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WHY AREN'T ECONOMICS DEPARTMENTS PROVIDING GRADUATES WITH DESIRED SKILL SETS?

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ABSTRACT

This paper argues that tertiary economic studies in Australia are not equipping graduates with the full set of skills requested by business, government and society. It locates the causes in an adverse combination of powerful forces that have restructured the Australian higher education system over the last fifteen years or so, and in a lack of serious interest, knowledge and incentives within universities. The skills in question are extremely important in fostering the innovation and productivity improvements that are widely recognised as vital to our future well-being. More positively, it is argued that the situation is remediable, provided new approaches are adopted in relation to human capital formation. These initiatives need, at all levels, to prioritise comprehensive skill formation, elevate the status of teaching, and provide resources adequate to the task. In relation to economics programs, the contention is that a well-designed course in pluralist economics which supplements existing orthodox courses provides the most effective way of inculcating the desired skill set in graduates.

JEL Codes: A20, A22, I23, I28, J24, O31, O38.

Keywords: Skill formation; innovation; higher education; pluralist economics.

1. Introduction

This paper advances three propositions – firstly, that economics departments are not providing graduates with the full skill set requested by business, government and society; secondly, that multiple factors have combined in adverse ways to cause these deficiencies; and thirdly, that the situation is remediable over time, but only if fresh approaches are taken by departments, university executives and government. Although mainly concerned with economics departments, the arguments can be applied in varying degrees to all university departments.

In terms of core university functions, my remarks concentrate on teaching because *teaching is the key activity that imparts skill formation to graduates*. This cannot be emphasised too much. Teaching here encompasses curriculum and course design, classroom delivery, coursework activities, fostering intellectual and personal growth, integrity in academic standards, and modes of assessment. My contentions are that, in relation to one important skill set, much university teaching is now providing *lower* levels of skill formation than previously and that, in relation to another important skill set, current teaching is providing only *minimal* contributions to human capital formation. University education has not realised anywhere near its full potential in this area, with the result that the skill sets imparted to graduates fall far short of the levels demanded by employers, government and society.

The importance of high levels of skill formation to individuals, economies and societies is undeniable. It has been recognized in various ways by business organisations, government departments and political parties, and now forms a component of initiatives such as the current government's 'education revolution', the recent 2020 summit, and the Bradley review of higher education. The central role of teachers in skill formation is also indisputable. As Eslake (2008: 2) has rightly noted, 'the role of educators in an economy is as critical as any other essential infrastructure'.

The following observations and reflections are based on 25 years of tertiary teaching experience, a long-standing interest in delivering quality educational experiences to students, and a serious concern for promoting high levels of skill acquisition in graduates. While they may be depressing to some and challenging to others, I trust they are nevertheless informative and broadly accurate in a 'big picture' sense. They are also based on an institutionalist perspective because this type of analysis is most appropriate when the underlying causes are primarily due to the types of institutions and systems in play rather than the behaviour of individuals within the institutions. However, while the current situation is far from encouraging, the future is not without hope. To make genuine improvements, we need to take *honest* stock that avoids self-delusion, identify the causal factors behind the present state of affairs, formulate strategies, and then implement them with adequate resources. Because the task is large and previous approaches have had little impact, we need creative and innovative solutions. And for this, as research and commonsense tell us, open minds are required rather than closed ones.

2. The Desired Skill Set

Various reports in recent years have outlined the general skill set with which business and government desire graduates to be equipped. The set typically contains two categories:

1. Discipline-specific knowledge (or skills), and
2. Additional (or non-discipline-specific) skills.

Other terms are sometimes used for the second category – employability skills, soft skills or generic skills – but these labels are not always satisfactory descriptors. It is in relation to the second category that the deficiencies of economics and other departments are most evident, but disturbing deficiencies in the first category are also nowadays observable.

In 2006, a Business Council of Australia report highlighted the centrality of innovation in raising productivity and international competitiveness. It argued that employers want graduates (and other workforce entrants) to possess *both* strong technical skills (discipline-specific knowledge), and additional work-enhancing skills. These additional skills encompassed *communication, teamwork, problem-solving, creativity, ongoing learning, cultural understanding, entrepreneurship, and leadership*. It was in connection with this second set of skills that employers expressed dissatisfaction because graduates were far from sufficiently equipped in this respect to meet the needs of business.¹ The resulting recommendation was that education systems should pay more attention to these forms of human capital so as to strengthen innovative capacities and cultures for purposes of sustaining economic growth. According to the report's simple causal chain, higher productivity and international competitiveness are linked to innovation, innovation to particular forms of human capital, and human capital to education and training systems. Failures by these systems to develop required forms of human capital to sufficient degrees point to the need for reform.

