



Institute of Actuaries of Australia

Vision 2020

A Discussion Paper

Reviewing the Institute's Strategic Direction

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This paper has been prepared for issue to, and discussion by, Members of the Institute of Actuaries of Australia (Institute). The Institute Council wishes it to be understood that opinions put forward herein are not necessarily those of the Institute and the Council is not responsible for those opinions.

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OVERVIEW OF PAPER

The Vision 2020 Task Force (V2020TF) was established to consider and generate discussion within the membership of the Institute as to:

- The principles upon which the Institute should base its strategy going forward;
- What, if any, high level directional changes in strategy these imply; and as a consequence
- What key issues might we need to consider or reconsider over the coming years?

Based on the preliminary work and considerations of the V2020TF, we have come to a view that while there is some growth potential in our existing fields of endeavour, the main growth areas for the application of actuarial skills are outside the specialist areas reflected in our current fellowship education (i.e. in the “new” domains). Furthermore, if we are to satisfy the Institute’s “Vision”, we will need to see the growth (supply and demand) and retention of members in these new domains increase well beyond current trends.

As a consequence, there are some key strategy issues and directional changes that we believe the membership needs to consider, including:

- We need to decide what is an “Actuary”, particularly in the context of the new domains.
- For those in the new domains, we need to greatly enhance our support offering. If we are to increase our representation in the region, we need to better support our members outside Sydney/Melbourne.
- Our education and CPD system and syllabus, including delivery, objectives and pass rates will need substantial “watershed” change within the next 5 years. This reflects International issues and developments, and the support of the new domains.
- What resources should we allocate to promoting the profession to employers etc?
- What are the “must do’s” – where failure to achieve is not an option?

These issues are discussed, with a range of other matters, in the main body of this discussion paper. For those with limited time who wish to obtain a feel for the range of matters considered and the issues identified, Section 12 provides a 5½ page summary that draws together a number of the points and themes emerging from the discussion paper and poses a number of strategic direction questions that appear to arise.

In considering all of this, the V2020TF commends members to consider:

*grow and prosper, or decay and die...no organisation or society has shrunk to greatness
humans tend to over estimate change and its impact in the short term, but tend to grossly underestimate the extent of change and its impact over the long term*

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1. Introduction

1.1 **Background to V2020TF**

The Institute has responded to a number of significant challenges and issues over recent years and has implemented or made important progress on a broad range of projects. These have included:

- The introduction of the new Part III education program.
- Various corporate governance matters ranging from the Code of Conduct, professional standards and guidance structure, disciplinary scheme, and Secretariat processes and documentation.
- Research and future development initiatives, including Actuarial Research Centre of Australia (ARCA) and risk management.
- Supporting the massive growth of the actuarial role in general insurance and input on International Financial Reporting Standards (IFRS).
- Member services, website development and investigating banking, finance and investment “Actuary” needs.
- Raising and cementing our profile with governments, regulators and various public organisations.
- Engagement and support of actuaries internationally, in particular International Actuarial Association (IAA) engagement.
- Enhancing the substance of our representative office (the Secretariat).

Nonetheless, while much of the work program over the next year or so may prima facie appear reasonably clear (just getting done what we have already planned, or committed to, will be a challenge), where we should be focusing and planning beyond that is less clear. Also, while some work has been undertaken or begun in certain areas relevant to the longer term future (e.g. banking, finance and investment actuaries, risk management), how these link to other areas or the overall big picture is more shadowy.

The “Vision 2020 Task Force” (V2020TF) has been established to engage the membership in a debate on the big picture and provide input to Council.

1.2 **Terms of Reference of V2020TF**

The broad terms of reference of the V2020TF are to consider and assess the key issues over the next 10-15 years that the Institute needs to consider and prioritise to make material progress on its Vision.

Some specific questions the V2020TF should address over this time frame, include:

- What are the likely scenarios for the working environment of the members of the Institute?

- On current trends and known initiatives what might the member profile of the Institute look like?
- To what extent will the actuarial profession meet the needs of the evolving environment?
- What very high level broad directional changes should the Institute undertake?

Some key issues that need to be considered in this context are:

- Employment and environmental outlook in the current established fields.
- What is an “Actuary”?
- Demographic projections operating “as is”.
- Education, Continuing Professional Development and Research and Development.
 - Through put, pass rates (achieving the “many”) and re-skilling.
 - Skills, industry focused and communication/business management.
- Representation to government v business v institutions v industry v regulators.
- Affiliations, franchising and co-branding.
- International: Our role in Asia and interaction/relationship with a growing IAA.
- Is risk management “it”? Or is our raison d’etre broader than risk management?
- Dealing with an increasing diverse range of Actuary “sub-groups”. Meeting members wants and needs.
- “Brand” protection: governance, guidance, standards and discipline.

For the purpose of the terms of reference of the V2020TF, the Vision and Mission of the Institute are to be “taken as read”. (See Appendix B)

1.3 Current Vision & Mission – Implications

In considering the terms of reference, it is noted that the Vision of the Institute is:

Whenever there is uncertainty as to future financial outcomes, actuaries will be sought for their valued advice and authoritative comment.

With the Mission of the Institute being:

To represent the actuarial profession and maintain, create and expand an environment where the skills of actuaries are widely used and valued.

The overall implication of the Vision and Mission would appear to be that in some, albeit distant, future we are aiming for actuaries:

- To be operating throughout the vast majority of the financial services sector.
- To be a respected and a pre-eminent profession in the financial sector.
- To number “many” - well beyond the current small club of 3,000 members.

1.4 Objectives of Discussion Paper & Approach

The purpose of this paper is to provide a basis to engage the membership of the Institute in a debate on the strategic direction of the Institute over the next 10-15 years with respect to its Vision and Mission.

This is potentially a “big subject”.

However, it is emphasised that the focus is on strategic direction and in some cases this may mean reaching a conclusion that more work needs to be done in some areas or the future involves some fork in the road, with the preferred fork to take not yet being clear. Consequently, it is not the purpose of this discussion paper or the taskforce to provide an answer to every question. Nor is it expected that members of Institute contributing to the debate will provide all the answers.

The principal objective is to identify or flag:

- The principles upon which we should base the Institute strategy going forward.
- Any high level directional changes in strategy these imply.
- The key issues that we will need to consider or reconsider over the next few years (and potentially beyond).

To address these objectives requires at least some, and arguably substantial, “market” and stakeholder research. In practice, there has been much such research, task force reviews and analysis conducted in the past by the Institute and its sister organisations. So much so, that just getting one’s arms around what is already known and making some sense of it all is a substantial exercise. On this basis, the V2020TF has in the first instance, for this paper, not sought to conduct extensive, new, duplicate research but rather focus on drawing together what is already “known”. Nonetheless, this does not preclude conclusions being reached by it or the membership that some further key research would be appropriate going forward.

1.5 Process, Next Steps & Invitation to Comment

The overall process the V2020TF plans to take is as follows:

- Prepare and publish a Discussion Paper on issues and options (this Paper).
- Present the Discussion Paper at Horizons meetings in October 2006 to obtain membership feedback and comment.
- **Invite Comments.** All members are encouraged to submit views and opinions on this Paper and the Institute’s longer term strategy. These may either be in writing and addressed to John Maroney, CEO of the Institute of Actuaries of Australia in the first instance, or more informally to other Taskforce members. In either case, the **comment period will close 30 November 2006.**
- The Taskforce will then, considering the collective input, submit a report to the Institute Council in December 2006 for its consideration. It is intended this will conclude the work of the Taskforce.

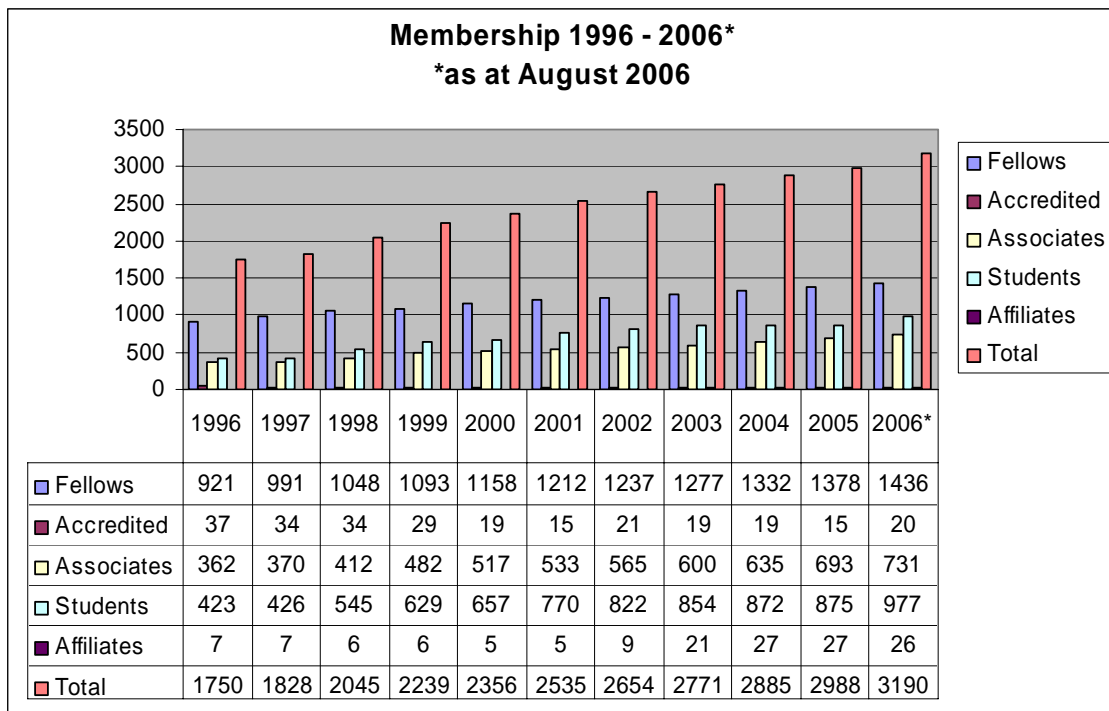
2. Institute Membership – Current Status

2.1 Current Membership Profile

The Institute has five different membership categories:

- Fellows;
- Accredited members (fully qualified actuaries from other Institutes / Societies);
- Associates (members who have completed Parts I and II of the education program);
- Students (in the process of completing either Part I or Part II studies); and
- Affiliate members (“laypeople” wishing to access the services and network with Institute members).

As at 1 September 2006, the Institute had 3,190 members, which comprised 1,436 Fellows, 20 Accredited members, 731 Associates, 977 Students and 26 Affiliate members. The table below indicates the growth in Institute membership over the last 11 years, which has averaged approximately 5% per annum overall.

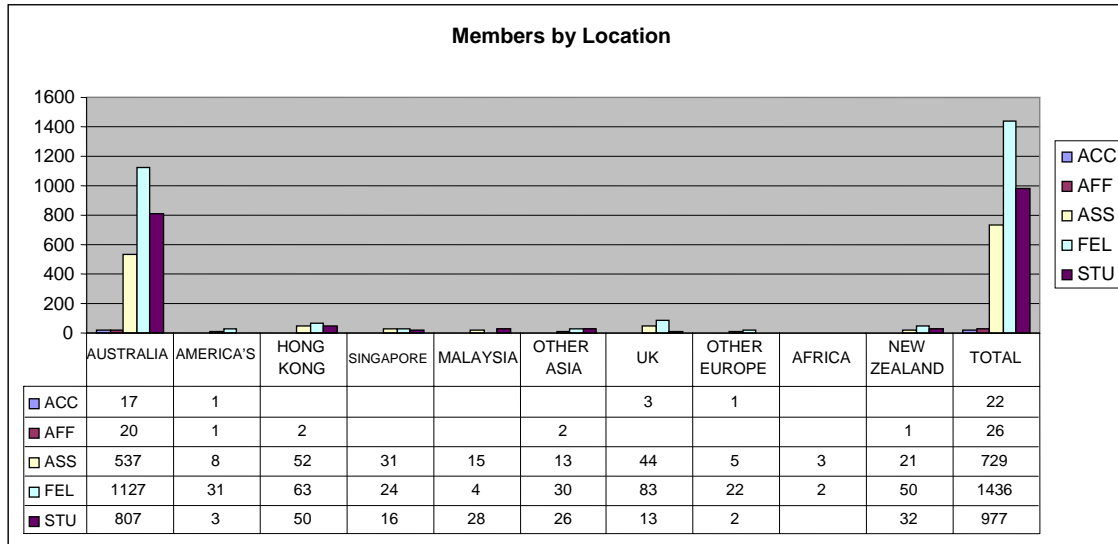


Of the total membership:

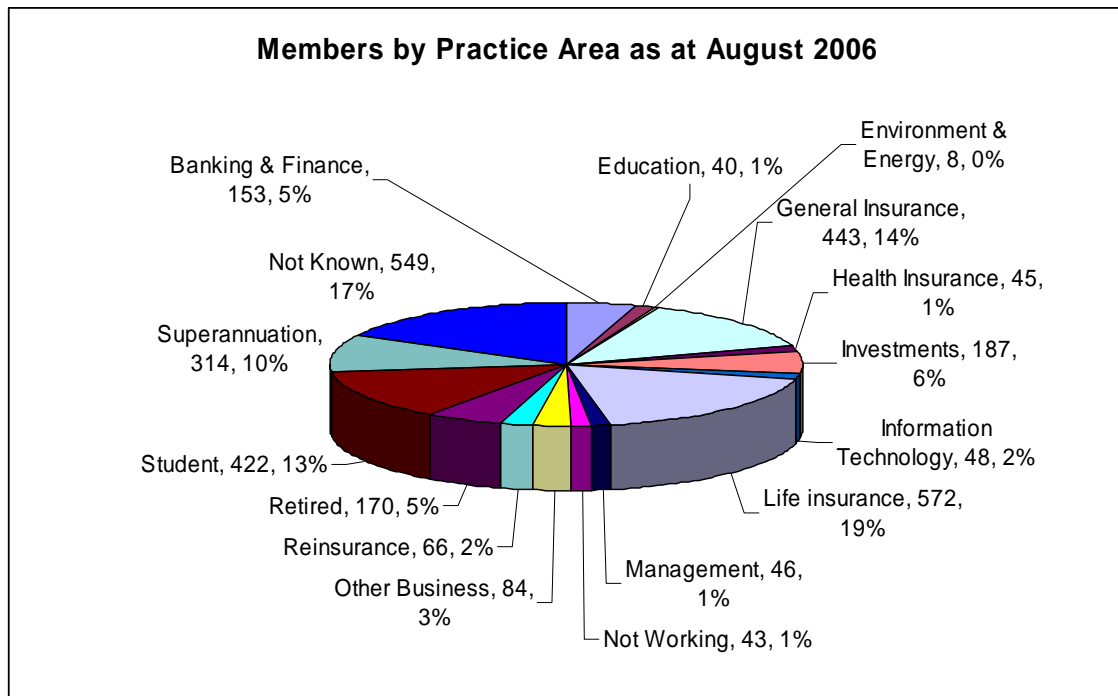
- 79% are resident in Australia and 3% in New Zealand.
- 11% work and live in Asia.
- 5% in UK/Europe and 2% other (mainly the Americas and Africa).

Of the Australian 79%, approximately 53% reside in Sydney and 18% in Melbourne.

The tables below provides more specific detail of where our members are located. Most overseas-based Fellows reside in the United Kingdom, followed by Hong Kong, Singapore and the United States. For the Associates and Students the pattern is slightly different with most living in Hong Kong, United Kingdom, Singapore and Malaysia.



The graph below shows a breakdown of the membership by practice area.



In terms of proportions of Fellows, Associates and Students by Practice area, the following approximate break-up is noted:

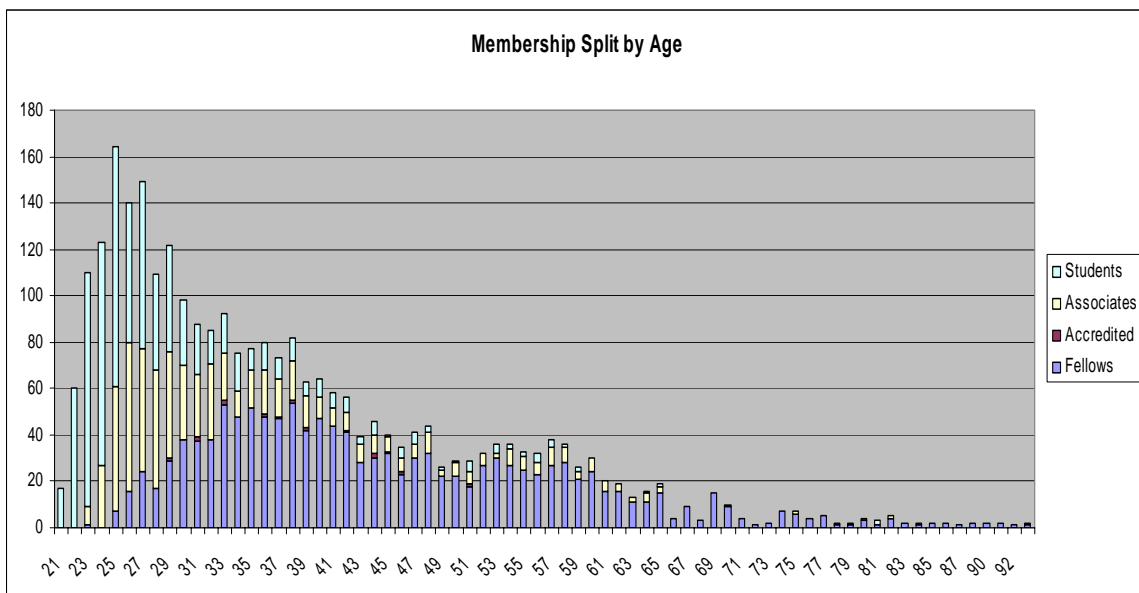
2006	Fellows & Accr	Assc	Other	Total	Fellows & Accr %	Assc %	Other %
Life Insurance	338	138	96	572	59%	24%	17%
General Insurance	212	135	96	443	48%	30%	22%
Health Insurance	18	14	13	45	40%	31%	29%
Reinsurance	39	14	13	66	59%	21%	20%
Superannuation	198	74	42	314	63%	24%	13%
Bank, Fin & Inv	179	87	74	340	53%	26%	22%
Other Employment	118	48	60	226	52%	21%	27%
Retired, Uni, Other	201	57	377	635	32%	9%	59%
Unknown	133	164	252	549	24%	30%	46%
Total	1,436	731	1,023	3,190	45%	23%	32%

The relatively high proportion of members shown in the above statistics in the banking, finance and investment fields that are Fellows, with low Associate and student numbers, is somewhat of a surprise. However, this could reflect either:

- A significant number of the “unknown” may actually relate to this category; and/or
- An issue around the rate of Associate and Student member losses from this area.

Overall, the gender mix of the membership is male 73% and female 27%. For Fellows the split is 81% / 19%, while it is 65% / 35% for the (younger) non-Fellows.

In terms of age profile, the following graph provides a high level view:



2.2 Recent Trends in Membership

2.2.1 Membership Turnover

Like many membership-based organisations the Institute experiences turnover in membership. In the last year, the Institute accepted 270 new members (the vast majority of whom are joining as Students) and reinstated 71 members whose membership had lapsed after a period of financial default. In the same year, the Institute lost a total of 261 members as defaulters (229), resignations (27) and deaths (5). The net effect was a growth in overall membership of 80.

Within that year there were a further 250 transfers from one membership category to another which included 168 new Associates and 77 new Fellows. Please refer to the table below for detail on membership turnover and transfers over the last year and a half.

