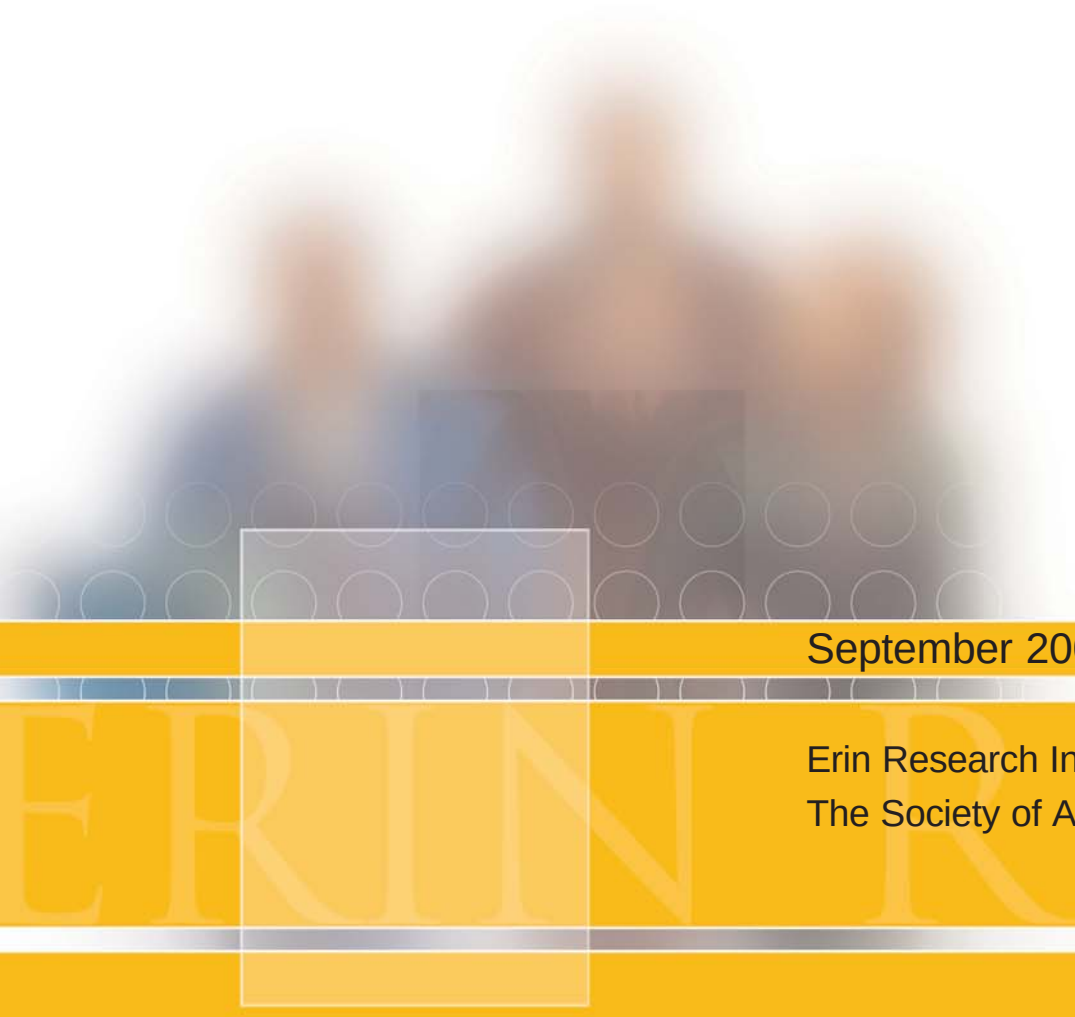
Member Preferences and Priorities 2003



September 2003

Erin Research Inc. for
The Society of Actuaries

ERIN RESEARCH

Society of Actuaries Member Survey 2003

Conducted by Erin Research Inc.
George Spears Ph.D. and Kasia Seydegart M.S.W.

Erin Research Inc.
5245 Eighth Line
Erin ON Canada N0B 1T0
Telephone 519 833-2449
Fax 519 833-0180
results@erinresearch.com
www.erinresearch.com

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1. INTRODUCTION

The Society of Actuaries commissioned Erin Research Inc. to design and conduct an on-line survey of its members in 2002 and again in 2003 in order to ensure that members' voices were being heard and that they continuously inform the planning and actions of the SOA.

The 2003 Member Research builds on the 2002 Member Study which focused on the overall strategic direction and values of the actuarial profession and the Society of Actuaries.

The 2003 research was designed to drill deeper, providing very specific information for each of the major practice areas. This detailed information enables each practice area to prioritize its activities and products in response to members' needs and goals. A further purpose is to lay the foundation for strategic planning and marketing strategy of the profession.