An earlier report by the Department of Education, Training and Youth Affairs in 2000 identified three skills that employers considered to be the '*most important*' for graduates to possess. These were *creativity and flair, enthusiasm, and independent and critical thinking*. Of these, creativity

and flair was regarded as ‘the most important of the skills tested’. Other areas where significant skill deficiencies in new graduates existed were *oral business communication, problem solving, and interpersonal skills*.²

The critical role of labour productivity in underpinning material standards of living is a central message of both Intergenerational Reports (Commonwealth of Australia 2002; 2007). These reports, concerned with the government’s fiscal sustainability over the long term, acknowledge that growth in Australia’s real GDP, real GDP per capita, and real wages will all decline over 40 year horizons. Within Treasury’s 3Ps approach (population, participation and productivity), productivity was identified as easily the most important driver of improved economic outcomes over the next four decades. From this viewpoint, raising productivity has critical policy significance in two respects – it helps maintain acceptable growth in material living standards, and it helps strengthen the government’s fiscal position by reducing future projected fiscal gaps due to population ageing. Education and human capital are recognised in the reports as promoting productivity but are not, unfortunately, prioritised to the same degree as market-oriented policies.

The economics and business literature also provides strong support for greater skill development. In economics, human capital formation is critical in driving economic growth, both in a widening or quantity sense where more individuals become equipped with skills, and in a deepening or quality sense where the skills of individuals are raised to more advanced levels. An even greater emphasis on creativity occurs in endogenous growth theory which stresses new ideas or knowledge innovation as a key driver of increasing returns and ever higher levels of productivity and output. In business and management studies, innovation and creativity are universally recognised as crucial to successful firms in competitive environments and hence as extremely valuable attributes of key personnel in a range of departments, including R &D, strategic planning, marketing and management.

Evidently, creativity is a highly significant item in the list of non-discipline-specific skills. Directly and indirectly, it has a strong presence in all the above reports and in the economic and business literature. Explicitly mentioned in the BCA and DETYA reports, creativity is also *a precondition for innovation* which is a main theme of the BCA and Intergenerational reports. Fostering creativity thus deserves special attention within the education system. Although a subtle and complex attribute, research has uncovered a variety of key factors associated with the development of creativity in individuals and groups. These factors include *appreciation of holistic standpoints, awareness of different viewpoints and approaches, the capacity to see things in new ways, thinking outside the conventional framework, openness to non-conformity, independence of mind, the courage to question received wisdom, the presence of stimulating milieus, free communication and discussion, the willingness to take risks* and, last but by no means least, *playfulness*.³

Although these calls for graduate skill acquisition have come from big business and government and are largely motivated by economic concerns, it is obvious that human capital formation of this kind also provides major benefits to individual graduates, to non-business activities and to society generally. We face serious challenges on a range of fronts – environmental, economic, medical, financial, educational, multicultural, work/non-work balance, social justice and so on – for which we need the best skills we can muster. Innovative, creative and clever solutions to these problems, however, can only come from innovative, creative and clever people, so the nurturing of such people should be given high priority within our education system. No matter whether one favours maximum growth, sustainable growth or minimal growth, and no matter what one’s politics or social priorities, I think there will be general agreement that we will be far

better resourced to meet current and future challenges if graduates are equipped with relevant, well-developed, skill sets.

As regards the second skill set, the surprising thing about present Australian (and world-wide) tertiary education is how weak the supply response is to the strong demand signals. Also remarkable is the fact that economics departments, despite being concerned with the subject most closely associated with this demand and with a subject that emphasises equality between supply and demand as a condition for optimality, have shown no interest in increasing supply or taking leadership of this issue. Regardless of discipline, however, the first skill set invariably receives most attention while the second, despite its crucial importance, is widely neglected. The main reasons appear to be the current environment of higher education (behind which lies the heavily determining role of government policy), a lack of interest within universities in generating a significant supply response, and a lack of knowledge as to how supply could be provided. Fortunately, all these factors are remediable. But they require the adoption of new priorities and approaches by all major players in the higher education sector. If we want to inculcate creativity and innovation skills in students, we need ourselves to show creativity and innovation. It will not happen by itself. And since innovation always challenges and disrupts the status quo, we need to be open to implementing significant changes to existing systems and practices.

3. Discipline-Specific Knowledge

In almost all Australian economics departments, this area receives near-exclusive attention. After so many years of experience, one would expect it to be an area of excellence but, in fact, it is an area where notable deficiencies are now emerging in the skill set of graduates. The content and level of undergraduate, masters and doctoral degrees of fifteen or twenty years ago were much more demanding than they are today. Dilution of academic standards has commenced in the foundational year, and from there has seeped upwards into later years. The standard 100 level course is now quite simplistic, containing more story-telling than analysis, more mechanical deployment of advanced models without derivation, and less emphasis on economic intuition or reasoning skills.