Membership Turnover Statistics from January 2005 to June 2006						
	Fellows	Accredited	Associates	Students	Affiliates	Total
Total Members 31/12/04	1,366	17	646	1,014	27	3,070
New Members		10	3	252	5	270
Net Transfers	77	-10	106	-168	-5	0
Resignations	-9	0	-4	-14	0	-27
Deaths	-5	0	0	0	0	-5
Net Defaulters	-14	0	-32	-113	1	-158
Total Members 31/12/05	1,415	17	719	971	28	3,150
New Members		3	2	220	3	228
Net Transfers	34	0	43	-76	-1	0
Resignations	-4	0	-11	-17	0	-32
Deaths	-1	0	0	0	0	-1
Net Defaulters	-8	0	-22	-121	-4	-155
Total Members 30/06/06	1,436	20	731	977	26	3,190
Notes: The data here has been manually extracted from Council reports, as such detail is not yet available directly from the Secretariat's database. More detail is now being recorded for future reporting. Analysis is approximate and has had some adjustments made. Transfers are very approximate only.						
Rates p.a.	Fellows	Accredited	Associates	Students	Affiliates	Total
Growth Rates (New) '04	5.6%	0.0%	16.9%	8.3%	0.0%	8.8%
Growth Rates (New) '05 *	4.8%	17.6%	12.5%	14.8%	14.3%	9.8%
Longer Term Indicative #	5.5%	0.0%	12.5%	13.0%	0.0%	
Exit Rates (New) '04	2.0%	0.0%	5.6%	12.5%	-3.7%	6.2%
Exit Rates (New) '05 *	0.9%	0.0%	4.6%	14.2%	14.3%	6.0%
Longer Term Indicative #	2.0%	0.0%	6.0%	8.0%	0.0%	
Net Increase Rate	3.5%	0.0%	6.5%	5.0%	0.0%	4.5%
* Some of these have been doubled to give annualised rates, some not (given subscription timing). # Indicative based on net changes over the last 4-5 years.						

A notable point from the above is the overall member loss rate of 5%-6% p.a.

2.3 Simple Projection to 2015

2.3.1 Overall Numbers Projection

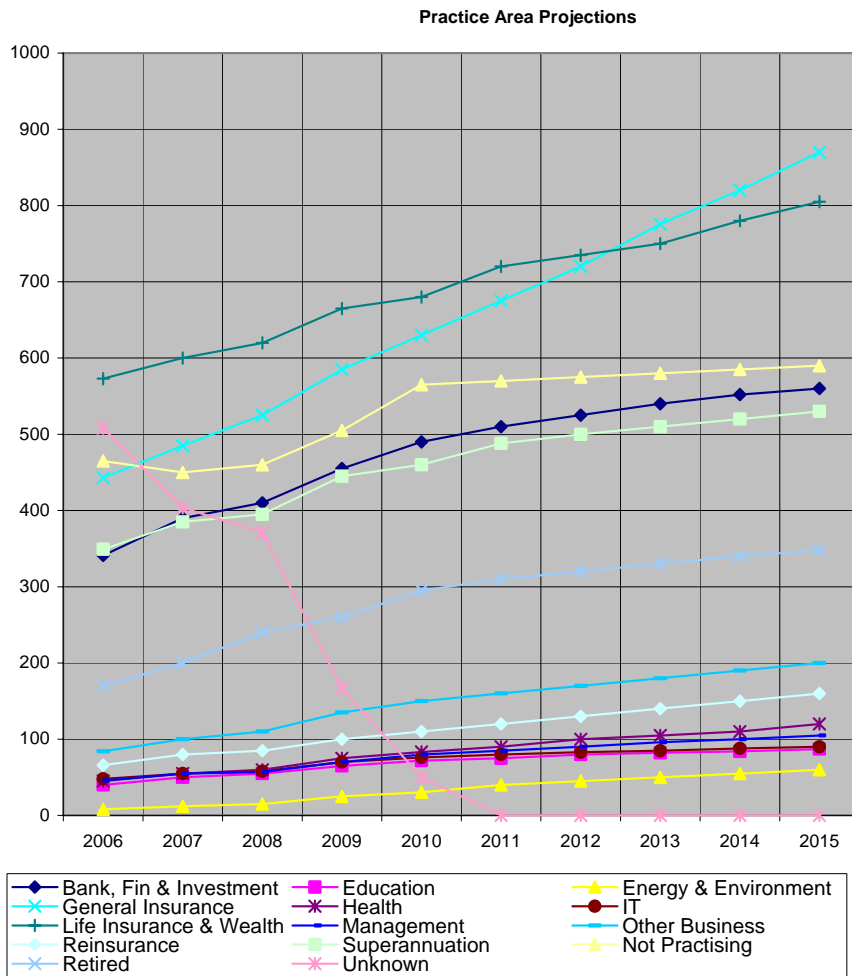
Based on the above trends in membership, if these are simply assumed to continue as is, then the following approximate membership profile could emerge:

	2005	2010	2015	Exits 05-15
Fellows	1,378	1,640	1,950	320
Accredited	15	20	20	
Associates	693	950	1,300	580
Students	875	1,120	1,430	1,010
Affiliates	27	30	30	
Total	2,988	3,760	4,730	1,910

The "Exits" is the estimated total of "lost members" over the 10 year period.

2.3.2 Practice Area Trends

However, this gives no indication of the likely mix of fields of practice. One approach to estimate this could be simply to project the recent trends in membership by practice area. This is roughly done below (allowing for a rough re-allocation of the "unknowns"):



2.3.3 Synthesised Projection

Taking the above indicative projections and the commentary on employment fields outlook covered later in this paper, an overall membership profile projection to 2015 per the below is a potential outcome to consider:

2015	Fellows & Accr	Assc	Other	Total	Fellows & Accr %	Assc %	Other %
Life & Wealth Man	400	160	120	680	59%	24%	18%
General Insurance	450	175	150	775	58%	23%	19%
Health Insurance	50	25	25	100	50%	25%	25%
Reinsurance	45	15	15	75	60%	20%	20%
Superannuation	200	60	40	300	67%	20%	13%
Bank, Fin, Inv, RM	375	690	500	1,565	24%	44%	32%
Other Employment	200	75	100	375	53%	20%	27%
Retired, Uni, Other	250	100	500	850	29%	12%	59%
Total	1,970	1,300	1,450	4,720	42%	28%	31%

2.3.4 Comments and Observations

In considering the above, the following points are noted:

- While our membership is expected to grow, based on current trends and pass rates (see further discussion in Section 8), we may well still number less than 5,000, with less than 2,000 Fellows, by 2015. This is well short of what might be suggested by the Vision.
- Even in achieving this modest total, as suggested in 2.3.1, we may well lose around 2,000 members along the way. To retain half of these would increase our numbers over 20% and could itself engender greater growth.

3. The Secretariat (Institute Office)

3.1 Overview of staffing/resources and recent trends

As at 1 September 2006, the Secretariat had a total of 18 staff (or 17.2 Full Time Equivalent Employees). The staff can be segmented into five principal areas:

- General Administration: 5.6;
- Education & Publications: 4.8;
- Events: 3;
- Corporate Governance: 2.8
- Public Affairs: 1.

The Secretariat has grown to its current level of staffing from (about) 8 Full time equivalent employees in 1996. In addition to the permanent staff, the Institute also contracts three part-time actuaries as Course Leaders within the Part II education program and is supported by over 500 member volunteers.

3.2 Current delivery and demands on Secretariat

The Secretariat is at times stretched to deliver the growing range of membership services for which it is responsible. Changes to the education program's existing courses, development of new courses and publications, as well as expansion and improvement to the events and CPD offerings have created pressures on the ability of the Secretariat to deliver with its available resources. Project work of this kind competes with the demands of the ongoing operations such as education, member administration and Council support. With the recent implementation of the two semester program for Part III, the education staff of the Secretariat are kept fully engaged with educational operations from the first week of January until Christmas.

3.3 Institute Finances – Revenues, Expenses, Trends

3.3.1 Income

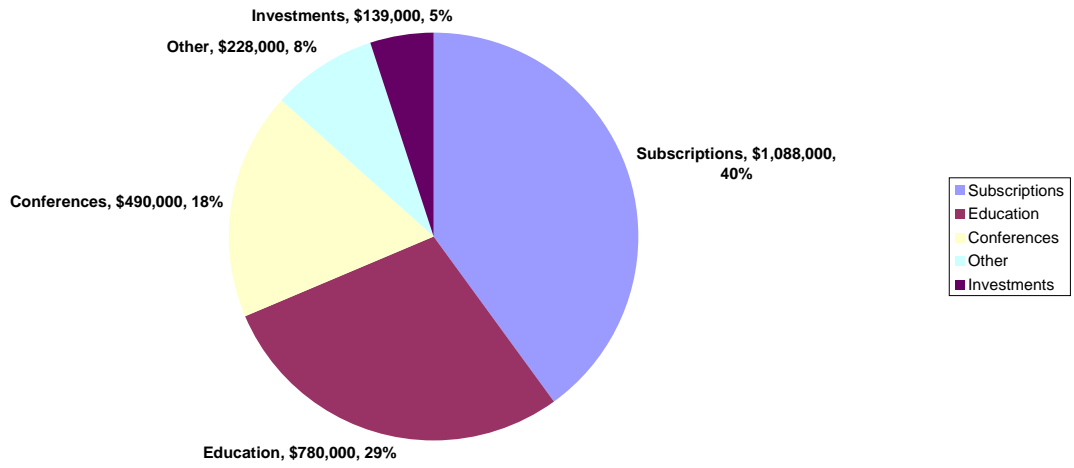
Revenue from subscriptions has fallen as a percentage of total revenue since 1999 from 40% to 32% but has, nonetheless, increased by approximately 8.3% pa.

Revenue from Education has risen as a percentage of total revenue since 1999 from 29% to 40% reflecting the impact of greater student numbers and the restructure of the course in 2005 from a one semester to a two semester year. The restructure has in effect resulted in increased course fees of 30%.

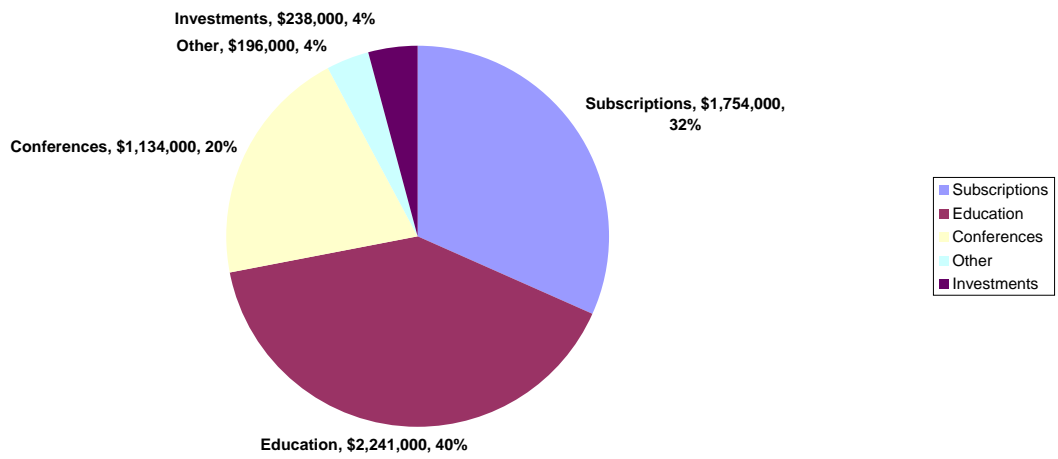
Conference and seminar revenue has increased from 18% to 20%.

The following graphs show the trend in revenue from 1999 to present.

1999 Split Net Income of \$2,725,000



2005 Split Net Income of \$5,563,000

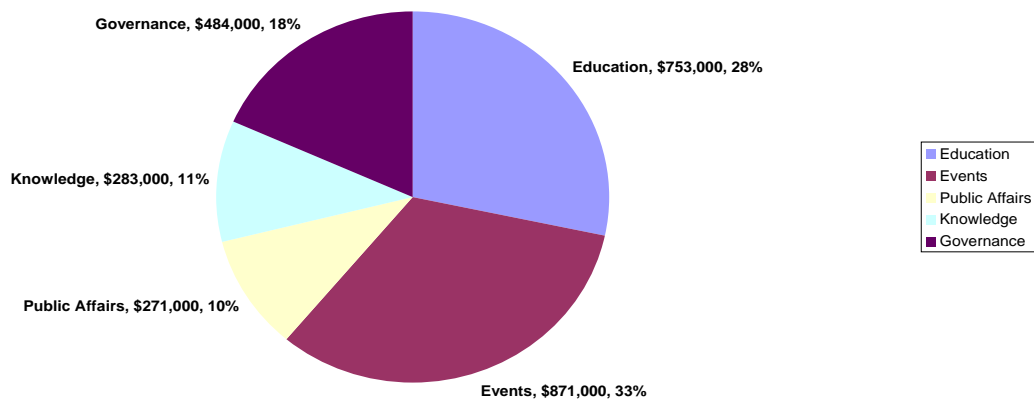


3.3.2 Expenses

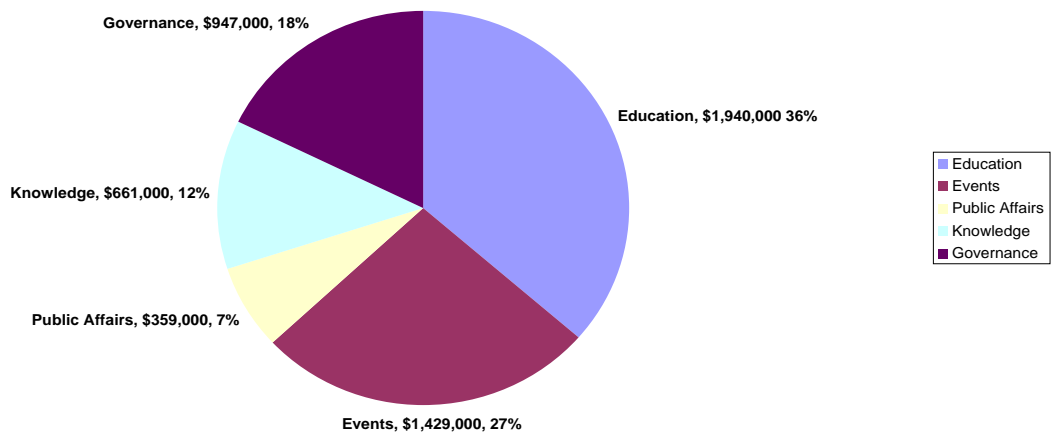
Education continues to be the main focus of the Institute accounting for 36% of total expenditure in 2005 up from 28% in 1999. Events expenditure has reduced from 33% to 27%. Education expenses have risen due largely to increased numbers of students and the restructure of the Part III course. The pattern of expenditure since 1999 for the other business units has been remarkably consistent, with little variation as a percentage of total expenditure.

The following graphs show the indicative split of expenditure since 1999, based on allocations of overhead costs adopted in 2005.

1999 Split of Expenditure of \$2,662,000



2005 Split of Expenditure of \$5,336,000



3.3.2 Comments & Observations: Fee Rates & Expenditure

As indicated above, fee rates, and by implication underlying “unit” expenditure rates, have probably increased at marginally above AWE growth rates (but perhaps not actuarial salary growth rates).

Given the overall 10% growth rate in fees (expenditure), this means the underlying costs increased by around 5% p.a. in real terms. Indeed, real costs have been rising a little faster than membership growth in recent years.

Given the discussion elsewhere in this paper, there is no apparent reason to presume or anticipate that this growth will not continue.

In considering these trends, questions need to be asked:

- Can we reduce the rate of cost growth?
 - What cost items should we cut?
- Alternatively, it appears to the V2020TF that the future direction of the Institute may well involve further increased costs. While increased membership growth will eventually deliver more fees, the growth may not have a large impact in the short term.
- Should we be looking at new sources of revenue?
 - Charging for events (Insights etc) as per Finsia/CEDA?
 - Full day / 2 day courses for “practising certificate” style CPD (see later education structure / delivery discussion).
 - Member services / products – credit cards, etc.
 - Increased fees from increased accreditation of current members (see later discussion on “what is an Actuary”)?
 - Accessing government grants and benefits?

4. Current Strategic Plan & Focus

4.1 Mission & Goals

The Mission of the Institute was referred to in Section 1. The Mission with its supporting goals that underlie the current Strategic Plan is as follows:

The Institute of Actuaries of Australia (Institute) represents the actuarial profession by creating, expanding and maintaining an environment where the skills of actuaries are widely used and valued.

The Institute

- *Establishes, maintains and enforces professional standards for the protection of the public and provides guidance to help actuaries provide professional services of high quality.*
- *Provides pre-qualification and continuing professional education, and creates forums for discussion about contemporary and relevant issues.*
- *Promotes research and the development of actuarial science.*
- *Promotes the actuarial profession's value in existing and new roles, including contributing to, and informing debate, on public policy and business issues.*

4.2 Summary of Current Strategic Plan (2004/7) Focus

The current Institute Strategic Plan (the Plan) was developed during 2004 for application for the three years from September 2004 through to September 2007. The Plan contains objectives and actions under each of the above four Mission goals taking into account the following high level SWOT analysis of actuaries and the Institute:

<p>Strengths</p> <p>Analytical skills Calibre of people Professionalism</p>	<p>Weaknesses</p> <p>Internal communication Spread too thin Lack of Research</p>
<p>Opportunities</p> <p>Development Public Policy Influence Higher community expectations</p>	<p>Threats</p> <p>Alternative qualifications Competition Reputation damage</p>

The overall Plan claims four main strategic focus areas:

- New practice / domain development.
- Position and influence of the profession.
- Focused and energised member services.
- Partnerships in the Asia region.

The key strategic targets (KPI's) to be pursued have been (*paraphrased*):

- Reputation: To be/have:
 - Widely recognised as the leading profession in financial services for ethics, reliability, strong professional standards and value-adding “thought leaders”.
 - High educational standards and an attractive career for bright students.
- Influence: Influential in the public sector and industry and increased media coverage. Maintain a program of “stakeholder” meetings, round tables and interactions.
- Leadership: Increase in actuaries in leadership positions with employers and public roles to raise actuarial profile. A “leadership” program would exist to support this.
- Greater penetration in established practice areas: Regain the lead role in capital and risk management in life and general insurance and superannuation.
- Growth of new practice areas and establishing new “domain” skills:
 - Banking & finance: 15% of membership by end 2007.
 - Investment: 100% increase in actuaries here by 2007. “Making lots of noise”.
 - Health: 5% of membership in the Health sector by end 2007.
 - Financial planning: 30% increase in actuaries here by end 2007.
- Education (to qualification/Fellowship):
 - New Part III implemented - high quality learning and 50% pass rate.
 - Our education system as world’s best. On-line and used throughout world.
- Continuing Professional Development (CPD):
 - Relevant and highly valued by members for current and future needs.
 - Robust requirements and monitoring. Shift from “soft” to “hard” requirements.
- Member services: Members are active in the Institute across all practice areas (old and new), with high member retention. Institute conducts programs to support the continuous engagement of actuaries throughout their career.
- A strong actuarial community: Significant interaction between practice areas and cross-fertilisation of ideas and methods. Service delivery to all locations.
- Renewal/growth of intellectual base: Structured and targeted Research & Development (R & D):
 - Well structured, active and expanding R&D program relevant to practice areas and public policy, and leveraged beyond Institute resources.
 - Actuaries as leading edge contributors in “financial science”.
- Significant progress in Asia: 20% of Institute members in Asia by 2007. Well supported strategic partnerships in the region and delivery of education services.

4.3 **Current Progress and Issues Identified**

Overall, the Institute appears to have made reasonable progress on executing a number of the key actions under the Plan that support the above target outcomes, including making progress on a number of “infrastructure” related projects, e.g.:

- Implementation of the revised Part III structure largely as intended. The Control Cycle (UAM) text book is used by other Institutes and has been translated into Chinese now.
- Various member governance items (revised Code of Conduct, Disciplinary Scheme, Professional Standards Committee and CPD Standards, and now commenced review of existing Professional Standards and Practice Guidelines, etc).
- Research & Development - Establishment and launch of the Actuarial Research Centre of Australia (ARCA).
- Various “risk management as a domain” initiatives are progressing (e.g. ERMII).
- Updating and overhauling the Institute Website.
- Continued good liaison with government, media and regulators.
- Enhancement to Secretariat resources and support to member committees.
- Significant expansion of the CPD program (content, frequency, domain areas), including preparation of a Health Insurance Course.

