, it also suggests potential explanations for the origin of this variability. This latter issue relates to the scale-dependent determinants of economic growth (a structural

issue). The analysis reveals that the results change as the scale level changes and suggests a general framework for dealing with multiple spatial scales and model uncertainty. Moreover, the extent of the effects of spatial externalities and the issue of spatial heterogeneity are investigated.

663-685

Four tests of independence in spatiotemporal data

Fernando A. López
Mariano Matilla-García
Jesús Mur
Manuel Ruiz Marín

Abstract This paper tries to extend the range of techniques for testing the hypothesis of 'complete spatiotemporal randomness' in the case of a general type variable with a regional or spatial breakdown. The tests that we can find nowadays in the literature are not well-suited to, for the most part of, series of interest. We have generalized the use of three popular tests of spatial dependence (namely, Moran's I, the spatial BDS and the BP tests) to which we add a Lagrange multiplier test. Furthermore, with a Monte Carlo simulation, we show the finite sample behaviour of the four tests for linear and non-linear processes. The paper finishes with an empirical application to the annual growth rates of employment in European regions.

BOOK REVIEWS

687-688

Manufacturing in the New Urban Economy: Regions and Cities – By Willem van Winden, Leo van den Berg, Luis Carvalho and Erwin van Tuijl
Peter Warda

689-690

Knowledge-intensive Entrepreneurship and Innovation Systems: Evidence from Europe (Routledge Studies in Global Competition) – Edited by Franco Malerba

Eleonore Huang Vogel

690-691

The wealth and poverty of regions: Why cities matter – By Mario Polèse

Charlotta Mellander

NEWSLETTER

REGIONS & PRACTICE

From Regional Development Australia News Issue 15 and 16

Reproduced with permission from the Commonwealth Government.

Clean Energy Future Initiative – Stakeholder Forums

The Department of Climate Change and Energy Efficiency (DCCEE) are proposing to hold forums with RDA committees in the coming weeks. DCCEE have sent out a request for potential dates and will contact RDAs directly once confirmed.

Joint meeting Loddon Mallee, Hume and Murray RDA committees

Loddon Mallee (Victoria), Murray (NSW) and Hume (Victoria) RDA committee representatives recently met to canvass a range of cross border opportunities and challenges for collaboration through northern Victoria, southern New South Wales and South Australia. RDA Murraylands & Riverland (South Australia) has also been engaged in discussions.

A key focus of the meeting was the opportunity to foster a whole of Murray Darling Basin tourism development approach which complements the existing campaign committees of regional tourism boards. The cultural and environmental tourism assets of the Basin offer a diverse range of visitor experiences.

It was agreed to identify product strengths and gaps along the Murray River. This project will

be led by the Murray Regional Tourism Board, with support from RDAs, Tourism Victoria, Tourism New South Wales, tourism associations and local government authorities. A consultancy brief is currently being finalised, including the scoping of territory for this preliminary piece of work.

Logan Redlands Roadmap launch highlights importance of digital economy to region

Speakers at the launch of RDA Logan and Redland's (Queensland) Regional Roadmap on 30 June urged the region to capitalise on the roll out of the National Broadband Network (NBN), citing international case studies, and described the new Regional Development Australia Fund, noting the ability of RDAs to influence national policy through their access to local knowledge. The Regional Roadmap supports the vision of these two local governments.

RDA Gippsland develops Food Plan

The RDA Gippsland (Victoria) committee has initiated the development of a Regional Food Plan to ensure the health and well-being of Gippsland residents.

The Plan will be broad in its outlook, and will look to sustain the food sector as a critical part of the Gippsland economy. It will also address Gippsland's role in supporting national and global food security. The Regional Food Plan will align with the National Food Plan, announced by the Australian Government in June 2011.

Work and family in Far North South Australia

RDA Far North (South Australia) in partnership with the Port Augusta City Council recently advertised for an Indigenous Mining Employee using a blend of funders. The Indigenous Mining Employee Mentor will assist Indigenous mining employees 'off site' by bridging the gap between the mine site and community/home environment, and by linking

to support services that will assist employees to feel they are in positive employment.

The position will be guided by a steering committee consisting of stakeholders from the Mining and Resource sector, funding partners and RDA Far North.

RDA Funding partners include the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs through the Indigenous Coordination Centre, the South Australian Department of Trade and Economic Development and RDA Far North. The Port Augusta City Council funding partners are the Upper Spencer Gulf and Outback Enterprise Zone Fund, and the Indigenous Community Strategic Investment program which supports Indigenous families who have family members employed in the mining sector.