The evidence for these assertions is largely anecdotal, restricted to the memory of a declining group of individuals rather than being retained in any institutional memories. In principle, reference to past course materials and exam papers could supply support but such documents are rarely, if ever, kept these days. However, one strong indicative piece of recent evidence from the US is the abysmal understanding shown by undergraduates, PhD students, PhD holders, principles course teachers, and faculty alike, of the concept of opportunity cost, a concept believed by many to be fundamental to economics. The results of the primary survey of PhD students and PhD graduates conducted by Ferraro and Taylor (2005) showed that the answers of these very highly trained economists to a straightforward question were no better than those generated by random guessing.⁴

While some reasons for the declines in academic standards (or grade inflation, or ‘dumbing down’) may be local, most of them are common factors which have exerted powerful and irresistible influences on the system as a whole. These factors have also often interacted adversely to reinforce gradual downward trends. I start with those relating to all departments, before turning to those specific to economics departments.

1. The reduction in Australian government funding to public universities since the 1990s.

These cuts, in real terms and funding per student terms, have been quite draconian. Between 1995 and 2004, federal government spending on tertiary education as a proportion of total

education spending fell from 64.8% to 47.2%.⁵ The imposed cuts forced universities to seek alternative sources of income, most commonly from the export of education to the rest of the world (predominantly Asia) but also from other entrepreneurial activities (a few of which have been spectacular failures). As a result, universities are now increasingly run as businesses or enterprises, where funds generation rather than quality education is the over-riding objective.

2. Large increases in student-staff ratios.

Student staff ratios have dramatically deteriorated over the last fifteen years, largely because universities pursued increased enrolments and fee incomes. First year commerce subjects now typically have up to 1300-1500 students, the size of lecture classes is usually 400-500 with multiple offerings during the week, and tutorial classes have increased from small groups of around 12 to between 25 to 40 students. Concurrently, the number of academic teaching staff grew at snail's pace due funding shortages. Student-staff ratios in commerce subjects have generally doubled, moving to around 40-60 from an earlier 20-25.⁶

3. The expansion of tertiary education to include private non-university education providers.

Private profit-driven companies, often in partnership with universities, now provide new pathways for students whose academic credentials are insufficient for direct university entry. Such companies provide 100 level courses, the successful completion of which allows students to enter universities at 200 level. Their claim is that, through superior teaching methods, the academic performance of below average students can be elevated to the level required for successful transition to university degrees. Financially, both the private companies and universities benefit handsomely from this arrangement. However, while there are undoubtedly dedicated teachers and good students in this system, the unfortunate reality is that on average the students making the transition enter with quite low grade distributions, do not fare well, and have failure rates much higher than direct university entrants.

4. An overall decline in the average academic ability of students.

The movement of domestic tertiary education towards a mass education system has inevitably led to declines in the *average* academic quality of students.⁷ This has put downward pressure on academic standards in various ways, of which the following is a typical example. Because maintaining previous academic standards leads to significantly higher failure rates, university managers worry about threats to revenue streams and business relationships. The managerial response is to view the problem as one for which their own staff are responsible rather their 'customers' (the students, and any non-university providers) who, as in most business models, are always 'right'. Given the lack of resources to reduce failure rates, the pressures to perform in research, and the desire to avoid being labelled 'difficult' or 'not a team player', most academics, whatever their private thoughts about the polite but unremitting pressure exerted by higher authority in constantly querying their grades, will succumb by lowering academic standards.

5. Research is far more important to university prestige and funding than teaching.

By linking significant components of funding to research and much smaller amounts to teaching quality, the government has created strong incentives for universities to concentrate heavily on improving research performance rather than teaching performance. Academics are now often divided into research-active or teaching-active, with the former acquiring greater status, increased prospects of promotion and more of the valuable perquisites (conference travel, sabbaticals and higher salary loadings) which push their research onto ascending spirals. With incentives so strongly skewed, academics naturally put much more time, energy and thought into research than into teaching. Research yields upward mobility, while teaching is merely hackwork in the ghetto to be dodged as far as possible. The well-rounded academic, committed to being both a good researcher and a good teacher, is a dying breed, and often viewed as having

misplaced priorities. Two other important reasons cause research to be more highly valued by universities – it has much higher public relations and reputational value compared to teaching, and, in choosing universities, prospective students are often persuaded more by the research prestige of the institution than by its teaching quality.