Nonetheless, progress on some key outcomes is less clear:

- Pass rates for Part III remain low. New implementation issues are emerging.
- No clear “deepening” of actuarial involvement in well established practice areas (e.g. Life and Super). Arguably some “shallowing”?
- Asia resident members at 11%, and student numbers in Asia not increasing.
- Any improvement in actuaries in leadership roles?
- Unclear whether growth in health financing is progressing (or achievable).
- Progress on domain skills and growth in banking, finance and investment?

4.4 **Key Comments and Observations**

The following high level observations are made on the Plan.

- Communication skills of actuaries do not seem to be substantively considered.
- Little direct consideration of resources absorbed by Fellowship education.
- Any quality gap between our financial skills versus modern financial economics?
- International involvement outside Asia? In practice we are doing a lot with the International Actuarial Association (IAA).
- Member services other than CPD, website and the magazine not greatly addressed.
- Lack of a clear link between R&D targets and new domains development.

- The Plan seems to align member communication and CPD with practice areas. What about members without a fully functioning (or aligned) Practice Committee?

5. Macro Economic Observations

The future demand and opportunities for Actuaries will be shaped both by what we do as a profession to influence supply and demand side impacts, as well as the many factors which are outside our control to significantly influence.

This Section of the paper is intended to discuss some of the demand side macro economic impacts.

5.1 World Trends & Observations

Some overall, high level general comments and observations and global trend points are noteworthy.

5.1.1 Economic Development Pattern

As an economy develops from a “rural/subsistence” level toward a “wealthy/developed” state it will tend to pass through some relevant stages:

- Initial rapid growth in basic needs of life (food, housing etc).
- Continuing with growth in consumer products and wants (“goods”).
- Then growth in expenditure on, and provisions of, services.
- Accumulation of wealth (the growth in the “leftover” income to accumulate for the future, including retirement).

Overall economic growth of an economy has tended to typically be high in the early stages above, then slowing with economic maturity.

During the 2nd and 3rd phases above, accumulated durable goods and basic property can be significant and support significant growth in property and casualty insurance demand, with this slowing in phase 4. Wealth management and banking, focusing on both core transactional turnover and the accumulation of the growing “residual”, can systematically grow faster than the average growth rate of an economy.

For economies in stages 3 and 4 (and beyond), lower birth rates and ageing of the population are common themes observed around the world. Economies in these stages typically experience high and sustained growth in the health and medical fields.

5.1.2 Globalisation

The global trend towards much larger “mega” multinational companies would seem likely to be a continuing one for the foreseeable future.

Increased globalisation of financial services would be expected to have an impact on the demand for Actuaries. The trend may see countries and companies become larger global players whilst others may disappear from the landscape.

A further impact of globalisation is the trend to increased outsourcing of skilled workers to lower cost countries. This is continuing apace and has now evolved to the outsourcing of higher skilled work of various professions. For instance, it is known that certain legal,

accounting and engineering work from Australia is now routinely outsourced overseas. Some overseas insurers are now “sub-contracting” out certain actuarial valuation work to Asia. Nonetheless, Australia is cheaper than many other “first world” countries (UK, US, Europe), which lead some to suggest an export opportunity for the very top end skills.

5.1.3 *Progress, Technology and Sophistication*

At one time it was feared that improvements in technology could make many knowledge workers redundant – complex calculations could be automated and delegated to a computer.

In practice, advances in computing have instead lead to increasing sophistication in all areas of actuarial endeavour. In a capital markets context, this sophistication has been focused on an improved understanding of returns and risk and the ability to provide products and services in highly competitive markets at lower margins. In financial reporting we have moved from simple cost-based models to dynamic projection and market value based models, with International Financial Reporting Standards (IFRS) continuing the trend.

This trend is an ongoing one with resulting pressure for higher order analytical skill-sets.

Our ability to understand data (particularly very large data sets) and model it has been enhanced thus creating significant opportunities for finer analysis.

Nonetheless, a more complex world, with shorter reporting time frames, emphasises the need for clear, timely and compelling communication.

The influences of progress in other fields will also have significant impacts on our work. Advances in medical science that allow the diagnosis and treatment of sickness and disease will impact our thinking and customer product solutions in the field of life insurance, are an example.

5.1.4 *Enterprise Risk Management*

Financial institutions are seeking to better understand, monitor and measure their risks. Traditionally actuaries have been intimately involved in the capital and balance sheet management for life insurers, increasingly for general insurers but less so for banks. New opportunities will emerge for Actuaries in this area e.g. the equivalent of Basel II for insurers and the improved risk assessment for the emerging financial institutions such as Industry Superannuation Funds.

5.2 *Observations on Australia*

5.2.1 *Economic Conditions*

The extent of economic prosperity and the profitability of financial services companies in Australia will impact their growth and thus demand for knowledge based workers such as Actuaries. A strong, vibrant, innovative and profitable industry is essential for the maintenance and growth of our profession.

The longer term outlook for the different facets of the financial services industry noted above under 5.1.1 apply significantly here.

5.2.2 *Globalisation*

Currently the majority of the largest financial institutions in Australia are Australian based, implying that the majority of their knowledge based workers are within Australia. Increased globalisation may see some Australian companies become larger global players whilst others may disappear.

Observations on outsourcing with respect to Australia were noted above.

5.2.3 *Mergers & Acquisitions Activity (M&A)*

Notwithstanding globalisation, the last decade or so has seen significant M&A activity with demutualisations, mergers, takeovers and sales of businesses. In the short term, this creates significant transactional and restructuring work, however the longer term impacts may be less favourable if there are fewer companies operating. Such trends are not always one directional with demergers and business floats being an important feature of vibrant capital markets. With good industry profitability and healthy capital markers, new players and new opportunities should arise.

5.2.4 *Actuarial Science: Research and Development*

As Richard Fitzherbert (2006) wrote in his recent paper "Paradigms, Research And Recognition of The Actuarial Profession" a healthy scientific community that performs research and development is required to foster new commercial applied techniques. "To sustain itself, the profession needs to achieve and maintain effective ownership of relevant paradigms in practice areas within the domain of actuarial science. Without this, individuals may be recognised in these fields, but the profession will not."

5.2.5 *Regulatory Influences*

Regulatory influences can be both direct and indirect. Direct influences include statutory roles and other related work - External Peer Review being a recent initiative. Increased regulation can also have negative influences, one such example being the replacement of a competitive private sector by a centralised monopoly, e.g. state based third party compensation schemes for workers compensation and motor vehicles are not uniformly in the private sector. Compulsory superannuation and other measures that aim to support our ageing population are a further example of regulatory influence that can indirectly very significantly impact our profession.

5.2.6 *Demographic Impacts*

The ageing population in Australia is a well understood trend. From an economic viewpoint, this is expected to have various impacts, but can be expected to create many new and expanded opportunities in our community. The increased demand for products and services is expected to have a major impact on the work of Actuaries in such areas as health insurance, retirement incomes and life insurance, e.g. longevity risk. The ageing

population will also influence supply side impacts, such as our ability as a profession to compete for the best and brightest from our high schools and university systems.

5.2.7 *Societal Trends*

Changes in societal attitudes will most likely influence the demand for Actuaries. An important one for Actuaries is increased pressures in some parts of the world to reduce the ‘...right to underwrite...’ and price for risk. Whilst Actuaries are very well placed to proactively debate these issues, our profession needs to be mindful and sensitive to such trends in societal attitudes in their work and ensure that they appropriately influence the debates.

Increased personal wealth and the need for more informed analysis may lead to further opportunities.

5.2.8 *Customers and Products*

Trends towards simpler more transparent products and ones that pass risk back to customers can result in less traditional actuarial opportunity and involvement. Contrasting this, opportunities have arisen (and will continue to arise given healthy innovation) to financially engineer new products using the capital markets, including alternative funding opportunities through securitisation of risk. Work involved with legacy products still needs to be done but typically smaller books of such business may be managed differently, e.g. outsourced to a single manager. Increased focus on the customer and shareholder profit creates new opportunities, e.g. propensity modelling, elasticity analysis, pricing methods other than cost plus, etc.

5.2.9 *Competition from Other Professions*

The actuarial profession is a very small one and faces competition from other professions that may encroach onto our patch.

Some areas that we should perhaps have naturally owned have been mastered by others and whilst we have ambitions to grow in some areas (notably banking and finance) there will be significant competition.

5.3 **Observations on New Zealand**

While some of the above comments on Australia would apply equally to New Zealand, a number of others do not:

- The regulatory and political environment for insurers and funds management is very different and the rate of change has been slower in New Zealand. There are no initiatives on foot-driving new work toward the traditional or neo-traditional (e.g. general insurance) fields of actuarial endeavour.
- The vast majority of New Zealand’s banks, life insurers, funds managers and general insurers are foreign owned – in this case, mostly Australian – the impact of globalisation is not a “threat” but a reality.

5.4 Observations on the Asia Region

As a region, Asia is the fastest growing economic region in the world.

Eleven percent of our Institute membership live and work in Asia, with others providing actuarial services into the Region.

In addition, as we are frequently reminded by our politicians, Australia needs to look beyond its borders and be a net exporter of services. Our geographical proximity to a vibrant Asia together with increased understanding of various Asian cultures, service and business needs should see opportunities for Australian based Actuaries.

Growth of Australian companies in this region should also be a strong net positive for our Institute over the longer term.

Nonetheless, it is important to note:

- “Asia” is not one place. It comprises many countries at many different stages on the economic development path.
- Consequently, the demands of these different countries, their institutions and regulators, and our members (whether operating in country or from Australia) will be very different across the region.
- Language is an issue.

6. Outlook for Employment Fields

This section of the paper provides a brief overview of the potential outlook for employment of Actuaries in a number of areas (old and new).

6.1 *Australia - Traditional & Neo-Traditional*

6.1.1 *Life Insurance & "Retail" Funds Management (including Life Reinsurance)*

Taken overall, Actuarial opportunities for work in Wealth Management areas (e.g. Life Insurance, Retail Funds Management, Industry Funds and associated entities) are seen to be neutral to positive.

It is felt that the heavy concentration of Actuaries in the areas of life insurance will reduce due to the evolution of products and services toward less complex products. There will be a demand for new products that allow our ageing population to manage their risks (e.g. longevity and other products that have embedded derivatives), in which Actuaries should be heavily involved. While the original move from a "life insurance" to "funds management" savings model significantly reflected a move to simplicity and transparency, the complexity of modern unit funds structures and pricing is only increasing – actuaries can and are playing a significant role in managing these complex processes. Also, as the funds management sector continues to grow, reliability and security of providers, capital management and retirement products can be expected to receive increased focus by regulators and others.

It is noted that there has been a trend for some general insurance actuaries to be taking on more of a wider risk management role - this is potentially a wider role than that played by many life insurance actuaries. This does beg the question as to whether there are opportunities for life actuaries, in life insurance and funds management, to expand what they are currently doing.

Opportunities in our newer institutions may evolve where actuarial skills are recognised as having application to assess and quantify balance sheet risk.

6.1.2 *General Insurance (including GI Reinsurance)*

Currently the Australian market for general insurance actuaries is characterised by high demand from employers, which appears to be running ahead of supply. This has been driven significantly by regulatory forces, with increased actuarial responsibilities arising in relation to the Approved Actuary role, the introduction of Financial Condition Reporting (FCR) and External Peer Review (EPR). However, whilst a key driver, this has not been the only factor. Actuaries have successfully demonstrated their ability to contribute and add value in a range of other areas from pricing to capital management and (increasingly) risk management.

On the supply side actuaries continue to switch into general insurance from other disciplines. Anecdotally (with the possible exception of health insurance) we have not heard of any recent cases of an individual Actuary switching away from general insurance.

Equally, 2006 is the first year in which there have been more candidates doing the general insurance examinations than life insurance, making general insurance now the most popular discipline at this profession entry point.

The question is the extent to which these trends will continue. Certainly it seems there will be a few years before current demand is satisfied. Whilst in the next few years supply could over-shoot demand, in the longer term underlying demand should be positive.

Points to note in this context are:

- Developments in technology: Actuaries are well placed to provide expertise.
- Ongoing regulatory change: The FCR may well lead to 'spin-off' work for actuaries.
- The role of the life insurance Actuary has been in many ways wider than in general insurance. Taking this as a model there is natural head room for growth.
- Simply having more actuaries operating in the general insurance industry in itself is likely to see increased opportunities for actuaries (e.g. pricing, management).
- Increasingly, general insurance actuaries are shifting into wider risk management for general insurers.

6.1.3 *Superannuation, Employee Benefits and Financial Planning*

Currently, most actuaries in superannuation/employee benefits/financial planning are still employed in traditional superannuation consulting roles. While probably no-one expected much growth for super, the demise of the superannuation Actuary has not been as rapid as anticipated by some.

Traditionally superannuation actuaries have worked on defined benefit funds. These are decreasing in number but those that remain require increasing amounts of advice mainly due to regulatory requirements. For example, work required to meet accounting standards has resulted in a significant increase in work for superannuation actuaries. Also, the remaining funds tend to be larger and generate a wider range of actuarial activity. However, overall the need to provide traditional advice on defined benefit funds is reducing.

Many actuaries who have worked in superannuation are broadening their skills to consult on all aspects of superannuation, advising large defined contribution funds, industry funds, employers, etc. Other former superannuation actuaries have moved into related fields such as employee benefits and financial planning, using their consulting and problem solving skills. Actuaries who will survive the changes in this area are those who can adapt to the changing environment and are more consulting orientated.

The overall outlook for demand is suggested to be:

- Pure defined benefit fund work: reducing over the medium term.
- Employee benefits: static to some potential growth.
- Risk management, commercial advice to funds as "institutions", and financial planning: potential growth.

6.1.4 Health Insurance & Health Financing

The role of actuaries in Health Insurance has grown significantly in recent years. However, in terms of looking forward:

- All private health insurers now have an Appointed Actuary. The larger private health insurers now have an actuarial team. Growth on this front alone may be modest.
- Nonetheless, as for general insurance, employment growth “around the edge” is likely - e.g. involvement in marketing, strategy, management etc.
- One issue to note is that while there are a few large health insurers, many are small. Furthermore, recent trends in private health insurance membership have not been favourable. Potential industry consolidation and the relative costs of “expensive” actuaries, are negative factors on this front.

In terms of opportunities, it is noted that there are many untapped areas, or areas of limited foothold, for actuaries in the whole health space, e.g. public health and government policy and financing, Diagnostic Risk Group (DRG) analysis, hospital financing and contracting, etc.

Overall, the outlook is for positive, but probably not spectacular, growth in health insurance. Broader health financing related work is unclear, the potential ranges from little to significant.

6.1.5 Regulation and Government (working for Regulators and Government)

Growth in a particular market segment will generally necessitate the recruitment of equivalent skills within the regulator for that market. In addition, public and political pressure to address a revealed shortcoming in existing supervision may lead to a short term increase in regulatory demand. Following HIH, staffing levels at APRA increased by 45%. However, the Government sector is subject to budgetary constraints and so that expansion has now ceased.

Even so, the employment prospects for actuaries within the field remain positive.

The skills acquired through the technical actuarial training, a natural attention to detail and the ability to foresee and understand the financial consequences of customer behaviour, management actions and market movements means that actuarial skills are particularly beneficial in a regulatory environment. As regulatory requirements become more sophisticated (especially in relation to capital and financial management) the demand for appropriate technical capabilities within the regulators will increase.

APRA currently employs more than a dozen qualified actuaries across the full range of management levels and a similar number of actuarial graduates. Actuaries are also employed in the office of the Australian Government Actuary, Treasury, the Australian Taxation Office and Finance Departments. In time other Government agencies (eg ASIC) may also come to recognise the value that actuaries can add. Evidence of the demand for actuarial skills is also seen in the high proportion of APRA's graduate intake each year which is represented by actuarial graduates, most of whom do not deal specifically with actuarial matters on a day to day basis.

Countering this demand is the constraint imposed by remuneration levels for some positions. Although the regulators may be based in the capital cities, the physical location of federal government departments in Canberra is also a potential limitation in attracting actuarial staff to be government employees.

6.2 Australia – Banking, Finance and New Fields

6.2.1 Banking, Finance and Investment (Asset Management)

The Fitzherbert (2006) paper argues that until there is a corpus of skills or paradigms in the Banking, Finance and Investment (BFI) sector that is recognised as belonging to the actuarial profession, it is unlikely that the status of the actuarial profession in BFI would approach its status in the foundation fields of insurance and superannuation.

On the other hand, with regulators at both the supranational and national levels requiring that risk be measured and managed both in more granularity i.e. starting with market, then credit and now operational risk; and more broadly i.e. in banking, and then insurance and possibly superannuation and mutual funds in the future. There continues to be increasing need within the BFI sector for the application of financial modelling and problem solving skills that are at the heart of actuarial practice.

It was recognised in the work of the Banking Finance and Investment Taskforce that significant weaknesses required rectification to achieve all we could in this area:

- Training within the actuarial profession at all three levels.
- Positioning of actuarial qualification – FIAA & AIAA – with candidates and with the employers. This included the relevance of the actuarial qualification compared with Certified Financial Analysts (CFAs) or Masters of Finance (Applied, Quantitative and other types) qualifications; and the content of actuarial training being wider than merely insurance and superannuation.

The outlook is assessed as very positive, provided we can address these issues!

See section 9.3.1 for more findings of the Banking, Finance and Investment Taskforce.



6.2.2 Risk Management (as a domain)

There has been a solid start by the actuarial profession to take advantage of the foremost area of opportunity identified by the BFI taskforce i.e. enterprise wide risk management. As an example, ING Group (worldwide) has re-cast the Group Actuary to become the Chief Insurance Risk Officer. Insurance risk is viewed on par with market risk and credit risk. Standard & Poors (S&P) ratings agency used an Actuary to develop their Enterprise Risk Management (ERM) evaluation methodology which was added in October 2005 to the formal S&P credit rating process. The Society of Actuaries (SOA) has implemented several initiatives including publishing an ERM speciality guide. The US Actuarial Standards Board is considering whether Actuarial Standards of Practice are necessary for

ERM and will develop them if needed¹; and that ERM would be one essential component for Principles Based Reserves for Life Insurance.

The Enterprise Risk Management Institute International (ERM-II) initiative has been launched in which the Institute and the University of NSW Actuarial Studies Program are founding members of a global network.

The ERM Institute International, Ltd (ERM-II) is a non-profit educational and research organisation, initiated by an international group of universities and professional organisations with a focus on education, research, and training within an ERM conceptual framework, quantitative methods and tools, and best practices. Established to meet the needs and challenges of future risk professionals and enterprise risk managers, ERM-II has the following objectives:

-  **OBJECTIVE 1:** To develop and promulgate international standards for quantitative risk education intended to be the core foundation for risk managers in all major economic sectors including banking, insurance, investment, energy and other utilities, and non-financial industries (manufacturing, retail, transportation, health services, government, etc.).
-  **OBJECTIVE 2:** To promote multi-disciplinary, international, research in the emerging discipline of enterprise-wide risk management, by developing innovative concepts, effective quantitative tools and strategies.
-  **OBJECTIVE 3:** To help existing and future institutions and organisations to improve professional standards of education, conduct and competence in the modeling and management of risk on an enterprise-wide basis.

However, the challenges of training and brand positioning with students and employers still exist that can derail the ambitions of the actuarial profession in the risk management sector. To this can be added the need to expand the scope of risk management that is still viewed in some quarters as being only “measurement and compliance” and hence being viewed as a cost centre forever living on a shoestring – it needs to be firmly placed within the added value sphere of “risk management”. The BFI taskforce made it very clear that personal skills and attributes such as negotiation, marketing, presentation and business management are needed to succeed outside technical roles.

Again, the potential is assessed as very positive!

¹ Perrott(2006), G. A US Perspective on Enterprise Risk Management . Enterprise Risk Management Seminar July 2006

6.3 Australia – Other: Education, Management, Etc

6.3.1 Education

Employment of actuaries in education has grown over recent years with the growth of university enrolments in actuarial programs at Australian universities. A large part of this growth has come from international enrolments. Employment needs in university education are driven by student enrolments in the actuarial courses at both undergraduate and postgraduate level.