MAJOR OBJECTIVES OF 2003 MEMBER RESEARCH

Major objectives of the 2003 Member Research are to:

1. Document members' priorities for the deployment of SOA resources, within practice areas and for the organization as a whole.
2. Provide detailed information that will facilitate the development of marketing plans in each practice area, and that can be coordinated into an organization-wide marketing strategy.
3. Obtain members' perspectives on the strengths and weaknesses of the actuarial profession, and identify opportunities for advancing the actuarial image.
4. Identify credentials that actuaries seek in addition to the ASA/FSA: determine why members seek them and what their impact is.
5. Describe members' image of the actuarial profession.

METHOD

The survey was developed in consultation with SOA staff and with input from a Strategic Planning Committee research oversight group and Practice Area Advancement Committee leaders. In particular, the questions on practice area priorities were developed by staff and the Practice Area leaders to reflect the range of options that are currently under consideration.

The survey was pre-tested on line by staff and volunteers, and revisions made as required. All members received an email letter from the President to introduce the survey on April 9 2003. Two reminders were sent at weekly intervals and the survey closed April 25, 2003.

RESPONSE RATE

Of the 4,660 respondents, 85 percent completed the entire survey. The remaining 15 percent completed the first major section of the survey (questions on the actuarial image), but dropped out at varying points before the end.

The response rate is 27 percent based on the entire membership of 17,375,and 33 percent based on the 14,106 members with valid e-mail addresses. This provides a solid basis for action.

The 2002 survey received 3,912 responses from 11,741 valid email addresses. This also represents a 33 percent response rate. The number of valid emails in the membership database has increased substantially over the year.

Please note that percentages in the report are rounded individually, and rows or columns may not add to 100.

Table 1. Response by practice area

SOA Member Survey 2003

Question	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	Total *Row %*
"What is your main practice area?" (N)	497	853	1,642	1,165	503	4,660
Percent	*11*	*18*	*35*	*25*	*11*	*100*
The 503 respondents saying "Other" were asked: "Do you have a close affiliation with any of these practice areas?" (N)	93	73	138	36	163	503
Percent	*18*	*15*	*27*	*7*	*32*	*100*
Total N	590	926	1,780	1,201	163	4,660
Percent	*13*	*20*	*38*	*26*	*3*	*100*

Each table entry is rounded independently; rows may not add to exactly 100 percent.

Survey response by practice area is largely similar to the composition of the membership.

- Retirement Systems comprises 28.8 percent of members, but only 25 percent of survey respondents. It is possible that members in this area responded at a lower rate, or alternatively, that the "practice area" field in the membership list is not completely up-to-date. The following bullet suggests that this may be the case.
- The Regulatory practice area poses a question, in that there are more survey respondents in this area than there are individuals in the membership list. Also, the N of 60 respondents in the Academic area is approximately twice as high as the membership information would suggest.

Both the membership directory and the survey are self-selective: differences between them can arise because members chose to describe themselves differently in the survey and when filling out membership directory information, or because members change their sphere of activity over time.

Portions of this survey focus on the four main practice areas – Finance, Health, Life Insurance and Retirement Systems. Members were asked if they had an affiliation with one of these areas, and many of those in the Non-traditional, Academic, Regulatory, and Property And Casualty areas chose one of the four main areas as relevant to them. Those who did not, appear under "other practice areas" in the results.

Table 2. Distribution of practice areas in survey respondents and membership

SOA Member Survey 2003

Practice area	Survey respondents N	Survey respondents %	Membership, 2003* N	Membership, 2003* %
Finance/Investment, Enterprise Risk Management	497	10.7	882	6.5
Health Benefits Systems	853	18.3	2,351	17.5
Life Insurance	1,642	35.2	4,537	33.6
Retirement Systems	1,165	25.0	3,886	28.8
Property & Casualty	50	1.1	144	1.1
Regulatory	83	1.8	58	0.4
Academic	60	1.3	86	0.6
No information provided	310	6.7	1,526	11.3
Non-traditional ¶	–	–	696	–
Retired ¶	–	–	787	–
Total	4,660	100.0	14,953	100.0

* Figures pertain to members whose email address appears in the member database and could therefore be included in the survey. The full membership totals 17,375.

¶ These categories were not used in the member survey and are not included in the calculation of percentages.

Each table entry is rounded independently; columns may not add to exactly 100 percent.

2. EMPLOYMENT PROFILE

This section outlines the types of companies that respondents work for, the amount of time they devote to various activities, and their geographic locations.

Employers

The types of company that employ actuaries vary considerably across practice areas. The "Other" category includes various manufacturing companies, law firms, marketing and trade organizations.