6. Managerialism has replaced collegiality as the dominant workplace culture.

In many ways, this is the most disastrous influence of all because it relentlessly corrodes the core values and activities that constitute the purpose of universities. The pressure to be run more like businesses has opened the door to a host of non-academic influences – management consultants, human relations ‘experts’, change managers, building designers, industry partners, private chair sponsors and other agents with ‘business’ inputs. Almost anything thought appropriate to private sector companies is imposed without qualification on public sector universities. Education is no longer regarded as an investment product with long term returns to both individuals and society, but as a consumption product purchased by customers or clients.⁸ Given that modern students read less, expect everything to be packaged, simplified and handed out, and do paid work almost as much as they study, the focus on pleasing the customer has adverse impacts on both academic inputs and outputs. In addition, ‘top-down management, is the norm nowadays, with all management positions from Vice-Chancellors to Heads of Department made by appointment. Previously, academic staff elected those immediately above them (Deans and Heads) in a collegial manner, such prerogatives being extinguished by executive management largely on the basis of managerial, not educational, arguments. In extreme cases, Deans of faculties are appointed without the selection committee including anyone expert in the relevant field or anyone external to the university. Appointed heads, it is claimed, lead to greater ‘role alignment’ and efficiency. The result is line management in which authority is always downwards and accountability is always upwards. The bureaucracy needed to perform all this management relentlessly expands, so that the ratio of managers to academics grows. The balance of power is deliberately and seismicly shifted, with those at the academic coalface having little or no say in policy formulation. In the worst cases, the expanded power leads to abuse in the form of favouritism, bullying, corporate psychopathy and academic corruption. Opportunism within the ranks of academic staff reinforces the situation. Staff with mediocre to poor academic performance and little career advancement as teachers or researchers now see promising careers as academic administrators within the chain of command. Friction arises as the academically mediocre (sometimes on higher salaries) are placed in authority over the academically superior. Morale plummets further when appointed managers are motivated more by the exercise of power, and the KPIs critical to their financial rewards and future careers, than by academic values or the interests of the institution as a whole.

7. Responding to incessant change chews up scarce academic resources.

The tertiary environment has experienced more or less constant buffeting from external and internal sources. The previous government made unceasing changes to the policies and incentives governing university finance, employment, quality assurance and research. Nearly every incoming Vice-Chancellor insists on restructuring Faculties, Departments and other Units according to their preferred business-academic model. Human relations departments are taking over areas which were once the preserve of academics, including appointments, workload distribution and contact hours. Compulsory paperwork to satisfy administrators now absorbs considerable slabs of time, and is often merely a perfunctory, ‘tick the box’ exercise with little real impact on quality. Virtually every policy change incrementally reduces the time available for teaching and research; I have yet to experience a policy change which released time for teaching and research (for normal academics). Too often the vital distinction between mere change and rational change is ignored, as is the high opportunity cost of incessant alteration.

8. *There are no strong forces to maintain, let alone prevent deterioration in, academic standards in the system as a whole.*

The true guardians of academic standards are the academics, not the managers. But the will and ability of academics to safeguard standards has been so weakened by administrative fiat that there is no longer any firm floor. As the system weakens, and as long as the majority of universities and departments copy each other, there is nothing to prevent the system entering a competitive downward spiral into mediocrity (or worse). Some universities may buck the trend but this depends, not on systemic forces, but on the presence of exceptional individuals determined to maintain standards and pursue enlightened agendas. The previously solid floor has become flimsy because managerialism now rules, and because universities are always likely to have markets for the foreseeable future, namely, the domestic market and whatever segment of the foreign market is willing to pay for the education on offer (even if this is of declining quality). Universities and governments may have mighty upward aspirations in terms of domestic or international rankings, but the tragedy is that these goals can be achieved largely on the basis of staff research and student satisfaction, rather than the maintenance of academic standards and teaching quality.

I turn now to some factors specific to economics departments.

1. *Economics enrolments have weakened under pressure from other disciplines.*

Since the 1990s, economics enrolments have been in an uneven, downward trend in Australia.⁹ Students, both local and overseas, have preferred degrees in accounting, finance, business and marketing which offer better career prospects. Economics is also perceived to be harder and therefore less liked. Both factors put economics departments under considerable pressure, a common response to which has been to make the introductory year easier in the hope of attracting more students, or at least of not turning more away. Pressure has also come from the competing departments who now hold economics hostage in relation to service teaching which is important to student numbers and departmental income. Their students are usually taught introductory economics in some form, so the responses of these students become critical. Where the core contains two semesters of economics, there is further pressure to make both offerings less difficult to avoid widespread complaints and hence a cutback in this requirement. The threat of cutting economics down to one semester offerings (micro and macro combined) is potent and permanent, especially when non-econophiles in the competing departments are keen to spend more time on their own material. In a significant number of cases, this threat has been exercised.