In terms of this demand looking forward, there is currently an excess of graduates with actuarial majors compared with the number of “recognised” actuarial analyst positions available. Nonetheless, graduates of actuarial programs, even though they do not gain recognised actuarial analysts positions, are still in demand since they gain positions in investment banking, banking, risk management, funds management and other quantitative analyst roles. As long as employment prospects for actuarial graduates including the wider investment, finance and risk management roles remain strong and university actuarial programs continue to attract high achieving students the student numbers should remain at their current levels. However, this may mean that the growth in local undergraduate student enrolments in actuarial courses is unlikely to grow over coming years. It has already been noticed that the number of local students enrolling in actuarial programs outside of Sydney have fallen in recent years and this may reflect the limited employment opportunities outside of Sydney.

International student enrolments are influenced by many factors including relative costs and the course offerings of overseas universities. Actuarial programs in Asia are developing programs to cater for the needs of their local students and European and North American universities actively compete for these international students, particularly at postgraduate level.

Employers overseas also often seek graduates with some workplace experience as typically gained from summer placement but Australian employers do not currently offer many of these opportunities. This ultimately makes it more difficult for international students studying in Australian universities.

In terms of Australian actuaries meeting these needs, this is limited by the lack of Australian actuaries with both professional Fellowship qualifications and PhD's. Very few Australian graduates from actuarial programs complete PhD's and so the main source of fully qualified actuaries with academic credentials may be from overseas in future.

To summarise, the lack of PhD trained actuaries and the pressures on student enrolments that may occur over the coming years may limit growth in employment opportunities for Australian actuaries in Australian university education.

Counteracting this, it is noted:

- Possibility of achieving better recognition of actuarial fellowship qualification towards a PhD at universities. This could help Institute members both within Australia and overseas.

- The potential for Australian universities to get involved in longer term International Actuarial Association (IAA) developments (see Section 8).

6.3.2 Other

There are a range of other areas where actuaries work in Australia, including management, energy sectors etc. The growth of employment in these areas can be expected to follow similar trends and on a similar basis as above for BFI.

It is noted that while problem solving skills and ability will likely be important for general success in these areas, the softer skills such as communication and leadership, are likely to be at least equally important.

6.4 New Zealand

6.4.1 Overview

The following gives a breakdown of members of the New Zealand Society of Actuaries (NZSoA) at January 2006:

	Fellows	Associates	Students	Total
NZ resident	98	2	93	193
Overseas	43	6	9	58
Male	115	6	68	189
Female	26	2	34	62
under 30	4	0	40	44
30 – 39	36	3	33	72
40 – 49	49	0	13	62
50 – 59	43	3	9	55
60+	7	1	1	9
Unknown	2	1	6	9
<hr/>				
TOTAL	141	8	102	251

There has been steady growth in the membership of the New Zealand Society of Actuaries. In 1998 there were 85 fellows of the Society. This number has grown by approximately 7% p.a. since that time. More than half of the NZ resident members are also members of the Institute of Actuaries of Australia.

6.4.2 New Zealand Environment

The work environment for actuaries in New Zealand has evolved over the last 20 years.

Back in the 80s, actuaries worked predominantly in Life Insurance and Superannuation disciplines. Some significant changes in superannuation occurred in the late 1980s including changes to the tax regime for superannuation.

Since then there has been a steady decline of Defined Benefit Superannuation Schemes and company provided schemes in general and an increase in Master Trusts. The introduction (due April 2007) of the KiwiSaver schemes may well continue this trend. This all leads to a decline in the traditional actuarial valuation type work and has seen superannuation actuaries move more into investment consulting and compliance consulting roles.

Consolidation of life insurance companies over the last 20 years and in some cases, moving of at least parts of the actuarial function offshore had seen a decline in actuarial numbers in the traditional fields. Conversely some factors in recent times have seen an increase in actuarial involvement in these areas, including:

- The advent of International Financial Reporting Standards (IFRS) requiring actuarial analysis and reporting of employee benefits and insurance liabilities;
- A review of the New Zealand tax regime for life insurance has been announced for 2007. This is likely to create more work;
- Reporting requirements from international parent companies;
- Domestication of previous Australian life insurers branch business in New Zealand.

The last 10 years has seen a significant increase in actuaries practicing in general insurance and health. Actuarial departments have been built in some of the larger general insurers and at the ACC as well as at New Zealand's largest health insurer.

6.4.3 Survey Results

Based on replies of 50 NZSoA members to a recent survey:

- Approximately 70% of fellows qualified through the UK Institute of Actuaries while 1/3 qualified through the Institute of Actuaries of Australia. There was a small amount of overlap with 5% of members having both qualifications and 2% having qualified through the US Society of Actuaries.
- The trend is reversed in respect of student members. 65% of students indicated they would complete their exams through the Australian Institute and 35% through the UK. The proportion of students choosing the Australian exams as their road to qualification is increasing. This continues the increasing relevance of the Australian Institute to the New Zealand market.
- Almost 25% of those surveyed list General Insurance as their area of work. Still 50% of the respondents work in the Life insurance industry.
- The bulk of the remainder work in consultancies, with a small number working for health insurers.

Members were asked what opportunities they see in the future for the actuarial profession. Almost 50% either did not respond or did not see opportunities in the next 5 years outside of the traditional areas. Of those that did respond:

- 1/3 saw opportunities in the banking sector;

- 40% listed risk management;
- Further opportunities were listed in commodity pricing, investment consulting, funds management, energy and forestry, complex modelling for corporates, project analysis, long term funding/planning for government and corporations, utility pricing, healthcare or health financing and capital management.

6.4.4 Conclusion

While the scale and the specifics of the work vary significantly between Australia and New Zealand, the big picture trends in employment areas are not dissimilar.

6.5 Asia Region (and the “Rest of the World”)

6.5.1 General Observation

Jules Gribble’s (2006) paper on estimation of “Actuarial Supply and Demand” uses an Actuarial Density metric based on national GDP as a proxy of actuarial demand. A major proposition in that paper is that current [traditional] actuarial demand growth is almost entirely sourced from the developing world whereas supply is from developed countries.

Depending on whether actuarial density of the developing world is to approach the lower density levels of the Continental European countries or the higher density levels of developed English-based economies, it is estimated that between 13,000 and 26,000 actuaries are required to meet just the existing shortfall.

If we estimate that, say, 15% of this shortfall is attributed to the BFI sector (similar to the current Australian profile), then this implies an immediate supply-demand gap of between 2,000 to 4,000 BFI actuaries worldwide. A further estimate is that Associate level requirements are about three times the Fellow level requirements implying a current shortfall of 6,000 to 12,000 Associates in just the BFI sector.

The mid-point estimate of a current shortage of 3,000 Fellows and 9,000 Associates in the BFI sector should be considered as potentially understating the true requirement as the risk management sector in financial services has a higher growth rate for employment than the traditional sectors of insurance and superannuation.

It is clear that unless the actuarial profession at the national and global levels act to fill this demand gap in the BFI sector, other disciplines will fill the shortfall at possibly lesser overall skill and competency levels to the detriment of the industry.

As economies in Asia and the Middle East develop, growth in the traditional employment markets for actuaries will be matched by growth in the regulation of those industries. The Australian regulatory system is viewed very favourably in those economies and Australian regulatory experience is much in demand. In such circumstances, the attractions of a role in the regulatory sector are enhanced, with the opportunity to have an even more significant impact in developing policy almost from scratch, while benefiting from overseas experience.

One difficulty for the regulatory sector as a whole is attracting analysts to stay in the area and develop skills. In Australia only a handful of analysts studied the IAA’s

superannuation subject last semester and experienced superannuation analysts are being 'lost' to other areas of actuarial practice.

6.5.2 *Asia Outlook - Opportunities*

There is a lot of work, and increasing work, for actuaries in both superannuation and employee benefits.

Multi-national companies are taking tentative steps into having valuations completed in Asia although this is likely to affect the US and Europe before it affects Australia.

One of the main challenges in Asia is the level of experience. Actuaries require consulting skills, local knowledge and language skills.

As at Sept 2005, 118 Institute of Actuaries of Australia Fellows list their geography as within Asia, this is approximately 10% of the total Fellow level membership. The Australian Institute's GI expertise is widely respected in Asia, and through the diligent work of the Australian representatives on the IAA and ICA, strong relationships exist with senior PRC actuaries and officials.

As noted above, the Gribble (2006) paper suggests that the outlook for actuaries at both Fellow and Associate level is for strong actuarial demand growth in Asia i.e. a mid-point estimate of 12,000 Fellows and Associates. Life and superannuation products are still largely traditional meaning that our foundation skills in life and superannuation are a good fit with Asian life office and superannuation requirements.

6.5.3 *Asia Outlook - Threats*

However, challenges and threats exist. At the Australian Institute level, the pass rates for the Part III exams for Asian candidates are appallingly low. Perhaps the technicalities of Australian regulation in all areas of financial services is too large a barrier to cross for students who are not working in Australia. If so, should the Institute fund special regulatory training for overseas candidates, or alternatively reconsider the content aspect or how we examine it, in our courses? The dominant education providers are US and UK based with consequent flow through to membership of the respective national actuarial bodies.

The mismatch that the Gribble (2006) paper highlights of excess supply in developed countries and shortages in the developing world (mainly Asia) poses the question of whether the market will somehow cause supply to literally move to where the demand exists. If it is assumed that pay rates and other employment conditions are higher in developed countries, then the most skilled actuaries who can expect to attract the highest level of remuneration will choose to remain employed in developed countries whilst lower pay rates and conditions in developing countries will only be attractive to lesser skilled or lesser experienced actuaries or where the Actuary receives non-monetary compensation (this latter factor should not be discounted). In either case, the challenge is to ensure that early stage and late stage professionals are somehow properly equipped for mobility either through their personal efforts and/or Institute initiatives. Mobility skills should not be merely technical, e.g. international regulations and market practice, but also the range of

soft skills such as mentoring, training, self-sufficiency, inter-cultural management and leadership to name just a few.

7. SWOT & Employer Demands

In Section 4 an indicative “SWOT” underlying the current strategic Plan of the Institute and its members was set out. In the immediately preceding Section 6, various observations and propositions were put forward with various caveats as to our skills, branding and positioning.

This Section provides some comments on how we might stack up against our ambitions and what employers are “looking for”.

7.1 *Society of Actuaries (SOA) “Employer Market” Survey*

In late 2003, the SOA completed a survey of employers focusing on their needs and wants for actuaries and those we compete against. The Survey covered:

- 331 respondents (this represented a 22% response rate). The majority of the respondents identified themselves as “department head” or “direct supervisor” for the staff to be employed, or were senior to these positions.
- Across a range of organisation sizes and geographies.
- Across a range of sectors: insurance, reinsurance, consulting and “broader financial services” (commercial and investment banking, funds managers, etc).

The main report from the survey extends to approximately 30 pages. It is not intended to reproduce all the analysis here, but rather note some key points.

7.1.1 *Basic Approach*

An electronic survey was sent to a cross section of individuals that had responsibility for hiring actuarial staff and/or competing professionals such as MBA’s, accountants, CFA’s and Finance PhDs. The survey asked a series of questions about the attributes sought, relative strengths and weaknesses of the different professionals and expectations looking forward (with results typically ranked on a scale of 1-7 of importance).

Importantly, the questions and results sought to not only obtain absolute results for actuaries, but relative results measured against our competitors.

7.1.2 *Roles and Competitors*

For insurance, reinsurance and consulting:

- SOA actuaries (and their competitors) were principally being hired for work in (a) product development and pricing; (b) financial valuation, reporting, planning and analysis; and (c) risk management.
- Their main competitors are CFA’s, accountants and MBA’s.

For broader financial services:

- SOA actuaries (and their competitors) were principally being hired for work in (a) asset/funds management and investment; (b) risk management; (c) financial valuation, reporting, planning and analysis; and (d) financial advising.
- Their main competitors are MBA's, finance MA's or PhD's, CFA's and accountants.

7.1.3 Actuary Relative Strengths & Weaknesses

The respondents rated SOA actuaries as follows (in broader order of significance of ranking):

	In Absolute Terms	Relative to Competitors
Higher Ratings (Strengths)	Ethical Quantitative (modelling) Solving complex problems Financial assessment and reporting	Quantitative (modelling) Financial assessment and reporting Industry knowledge Solving complex problems
Lower Ratings (Weaknesses)	Bold, takes informed risks Business communication Proactive Can focus on big picture Business acumen	Proactive Bold, takes informed risks Can focus on big picture Business communication

These rankings and results basically held true across the industry sectors surveyed.

7.1.4 Subtleties in the Detail

However, there were some subtleties in the results to note. While the above results were broadly consistent across sectors:

- The strengths in modelling and financial assessment were seen as similarly strong across all 4 main sectors. However, the strengths in industry knowledge and complex problem solving were not seen as strong (absolutely) moving from the traditional to the less traditional fields.
- Against this, in the less traditional fields, the competitors were seen as having strong (similar) problem solving skills and industry knowledge, and strong (but not quite as good as actuaries) modelling skills. It was principally in the traditional actuarial fields that the Actuary strengths were perceived as greatest.

- On the weaknesses fronts, the situation was almost the mirror image. The extent of the actuaries' weaknesses (relatively and absolutely) were not too bad in the traditional fields, but the gap grew and the extent of the weakness in absolute terms grew, moving to the less traditional.

7.2 Relevance to the Institute & Our Members

A key issue is to what extent SOA members provide a close representation of the Institute membership and to what extent do the views of US employers and industry reflect those in Australia and the countries in which our members mostly work.

While there are various differences that can be identified, including the SOA focusing more on traditional life insurance and pension actuaries than general insurance, and various industry and regulatory differences between the US and elsewhere:

- The survey was not only of US employers, it covered a range of countries with its respondents.
- SOA has a history, education standards and professional focus not that different to ours.

On the balance, and given the nature of the results emerging that are not very different to the anecdotal observations made by, and to, our membership over many years, the V2020TF suggests the above results would not be far off the mark for us also.

7.3 UK Institute Survey

The UK Institute of Actuaries has also recently conducted a survey of employers of actuaries. The detailed results of that survey are not currently publicly available. However, the following high level results have been indicated:

- The survey related to some key current employers of actuaries.
- The overall employment outlook was "stable to growing", although issues were noted around automation versus needs for "trainees", declining defined benefit pension fund work, short term demands versus longer term when "all the problems are fixed", continued (increasing) demand for "high level" skills.
- There was a general satisfaction with the quality of recruits and their basic training.
- However, there is a general feeling that the actuaries being produced were too "techy" with a desire for more "rounded" or "business focused" actuaries. A concern is that the long qualification period may deter the more rounded candidates.
- Communication skills were seen as a key attribute wanted, as well as an ability to work in multi-disciplinary teams. Looking for management and influencing skills. These attributes are seen as critical to success in the "wider fields".
- Employers generally support the concept of the "associate" level as a qualification goal, with "fellowship" as an extra-specialist qualification.

7.4 Taskforce Comments and Observations

The key comments and observations we would make on the above are as follows:

- We (as actuaries and as an Institute) often place significant store in our ethical standing as a “plus”. The results of the SOA study show that (a) this is acknowledged by our employers; but (b) actually doesn’t rate much relative to our competitors. That is, ethical behaviour is somewhat taken as a given for us and our competitors.
- The key skills we believe we have (modelling, complex problem solving, financial analysis) are indeed seen as our strengths. However, as we move away from our traditional employment fields, the level of difference between actuaries and our competitors is not perceived to be as great.
- If the difference between actuaries and our competitors are as great as our traditional employers believe (but beware, some of these respondents may be actuaries with a “rose coloured” view) we have some marketing to do in the non-traditional area. Otherwise, the actuarial product may require some boosting. The truth is probably in-between.
- Our key weaknesses, in both absolute terms and relative to our competitors, relate to a perception (reality?) they we struggle to get above the detail – to see the big picture, proactively identify the issues and communicate clearly (and simply?).
- We are not seen to be “bold”.
- Whether it is for actuaries acting as valuers, risk managers or measurers to be “bold” is an interesting point, but clearly some action in the space of clear communication skills is important.
- Nonetheless, it perhaps should also be noted that to the extent that we have a higher proportion of younger/developing members in the newer fields of work with a higher proportion of more experienced members in the traditional fields, the trend of “communication weakness” across fields may somewhat reflect the underlying relative experience profile of our members in these areas. Consequently, some part of the particularly low ranking in the newer field may improve in time, but this should not be taken as a recommendation to do nothing now!

7.5 Summary

Employers are looking for actuaries who are problem solvers, those who can look beyond the number crunching and calculations to identify the problem and determine a practical solution. Actuaries need to be adaptable to change, adaptable to a changing employment environment, legislation, technology, and able to work with multi-disciplinary teams.

Communications and “influencing” skills are seen as weaknesses that require enhancement to reach our potential in all work areas.

8. Education & Continuing Professional Development (CPD)

As indicated in Section 3, the largest component of the activity of the Institute centres on firstly the education of new fellows (over 30% of total Institute effort however that may be defined or measured) and secondly the development and maintenance of our members skills thereafter (almost 30% of Institute effort).

This section of the paper provides some observations and comments on the current activities and outcomes.

8.1 *Base Level Education – “Part I”*

At the current time, the vast majority of Australian students achieve their Part I education via one of the four universities that provide specialist actuarial courses in Australia. While it is possible to still achieve the Australian Part I via the UK institute courses, this route is not materially used any more.

8.1.1 *New Student Profiles & Expectations*

Enrolments in Australian university actuarial courses (in universities), especially where there is a demand for students and employment opportunities have remained strong, mainly driven by high entry standards, the generally good job outcomes for graduates and the reputation of the university courses. Entry requirements are very much driven by the enrolment numbers required to maintain a viable university program. As long as demand for actuarial courses remains strong the courses are expected to attract high achieving students from amongst the best students from high school.

International students have become an increasing proportion of students enrolling in actuarial programs at Australian universities. This reflects the high reputation of the university programs at an international level, particularly the highly ranked Australian universities in international rankings of Asian universities. Budget imperatives for Australian universities support these enrolments and marketing efforts by universities to ensure that these students are attracted to Australian universities.

Although competitive at the undergraduate level for international students, the market for graduate students entering postgraduate level is more competitive internationally with the US, Europe and increasingly Asian universities in cities such as Hong Kong and Singapore competing for the best postgraduate students in actuarial science.

Employment prospects outside of Sydney for actuarial analysts are limited and alone may not be sufficient to support viable university undergraduate programs. This likely means that university programs outside of the main financial centres will need to attract international students to maintain viability.

Most students enter the actuarial courses with an aim of gaining professional recognition for their studies. Qualifying as an Actuary and attaining an attractive remuneration and satisfying career using their quantitative skills would be the main expectation of most students in university actuarial programs. Opportunities outside of the actuarial analyst roles are increasingly being recognised as career paths for actuarial majors and a wider

range of employers also recognise the rigour of the actuarial courses and the academic quality and work ethic of the graduates.

Students with strong mathematical backgrounds are attracted to the actuarial programs with limited specific selection of students with other work skills or characteristics. Successful students and members of the profession from the university actuarial programs do raise the profile of the university actuarial programs with high school students and other entrants. Entrants to postgraduate actuarial programs generally have a wider range of other skills but the viability of postgraduate programs requires strong enrolments and may be at risk with an increased number of programs on offer.

8.1.2 *Observations on Part I in Australia*

The Part I courses are offered by Australian universities through the accreditation requirements of the Institute of Actuaries of Australia and also through exemption arrangements with the UK Institute (London) and Validation By Educational Experience (VEE) recognition by the Society of Actuaries. The focus of this accreditation process is mainly on the Core Training (CT) syllabus of the UK Institute and its coverage by Australian universities including actuarial staff qualifications and assessment.

There is currently a limited ability for universities to adopt a coverage or assessment process that departs from that in the accreditation requirements even if these are based on pedagogical motivations or modern course developments.

Students who do not achieve the exemptions standards in the university actuarial courses will need to be able to complete the courses through the UK Institute examinations as will students who are unable to complete an accredited actuarial course. The UK Institute CT courses and examinations are available for completion by distance study. This is not the case for the undergraduate actuarial courses offered by Australian universities. This situation does reinforce the need for a close correspondence between the CT syllabus of the UK Institute and the Australian university courses.