Table 3. Employers

SOA Member Survey 2003

	Percent of members					
Employer	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
Insurance organization	61	58	68	8	26	49
Reinsurance organization	6	3	9	–	6	5
Other financial services company (Investments/Banking)	10	<1	1	1	–	2
Consulting firm	9	23	10	71	10	28
Accounting firm	<1	1	2	1	–	1
University, educational institution	3	1	<1	<1	17	1
Software development or sales company	1	1	2	1	–	1
Rating agency	–	–	–	–	–	–
Government agency or regulatory body	2	3	2	4	4	3
Not employed, retired	2	2	3	5	4	4
Self-employed	4	4	3	5	4	4
Other	3	4	2	4	15	3
Total percent	100	100	100	100	100	100
N	505	824	1,490	997	144	3,960

Each table entry is rounded independently; columns may not add to exactly 100 percent.

Allocation of time

Respondents estimated the proportion of the time that they spend in each of 25 different activities. Three-quarters of the respondents checked up to 5 activities, and the remainder indicated more than 5 activities.

Table 4. Allocation of professional time by practice area

SOA Member Survey 2003

	Mean percentage of time within each practice area					
Activity	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other*	All respondents
Financial reporting, management	20	15	26	7	8	18
Employee benefits pensions	2	8	1	59	3	17
Pricing and product development	7	29	22	2	15	16
General management	5	6	6	5	6	6
Asset liability management	15	1	5	3	1	5
Data systems development, analysis	2	6	4	2	4	4
Risk management	11	2	4	<1	2	4
Marketing	2	2	4	3	3	3
Economics analysis and forecasting	4	5	2	2	3	3
Software development, management	2	2	4	3	2	3
Strategic planning	3	3	3	1	4	3
Financial planning	5	2	3	1	1	3
Investment	11	<1	1	1	<1	2
Contract review development	1	2	3	1	1	2
Teaching	2	1	1	2	15	2
Sales	1	1	1	2	1	1
Underwriting	<1	4	1	<1	1	1
General accounting	1	<1	1	1	1	1
Expert witness	<1	1	1	1	2	1
Provider contracting/Purchasing	<1	2	<1	<1	<1	1
Personal actuary	<1	<1	1	1	<1	1
Operations	<1	<1	1	<1	<1	<1
Claims administration	<1	1	<1	<1	<1	<1
Supply chain management	<1	<1	<1	–	<1	<1
Other	4	5	4	3	27	5
Total percent	100	100	100	100	100	100
N	490	805	1,462	979	124	3,860

* Includes some members in property and casualty, regulatory, academic and non-traditional practice areas.

Each table entry is rounded independently; columns may not add to exactly 100 percent.

Most individual actuaries do not apportion their time in the manner suggested by the mean values in Table 4. The majority are specialists who spend their time on a small set of activities: 69 percent spend at least half of their time on just one activity, and 22 percent spend 90 percent or more of their time on one activity.

If a person concentrates on just one or two activities, what activities are they? In fact, these activities are distributed in much the same fashion as the overall results – the major areas of specialization are financial management, employee benefits, and price and product development. Smaller numbers concentrate their time on general management, economic forecasting, data systems development, strategic planning and other areas.

Table 5. Allocation of professional time by industry

SOA Member Survey 2003

	Mean percentage of time within each employment area									
Activity	Insu-rance	Rein-surance	Finan-cial	Con-sulting	Accoun-ting	Aca-demic	Soft-ware	Gov't	Self-Empl	All
Financial reporting, mgmt valuation	24	19	5	11	22	0	11	20	11	18
Employee benefits pensions	2	0	10	48	36	2	4	18	21	17
Pricing and product development	25	26	4	5	2	2	2	9	10	16
General management	6	7	7	5	4	1	9	6	5	6
Asset liability management	6	3	12	3	3	1	3	3	4	5
Data systems development and analysis	4	4	3	2	2	0	9	6	4	4
Risk management	5	9	7	1	2	3	1	3	2	4
Economics analysis and forecasting	3	2	4	3	3	3	1	5	1	3
Financial planning	4	3	4	1	2	0	1	1	3	3
Software development, management	2	1	4	3	1	0	39	2	4	3
Marketing	2	7	7	4	4	1	3	0	4	3
Strategic planning	3	3	4	2	2	1	1	2	3	3
Contract review development	3	3	2	1	0	0	0	6	1	2
Investment	2	2	16	2	0	3	1	1	4	2
Teaching	1	1	1	1	2	59	1	2	3	2
Expert witness	0	0	0	1	1	0	0	1	5	1
General accounting	1	1	1	1	1	1	1	1	1	1
Personal actuary	0	0	1	0	1	0	0	2	4	1
Provider contracting/ Purchasing	1	0	1	0	0	0	0	0	1	1
Sales	1	2	2	2	4	1	8	0	3	1
Underwriting	2	3	0	1	0	0	0	0	1	1
Claims administration	0	1	0	0	0	0	0	0	0	0
Operations	1	0	1	0	0	0	1	0	0	0
Supply chain management	0	0	0	0	0	0	0	0	0	0
Other	3	4	4	3	6	21	3	12	5	5
Total	100	100	100	100	100	100	100	100	100	100
N	1,906	200	72	1,110	58	53	49	119	148	3860