2. *The dominance of US economics texts and their ancillary resources.*

US textbooks, often with domestic co-authors to localise examples and institutions, now dominate economics teaching in Australia (as in many other countries). At the introductory level, their content makes very low demands on the intellectual abilities of students, which makes them attractive from a failure rate viewpoint. They are also accompanied by resource kits (slides, websites, question databanks etc) that make teaching and assessment far easier than they used to be. Earlier texts, or modern texts that seek to maintain previous standards, are now relegated to a 'too hard' category and are rarely adopted. In today's world, the US texts are a godsend for harassed teachers of 100 level Economics. And the majority of students do not complain if courses are easy, especially if they are simultaneously doing paid work as well as studying.

3. *Teaching large economics courses increasingly resembles a mechanical production line.*

Given the reduced incentives for good teaching, the amount of pre-packaged material available, and the generally large class sizes, teaching core economics has become a quite mechanical, unmotivated, 'going through the motions' activity, with little concern for challenging students'

intellectual abilities or developing their economic intuition. Allocating junior rather than senior staff to the task is seen as a more efficient allocation of scarce resources. Here as elsewhere, incentives drive behaviour – staff would generally rather be doing research than teaching, and if obliged to teach, would rather do low input teaching than high input teaching. Cost minimisation (both explicit and implicit costs) becomes an important driver of teaching quality.

As a result of the confluence of these factors, much economics teaching is becoming a low input, low quality, low morale activity in which students are presented with few challenges and little respect is shown for their intellectual development. In first year especially, simplistic stories glossing over deeper questions, propositions without derivations, mechanical curve shifting without economic intuition, and the use of advanced models belonging to higher levels of the subject are now staple fare. Weaker foundations, however, can only support weaker superstructures. As a result, discipline-specific skills reach lower levels, and non-discipline-specific skill development rarely receives serious attention.

This is a bleak overview of the current Australian university system. I accept that it may be an overview – there may well be additional systemic factors at play, both positive and negative, and local factors may produce better or worse variations across universities and departments (including economics departments). But it seems to me that the powerful forces outlined above are at work in Australian tertiary education, that these forces are largely institutional or systemic in nature, and that they have produced, and will continue to produce, quite deleterious effects across the entire sector. Understandably, this will not be the preferred story of government officials and university executives, but I believe it will resonate with academics at the coalface and with disinterested observers in touch with what is actually happening in tertiary education.

In this context, the implications for discipline-specific skill formation in graduates are far from encouraging. It means that graduate skills in this area will, on average, be at lower levels than they were previously, and that further education in one form or another will be needed to make up the shortfall. At some stage, the costs of remediating lower tertiary attainment will need to be paid – either by employers, graduates, the general public or taxpayers, but not by universities themselves.

4. Non-Discipline-Specific, Skills

This is the far more challenging skill subset to inculcate in students, and the one to which universities have paid least attention. But while difficult, the task is not impossible. Two main (not mutually exclusive) strategies present themselves – the introduction of new courses, and the modification of existing courses. The first strategy is superior in that it is possible to devise new courses that nurture, in the one offering, all the non-discipline-specific skills listed previously. The second strategy typically only provides second best solutions because modifying existing courses can only foster some of these skills, and often not the more important ones. But whatever strategy is adopted, it requires significantly new approaches to the philosophy of programs, the content of courses, and the roles and training of teaching staff (since those who are seeking to inculcate skills must obviously be aware of effective ways of doing this). In the remarks that follow, it will help to keep economics courses in mind.

I begin with the second strategy, the modification of conventional or mainstream courses. Conventional courses (as well as non-conventional ones) are certainly capable of developing, to good effect, some of the items in the second subset of desired skills, these items comprising *oral communication, written communication, teamwork, problem-solving and ongoing learning*. However, such courses will generally need modification in significant ways to include activities

that promote the development of these skills.

(i) Oral communication is fostered by class presentations conducted in non-threatening ways, in suitable environments (small classes or tutorials), and with skilled facilitation. Students often fear public speaking, such anxieties being compounded in non-native speakers, while tutors, both casual and permanent, often receive no training or instruction concerning the creation of non-intimidating environments and the fostering of presentation skills.

(ii) Written communication used to be a significant component of syllabi (chiefly through essays), but because marking and feedback are very labour-intensive, this has been cut back since the 1990s student-staff ratio explosions. Machine-marked multiple choice tests, which have nothing to do with developing communication skills, have been widely substituted for essays as a least-cost form of generating marks for assessment. However, it is important that written work (essays, seminar papers and reports) be revived as much as possible – if not at 100 level, then certainly at 200 level and beyond – because it is critical to developing abilities concerning argument, critical thinking and communication.