It is widely recognised that graduates, including actuarial majors, need a range of skills apart from the technical skills of the actuarial syllabus. These include communication skills, teamwork, business awareness, negotiation and other soft skills. The accreditation process does not address any of these skills apart from the technical skills. If the development of these skills was to be made more a focus of university education then the accreditation process would need to be modified to assess assessment tasks and other formal or informal courses and methods used by universities to develop these skills or at least to provide graduates with the opportunities to develop these skills.

Some of these skills have been better developed by a number of university programs and the broadening of the courses covered in a typical actuarial program to include more business courses and courses that use alternative assessment tasks such as report writing, group projects and more interactive classes are steps in this direction. Combined degrees have also opened up a broader range of student learning experiences in the university courses.

The offering of distance education programs requires a substantial commitment of resources. At present no Australian university offers the CT subjects by distance education. The relatively small numbers of students who would complete the course by distance is unlikely to justify the resources required to successfully offer a distance program.

Postgraduate programs can offer a wider range of more advanced courses and universities also provide research programs and research training. Recognition by the Institute of Actuaries of Australia towards professional membership of more advanced courses and research programs would enhance the value of postgraduate university programs in actuarial studies.

Many students complete the university actuarial programs without full exemptions from the CT courses but still gain a valuable major and have valuable employment opportunities generally outside of the actuarial graduate roles. Recognition of students who complete actuarial majors at accredited universities as Associate members would encourage these students to join the profession. They may also go on to complete the CT courses for exemptions. Students from these programs with all of Part I and Part II could then be recognised as Senior Associates.

The International Actuarial Association's international syllabus provides a broader coverage of the technical areas that must be covered in the actuarial courses than the detailed CT syllabus from the UK Institute. This syllabus structure allows room to include more institutional details relevant to Asian (including Australian) students, while at the same time maintaining an international perspective. At the same time the CT courses are covered in the syllabus framework. An approach to a syllabus aligned with the IAA international syllabus allowing the detailed UK CT syllabus to be adopted under the accreditation requirements for Australian universities would be a potential enhancement to the current requirements.

A background to business is important for any area of graduate employment. This can be gained by providing background and motivation in the university courses, from guest lectures by industry practitioners as well as summer internships. Offering of summer internship and other student work place experiences can have an immense value for future graduates and for their motivation to succeed in the actuarial courses and to enter the profession.

8.2 Actuarial Control Cycle – “Part II”

8.2.1 Current implementations

The Part II courses are taught at the accredited Australian universities. Courses are offered face-to-face and by distance and in both undergraduate and postgraduate course offerings. Each university has an external examiner who is responsible for assessment and standards for gaining the Part II.

8.2.2 Issues

The Part II courses are really capstone courses for the Part I courses. They form a base for the later professional courses and examinations but the main focus is on application of the technical skills and judgmental issues emphasising, in particular, relevancy and importance, as well as introducing professional judgment issues and the place of the Actuary in the management of a financial institution.

Owing to the dynamic nature of the financial environment, the course content needs to be updated regularly so as to be relevant to current management practices in financial institutions. The course should aim to ensure students acquire skills that enable them to add value to an employer and to have an appreciation of the business environment. The course coverage needs to be broad and to allow the universities to adapt the course coverage as the financial sector develops. There appears to be some overlap in the objectives of Part II and the Commercial Actuarial Practice course in the Part III.

It would be preferable that some of the institutional background and the basics of risk management in a financial institution were covered as an integrated part of the Part I courses. Otherwise this material needs to be introduced as a framework in which the student will be working in their employment, and to give a risk framework to the explanation of how the Part I technical skills are applied in practice.

The Part II courses are an opportunity to develop a range of business skills including communications skills.

8.2.3 US and Understanding Actuarial Management (UAM) textbook

The first edition of the Australian control cycle (UAM) text book has been very successful and is now used significantly by overseas bodies and teaching institutions. This is a strong plus for our recognition and reputation for associate level education.

However, the current text book is in need of a significant revision. It currently requires supplementation by a collection of relevant papers and by face to face teaching. It is not a course that can easily be taught solely online or by correspondence. Textbooks will be designed for different audiences with different objectives. It is important to encourage a range of texts to be used in the course if it is not possible to provide up to date and relevant material in the form of a text for the course.

It is arguably important to maintain the position of the UAM textbook to best leverage it for desirable education delivery and membership outcomes.

8.3 Fellowship Subjects – “Part III”

The Part III education program provides students with an opportunity to develop specialist professional skills and competencies in their chosen practice area, to develop a general understanding of the investment practice and asset management in liability-based areas and to apply actuarial skills across a range of traditional and non-traditional areas. The Part III program also focuses on developing skills in relation to the application of ethical concepts and actuarial professional standards and the communication of actuarial solutions and approaches.

8.3.1 The 2005 Part III Overhaul

Following a substantive review of the Part III course structure, major modifications and updates were made, and successfully introduced in 2005, to Part III.

The Part III education program now comprises two compulsory subjects in Investments and Commercial Actuarial Practice (CAP) in addition to the student’s chosen specialist subject which is chosen from, amongst the current offerings of: (a) Life Insurance; (b) General Insurance; (c) Superannuation and Planned Savings; and (d) Investment Management and Finance.

The CAP course is an entirely new course focused, in particular, on improving competencies in communication and business application (two important aspects referred to in a number of places in this paper).

In addition, the courses are now currently intended to be offered twice a year (two semesters).

Notwithstanding the huge effort involved in this implementation and the many successes achieved so far, two significant issues are noted:

- Pass rates.
- Delivery and resourcing strain.

8.3.2 Part III Pass Rates

As the last stage in the actuarial education pathway, the Part III program is the final hurdle for those wishing to progress to Fellowship. The Part III program pass rates determine, to a large extent, the number of new Fellows the Institute receives each year.

The table below indicates that Part III pass rates (excluding the new CAP course) have averaged 36% over the last 11 years.

Year	Pass Rate
Semester 1 2006	37%
Semester 2 2005	34%
Semester 1 2005	30%
2004	29%
2003	35%
2002	35%
2001	35%
2000	35%
1999	44%
1998	36%
1997	38%
1996	44%
1995	42%

The new CAP course has so far shown a much higher pass rate, around 70%. Nonetheless, this comes after three other courses with rates per the above.

The table below compares average pass rates for the equivalent to Part III education at the UK Institute, Casualty Actuarial Society and Society of Actuaries.

Society	Average Pass Rate
UK Institute of Actuaries	40%
Casualty Actuarial Society	50%
Society of Actuaries	50%

Even allowing for the better CAP pass rate, the Institute's overall Part III pass rates will need to improve to just match the pass rates of other international actuarial educators and to generate meaningful growth in the numbers of new Fellows.

8.3.3 Part III Education Review (Baker Review)

In response to a lower than expected Part III pass rate, the Institute of Actuaries of Australia Council requested that an independent review of the Part III program be conducted in 2005 with a view to the review making recommendations that would improve the pass rate without compromising the Institute's education standards. Professor Tony Baker from the University of Technology, Sydney conducted the Review which found the Part III program to have high quality curricula and world class assessment processes but weaknesses in its pedagogy. The Baker Review made 29 recommendations for the Part III program ranging from maintenance of the status quo in certain areas through to the introduction of performance objectives for all Part III courses.

Work on implementing the Baker Review recommendations is well underway with most recommendations now embedded in the Part III program. The introduction of performance objectives for each Part III course is being staged over the next 2 years.

Pass rates have improved in all practice areas over the last twelve months. The table below shows pass rates increasing from 2% on the previous semester in Life Insurance to 17% on the previous semester in Investment Management and Finance.

Practice Area	Pass rate Sem 1 2006	Pass rate Sem 2 2005
Life Insurance	32%	30%
General Insurance	45%	35%
Superannuation and Planned Savings	46%	38%
Investment Management and Finance*	46%	29%

* Pass rate for core Course 1 Investments is not included in Investment Management and Finance figures.

While this shows a good improvement, these rates are still well short of comparable rates for university courses or many other professional bodies (and are still below or no better than the other institute/society rates above).

8.3.4 Long Term Associates and Students

A consequence of the above rates is that many students and associates take a number of years, with more than 5 years not uncommon, to qualify.

While not wishing to over analyse the situation, the following table shows the current number of associates and students that have not qualified after more than 5 years of membership (at least 5 years of study):

Year Started	Associates	Students
1990	2	2
1991	2	3
1992	7	6
1993	8	5
1994	8	4
1995	11	6
1996	4	2
1997	24	4
1998	7	19
1999	38	32
2000	43	28
2001	45	61

8.3.5 Resourcing Part III

The Part III program is resource-intensive, as the number of enrolled students grow and the range of courses slowly increases, more is asked of the large number of volunteers that are required to ensure the program is operational. The two semester program, although highly attractive to students, compounds the strain on the system, creating tight timeframes for the review, production and marking of assignments and examinations.

The Institute is a high level tertiary education provider for approximately 500 part-time students; however, it operates a paid full-time staff of 3.4, in addition to part-time contract actuarial staff totalling 3. Merely managing the current operations stretches the paid and unpaid staff.

8.4 Continuing Professional Development (CPD)

8.4.1 Recent changes, current approach

The volume and content of CPD events has been greatly increased over recent years. It was not that long ago that Institute instigated CPD events comprised a biennial conference and 10 or 11 Sessional meetings through the year, with the odd issue specific business workshop here and there along the way.

The Institute now runs a biennial conference, biennial financial services forum, biennial general insurance seminar and biennial accidental compensation seminar, monthly Horizons meetings, Insights meetings at least monthly and often in a range of locations, and a range of other more regular workshops and presentations.

Nonetheless, feedback from a members' survey in 2005 revealed that members would value more opportunities for networking and a greater sense of belonging to a professional association / community.

With this in mind, two new programs were launched during the year, the Senior Actuaries' Forum and the Young Actuaries' Program. These Forums provided an opportunity for firms' Senior Actuaries to be briefed on and discuss the practical aspects of the new Professional Standards including the Code of Professional Conduct and the PS1 – Continuing Professional Development.

The inaugural event for Young Actuaries was held in September and featured a presentation by the Institute's CEO, John Maroney, on "Maximising Your Career Potential". Over 100 actuaries attended the event in Sydney and attendees appreciated the opportunity for networking both before and after the event.

8.4.2 *Success / Issues*

The major seminars (two and three day events) continue to grow. The 2006 Financial Services Forum attracted over 300 professionals and the 2005 General Insurance Seminar also attracted a record number of professionals as this practice area grows.

Whilst the Institute has a wide range of event based CPD programs catering for different segments of the membership, there is no e-learning which would assist more remote members, including those based overseas. The Institute does audio record all events including the major seminars, Horizons and Insights meetings which are accessible via the website, but this is different to online learning.

The proposed health insurance course to be developed over the coming year will be the first foray into online learning which is hoped to be offered in 2007. Other programs could potentially follow allowing members to study at any time from any location.

9. Membership & Stakeholder Feedback

In this Section of the paper we canvas a number of other relevant sources of input and consideration to the subject at hand.

9.1 *Membership Input*

Two recent sources of input from members are noted and summarised below.

9.1.1 *Beaton Survey Results.*

In late 2005, the Institute participated in a survey that involved a number of professional services organisations. The survey involved a survey of all of the membership of each of the participating organisations and asked respondents to rate their organisation on various dimensions.

The following high-level, generalised observations are noted:

- The response rate was 22% and appears to be a reasonably representative sample.
- The main reasons members gave for joining the Institute were:
 - About ¾ to comply with job requirements. Note: ¼ not so.
 - Education and skills development, keeping up to date, access to information.
 - Sense of belonging, networking, promotion of high standards, representation.
- Overall, the Institute rated only “OK” to “fair” in terms of meeting member expectations on most of these aspects.
- Items in the “bottom right hand corner” (performance below relative importance) included education, sense of belonging, extending recognition of the profession with employers, and access to information that assists members with their job.
- Items in the “top left hand corner” (performance above relative importance) included government representation, promotion of high professional standards, keeping up to date with issues, R&D.
- “Hot buttons” from specific feedback included the need to “fix Part III” (pass rates), fix the website, need to develop the Institute offering relative to trends in members’ roles, being Sydney/Melbourne centric, raising the profile of actuaries, more “involvement” for younger members, and reduce fees and event costs.
- There was some variation in responses by member profile (age, location etc), but the general results had a reasonably consistent theme.

9.1.2 High Level Membership Survey

During the course of the V2020TF work, a high level membership survey was conducted. This focused on asking a few, somewhat provocative questions.

As part of developing background and context for the taskforce, we set up an on-line survey of members asking questions about the future direction of the Institute. A copy of the survey, along with a summary of responses is in Appendix A.

Throughout the survey respondents were offered the opportunities to provide comments. This was widely taken up, with many of the comments clearly passionate about the direction of the Institute. In the main we have not reproduced comments in this summary, but a sample is set out in the Appendix.

Overall we received only 84 responses with a majority (48) from Fellows with more than 10 years post qualification experience, and only three responses from Students. Overall the response rate was disappointing: a low proportion of the total membership and a clear bias towards more experienced members (but the survey comments were clearly heartfelt). It is important to view the results in this light. We are considering re-running the survey (or similar) post circulation of this paper.

The broad results from the survey were:

- Roughly two thirds of the responses supported retaining the term Actuary for fellows and accredited members only, with the other third seeking to extend usage to associate or some form of “associate plus”. No support for extending the definition more widely. Both groups broadly followed the underlying demographic of the survey, but with a slight relative bias towards associates and fellows 10+ supporting the wider definition.
- In a related question, 59% supported introduction of practising certificates, albeit that only 53% of the fellows supported this.
- On the education questions there was strong support for shifting towards a more market related remuneration for those supporting the process (71% in favour) with 76% also supporting increased fees to ensure quality. The underlying demographic of both questions broadly followed that of the overall survey (and all 3 students supported both).
- 57% of respondents thought that students should pay the increased fees, although there were a couple of comments to effect that “employers pay anyway”.
- In terms of newer actuarial fields likely to develop most over 10 to 15 years, respondents ranked risk management ahead of health insurance, followed by banking, investments and finance. In the “other” category, energy and environment received a couple of votes, and the comment was made that banking, finance and investment boundaries are likely to become more blurred.
- More general comments included “risk management is not a separate area” and “risk management ... seems to be a natural for the actuarial profession.”

- In terms of institute support for new areas of work the majority prefer that the Institute only support areas once members have started working in an area, with just over a third supporting active Institute development of new areas.
- In the context of Asia and Oceania, roughly 10% of respondents felt the Institute should focus purely domestically, with the remainder evenly split between active and more passive promotion in the region.
- There was 60% support for a single global actuarial qualification, and 74% support for eventual international unification, but only 69% expecting that it will occur. Despite the apparent support, many of the comments focused on the pitfalls of international convergence.
- 63% of respondents believe they get value for money from the Institute, and this proportion was similar for both self and employer funded respondents. Whilst there were a number of comments around fees being too high, many focused on the services received for the money.

9.2 **Recent Presidential Addresses**

It has been established practice that at the beginning of each year of office, the President publishes a “Presidential Address” that sets out a number of views and comments about the current direction and issues for the Institute. To the extent that the thoughts contained in such addresses reflect the considered, and typically researched, views of senior members of our Institute, it would be appropriate to reflect on some of the more recent views of our current and recent Presidents.

The V2020TF offers the following (arguably overly abridged and grossly simplified) summary of some of the relevant themes reflected in, or inferred from, the last few Presidential Addresses:

- The world we live in is changing; this is inevitable. We need to change with it. We need to continue to demonstrate “value” to our employers. This means both maintaining/enhancing our standing with respect to relevant technical skills (financial modelling, risk management, financial economics) and enhancing the value of our application of those skills (communication, “team” work and being proactive).
- There is no future in standing still. Sufficient R&D is part of not standing still.
- Our membership is growing and our areas of work are expanding into newer areas. There seem to be a lot of employment opportunities for members.
- However, recent growth rates are slower than previously and Part III pass rates remain an issue. Improvement on pass rates in the near term is very important, as is “fixing” Part III (course content, delivery, results and use of volunteers).
- There is a desire to improve our representation in new areas, with areas such as “banking and finance”, health and risk management *beckoning greater actuarial contribution*. The relevance of our skills, our branding, thought leadership recognition and dealing with competing qualifications (e.g. CFA) are issues to confront. There has been general support for the Institute to more proactively lead the profession into the

banking and risk management space (contrary to previous trends of following members).

- The development of educational and CPD material and content to support the expanding skill set needs to be a focus area for success. It is reasonable to consider alternative ways to deliver “Part III” education solutions across this expanding educational landscape, including using universities, e-learning methods, and leveraging CPD based accreditation. The breath of some of these subject areas and whether one can be a specialist in, say, “banking and finance” presents some challenges in the context of our current educational framework.
- A related issue is to efficiently support declining areas of actuarial practice. Maintaining a full Part III overhead for a handful of students is a problem.
- Consideration should be given as to at what “level” do we reserve the title “Actuary”. Perhaps at the “senior associate” level.
- This is linked to a need to support and meet the needs of our expanding membership base practicing in ever broader practice areas, particular those where a full “fellowship” level qualification (on the current content) may not be needed or valued. An issue is how to retain these professionals as members of our Institute. A related area is the potential change from an “industry practice area” focus by the Institute to a “domain skill” focus.
- We need to maintain appropriate professional standards, consistent with evolving community expectations, as well as being ready to deal with the inevitable failures from time to time.
- Adequate and ongoing CPD forms a cornerstone of many of the above issues.
- A desire to expand our involvement outside Australia; to better meet the needs of our members in New Zealand and Asia, to have a more robust “footprint” in Asia, and better leverage the potential opportunities and benefits of a growing International profession.
- Ongoing support for the involvement and contribution of the Institute in public policy issues. Similarly, support for doing more to help with meaningful financial reporting.
- To achieve our goals we need a combination of vision, purpose, leadership, boldness, commitment and tenacity. Ability to work with others is also needed. These qualities have significant alignment with the enhanced skills employers are looking for: seeing past the numbers, influencing and communication.

9.3 Recent Institute Reviews & Taskforce Reports

9.3.1 Banking, Finance and Investment (BFI) taskforce

As noted already in this paper, there are approximately 15% of Fellows, and at least 12.5% of all members, of the Institute had listed BFI type work as their main practice area. In terms of the current status of actuaries who are employed in the BFI sector, the BFI taskforce concluded that the role of the actuarial profession is ill defined and undervalued.

Five areas of greatest opportunity identified by the BFI taskforce were:

- Enterprise wide risk analysis in financial institutions.
- Capital management and allocation in financial institutions.
- Credit risk analysis and credit derivatives.
- Derivatives structuring and sales; and investor analysis and execution.
- Structured Finance.

9.3.2 Risk management taskforce

The Risk Management taskforce recommended moving forward in a collaborative effort with other risk professionals within Enterprise Risk Management (ERM) with three objectives:

- To develop and promulgate international standards for quantitative risk education that are intended to be the core foundation for risk managers in all major economic sectors;
- To promote multidisciplinary and international research in the emerging discipline of enterprise-wide risk management by developing innovative concepts and effective quantitative tools & strategies; and
- To help institutions and organisations to improve professional standards of education, conduct and competence in the modelling and management of risk on an enterprise-wide basis.

Foundation universities across three continents (North America, Europe and Australia) have established postgraduate courses to accredit and improve the competencies of risk professionals by ensuring a minimum level of technical competence and sufficient breadth across mathematical, economic and statistical tools required to conduct sound quantitative risk analysis.

In the meantime, the Institute has formed a Risk Management Practice Committee (RMPC) with industry, institute, regulatory and academic membership. This RMPC has decided to focus on FIAA CPD, ERM education requirements, and Part III outcomes.

An initiative in this regard is investigating a pilot program that uses the masters level ERM postgraduate program of the UNSW (one of the Foundation universities referred to above) so as to align with ERM specifications, interface with existing university course material, and link with evolving professional services requirements in the same pattern as the FIAA program.

It is envisaged that this would provide an understanding of how a Part III specialisation in Risk Management could be delivered using a mix of postgraduate university courses and Part III type Institute programs.

The progress of the RMPC is still in its early stages at this point in time.