RDA Far North continues its commitment to Indigenous Economic Development by maintaining critical links to the region's mining and resources sector.

RDA Central West NSW 2011 Lamb Forum

RDA Central West in NSW supported a free forum for sheep, lamb and wool producers in Cowra on 11 August. The Agribusiness Today Forum, 'Making the Most of your Resources in Lamb, Sheep and Wool' provides valuable current market and product information across the whole industry from paddock to plate. The free forum is an opportunity for local producers to hear about marketing options and potential prices for these products.

New Victorian Peri-Urban Unit

A new land use planning unit has been established within the Victorian Department of Planning and Community Development for peri-urban councils.

The new Peri-Urban Unit will focus on population management, strategic planning and long-term structure planning of towns and future communities and is intended as the first port of call for councils needing assistance in transport integration, strategic planning, and

rural, coastal, green wedge and interface issues.

Senate Inquiry into Australia's Food Processing Sector

The inquiry is into the competitiveness and future viability of this sector. For information see the Senate Select Committee website. The Committee Secretariat can be contacted on 02 6277 3583 or foodprocessing@aph.gov.au. Submissions are due by 3 October 2011.

DEEWR's place-based initiatives

The Department of Education, Employment and Workplace Relations (DEEWR) manages several place-based initiatives including Priority Employment Areas, the Family Centred Employment Projects and Regional Education, Skills and Jobs Plans. In the 2011-12 Budget, the Australian Government invested \$304 million in funding over four years for a number of place-based initiatives that target the patchwork nature of Australia's economy where some regions still experience unacceptably high levels of labour market disadvantage.

A key initiative funded in the Budget is the deployment of 34 Regional Education, Skills and Jobs (ESJ) Coordinators into regional communities to develop Regional Education, Skills and Jobs Plans. The Budget also provided \$45.2 million to extend the Priority Employment Area initiative, including Local Employment Coordinators (LECs) and Jobs and Skills Expos, until 30 June 2013.

For an overview of place-based initiatives managed by DEEWR, or the Government's recent investments in regional productivity and participation, please visit the DEEWR website.

Northern Australia Statistical Compendium 2011

On 11 July 2011, the Australian Government's Bureau of Infrastructure, Transport and Regional Economics (BITRE) published an update to its 2009 Northern Australia Statistical Compendium.

The update provides new information, where it has become available, across a wide range of subjects such as population, economic, social, education, transport, infrastructure, climate and natural resources for regions north of the Tropic of Capricorn.

The vast majority of the tables and charts in the 2009 publication still remain the latest information available and have therefore not been reproduced in the update. Accordingly, the update is structured as a series of extracts of the 2009 Compendium and should therefore be read as a supplement to the original publication.

To view the compendium update visit the BITRE website.

Media and Communications Convergence Review public consultation

A series of public consultations will be held as part of the Convergence Review, which will examine the policy and regulatory frameworks that apply to media and communications in Australia.

The consultations will take place in all state capitals, as well as Bendigo and Alice Springs during August 2011. Members of the public, businesses, community organisations and other parties with an interest in the regulation of media and communications services in Australia are encouraged to register to attend. The Convergence Review Committee recently released an Emerging Issues paper which discusses some of the issues that the committee sees as important and require further consideration over the course of the review. Those planning to attend a consultation meeting are encouraged to read the paper prior to the meeting.

Written submissions dealing with any of the issues being examined by the Convergence Review are also being sought by 28 October 2011.

For more information, including the full consultation schedule and registration details, visit the Department of Broadband, Communications and the Digital Economy website.

New Connections Driving Innovation and Productivity

The Rural Industries Research and Development Corporation (RIRDC) has published *New Connections Driving Innovation and Productivity* – opportunities for rural industry development from innovative use of broadband services. This publication No. 11/038 identifies key areas for investment and inquiry with the potential for significant returns:

1. Minimising the transaction costs and knowledge barriers involved for business owners in understanding technology options and how these relate to their business situation
2. Stimulating the development of the local commercial innovation system
3. Quantifying productivity gains from commonly utilised ICT innovations

The case studies also show that there are significant challenges for businesses in realising the benefits. In particular:

- accessing competitive internet services is difficult when services are not optimised for the business opportunities.
- ICT applications require know-how to find, assess and implement.

Policy should ensure that the information and applications to support management are integrated with the broadband technology where there is significant public good.

To view the publication visit the RIRDC website.

This year both the SEGRA and the EDA conferences address the NBN and the Digital Economy.