(iii) Teamwork in university contexts can be fostered through various forms of groupwork in tutorials or through assignments for example. Groupwork raises the usual problems of work sharing and social loafing, but there are ways of dealing with these issues and of helping students form groups more likely to succeed. It is also better for students to gain awareness of these aspects of teamwork before encountering them in the workforce.

(iv) Problem-solving is part and parcel of economics, and needs no further emphasis beyond the comment that a significant proportion of problems should have direct connections to real world issues rather than merely being mental callisthenics.

(v) The final skill of ongoing learning derives primarily from instilling a desire for knowledge and an appreciation of its enabling powers. For undergraduates, this comes primarily from good teachers capable of transmitting their enthusiasm for the subject and their own love of discovery about the world.¹⁰

I turn now to the more challenging items in the second subset of desired skills where the first strategy, the introduction of new, well-designed courses, is required if these skills are to be effectively inculcated in graduates. I begin with the most important and most difficult attribute of all, creativity. It is the most important because it is a precondition of innovation, and the most difficult because there appear to be no obvious ways of nurturing this skill through conventional courses. Can intellectually serious, and preferably disciplined-based, courses be devised which place students in environments that stimulate creativity? The answer is yes, but we need to allow ourselves to think creatively. The solution proposed here is to bring into play the multiple factors that underpin and foster creativity. As a reminder, these factors are *appreciation of holistic standpoints, awareness of different viewpoints and approaches, the capacity to see things in new ways, thinking outside the conventional framework, openness to non-conformity, independence of mind, the courage to question received wisdom, the presence of stimulating milieus, free communication and discussion, the willingness to take risks, and playfulness.*

In economics, so long as we confine ourselves to conventional, mainstream courses, the outlook is grim. This is because the mainstream is essentially *monist* in nature, that is, grounded on a single school of thought. Orthodoxy or Neoclassicism presents itself as the only correct or scientific way of doing economics, and hence as the only way of ‘thinking like an economist’. Barriers to entry are created which isolate students from contending perspectives. On this view, no serious attention can be paid to alternative schools of economic thought for they are either erroneous, out-dated or, to the extent that they have useful insights, in need of recasting within the orthodox framework. However, as well as being mistaken, this view has the regrettable consequence of severely restricting the scope for deploying the above factors that stimulate creativity. Within a monist, exclusionary framework, it is impossible to inculcate such key

factors such as the capacity to see things in new ways, thinking outside the conventional framework, openness to non-conformity, the courage to question received wisdom, and genuine playfulness with ideas. For the other factors, it is possible to some degree, for there are always disagreements and debates within orthodox economics that can be used, but these are normally quite small-scale disputes within the same family, rather than the more enlightening clashes occurring between entirely different conceptual frameworks.

The situation is transformed, however, once one moves to a *pluralist* framework where multiple schools of thought are embraced, including the Neoclassical mainstream. Now a wide range of perspectives is under examination, and *all* of the factors relating to creativity and innovation can blossom fully. These factors are modelled by the intellectual content itself, especially the awareness of different viewpoints, the capacity to see things in new ways, thinking outside the conventional framework, openness to non-conformity, independence of mind, and the courage to question received wisdom. Pluralism also provides an appreciation of holistic standpoints, not only of modern economics as a whole, but also of orthodox economics itself (since this is best obtained from external vantage points). Creating stimulating intellectual milieus, allowing free communication and discussion, and encouraging a willingness to take risks are also integral to this approach because it treats all schools as having something significant to say about economic reality and does not regard any one of them as the sole repository of economic truth.

The impact of pluralist content is further magnified when it is synergistically combined with complementary activities such as games, debates and critical presentations focused on skill development. Debates between different schools of thought are very effective in clarifying perspectives, uncovering similarities and differences, developing respect for different viewpoints and allowing students to practice their presentational skills in ways that are engaging for all class members. Presentations based on critical analyses of excerpts from textbooks (or other works) by well known economists can be used to develop critical thinking in constructive ways. Pedagogical games are also very powerful in opening students' minds to alternative ways of seeing, as well as injecting an element of playfulness into the mental arena. The educational literature also contains a wide range of activities and games that can be deployed to develop entrepreneurship and leadership. Teamwork can be powerfully fostered by requiring students to form roughly equal-sized groups, each one of which represents a school of thought, and then using these as the teams that debate each other. Oral communication skills are developed by presentations and debates, and written communication skills by seminar papers. Problem solving is also embraced at strategic and conceptual levels, as well as at technical levels. And cultural understanding is enhanced in two ways – at an intellectual level, conceptual frameworks are proxies for analytical cultures and, at a personal level, respect for classmates with different backgrounds is encouraged by joint participation in activities.