10. Other Important Activities & Relevant Input

10.1 Public Profile & PR

As part of recent Strategic Plans, the Institute has placed considerable emphasis on raising its profile with government, regulators, public focused institutions (e.g. AASB) and the public sector generally. This has included “informing public debate” on a range of matters. This has included both making a plethora of submissions as well as direct liaison with politicians and public sector individuals generally.

Actuaries have enjoyed a significant increase in recognition within the political environment, which is likely to have had follow on consequences (at least has done no harm) with respect to recent developments in regulation such as the introduction of the Appointed Actuary roles in general insurance and health insurance.

Nonetheless, this activity, while highly beneficial in a public profile sense and perhaps also individually gratifying for many of the actuaries involved, does absorb a large amount of the active, voluntary (and indeed employed) resources of the Institute. This raises the obvious questions:

- Should we continue to devote the resources we have to this activity (in relative or absolute terms)? Will the marginal gain achieved be worth it?
- Given the issues identified elsewhere in this paper, should be looking to spend some of resource and effort more directly on the private sector that tends to actually pay our wages and fees? If so, what should this focus be?

10.2 Governance & Standards

As noted in the introduction, the Institute and the membership has spent considerable resources over recent years in the areas of membership governance and standards. This has included, inter alia:

- The Corporate Governance Taskforce, the Professional Standards Taskforce.
- Various specific event and issue taskforces (e.g. HIH).
- Review of the Code of Conduct, Disciplinary Scheme and CPD Standard.
- Implementation of the Professional Standards Committee and instigation of a process of review and rewrite of all our Professional Standards. This will also include a process of biennial review of all professional standards in future.
- Development of the External Peer Review standard.
- A review of all practice guidelines isn't too far away.

This raises the obvious question of whether we have now done enough? Are there issues for the longer term Institute strategy involved going forward?

The V2020TF has not identified any specific points for prospective change in direction.

Nonetheless, it is anticipated that community standards will continue to evolve and new issues will be likely to arise. On this basis, if nothing else, the Institute should ensure that our governance structures are reconsidered and reviewed from time to time (say every three years). But this does not constitute fundamental strategic direction change.

Apart from standards and rules, other aspects of the Institutes governance involves items such as the management structure of the Institute itself. The status/responsibilities of the CEO, the “Presidents” structure and term of the President, basis and structure of Council and its role as a “representative” body for the membership versus its role as a corporate board of review and management of the Institute.

Again, while it is likely events will see various evolutions on these fronts over time, the V2020TF does not see specific strategic directional changes involved for the Institute at the macro level.

Having said that, one issue to note is that in the event of a successful implementation of a strategy involving the Institute having members from a broader range of practice fields in future, operating in a wide range of jurisdictions in our region, the ability of the Council to realistically continue to play a “representative” role in future will become increasingly difficult. A move away from the current large (15+ member) Council trying to incorporate this representative dimension is perhaps an inevitable future outcome.

10.3 *Dealing with Problems / Actuarial Failure*

The UK regulatory experience for actuaries has been, if anything, negative following the Equitable collapse.

In Australia, the regulators have reacted differently to HIH by significantly strengthening the actuarial role. This is creating / has created a situation of strong Australian reliance on actuaries in a range of insurance fields.

If it is inevitable that we will have another “problem” event, what will the reaction be then?

Whilst we believe that demand for actuaries is going to be strong for many years, an adverse outcome, or a poorly managed outcome, could result in significant damage to these ambitions. Reputations are hard earned, but easily lost.

A strategic issue for the Institute is to ensure we are well placed to deal with, and manage, the inevitable.

Should we be looking to have in place an Institute “Business Continuity Plan” for the next actuarial “disaster”?

10.4 *Research and Development and Domain Development*

As indicated by the current strategic plan, research is one of the critical components in enhancing the position and influence of the profession. Research is critical to the development of compelling thought leadership which, in turn, will:

- Enhance the positioning of the profession as being relevant and sought after;
- Ensure relevance to matters of public interest and business application ;

- Support targeted areas of practice and domain growth; and
- Support our practice specific plans, public affairs agenda, education and CPD.

To achieve this, the profession will have to learn how to develop, upgrade and leverage its research efforts. This will represent a significant change of emphasis within the profession where most research has to date been focused at the practical level, and associated directly with employers' needs or consulting opportunities, with university based actuarial research being still on a limited scale. It will also require a significant learning curve as we learn how to define, package and resource research and, importantly, as we learn how to source the funding necessary to leverage that research.

Research areas identified which relate to our public affairs priorities included, corporate integrity and governance, financial reporting, health financing, intergenerational issues and ageing Australia, savings, retirement incomes, liability issues, LTC and accident compensation, sustainability, and financial markets and economics.

Research areas identified which could be driven by our practice and domain development objectives included, banking, finance and investments, capital management and risk management.

The Strategic Plan intended R&D approach is elaborate and involves:

- Conduct market research to identify opportunities for actuaries, and establish public policy and business priorities, and filter this information to identify key target priorities for R&D.
- Match these key target priorities with the broader public policy agendas of government and industry.
- Establish partnerships with other organisations to 'value add' through improved data collection, analysis and funding.
- R&D priorities to be determined by Institute, with results to be used to strengthen the profession's education, CPD, public policy and professional practice outcomes.

In practice over recent years, much of the discussion has focussed on establishing the Actuarial Research Centre of Australia (ARCA). ARCA is now operational but will take some time to produce the activity and results that are its goals. ARCA's strategy is still being reviewed and refined and 2007 will be the first full year of its operation.

Meanwhile, most of the traditional research activities undertaken by individuals, firms and universities have continued. There is limited visibility of the overall research activities undertaken. It would be useful if an "actuarial research clearing house" facility was added to either the Institute's or ARCA's website or both.

10.5 Actuarial Research Centre of Australia (ARCA) Strategic Review

ARCA's Steering Committee undertook a strategic review in September 2006. This section records the Steering Committee's views which will be considered by the ARCA Board when it is appointed shortly.

10.5.1 Original Strategy

The tables below set out the original key elements of ARCA's strategy and comments on the experience in implementing them.

Questions / Research topics

Strategy	Comment / experience
Research topics internally developed.	Don't necessarily match to researcher OR funding. Aren't making people's eyes light up. Issues regarding defining their appropriateness as "actuarial" research.
Major research topics rather than smaller ones.	Industry looking for response in 3 months not 12-48 months.

People

Strategy	Comment / experience
Rely heavily on volunteers	Hard to find volunteers. Hard to effectively leverage once found.
Ask for researchers willing to participate in ARCA project.	Researchers not necessarily deeply experienced, or respected, in the area or enthusiastic about research topic.
Individually tailored project teams for a project	Heavy reliance on ARCA bringing the team together

Funding

Strategy	Comment / experience
Fund individual projects from industry	Industry looking for ROI to justify funding. Public benefit not enough.
ARCA to keep only maximum of 20% of funds	Difficult to achieve financial stability. Need over \$1M in revenue to cover costs.
Fund projects from multiple sources	Many small sales means a great deal of activity. Also repetitively sales to the same organisations as pool of sponsors is small.

10.5.2 *The New ARCA Strategy*

As a result of the above, the strategy for ARCA has been designed, with the new focus of the strategic direction being linkages.

ARCA will focus on facilitating the links between researchers and industry rather than internally developing and managing projects.

This approach:

- More clearly aligns with resources available elsewhere rather than relying so strongly upon internal resources and volunteers.
- Fits more closely with the approach of other similar organisations and the needs of researchers.
- Is a practical way of allowing for a low-level of operation while building credibility and a track record.

It is a two-stage process with the first stage comprising years 1 and 2 and the second years 3-5. It is envisaged that it will take five years until ARCA is fully established.

10.5.3 *The short-term strategy*

The short-term strategy is focused on developing a track record of research fulfilment and the network of contacts necessary to deliver on the sustainable longer-term strategy.

In the short-term ARCA will aim to match existing research interests with available industry funding in much the same way we are currently operating. The significant difference being that we will not continue to try to create the research project but will seek projects for which there is existing research enthusiasm. These will probably be shorter projects with the aim of establishing a track record of delivery.

ARCA will develop a pool of researchers and topics – in effect identifying the potential researchers and asking them to identify areas of research they are enthusiastic about. We will then try to develop selected topics and match them with funding from industry. Importantly we would pay the researcher a small retainer to undertake this development process, rather than relying on volunteers.

Importantly ARCA will focus on actuarial research topics not only actuarial researchers. This will tap into a wider pool of ideas and researchers and start providing opportunities for ARCA to facilitate linking actuaries into other areas of research. The immediate steps in implementing this strategy are to call widely for expressions of interest in fairly tightly defined terms. This should give rise to research topics which can then be filtered and selected for further development.

At the end of two years it is expected that ARCA will have a significant element of independent funding, have an established network of researchers and potential sponsors, have brand recognition amongst both groups, and have facilitated 3-4 linkage grant applications (bearing in mind the grants have a lead time of approximately 12 months).

10.5.4 The medium-to-long-term strategy

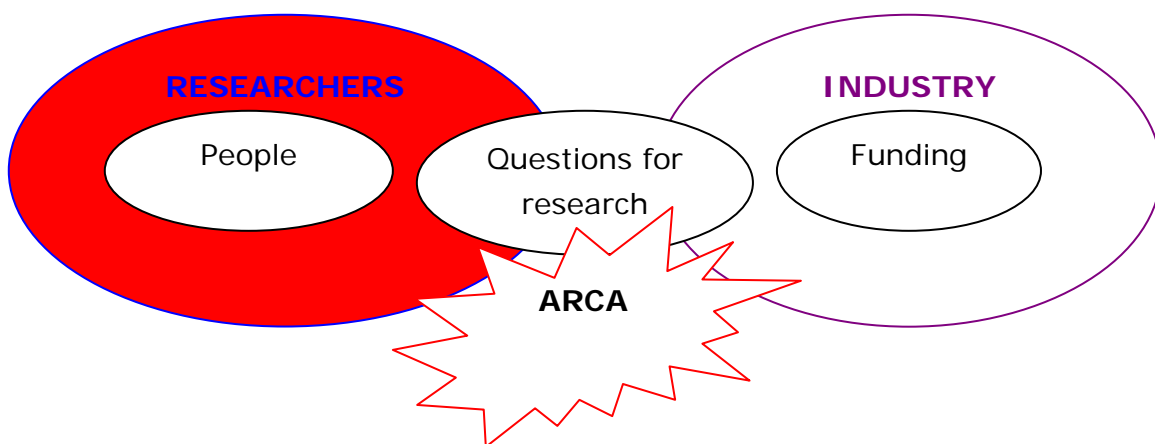
It is intended that research will be primarily undertaken by academic researchers, with ARCA ensuring that the research builds towards coherent themes aligned with ARCA's guiding principles.

The primary source of funds will be Australian Research Council linkage grants. These grants aim to foster collaboration between industry and researchers. Currently there is a perceived gap between the identified needs of the research community and industry. ARCA will aim to facilitate bridging that gap by matching research areas with industry needs and outcomes with a view to creating collaborative projects.

To ensure coherency ARCA will aim to build up a portfolio of research projects within specifically defined areas of interest. However, the aim would be for specific projects to be initiated by researchers. ARCA would then work with researcher and sponsors to create a viable project meeting both sets of needs and attracting appropriate grant funding.

Another primary focus in this period would be substantive research links with other similar bodies in related fields (banking, risk, financial services etc). As projects would be cooperative they would link actuaries with wider fields of activity providing a benefit both in terms of research outputs but also in terms of the profession's profile in these wider areas.

At the end of five years the aim is that ARCA will be financially secure and independent, recognised with a track record in actuarial research, the prime conduit linking industry and researchers in the actuarial field and therefore a major contributor to the fulfilment of a substantial body of actuarial research, and have a staggered depth of grant projects underway (some being fulfilled, some being applied for, some in preparation for application).



10.5.5 Key issues for ARCA

There are a number of key issues that must be recognised in making this new approach successful:

- ARCA needs time to develop a profile and track record. It is not possible for it to operate without Institute sponsorship and support for a number of years.
- While ARCA's research must be transparently independent, ARCA needs to work in a coordinated fashion with the Institute to deliver.
- There needs to be direct sponsor benefits as would apply to any major sponsor.
- There needs to be benefits to the profession through (a) the increase in intellectual capital; and (b) leveraging the profession in wider areas of actuarial activity.

10.6 What is the UK Institute doing?

The UK Institute commenced its own Strategy Review as soon as the final report of the Morris Review was released in March 2005. In addition to the issues raised by the Morris Review, the UK Institute was concerned about the impact of other issues, including:

- Low public confidence in the profession leading to the influence of the profession being, possibly, at an all-time low.
- Bright students were not choosing to study actuarial science.
- Decline of defined benefit super schemes and with profit products.
- Competition from risk professionals and investment professionals.
- Removal of regulatory functions (Morris Review).
- Increasing the value added by actuaries.

The UK Institute saw that its strategy review as taking three stages:

- Determine its strategic objectives.
- Determine the strategic plan – what needed to be done to get there.
- Determine the structures which will best deliver the plan, i.e. the optimal organisational structure.

The UK Institute and Faculty Councils in May 2005 determined that they would have four strategic objectives:

- Restoring confidence.
- Increasing market share of talent leaving University.
- Increasing the value added by actuaries, and thereby increasing their influence.
- Leveraging global capabilities.

A consultation exercise then began and included meetings with customers, employers, universities, recruiters and the membership. A 43 page presentation² was prepared for the membership in September 2005, with discussion meetings held in London and Edinburgh that same month.

The strategy review put forward three possible future scenarios for consideration emphasising that the three scenarios were not mutually exclusive. The UK Institute would continue to perform important functions from each of the scenarios for a considerable length of time. The choice lay in where its priorities should lie. The UK Institute did not consider it realistic to expect that it could focus its energies on all three activities equally, but needed to choose where to focus resources. The three possible future scenarios were labelled 'Co-regulator', 'UK Careers' and 'Global Player'.

- The '**Co-regulator**' scenario would leverage what was left of the UK regulatory activity (particularly in licensing those who have reserved roles through practising certificates). This would strengthen the role of the UK Institute as a regulator and promoter of actuaries and would focus on reserved roles. The principal purpose of the UK Institute in the 'Co-regulator' scenario would be to serve stakeholders including its own members and the public by sustaining high standards of competence and integrity in the management of various forms of financial service entities managed in the UK.
- The '**UK Careers**' scenario would see the UK Institute developing the skills and knowledge of actuaries in the UK. The focus here is providing the membership with support to enable them to achieve more in their careers. The principal purpose of the UK Institute in the 'UK Careers' scenario would be to serve stakeholders by developing and sustaining quantitative risk professionals with the skills and attributes appropriate to the evolving needs of the UK-based financial sector.
- The '**Global Player**' scenario would leverage the global growth in the UK Institute membership. The UK Institute would actively seek non UK members and provide services to them which make post qualification membership attractive. The principal purpose of the UK Institute would be to serve stakeholders by offering quality examination, accreditation, and continuing education services to actuarial students and actuaries throughout the world. The 'Global Player' scenario was seen as akin to the strategy being followed by the Association of Chartered Certified Accountants (ACCA) and also close to the apparent strategy of the CFA Institute.

In April 2006, 12 months after the process began, the Presidents of the Institute and Faculty jointly announced that the feedback indicated that a large majority would endorse the 'UK Careers' strategy for the UK Institute that primarily focuses on supporting members throughout their careers so they have the skills, attributes and knowledge appropriate for the evolving needs of the UK financial sector, primarily as quantitative risk professionals. This career support was seen as essential in order to increase the value actuaries add for their employers and their clients. There was remarkable similarity between the views expressed by members and the views of the UK Councils.

² <http://www.actuaries.org.uk/files/pdf/news/strategyreview20050915.pdf>

The UK Institute has since initiated seven work streams in its detailed planning and implementation phase that involve:

- Re-branding the two-tier actuarial qualifications (currently Fellow and Associate) in order to increase the supply of actuaries.
- Improving the range of services provided by the UK Institute which develop knowledge and share information.
- Encouraging university provision of core technical subjects but this will not be the only route to qualification.
- Developing a means by which to work proactively with all regulators, in the UK and internationally, in their respective roles to enhance the image of actuaries and ensure that the services delivered by actuaries meet the standards expected by the public and demanded by the regulators and legislators.
- Reviewing the UK Profession's existing services to overseas members and students recognising that it is essential that the UK qualification continues to have wide international recognition.
- Review the funding of the Institute to reduce cross subsidies between categories of members in order to provide value for money (e.g. for overseas members) in order to ensure that the above actions are affordable and have optimal delivery.
- Reorganise the structures of the UK institute (both the executive and volunteer groupings).

10.7 What is Happening Internationally?

There is a lot happening internationally, as is evident by the busy website: www.actuaries.org. Here is a summary of some of the key activities.

Founded in 1895, the International Actuarial Association (IAA) is the worldwide association of local professional actuarial associations and their individual actuaries. The IAA exists to encourage the development of a global profession, acknowledged as technically competent and professionally reliable, which will ensure that the public interest is served.

The IAA objectives are to:

- Develop the role and reputation of the profession.
- Promote high standards of professionalism to ensure that the public interest is served.
- Advance the body of knowledge of actuarial science.
- Further the personal professional development of actuaries.
- Promote mutual esteem and respect amongst actuaries.
- Provide a discussion forum for actuaries and associations.
- Represent the profession with international bodies.

The IAA is the unique international organisation dedicated to the research, education and development of the profession and of actuarial associations. In order to encourage actuarial research and development in particular areas of practice, the IAA has created specialized “Sections” whose membership is open to various categories of members. Currently, the IAA has seven sections: ASTIN, AFIR, IACA, IAAHS, PBSS, AWF and LIFE.

The journal of the IAA, the ASTIN Bulletin, is published twice a year. This is the internationally renowned, refereed scientific journal of the actuarial profession. The ASTIN Bulletin covers all aspects of actuarial and stochastic modeling practice, not just non-life insurance. Authors are encouraged to submit papers to the ASTIN Bulletin on topics of interest to any of the IAA Sections.

10.7.1 ASTIN

ASTIN, the Section for **Actuarial Studies In Non-life** insurance, was created in 1957 as the first Section of the International Actuarial Association (IAA).

ASTIN's main objective is to promote actuarial research, particularly in non-life insurance. ASTIN is continually working to further develop the mathematical foundation of non-life insurance and reinsurance.

In most years, ASTIN also organises an international colloquium. These colloquia bring together both academics and practitioners, and provide an outstanding forum for the exchange of knowledge among actuaries of different countries and different disciplines in the application of research to practical problems. They also allow participants to keep up to date with the rapid changes occurring in the actuarial profession. Meetings usually include invited lectures, contributed papers, and panels discussing current issues. Many member associations of the IAA credit individual participation at ASTIN colloquia towards their continuing professional development (CPD) requirements.

In addition, ASTIN organises seminars on non-life topics for people in countries with a developing actuarial profession. Recently, excellent seminars have been offered in Moscow, St. Petersburg, Kuala Lumpur, Bucharest, Bangkok and Beijing. To further the growth of the actuarial profession, ASTIN also offers financial support to young researchers from such countries to attend ASTIN colloquia and the International Congress of Actuaries (held every four years).

For more information, visit www.IAA-ASTIN.org.

10.7.2 AFIR

AFIR was founded in 1986 as a Section of the International Actuarial Association (IAA). It stands for **Actuarial Approach for Financial Risks** and has as its objective the promotion of actuarial research in financial risks and problems.

AFIR's most important function is organizing annual colloquia, the first of which was held in Paris in 1990. Bringing together actuaries of different countries and different disciplines, the colloquia provide a valuable forum for academics and practitioners to learn of and keep current with the fast changes occurring in the disciplines of finance, financial

economics, and the management of financial risks, focusing on applications to insurance and pension funds.

In 2002, AFIR established The Bob Alting von Geusau Memorial Prize, in honour of its late and long-serving treasurer. The prize was awarded for the first time in 2003 to Shaun Wang for his paper titled "A Universal Framework for Pricing Insurance and Financial Risks". Subsequent awards have been for paper on "Guaranteed Annuity Options" and "Testing Distributions of Stochastically Generated Yield Curves".

For more information, visit www.IAA-AFIR.org.