RDA Grampians Workforce Development Strategy

RDA Grampians (Victoria) will invest \$80 000 on a \$100 000 project researching Workforce Development in the Grampians with an initial focus on the manufacturing, health, agriculture and tourism industries.

The project will identify emerging directions for business and industry, and the workforce skills and knowledge which will be required to ensure regional competitiveness, prosperity and growth. Findings from the project will enable the RDA Grampians committee to make well-informed and strategic decisions, and provide input and leadership relating to a range of economic diversity strategies in the coming years.

RDA Moreton Bay – Leadership exposed

RDA Moreton Bay (Queensland) has partnered with the Australian Institute of Management to deliver ‘Leadership Exposed’ – a suite of six breakfast events with internationally renowned speakers designed to explore, investigate and promote key business leadership themes. The series will cover a variety of topics that will enable greater understanding of the challenges faced by leaders today. Business owners and leaders obtain tips on how to successfully lead their small and medium enterprises by filling gaps in business management, planning and human resources. These are typically identified as barriers to employment in the small to medium business sector.

Local government and RDA collaborate on wind farms

Local government bodies will take a co-operative approach to assessing the implications of an expansion of the wind farm industry in South Australia.

The Central Local Government Region announced recently it would work with Regional Development Australia (RDA) and the local Natural Resource Management board as further expansion of wind farms look likely. The chances of more wind farms being erected in the area were increased after South Australian Commissioner for Renewable Energy, Tim O’Loughlin, announced the future appointment of a wind farm and renewable energy officer to be based in the central region.

A Regional Development Policy for Local Government in South Australia

In an agreement that is unique to the state, RDA committees in South Australia receive a financial contribution from local government in addition to the contributions from State and Australian governments.

In recognition of the important role that Councils play in regional and community development, the Local Government Association of South Australia (LGA) is formulating a Regional Development Policy. Implementation of the policy will occur through the development of a discussion paper on Partnering with Local Government to Achieve Regional Outcomes. Written from the perspective of local government, the paper will suggest mechanisms for improved communication and cooperation between the three spheres of government and RDA in order to achieve regional outcomes and contribute to the prosperity of South Australia’s regional communities.

The LGA is seeking input into the policies from South Australian Councils, South Australian RDAs and relevant State and Australian Government departments.

For further information please visit the LGA SA website or contact LGA Regional Development Policy Officer Emily White on emily.white@lga.sa.gov.au

National Cultural Policy discussion paper

Minister for the Arts, the Hon Simon Crean MP, has released a discussion paper on the new National Cultural Policy, the first in almost two decades. The new policy will be a 10-year vision for how arts and creativity would be supported, developed and ushered into the mainstream of modern Australia. The discussion paper, and information about how to provide feedback, is available at the Office for the Arts website.

Submissions are due by Friday 21 October 2011.

“Reproduced with permission from the Commonwealth Government.”

Our Cities National Urban Policy Paper

In May the Australian Government released a National Urban Policy *Our Cities, Our Future*, following three years of consultation in the 18 Australian cities with populations above 100,000 residents which accommodate 75% of the population.

Unsurprisingly, the Policy defines the single purpose of cities as serving the 75 per cent of Australians who live in them.

The introduction informs us that "...our cities face a number of long term challenges: the need to improve productivity growth; provide affordable and accessible housing; create safe community spaces; meet the needs of a growing and ageing population; ensure an inclusive and cohesive society; and address the implications of climate change."p.6

The paper does acknowledge a role for cities in supporting productivity in regions. "How efficiently our cities connect people, knowledge, businesses and markets—and how effectively our economic and human capital is utilised—directly impacts upon the economic performance of our urban and regional areas and their ability to contribute to national productivity growth."p.7

"Our cities support and rely on our regions. A positive future for our cities is important for the future of our regional areas."p.8
Fifteen of Australia's 18 cities of 100,000 people or more are located in the Eastern States of Australia. Few people living in the remote areas of the rest of Australia would agree. These communities might wonder how a national urban policy which starts from the existing distribution of cities can possibly improve their productivity, markets, food supplies, health and communities.

The existing faraway cities are failing to provide these communities with regular access

to fresh food, adequate health service, banking or commercial services, schools or all weather roads. At the same time the existing faraway cities are attracting the young and able away from these communities, leaving them struggling to maintain themselves.