It deserves emphasis that the argument for pluralist courses is not confined to non-discipline-specific skills but draws further strength from its contributions to discipline-specific skills. Learning about other schools of thought, their different conceptual frameworks, and their alternative methods of analysis adds considerably to the theoretical and practical toolkits available to students. Graduate economists then have a much wider set of analytical skills upon which to draw in dealing with real world problems, and hence are in a superior position for developing creative solutions.

The key feature of well-designed, skill-oriented pluralist courses that mainstream courses cannot emulate is the total immersion of students in environments that facilitate the acquisition of *all* the desired skills. Pluralist content itself showcases innovation, thinking outside the square, the courage to challenge received wisdom and so forth and, when this is supplemented by activities

which give students the opportunity to experience these factors, to practice various desired skills and to play with ideas, a very powerful instrument is created for facilitating comprehensive skill acquisition by graduates. The injection of difference and controversy, not tamely or artificially, but vigorously and genuinely, is what pluralism uniquely provides.¹¹

5. What is to be Done?

Clearly, a huge amount needs to be done at all levels if skill acquisition by graduates is to reach desirable levels across the higher education sector. The changes required constitute something akin to a revolution in the present system, this aspect dovetailing with the ‘education revolution’ proposed by the current government. In this context, it is important to remember Deming’s 85-15 rule, namely, that 85% of performance is determined by the system and only 15% by the effort of individuals.¹² Two things follow from this view – first, that while people within the system can certainly contribute something to solutions, most attention should be paid to the system itself to lift overall performance, and second, that hiring good people without changing the system is not enough, for when good people are put into a bad system the system always wins and the good people are damaged or driven away.

With major education reforms, leadership starts at the top and percolates down. The contributions that government can make are to formulate general objectives (one of which will be comprehensive skill formation), to provide resources adequate to the task, and to install an incentive structure appropriate to the task. If we seriously want a world class higher education sector, then sufficient funds need to be made available instead of forcing resource-starved universities into entrepreneurial ventures that divert them (in multiple ways) from improving core activities to achieve this goal. Some countries provide free tertiary education because they recognise the enormous value of human capital formation to their future. Current Australian policy is to share the costs between public and private agents, but the split has shifted excessively to the government’s advantage. Even if Australia never again provides free tertiary education, the current low public proportion is damaging the tertiary sector and undermining the government’s own objectives. Likewise, if government is serious about wanting graduates with high levels of human capital in both skill areas, additional funds need to be forthcoming to employ more academic staff to reduce student-staff ratios, to generate higher quality teaching, and to meet the costs of staff development. While the link between productivity and education is widely recognised, a re-balancing of priorities needs to occur regarding quantity and quality. The underlying approach in the Intergenerational Reports is that education contributes to productivity simply through an increase in the quantity of graduates. But a closer focus on the quality of graduates will allow an equally powerful set of productivity-enhancing forces to be released. Resources thus need to be directed to both ‘skill widening’ and ‘skill deepening’. Finally, government should also urgently revise the incentive structures for research and teaching, giving equal incentives to both and not valorizing research so heavily that it demotivates teaching. It can never be stressed too much that good teaching is the key to good human capital formation.

Within universities, senior executives need to prioritise skill formation as a core objective, formulate appropriate local strategies and devote adequate resources towards achievement. Discussions with administrators further down the line (Deans and Heads) will also be necessary. But most important of all are the academic staff who implement the initiative – their support and cooperation are absolutely critical to its success. Students are also part of the loop, obviously needing to understand the point of the strategy and its contributions to personal development and employability.

At a practical level, the changes can be introduced either as new modules in existing courses or as a new course (or courses). In economics departments, I believe the most successful results will initially be obtained through the establishment of a new course, this being a well-designed pluralist economics course along the lines sketched above. This will allow far broader and deeper degrees of skill development than the use of isolated, and possibly piecemeal, modules in a range of other courses. Such modules can be useful, but the pluralist course allows the maximum level of skill formation because it integrates skill development synergistically with course content, and it encourages greater student engagement in their own skill formation. But if new courses are temporarily out of range, then modules can make a helpful initial contribution.

It should also be noted that the present pluralist course proposal is presented as a *supplement* to traditional degree programs, not as a substitute. Students need to be well versed in the orthodox discourse because this is, and will remain for many years, the most influential and widespread language in which economic matters are discussed across the world. However, the pluralist course will actually improve their understanding of mainstream economics as the best way to comprehend something is to be knowledgeable about its alternatives. In addition, they will have larger toolkits of ideas and methods of analysis, and they will have been immersed in an environment nurturing a wide range of highly desirable skills.