10.7.3 IACA

The **I**nternational **A**ssociation of **C**onsulting **A**ctuaries (IACA) was formed following an informal meeting of several senior consultants attending the International Congress of Actuaries in 1958 who, because the business environment for consulting actuaries was changing so rapidly, felt that an international meeting once every four years was too infrequent. IACA was established as a separate organisation and in 1960 began to hold meetings every other year. IACA was approved as a Section of the IAA on April 18, 1999.

IACA continues to organize its biennial meetings and present at various national consulting actuarial conferences and other IAA Section meetings. IACA provides a regular newsletter to its members on its activities including details of IACA's research activities and publications that are of interest to IACA members.

For more information, visit www.IAA-IACA.org.

10.7.4 IAAHS

The **I**nternational **A**ctuarial **A**ssociation **H**ealth **S**ection (IAAHS) was created by the IAA on May 17, 2003, following the success of the 1st International Health Seminar in Cancún in March 2002. The IAAHS promotes and facilitates international exchange of views, advice, research and practical information among actuaries involved with public and private health issues. These issues include policy and program design, research and planning, adequacy and services delivery, sustainability, insurance, pre-funding, and other financing methods. The Section organizes colloquia and publishes an Online Journal several times a year, and has recently created various Topic Teams, which members can join and participate in areas of interest.

For more information, visit www.IAA-IAAHS.org.

10.7.5 PBSS

Created in November 2003, the **P**ensions, **B**enefits and **S**ocial **S**ecurity Section (PBSS) is a special interest section of the IAA which serves actuaries around the world with personal, professional, educational, or research interests in social protection as well as actuaries with interests in the commercial, social, and public policy issues concerning the provision of pensions and other benefits. The scope of the PBSS covers public programs and private pension plans, mutual benefit organisations, commercial insurance and

pension company contracts, annuities, share options, and other employee benefit provision.

PBSS provides a platform for discussing technical and public policy issues, with an emphasis on how to best leverage the international character of its membership. Not only do PBSS members generate research, they act as catalysts for building the intellectual capital of the profession. This diverse Section also encourages non-actuaries with a public policy and research interest in social protection matters to join the PBSS and participate in its activities, thus enriching the Section's discussions and deliberations.

For more information, visit www.IAA-PBSS.org.

10.7.6 AWF

Actuaries Without Frontiers (AWF) was created in November 2003 to implement an exciting new volunteer program that would push forward actuarial involvement in developing economies. Its very existence recognises the important roles actuaries can take in making financial sense of the future by helping to build sound financial systems which enhance the capacity of developing economies to deal with uncertain future events.

AWF seeks to make available actuarial services on a temporary basis, to assist in the development of social security, pensions, insurance, investments, or healthcare infrastructures. It focuses on countries in which there is an under-developed actuarial profession and insufficient financial resources to fund such services.

AWF pursues this mission by:

- Promoting its mission within the global actuarial profession and making it known to government and relevant NGO's in developing countries, and other worldwide bodies;
- Identifying individual actuaries who are interested in participating on a voluntary basis and who are qualified to deliver the needed skills;
- Matching the demand for actuarial services with availability, organising the provision of those services and providing a reporting mechanism for all parties involved; and
- Seeking the appropriate alliances and sources of funding that are necessary to implement and support its activities. The AWF committee is in contact with major world aid bodies to secure funding as projects emerge.

Individual members who could serve with AWF include retired actuaries and younger actuaries, as well as employed actuaries who could be granted temporary leave from their employer. In most cases, those actuaries would be expected to participate without compensation other than coverage of living and travel expenses.

For more information, visit www.IAA-AWF.org.

10.7.7 LIFE

The Life Section was created by the Council of the IAA on November 19, 2005 and officially formed during the 2006 International Congress of Actuaries in Paris. Its mission

is to promote actuarial research and the exchange of knowledge in the field of life insurance around the world.

The Life Section intends to pursue its mission through:

- Promotion of new research in the life insurance field among academics and practicing actuaries, promulgation and access of current research;
- Exchange of information knowledge and views, support of technical development in developing countries, and provision of networking opportunities.

In pursuit of its mission, the Life Section expects to use delivery methods similar to other Sections, such as Colloquia, Seminars, a Bulletin, and Web exchange/Webcasts.

For more information, visit www.IAA-LIFE.org.

11. Fundamental Point: What is an Actuary?

11.1 What is an Actuary (what are the defining elements)?

11.1.1 General Characteristics/Background

Actuaries are drawn from amongst the brightest graduates and display an aptitude for mathematics together with general problem solving skills. Actuarial training provides a background in estimating future experience, this experience can be both financial and demographic. While this has traditionally included experience such as return on investments, price inflation, salary inflation, mortality and morbidity, actuaries are using their skills to estimate future experience in new and unusual areas.

Data analysis and financial modelling techniques are used to quantify risk and uncertainty. The application of the control cycle in identifying, measuring, monitoring and adjusting risks help distinguish actuaries from other professionals, one of the main strengths is the ability to educate clients about such risks. Actuaries are therefore increasingly seen as risk managers due to their ability to quantify risks and to understand the financial implications of those risks.

11.1.2 What do actuaries do?

As discussed in previous sections, most actuaries continue to work in a specialised field and have in-depth knowledge of that field. Advice provided is usually of a commercial nature to large corporations or individuals. Actuaries are well respected in the more traditional areas of practice such as superannuation, life insurance and general insurance. The advice actuaries provide in these areas is of a financial nature regarding risk, e.g. reserves required, premium rates, contribution rates.

Even in these traditional areas actuaries have been broadening their skills and activities. This is occurring particularly in superannuation and life insurance. While there remains a number of superannuation actuaries working in compliance-related roles others have moved to providing a broader range of employee benefits advice or into financial planning.

Life insurance actuaries also tend to work in compliance-related roles but many life offices have several actuaries amongst senior management where both management skills and an understanding of insurance risk are required.

More and more actuaries have made the move into non-traditional fields, providing a broad range of advice and competing directly with other professionals in areas such as investments and banking.

11.1.3 The Future – What will an Actuary look like?

The direction of the profession follows the direction of its members and that of the financial services industry, but we can affect how the Institute and profession respond to the changing marketplace. As members move into non-traditional areas and traditional areas undergo change, the Actuary's role is developing in new ways.

As the type of work actuaries are doing is changing and expanding, so does our skill set. We need to consider what defines an Actuary and what qualities are to be promoted and encouraged.

Specialists will always be required in certain areas but our ability to broaden the appeal of actuaries as a career to potential employees relies on us maintaining a relevant skill set. If the profession is to expand and grow then we need to regularly reconsider the definition of an Actuary (applying the control cycle to our own profession).

The definition of an Actuary will also drive the education requirements. Currently there are some difficulties with the education of actuaries (some already discussed):

- Australian actuaries practise around the world, there is also a large Asian student membership in Australia many of whom will return to Asia to practise. However, our education of actuaries remains strongly aligned with the UK.
- The education system is strongly focussed on passing exams, particularly for Specialist subjects.
- The pass rates in the traditional Specialist areas continue to be low, particularly for overseas-based students.
- It is increasingly difficult for the institute to provide Specialist subjects in some areas based on voluntarily assistance only.

It is time to consider a broader definition of what an Actuary is. This does not mean we relegate the Specialist, rather the broader definition would provide the base for a Specialist. If members wanted to become a Specialist in a particular area then further qualifications could be gained in those particular areas. To use the medical profession as an analogy the Actuary is similar to a GP. Those who seek Specialist skills would be similar to medical specialist.

The education of actuaries should provide both graduates and practising actuaries with options throughout their career. Traditionally many actuaries have remained in the area in which they passed the Specialist subject when they first qualified. We are suggesting a system where an Actuary does not require qualification in a Specialist field although a Specialist Practising Certificate would be an option for those who desired it. Thus providing greater flexibility and options in a career and hopefully making actuarial a more attractive career.

11.1.4 *The Actuary of the Future*

If we adopt the above approach then how do we define an Actuary? Consider those elements of an Actuary that are currently admired and that employers generally value:

- Strong technical ability in areas such as data analysis and financial modelling.
- High level of judgement.
- High quality of advice.
- Professional, diligent, unbiased.

- Experienced.

Add to these characteristics those that we would like actuaries to have but sometimes are perceived as lacking:

- Communication, presentation and leadership skills.
- Able to work with a broad range of people.
- The ability to apply technical skills in a range of situations.
- The ability to manage people.

This broad definition of the skills of an Actuary provides a good basis to work in a range of areas. It would also provide a good grounding if people wanted to seek further qualification in a Specialist area.

The current Part 1 and 2 courses go a significant way to providing the desired skills, the current senior associate is close to our broad definition of an Actuary. However, by including some additional components to the education system, softer skills could be developed such as business communication and management. Therefore some revamping of the Part 1 and 2 subjects would be required.

To maintain our reputation for professionalism actuaries would still be required to complete a professionalism course.

We envisage actuaries qualifying under the above process would be suitable for a range of jobs within the financial services industry. By making the course more relevant to the current environment the desired outcome is to make actuarial graduates more attractive to potential employers thereby giving graduates a greater choice in their careers.

11.1.5 Specialist

The reputation and respect the profession enjoys has largely been established in the traditional areas where actuaries have specialist knowledge. Therefore the education and experience required for these areas should not be diminished. Specialist areas include general, life, health and superannuation but in future may include newer areas of practise for example, health financing and risk management.

There are some problems with the current approach to Specialist education:

- The assessment is largely exam based, this can make it difficult for actuaries who may wish to switch areas of work later in their careers.
- The Specialist courses are not always relevant to overseas students where their local environment differs greatly from the Australian environment. Eg. Life Insurance.
- The current courses are overflowing with information, different ways of gaining knowledge could be investigated.
- The Institute constantly struggles to provide Specialist courses when it relies on volunteers to write and mark exams/assignments.

While it is important that a high level of technical proficiency is maintained, it may be beneficial for actuaries to broaden their knowledge within a Specialist area beyond the purely risk and compliance components.

A course that was based more on CPD hours with a less formal structure would allow the flexibility to change and meet the needs of different types of actuaries (overseas actuaries versus local actuaries). This approach would rely on the actuaries working in the Specialist areas to assist in educating those actuaries attempting to qualify for a Specialist Practising Certificate (in practice this has always occurred within organisations).

There is no doubt a challenge (if this approach is adopted) to maintain quality.

11.1.6 Institute's Role and CPD

The above approach to qualification and CPD requires the Institute to be responsive to change. It may well increase its membership if the broader qualification of Actuary is found to be attractive but that will create challenges for the Institute to make its offerings more relevant to the broader membership base.

This does not necessarily mean the Institute needs to be a provider of education on all areas of practise but rather a facilitator of forums and discussions in a range of areas.

It is envisaged that in order to maintain the quality of Specialist actuaries the institute would be heavily involved in determining the appropriate type and level of CPD required for qualification of a Specialist actuarial certificate.

11.2 Risk Managers

- Is this a term that actuaries want to adopt, it is a nice easy label but what changes if we start calling ourselves risk managers?
- How do we differentiate ourselves from other risk managers such as economists?
- Is our skill in communicating risk as well as calculating risk? If so do we need to improve communication skills both within organisations and externally to clients, government, interest groups, etc.

11.3 The Future?

- Will we need to separate actuaries between:
 - Traditional (life insurance, general, super) and non-traditional?
 - Generalists and specialists?
 - Compliance focussed and commercial management?
- Actuaries have a place in assisting developing markets manage risk, either directly or through assisting local actuaries in those markets.

11.4 Width of Membership

Currently an Actuary is someone who passes Part I, II and III plus the professionalism course. There are also some minimal experience requirements.

We therefore lose a lot of members who have all the desired characteristics and skills mentioned above but do not manage to pass the specialist (Part III) exams.

An Actuary could be one who passes the technical subjects, control cycle and professionalism course with separate specialist accreditation coming via either passing specialist exams or working in the field for a number of years with relevant research and CPD.

12. Discussion & Possible Directional Changes

This section of the discussion paper summarises and draws together a number of the emerging points and themes from the previous discussion sections of the paper, and poses a number of strategic direction questions that appear to arise from them.

12.1 *Employment Outlook: Demand*

12.1.1 *Australia & New Zealand:*

- The employment outlook in the traditional fields (life, super) is stable. In the neo-traditional (GI, Health), there would appear to be continued growth in at least the medium term. In both there would seem to be scope for employment growth in related work, in risk management and business management generally. However, communication skills and leadership qualities will be important for substantial success.
- In the newer fields (banking and finance, investment, risk management generally), there is significant demand for expert modelling expertise, risk management and financially literate general management. Actuaries and associates have made significant progress over recent years. Communication and leadership skills are seen as important to achieve more. An issue will be (is?) keeping these actuaries and associates as members of the Institute.

12.1.2 *The local region, Asia:*

- There is strong and growing demand for actuaries in all fields of endeavour in Asia, from Indonesia across to India and up to China. The Institute is well placed (location, time zone, infrastructure) to support actuaries working in Asia. However, if a significant number of these actuaries are to be members of our Institute, a key issue will be the effective and appropriate delivery of services, including competitive educational and CPD services.

12.2 *What is an Actuary?*

Is it time to change the way we use the title “Actuary”, including under the Code of Conduct? Should we adopt this title for what is now a “senior associate”?

- Completion of Part I, Part II, an abridged CAP and Professionalism course?

This would provide a broad base to build CPD from and specialist education upon, and seems to better align with:

- The actual core skills and attributes that reflect what a member of our “family” is.
- Current international developments and directions (i.e. the IAA “Actuary”).
- The aim to broaden the work and application of actuarial skills into areas where more narrow, industry specialist skills are not directly relevant.

Nonetheless, in making this change, other issues arise:

- Do we still have a Fellowship level qualification and/or practising certificates for statutory roles? Should either or both of these involve experience qualifications, say 5 years?
- Will we have enough members interested in continuing past the new “Actuary” level?
- What is the status of Fellowship going forward? How should we position it, support it, brand it? Do we need to position / brand it?

12.3 Education & CPD

12.3.1 Sub-Associate Level

If it is decided to adopt the actuarial qualification model suggested in 12.2, an important issue will be what substantive change is needed to the educational building blocks to build “our Actuary of the future”?

- Part I continues to be based on the UK Institute syllabus. It is in need of modernising. Is it time we separate our Part I from the UK and review, restructure and modernise it?
- More explicit content around communication and business skills is needed. This will need detailed co-ordination with the universities.
- How do we support members that don't wish to do an Australian university course? What about off-shore delivery – universities in Asia and NZ? Resourcing this change?
- Note that we need to manage this relative to a future IAA syllabus, and look for opportunities to leverage our course internationally.

In terms of Part II, the “control cycle” seems to have been a success and the Australian text book is an export earner for the Institute. While it is critical that this course continues to evolve and the text book updated, the fundamental seems sound at present.

In considering this, note:

- In an international world, Part I is likely to be an important portal to “net” longer term members for the Institute.
- The expectations of students and their employment directions need to be considered.

12.3.2 CPD & “Part III”

Some Part III courses now have uneconomic numbers of students for the current structure. At the same time we are looking to add a range of new courses (health and risk management). The current structure and delivery is stretched and not performing well.

If it is decided to adopt the actuarial qualification model suggested in 12.2, the basis, purpose and focus of “Part III” will require an overhaul. Issues to consider include:

- How do we deal with an ever broadening range of specialist material to be provided?
- How do we meet the needs of, say, actuaries looking to advise life insurers in Asia, Australia and New Zealand, with one course?

- Should we look at Part III (fellowship and/or practising certificates) to be obtained via more than one route, e.g. a coherent selection of smaller specialist modules, years of service, CPD counting, research undertaken, etc, with alternative examination/testing approaches (e-tests, written, interviews, residential courses)?
- Should we link Part III and CPD into one, multi-level structure? Maximise the “bang for the buck”?
- Whatever we do, we need pass rates more comparable with community expectations (e.g. university level rates, say around 80%) and further communication skills!
- In all this, language complications need to be considered.

On the resourcing front:

- Do we move more fully to a professional delivery basis? Via an expanded Institute or outsourced?
- Is it time to introduce conscription for tutors/markers etc? Require new fellows to do 2 years out of first 5 post fellowship (or even during!).

12.4 Development & Growth

12.4.1 Domain Development & Co-Branding

Historically, the expansion of the actuarial profession into new fields has typically followed the work of individuals or small groups that have worked at applying actuarial science and tools to new problems or industries. As these new fields have become established, the profession has then sought to formalise (and build) our involvement.

More recently, the Institute has taken a more direct leadership role in the establishment of new practice areas (or practice domains).

- Is it a good idea getting ahead of practice? Will it likely succeed?
- For risk management, there has been discussion of “co-branding” of risk management actuaries with other institution and/or qualifications. Can this work? Who will the actuaries affected see as their natural home post qualification?
- Is the issue more one of using risk management educational vehicles as part of our education program (rather than building it all ourselves)?

12.4.2 Research & Development

R&D will be an important focus looking forward, including pursuing developments such as ARCA. The V2020TF does not see that a fundamental directional change needed.

Nonetheless, should we be doing more? In what areas?

Is the proposed strategic direction for ARCA (see sections 10.5 and 10.6) optimal? Should ARCA have a broader or narrower scope?

12.4.3 "Marketing" & PR

There would seem to be two focus points that need to be considered.

Entry level (who joins the profession):

- The profession at present tends to attract new members from a narrow band of people.
- Should we be actively marketing to broaden the entry character of our membership?

Employers (and the community in general):

- Is it time to be more direct and focused on employers?
- How far do we go, e.g. "advertising"? What will be most effective?
- It has been suggested we need more focus on "leadership".

Is the amount of effort we apply to the public sector costing too much scarce resources?

12.5 **Institute Governance & Quality Assurance**

A lot of change has been made in recent years. The current round of changes are still being implemented (at least a year to go) and then this arguably needs some time to settle down.

It will be important for this to remain a focus area and the V2020TF suggests that a standing review of our governance, professional standards and code of conduct every few years in light of emerging community standards and expectations would be a good idea to minimise the chances of being caught flat footed in future.

- Is there a need for any fundamental direction change here? We think not.
- Nonetheless, a "Disaster" (Actuary failure) BCP would seem a good idea to develop.

Beyond these professional behaviour, quality assurance and brand protection issues, there are likely to be other areas of evolution in Institute governance to be addressed over coming years, such as consideration of the role of Council as a quasi-representative membership body versus a more modern corporate Board of management. However, we do not see these as involving fundamental strategic directional issues at this stage.

12.6 **Services & Funding**

12.6.1 *Member Services – Satisfying the Broad Family*

Member services is something that fundamentally is reflected within much of the above discussion. Nonetheless, to support a broader membership and position the Institute with its future potential members, there appears to be some key points for consideration:

- Making member services less Sydney (& Melbourne) centric.
- Achieving a membership connection with students still at university before they drift off into new fields without joining up. We need to consider how we could achieve this, including what fee levels and what services?

12.6.2 Funding & Resourcing the Institute

- Costs have been rising faster than membership growth in recent years.
- Can we reduce the rate of cost growth? What cost items should we cut?
- Alternatively, it appears to the V2020TF that any future direction is likely to involve more costs. While increased membership growth will eventually deliver more fees, the growth may not have a large impact in the short term.
- Should we be looking at new sources of revenue?
 - Charging for events (Insights etc) as per Finsia/CEDA?
 - Full day / 2 day courses for practising certificate CPD?
 - Member services / products – credit cards etc.
 - Charging the “new actuaries” more?
 - Accessing government grants and benefits?

12.7 International

International issues pervade much of the above discussion. Nonetheless, a few specific points are noted or highlighted here.

12.7.1 New Zealand

- Australia should be more relevant to NZ than the UK, particularly at the student level. Yet many NZ students having started the UK Part I course, then continue on with the UK Institute. This has an affect of siphoning off potential members to the UK. This is a further point relevant to the above Part I discussion.
- While NZ has lots of similarities to Australia, it isn't Australia. It would be helpful to make the various course work of the Institute less 'Australian centric'. Again, this echoes comments made above on exporting our education systems more broadly.
- E-access to CPD events (web casting etc) and e-delivery of education and other member services is critical to the provision of adequate and meaningful member services and CPD for our NZ members.