"The Australian Government is also putting in place a Regional Policy agenda to acknowledge regional diversity; to ensure place-based thinking; to empower communities to innovate and shape their own future; and to ensure a fair balance of investments and access to services for regional Australia. These are important investments in regional Australia."p.11

"...recently, the Australian Government commenced a two year study for a possible high speed rail network along the east coast of Australia."p.11. The effect of high speed rail investment on smaller communities along the route is clear: business moves to the larger and richer centres leaving the smaller centres worse off. (See *The Economist* 3 September 2011)

"The National Urban Policy will, in the broadest sense, seek to guide public and private investment to achieve optimal socio-economic and environmental outcomes in our cities."p.12

It seems pretty clear. Cities 1: Remote communities 0: Remote area sovereignty 0. Judith Brett won't be pleased. Tony O'Malley

UPCOMING CONFERENCES

ANZRSAI 2011 Canberra 6-9 December
BOOK NOW

<https://www.conferenceonline.com/index.cfm?page=booking&object=conference&id=16160&categorykey=A42368C5%2D17FD%2D4404%2D9C2A%2DFAD1AAA8F96B&clear=1>



**National Economic Development
Conference 2011 *The digital economy***

4-6 October, 2011, Stamford Plaza
150 North Terrace, Adelaide, SA

TO REGISTER: Fax, Phone, Email, Mail or
online at www.edaaustralia.com.au/NEDC2011
Email: admin@edaaustralia.com Phone : (03)
8534 5003 Fax: (03) 9530 8911 MAIL : Level
8, 574 St Kilda Rd Melbourne 3004



***The 8th SMEs in a Global Economy
Conference 2011: "Rising to the Global
Challenge: Entrepreneurship and SME
development in Asia"***

9-11 November 2011

Khon Kaen University, Thailand

[http://www.nkc.kku.ac.th/smesconference2011/
/index.php](http://www.nkc.kku.ac.th/smesconference2011/index.php)

Topics in SMEs and Entrepreneurship
Deadlines for submission of papers have
passed.

Registrations: \$350 USD

International Student Rate: \$150 USD

Business Symposium Rate: \$60 USD

Contacts:

Associate Professor Dr Charles Harvie

Head of School

Director, Centre for Small Business and

Regional Research

School of Economics, Faculty of Commerce,

University of Wollongong

Wollongong, NSW 2522, Australia

Tel: +61 2 42 213702

Fax: +61 2 42 213725

Email: charvie@uow.edu.au

**34th AUSTRALASIAN TRANSPORT
RESEARCH FORUM**

Adelaide, South Australia, 28-30 September
2011. Jointly hosted by the SA Department for
Transport, Energy and Infrastructure and the
University of South Australia.

ATRF Conference website:

<http://www.atrf11.unisa.edu.au>

***2012 International Rural Network World
Forum***

***Rural and Remote Resilience: Making the
Priorities Possible***

24 - 28 September 2012

University of South Australia

Whyalla, South Australia

Call for Abstracts

IRN 2012 aims to link community groups and
practitioners with researchers / academics and
or policy makers / industry. IRN 2012 will
focus on the policy and governance challenges
related to the differences between regional,
rural and remote communities.

Topics include volunteers / volunteering,
indigenous knowledge and its importance to
the "local", regional, rural & remote labour
markets, technology and how it advantages or
disadvantages regional, rural & remote
communities, water and development, climate
change, macro- and micro-migration,
leadership, governance, speed of change,
mindsets of poverty, UN Millennium
Development Goals and new ways of thinking
about resilience. We are interested in hearing
about practical applications of new knowledge
– knowledge for communities, knowledge for
businesses & productivity and knowledge that
informs policy for regional, rural & remote
places.

Abstracts must be submitted by email to
irn2012.abstracts@unisa.edu.au Submission
deadline is 29 February 2012

Final presentations for accepted abstracts must
be received for workshops and paper sessions

by 31 May 2012. Guidelines for the formatting of presentations and papers will be sent to successful participants.

Details from the organisers at
irn2012.enquiries@unisa.edu.au
www.international-rural-network.org

Spaces and Flows:

SECOND INTERNATIONAL CONFERENCE ON URBAN AND EXTRAURBAN STUDIES

Monash University Prato Centre Prato, Italy
17-18 November 2011

<http://spacesandflows.com/conference-2011/>
Call for Papers

This year's conference features the following plenary speakers:

- * Julie MacLeavy, Human Geography, University of Bristol, Bristol, UK
- * Kevin Ward, Human Geography, University of Manchester, Manchester, UK
- * David Wilson, Geography, University of Illinois, Urbana-Champaign, USA

Presenters may submit their written papers for publication in the peer reviewed 'Spaces and Flows: An International Journal on Urban and ExtraUrban Studies'. If you are unable to attend the conference in-person, virtual registrations are also available which allow you to submit a paper for referring and possible publication in the journal.