The greatest obstacle to successful implementation within universities will be various barriers, resistances and inertia. Three of the most significant will be creating space within existing syllabi, objections to the changes on intellectual, ideological or self-interest grounds, and re-skilling the staff who participate. Degree programs can be so tightly designed that there is little or no room for additional courses, especially within the core. Most courses are also heavily content-driven, filled with ‘indispensable’ material so that any additional material or activities must necessarily displace existing items. The upside of a preoccupation with content is the promotion of many (but not all) discipline-specific skills, but the (larger) downside is that it completely ignores non-discipline specific skills which are often much more significant determinants of outcomes such as employability, innovative capacity and productivity. Staff may also be reluctant to give up the familiar where they reap the returns of past investment, in order to take on the unfamiliar where new investment requires an expansion of their human capital to areas not specifically related to their existing expertise. Leadership, based on inspiring, encouraging and experimental approaches, will assist in overcoming these obstacles. Volunteers can be called for, and the initiative trialled in suitable subjects. Incentives can be offered to staff willing to undertake the necessary course changes and investment, such incentives including reduced workloads, additional conference attendance, or even monetary payments. Teaching and Learning Units can organise training and support activities, including brainstorming with staff to discover ways for setting discipline-based courses onto new skill-oriented platforms. Given the right atmosphere and incentives, we can all be far more creative and innovative than we have been.

Significant moral questions are involved. Can we confidently say that the present system is producing outcomes that are morally justifiable? On the one hand, the system is passing, graduating and releasing into the community a significant number of students who do not have sufficient discipline knowledge or ability. Many teaching academics find this objectionable for a variety of reasons, but are effectively powerless to change it. On the other hand, the system is doing next to nothing to develop the full range of desirable non-discipline-specific skills that are vital to meeting the challenges facing present and future generations. It is within its power to do so, but it lacks knowledge, motivation and facilitating institutions. Both issues can be addressed by serious approaches to human capital formation based on adequate willpower, knowledge and resources.

6. Conclusion

I have argued that, in relation to graduate skill formation, Australian higher education has not performed anywhere near its potential in meeting the needs of individuals, employers (both public and private), the economy and society generally. Economics departments have also been notable for their inactivity, despite having an extensive knowledge of, and interest in, productivity, and having professional links with most of the bodies calling for improved human capital formation. As a result of the massive changes that have buffeted the higher education sector for the last fifteen years or so, skill development in Australian universities is not in a healthy state. The average level of discipline-specific skill formation has declined, while non-discipline-specific skills have received only partial and minimal attention.

It is vital for our present and future that this situation be reversed, especially in view of the complex, challenging forces shaping our world. Fortunately, the situation is remediable, *provided* a serious willingness to address the problem at an institutional or systemic level is backed by action in terms of resources, priorities and local initiatives. More funding and prioritisation by government, greater attention and prioritisation by university executives, and the necessary changes to curricula by motivated staff are the key ingredients of genuine reform of the system. That, of course, takes time. In the interim, economics departments can take leadership of the issue by initiating discussion and action that creates opportunities for improved skill formation. While the introduction of isolated modules focused on particular skills into existing courses will certainly help, the much more effective strategy is to introduce new pluralist courses where content and activities combine synergistically to inculcate comprehensive skill formation in graduates.

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ENDNOTES

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- ¹ Business Council of Australia (2006: 14-15).
- ² Department of Education, Training and Youth Affairs (2000: *viii*, 14).
- ³ For relevant discussion of the many aspects of creativity, see Runco and Pritzker (1999).
- ⁴ See Ferraro and Taylor (2005). For wider discussion of the implications of their results, see O'Donnell (2008), and for an application to Australian students obtaining similar results, see Macri (2008).
- ⁵ See OECD (2007: 221-2). For many years, the federal government's spending on private schools exceeded its spending on public universities. Gavin Brown, the just retired Vice-Chancellor of Sydney University, recently observed that the sentiment of the Howard government to universities was 'hostile'.
- ⁶ Across Sydney University as a whole, for example, student numbers have increased by 100% over the last 12 years, while staff numbers increased by only 14%.
- ⁷ This is not to say that these students are incapable of reaching satisfactory university levels of attainment, only to say that this requires the expenditure of sufficient teaching and support resources.
- ⁸ Management jargon, a rhetoric often used to legitimate its own power, becomes a key element in internal university discourse. See ().
- ⁹ See Milmow (2004).
- ¹⁰ Writing from a mainstream viewpoint, Hansen (2001) advocates the acquisition of a (limited) set of proficiencies by economics students; for a constructive critique, see O'Donnell (2004).
- ¹¹ For further discussion, and a particular example of a pluralist economics course in which comprehensive skill formation is a key objective, see O'Donnell (2007).
- ¹² See Deming (1986:yy). The ratio actually varied across Deming's writings (80/20, 85/15, 90/10), but the central message is the same.