12.7.2 Engagement with Asia

- The above NZ points would largely and equally apply to the provision of education and member services in the broader Asia region also.
- Recent developments with reduction of student numbers for Part III (losing these to other actuarial institutes/societies) is noted. Pass rates, assessment methods and overly 'Australian centric' course content are quoted as likely issues. If we do nothing our Asian membership will not grow (in fact it will likely shrink).
- What else are key priorities for Asia?

12.7.3 *International Actuarial Association involvement, opportunities*

- We have allocated material effort in being involved in the IAA and with other international organisations.
- Should we do more? We probably can't afford to do less.

12.8 Use of Resources & Focus

Our strategic plans have tended to have long lists of actions and targets.

- Should we be more selective and focused? Can we do everything with our small membership base (locally or internationally)?
- Alternatively, can we afford not to tackle it all?
- What do members see as our 3 or 4 top KPI's? What are the "must do's", where failure to achieve is not an option?

13. Conclusions & Closing Remarks

As the world changes, we need to change with it.

To realise our Vision, we need to grow both demand for our services and quality of supply.

However it is looked at, education, particularly Part III and CPD, needs change in terms of delivery and focus. Pass rates in Part III must be raised.

To grow demand we need to:

- Promote ourselves to employers (PR and education of employers).
- Improve our product:
 - Communication and general business skills and leadership.
 - Broad range of skills supported (broader domains).
 - R&D
- Achieve more actuaries in leadership positions.

To meet our expanding membership needs, we will need to do more for distant and “non-traditional” members:

- CPD and sessions relevant to their business and practice areas.
- CPD and sessions relevant to their locale.
- E-delivery.

On the international front, globalisation is coming whether we like it or not. To achieve the best outcome for ourselves and the profession generally, we need to commit to the IAA, be involved and influence its direction.

In addressing issues and achieving our goals, the Institute Secretariat is likely to grow – this means more funding:

- Will membership grow fast enough to generate the required fees? Maybe, but probably not in the next few years...there is much to do and numbers will take time to build.
- Other revenue sources therefore need to be explored.

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Appendix A 2020 Vision Taskforce Survey 2006

This section provides a summary of the 84 responses received from members of the Institute of Actuaries of Australia during September 2006, plus some individual comments selected to promote discussion.

Q.1 Gender

Choice	Count	Percentage of Sample Answering
Male	64	76.2%
Female	20	23.8%

Q.2 Membership Category

Choice	Count	Percentage of Sample Answering
Fellow 10 or more years post-qualification experience (PQE)	48	57.8%
Fellow under 10 years PQE	20	24.1%
Accredited 10 or more years PQE	0	0.0%
Accredited under 10 years PQE	0	0.0%
Associate	11	13.3%
Student	3	3.6%
Affiliate	1	1.2%

Q.3 Primary Practice Area

Choice	Count	Percentage of Sample Answering
Life Insurance	27	32.1%
Superannuation	15	17.9%
General Insurance	18	21.4%
Health	4	4.8%
Investments	9	10.7%
Banking	2	2.4%
Finance	1	1.2%
Risk Management	2	2.4%
Other (please specify)	6	7.1%

Q.3 Specified_9 Primary Practice Area - Other (please specify)

- IT
- General Management
- Prudential Regulation
- Student
- IT
- Retired from Life Ins & Superannuation

Sample Answering: 6 responses

Q.4 Currently the term “actuary” is commonly reserved only for Fellows or Accredited members of the Institute. Should this be relaxed to include a wider group of members?

Choice	Count	Percentage of Sample Answering
Fellow / Accredited only	55	65.5%
Associate	26	31.0%
All paid-up members	0	0.0%
Other (please specify)	3	3.6%

Q.5 Any comments on use of the term “actuary”?

- The term should not be reserved solely for those with specialisations in the current Part III subjects. Need to allow recognition of those with comparable skills whose specialised training is in a non-traditional field.
- We should preserve the use of the term actuary at all costs. Downgrading it to include members who have not qualified will create significant issues with clients and the public at large and lead to degradation of the term actuary,
- I could live with a term like "superannuation actuary" for a non-Fellow who has completed the relevant Part III.
- An AIAA is an "Associate" of a professional body, however, this is not a meaningful designation for one who has undertaken significant under-grad and post-grad actuarial studies and training. I believe the ability for an AIAA to call him/herself an "actuary", would not in any way undermine the term "actuary", with FIAAs being "specialist actuaries". In the medical profession for example, the term "doctor" broadly covers general practitioners, surgeons and specialists. Why can't the term "actuary" be similarly used in a broadened sense?
- We need to widen the use of the word actuary to capture all those people who have significant actuarial qualifications and go onto work in other fields.
- We must protect the brand. Expanding usage can only diminish its perceived value and regard. Stop worrying about expanding numbers - worry about ensuring quality is maintained.

Q.6 Should the institute be seeking to introduce more specialised qualifications, eg. practising certificates, for particular areas of expertise?

Choice	Count	Percentage of Sample Answering
Yes	49	59.0%
No	34	41.0%

Q.7 Should the Institute be moving towards an education system with market related remuneration for all roles, including an increase in paid education professionals?

Choice	Count	Percentage of Sample Answering
Yes	59	71.1%
No	24	28.9%

Q.8 Are increased fees acceptable to ensure appropriate quality?

Choice	Count	Percentage of Sample Answering
Yes	64	76.2%
No	20	23.8%

Q.9 If yes, who should pay?

Choice	Count	Percent of Sample Asked
Students	48	57.1%
Members (through increased fees)	24	28.6%
Employers	27	32.1%
Other (please specify)	7	8.3%

Q.9 Specified_4 If yes, who should pay? - Other (please specify)

- User pays
- Employers pay anyway
- other users of IAAust services
- mixture of students and employers
- new members should do their bit
- Government finance as available
- all of the above - remember that employers, in effect often pay

Sample Answering: 7 responses

Q.10 Any comments on payment of fees?

- Current fees are too high relative to services provided for members working outside traditional areas.
- Consistent high quality requires a consistent calibre of dedicated educators - and that ultimately comes at a price.
- Like many other professions, students should pay the education fees - not the general membership

- In the end, it doesn't really matter. If it is through students/members, the costs flows back to employers. It in turn flows back through to students/employees salaries anyway.
- In my view the issue with the education system is the twice yearly exams placing undue pressure on volunteers, not the lack of remuneration for them. I would be going back to once a year.
- Fees are already far higher than equivalent professional fees eg CFA, Finsia and offer little value. IAA should scale back education activities significantly, and outsource to CFA institute and/or universities.
- Students already pay university fees which are significantly higher than professional exam fees. Professional qualification exams should be provided by universities on a commercial basis, because the current system relies too heavily on a small number of volunteers.

Q.11 The areas in which actuaries work are broadening. Assuming that Superannuation, Life Insurance and General Insurance are well established which two of the following areas do you see as developing most over the next 10 to 15 years:

Choice	Count	Percent of Sample Asked
Health Insurance	40	47.6%
Banking	25	29.8%
Investments	20	23.8%
Finance	20	23.8%
Risk Management	51	60.7%
Other (please specify)	7	8.3%

Q.11 Specified_6 The areas in which actuaries work are broadening. Assuming that Superannuation, Life Insurance and General Insurance are well established which two of the following areas do you see as developing most over the next 10 to 15 years: - Other (please specify)

- Broader Health Care and Aging
- Funds Management
- Energy & Environment
- Financial Planning

- Hard to choose between Banking, Finance and Investments - the distinction is likely to become increasingly blurred
- marketing analytics & alternative areas (eg science)
- Energy, Water markets?

Sample Answering: 7 responses

Q.12 Any comments on the areas of actuarial practice?

- Investments and finance are where the real growth is but the Actuarial qualification will never be the pre-eminent one in those areas.
- Actuaries intersect (and compete with) other disciplines in many areas of practice. This is not a bad thing, and means that training in some study areas can and should be sourced from non actuarial channels. It is the combination that produces an actuary. Oh, and add a communications skills subject.
- I think that risk management will develop because the Institute is pushing this area and developing educational courses. However, I actually see banking, finance and investment as more fruitful areas for the profession to be investing in - through enhanced education.
- Risk Management is not a separate area. Most actuaries are involved in pricing risks - very few in managing risks. Risk management (as opposed to pricing) is a discipline which does not require high level mathematical skills, and is not particularly suited to actuarial training.
- Actuaries don't have any comparative advantage in their skill set (compared to say MApp Fin or CFA) for Investments / Finance, although no doubt they'll still be capable of doing well in those fields.
- Risk management is a major focus for the Society because it seems to be a natural for the actuarial profession, and their aim is be the dominant player. This may be the great opportunity the profession has been looking for and we should be exploiting it here.

Q.13 The role of the Institute in supporting moves into new practice areas can be important. Should the institute be supporting and promoting such activities?

Choice	Count	Percentage of Sample Answering
Yes, the Institute should be actively seeking out and promoting and supporting new areas	29	34.9%
Yes, the Institute should be promoting and supporting new areas once a small number of members have started working in the area	45	54.2%
No, development of new areas should be left entirely up to members on their own initiative, with the Institute involvement only occurring once there is critical mass	9	10.8%

Q.14 Any comments on Institutional support regarding new practice areas?

- At some point it is likely that we will stray into areas already serviced by other professionals. Competition with them is likely to be unproductive - we need to find ways of accommodating and co-operating with them.
- I believe that we should see our services in terms of how we meet people's needs (our social function) and not in terms of what clever tools we have (this is the marketing as opposed to the product orientation if you prefer). We have got to work at maintaining our leadership in the traditional areas first.
- The Institute needs to build a relationship with employers in new areas so that support for professional actuarial development will be forthcoming.
- The Institute should support promising new areas where actuaries are working (but not in a critical mass), but only if they can see the prospect of a critical mass in the near future. But, I don't want the Institute throwing money and resources at dreams and visions that are not likely to result in much short term gain. The Institute's fundamental job is to support actuaries in their current circumstances and roles. Greenfield's activities need to be done in cost-effective moderation, without taking away from providing essential support to the main body of actuaries. Also, I think that the Institute needs to be realistic about what its activities can actually achieve (eg throwing a seminar for executives in a new area or buying lunch for senior executives is not likely by themselves to lead to much long term impact) - consolidation of gains achieved by practitioner actuaries may be more achievable, than breaking new ground.
- DONT seek expansion through statutory compliance. This actually devalues the work we do. The best work is done by pioneers who demonstrate the intellectual capacity and value of actuaries. Encourage them to explore new territory.

- The Institute staff are not actuaries and do not have the same concerns as actuaries eg the have pushed FCRs in GI yet many members who will be asked to carry these out have been more cautious. The Institute sees its role as endlessly expanding the role and influence of actuaries, whereas practitioners are more cautious. Any new areas should be driven by practitioners, not non-actuaries.

Q.15 Regionally (Asia and Oceania), the Institute is one of the largest actuarial organisations. Should the Institute be taking an active role in developing the profession in the region?

Choice	Count	Percentage of Sample Answering
Yes, the Institute should be actively promoting the profession in the region, supporting and developing other associations	37	44.6%
It is sufficient to promote the Australian actuarial brand; regionally, encouraging wide regional membership of the Institute and brand acceptance for key (eg. statutory roles)	38	45.8%
No, the Institute should purely focus on domestic issues	8	9.6%

Q.16 Any comments on the Institute's role in the region?

- We should encourage overseas students to take the Australian exams.
- The institute should be promoting itself as the peak body in the region as it (1) gives greater recognition to Australian actuaries (2) gives sufficient member base to be held in the same standing as the UK and US bodies.
- I think I equate the notion of promoting the brand solely for key regulatory roles with leading us up a technocratic cul de sac.
- We are not God's gift to Asia. We should be prepared to assist other Asian actuarial bodies but only if they request our assistance.
- While we cannot ignore the region, the need is for actuaries in Australia. If we export actuarial education services it should be at full cost recovery if not a premium.
- We are part of a global profession, and therefore would encourage all actuarial associates to support each other in any way possible - this said, there is no reason to say Asia is Australia's area and that other actuarial bodies (UK/US/Canada) should also be helping the new actuarial associations starting up in various places in the world
- I think the institute should focus on being a really good source of information, available to anyone in the region ... better to focus on being something which is worth belonging to (i.e. provide a service worth having) rather than how to promote itself.

- We have a significant Asia-Pacific student influx into our actuarial schools - it would be a waste if we lost them to other actuarial associations only because they didn't have local contact/connection in their home countries

Q.17 Do you support a single global actuarial qualification?

Choice	Count	Percentage of Sample Answering
Yes	50	59.5%
No	34	40.5%

Q.18 More generally, do you support full international unification:

Choice	Count	Percentage of Sample Answering
Within 5 years	10	12.3%
5; 10 years	25	30.9%
10; 20 years	20	24.7%
More than 20 years	7	8.6%
Never	19	23.5%

Q.19 Do you expect full international unification to occur:

Choice	Count	Percentage of Sample Answering
Within 5 years	0	0.0%
5 ; 10 years	11	13.8%
10; 20 years	28	35.0%
More than 20 years	19	23.8%
Never	22	27.5%

Q.20 Any comments on international unification?

- The advantages are far outweighed by the resultant inflexibility. World government means dictatorship. Harmonization should be the aim, and this is very complicated, but gives the necessary safeguards.

- I believe that the actuarial profession will benefit enormously with increased globalisation and it is vital that we move in that direction. However I also believe that there will always be a role for strong local associations such as our Institute.
- I'm not sure I understand what "full international unification" (in questions 18 and 19) is meant to mean. I support greater internationalisation where this makes sense, but believe that there will always be the need for a local overlay.
- It's going to be pretty hard to get uniform standards across the world - I'd suggest that an international qualification can only go as far as Associate.
- Competition between institutions breeds innovations. Centralisation has historically proven to be a very poor economic model!
- Anything that requires international co-operation will end up being dominated by US/European interests, which is something that will work against long-term Australian interests. As far as I am aware there is no profession which is organised internationally and I don't see why the actuarial profession should be the first.
- The global qualification needs to be at Associate level, with local practising certificates (or Fellowships) taking account of local regulations.

Q.21 Do you consider you get value for money from membership of the Institute?

Choice	Count	Percentage of Sample Answering
Yes	52	62.7%
No	31	37.3%

Q.22 Do you pay membership fees yourself or does your employer?

Choice	Count	Percentage of Sample Answering
Self	28	33.3%
Employer	56	66.7%

Q.23 If your employer pays, would your answer to question 21 change if you paid the fees yourself?

Choice	Count	Percentage of Sample Answering
Yes	11	19.0%
No	47	81.0%

Q.24 Any comment on member fees?

- Current fees are too high relative to services provided for members working outside traditional areas.
- I would not pay it if my employer didn't pay.
- They're high, and with all the questions it sounds like you're softening us up for increases.
- Member fees are heavily subsidised through education fees. While this benefits the incumbent members, this is clear abuse of market power by a monopoly organisation.
- Far too high. I get no value other than the Actuary Australia magazine.
- Quite reasonable for the service we get.
- The Institute offers little to members working in non-regulated areas, particularly since the disbandment of the Investment Practice Committee. Council cannot expect members in wider fields to pay for services directed only at the regulated areas. Logically the former should resign their Fellowship and become Affiliate members.
- There seem to be continual increases in the number of institute staff, eliminating any economies of scale of the larger membership base
- It's reasonable - anyone who cannot afford \$1000+ (tax-deductible) must not be trying very hard or is over-leveraged

Q.25 Please comment on services you think are not needed (or needed less than currently provided).

- I think we have spent too much time and energy in engaging government on policy issues. It is not clear to me that we should be subsidising actuarial faculties at universities, when these are well established and are producing a more than adequate supply of actuaries.
- Education should be outsourced to Universities and Institute should reduce its activities in lobbying and marketing

- Cut back on education, outsource at least half of it. Focus on networking, standard setting, and government lobbying.
- Less Government Policy & Advocacy work, Public Policy statements etc, No involvement in the Climate Change debate - any statement on that is inevitably political.
- The secretariat has grown at a rate which appears to be faster than the growth in members.

Q.26 Please comment on services you think are needed but not provided (or should be provided more than currently).

- Please reintroduce published book of list of members
- Greater involvement by the Institute in selling the actuarial brand to our target client/employer base.
- Too much work is put in by volunteers, committees made up of volunteers etc. More backroom assistance, committee leadership etc could be provided by paid Institute staff. Clearly cost would be a significant inhibitor.
- The Institute really needs to improve their part 3 education system. The efforts put in a year ago was only for face value and it shows. It needs to change completely and if the Institute wants to survive, it will need to do this sooner or later. I have gone through it myself and I would never recommend anyone else do it. Its not the money, but its the incompetence of it all; it is completely in shambles. It needs to change from a philosophical point of view. The Institute needs to recognise that just because its hard to pass, doesn't make it better or more prestigious qualification. In fact, at the moment, its the opposite. Look at the CA, not hard to pass but the job prospects are much better than for FIAAs.
- I would really value more technical actuarial papers on issues relevant to the practice areas I work in (papers, not talks). We used to have far more of these in the past. Also we get the same material that was shown at the convention/forum being recycled for Insights meetings (I guess this tells me I needn't bother to go to any more conventions!). For example, how can it be that no decent paper has been produced on unit pricing in recent years? (And this is an area that is full of risk and cries out for guidance!). Why aren't the practice committees producing guidance notes to help us deliver quality work to our employers?
- Membership list should be available to all members. The list data would be modified for those wishing to restrict what personal details are shown. Privacy legislation does NOT prevent this ESSENTIAL SERVICE. Access by name via the member site is not enough.
- The Institute has become very introvert. It is totally neglecting the hundreds (or thousands) of members or actuarial graduates who work in investment and finance, and look to other sources for their CPD, intellectual stimulation and networking.

- Better Tuition / reform of Education process to increase Pass rates to realistic levels.
- Lobby for reduction of red-tape; push for more self-regulation and be more muscular in pointing out the stupidity of accounting standards

Q.27 Any further general comments?

- I think the Institute is well run and there have been huge improvements. We need to either get more actuaries involved to lighten the load or start paying people to do some of the work but consideration of who pays for the increased fees needs to be considered.
- The Institute does have to remain relevant to members or it will lose its revenue base. I have considered resigning as I don't really need any of the obvious services, but there is a degree of loyalty, at least partly engendered by the voluntary contributions of a large number of members from which I have benefited in the past. I don't consider myself a "typical" actuary.
- The Institute is generally doing a good job considering the small number of members and limited income.
- Re q 6. Practising certificates as per UK are a bad idea. Licensing for statutory roles is a government responsibility and should be left to them. The institute should provide a framework for assessment of skills. Currently the fellowship. Of more importance is to provide recognition for ability in more specialised areas relevant to a persons employment. For example if we offered a recognition of competency in areas such as structured finance, financial economics, risk management, credit risk etc the actuarial qualification would be relevant and encourage members to obtain and use the qualification on the new areas. At the moment being an actuary tags you as doing insurance and not relevant.
- The institute seems to have nothing to offer actuaries working in investment roles. Maybe it should just focus on traditional actuarial areas where it can add value?
- The current focus of the Institute leads me to the view that it will become a subsidiary of the International Accounting Profession in 20 years time.

Appendix B 2020 Vision Taskforce Survey 2006

The Mission Statement was reformed in June 2006, to bring it up to the best standard around the world.

The Mission Statement now clearly specifies that the Institute enforces professional standards, as well as establishing and maintaining them; and there is now a statement emphasising that part of the Institute's mission is to increase the public's recognition of the value of actuaries. The third change highlights that the Institute encourages actuaries to provide professional services of high quality.

The new Mission Statement approved at the June 2006 Council meeting is:

The Institute of Actuaries of Australia (Institute) represents the actuarial profession by creating, expanding and maintaining an environment where the skills of actuaries are widely used and valued.

The Institute

- *Establishes, maintains and enforces professional standards for the protection of the public and provides guidance to help actuaries provide professional services of high quality.*
- *Provides pre-qualification and continuing professional education, and creates forums for discussion about contemporary and relevant issues.*
- *Promotes research and the development of actuarial science.*
- *Promotes the actuarial profession's value in existing and new roles, including contributing to and informing debate on public policy and business issues.*