Title and short abstract by 22 September 2011. Future deadlines will be announced on the conference website after this date. Proposals are reviewed within two weeks of submission. Full details of the conference, including an online proposal submission form, may be found at the conference website:
<http://spacesandflows.com/conference/>.

Prof. David Wilson
Department of Geography
University of Illinois, Urbana-Champaign.

Western Regional Science Association
(WRSA) will hold its 51st annual meeting 8-11 February, 2012 in Kauai, Hawaii

CALL FOR PAPERS | ***The 3rd International Conference of RSAI***, Beijing, China, 30th March, 2012—1st April, 2012.

The 4th Desert Knowledge Symposium and Business Exchange

Alice Springs 7-10 November 2011.

Explore new ways to address the challenges facing desert and remote Australia.

Keynote Speakers: Leah Armstrong - Chief Executive Officer of Reconciliation Australia, Myrna Lewis - Co-founder Deep Democracy

The Symposium and Business Exchange offer a wide range of perspectives on contemporary Australian and desert issues. For further information about the Symposium and Business Exchange program and themes, <http://www.desertknowledgesymposium.com/program.asp>

ABOUT ANZRSAI

Council Meeting 14 July 2011

Council discussed membership of Council, the benefits of membership of ANZRSAI, and some changes in membership fees.

Council is considering adding a retired member's subscription, and a corporate membership rate for government agencies and RDA Committees who are not repositories. Council notes the recent large decline in ANZRSAI membership.

Council is seeking ways to sustain collaborative links with other agencies and institutions in the regional space. For instance, we have invited Simon Crean, the Minister for Regional Australia, Regional Development and Local Government, and Richard Walker, the Chief Executive Officer of Economic Development Australia, to speak at our Annual Conference in December.

ANZRSAI Regional Innovation Network SA

Carnegie Mellon University hosted the ANZRSAI's Regional Innovation Network in Adelaide on 3 August 2011. We benefited from the assistance of students and the capacity to link in remote participants.

The meeting discussed progress on a project to identify, measure and monitor the human dimensions of adaptation to climate change in South Australia. Changes in social and economic activity will arise from adaptation to climate. Choices about adaptation will have to take account of the consequences of adaptation for populations and individuals.

An understanding of the biophysical effects of climate change is not sufficient for an understanding of the risks and social consequences or as a base for planning adaptation.

A baseline of information on economic and agricultural activity, social and physical infrastructure, health and wellbeing, spatial inequalities, social capital and social inclusion, landholders, businesses and community organisations will make it possible to make decisions about adaptation to the physical effects of climate change.

The project is to produce a Spatial Decision Support System (SDSS) containing data on human dimensions which will complement and combine with an SDSS containing biophysical data for two transects in SA. Professor Andrew Beer (University of Adelaide), Professor Michael Taylor (UniSA) and Dr Simon Bengler (Flinders University) presented their work to 16 other participants.

ANZRSAI 2011 Annual Conference

Register now

<https://www.conferenceonline.com/index.cfm?page=booking&object=conference&id=16160&categorykey=A42368C5%2D17FD%2D4404%2D9C2A%2DFAD1AAA8F96B&clear=1>

ANZRSAI Council 2010-11

President

Paul Dalziel
Lincoln University, Canterbury NZ

Vice President (Australia)

Paul Collits
RMIT University, Hamilton

Vice President (New Zealand)

David Wilson
AUT University, Auckland NZ

Secretary/Public Officer

David Fuller
University of Wollongong

Treasurer

Tony O'Malley
University of South Australia

Council Member (ACT)

Shelby Canterford
Geoscience Australia, Canberra

Council Member (NSW)

Tony Sorensen
University of New England, Armidale

Council Member (NT)

Rolf Gerritsen
Charles Darwin University, Darwin

Council Member (NZ)

Vacant

Council Member (QLD)

Christine Smith
Griffith University, Brisbane

Council Member (SA)

Ralph McLaughlin
University of South Australia

Council Member (TAS)

Robyn Eversole
University of Tasmania, Burnie

Council Member (VIC)

Ann Hodgkinson
University of Wollongong

Council Member (WA)

Vacant

Contact details

Executive Officer
ANZRSAI
PO Box U236
University of Wollongong NSW 2500
Email: anzrsai@anzrsai.org
Website www.anzrsai.org
Ph 0409973329