Time allocation and years of experience

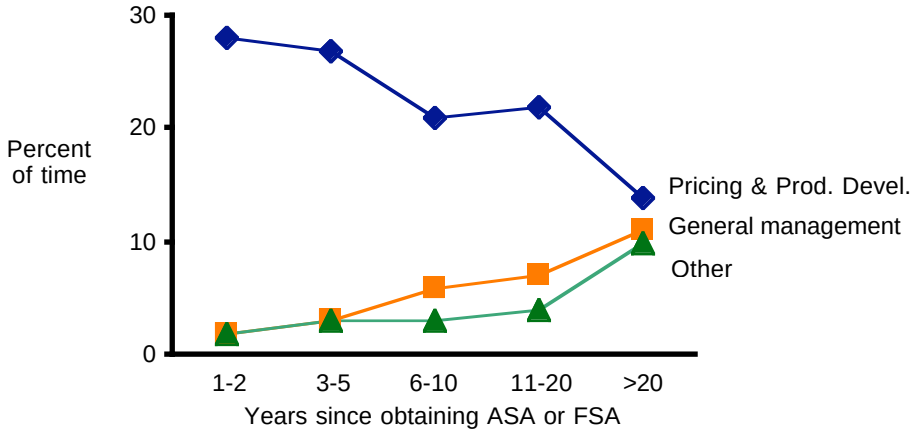
Actuaries with more years of experience tend to spend a greater portion of their time on general management and on "other" activities.

Figure 1 illustrates this pattern in the Life Insurance practice area. Pricing and product development consumes, on average, 28 percent of the work day for actuaries who are one or two years past their ASA or FSA, and 14 percent of the day for those who are more than 20 years past their credential. General management and "other" activities increase by 9 percent and 8 percent respectively. For each of the 22 remaining activities, time allocation changes less than 5 percent with years of experience.

Time allocation was compared for ASAs and FSAs, and there is very little difference between these groups. The greatest difference is that FSAs spend an average of 4 percent more time on general management than do ASAs.

Figure 1. Changes in use of time: Life insurance practice area

SOA Member Survey 2003



Geographic location

Ninety-three percent of respondents practice in one region or country, while 3 percent practice in two regions/countries, 1.5 percent practice in three, and 1.7 percent practice in four or more.

Table 6. Response by country or region in which the member practices

SOA Member Survey 2003

Country/Region	Percent of Respondents *
Africa	1
Asia/Pacific (except China)	5
Australia, New Zealand	1
Canada	17
Caribbean	2
Central/South America (except Mexico)	1
China	3
Europe (except UK)	2
Mexico	1
Mid-East	1
UK	2
USA	79
Total percent (Base = 3,932 respondents)	115

* Percentages add to more than 100 as respondents indicated all countries in which they practice.

3. COMPETITION

Some areas of actuarial work are changing rapidly while others are quite stable. Members were asked if they faced more or less competition from related professions than in the past, with the result shown in Figure 2. Seventy percent are at the mid-point of the scale or one step above it, indicating little or no change.

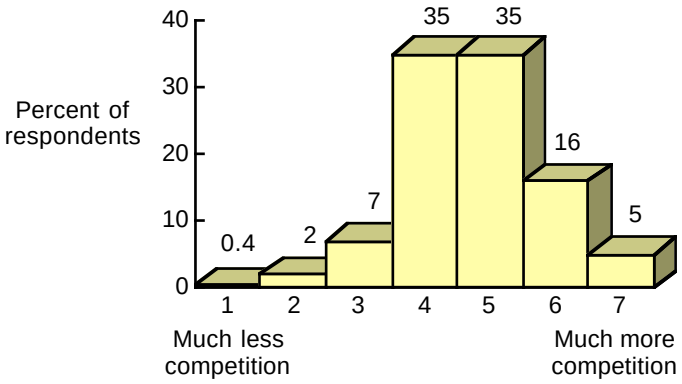
The overall mean is 62 out of 100, and there are three small but statistically significant sources of variation.[1]

The largest differences occur across practice areas. Those in Finance, where actuaries do not have a historical presence, rate competition the greatest, at 68 out of 100. Those in traditional areas rate competition slightly less – mean scores are 62 for Life Insurance, 61 for Retirement Systems, 60 for Health, and for 59 for those in other areas.

In addition, FSAs perceive more competition than ASAs (mean scores of 63 and 60 respectively). Those who received their credential more recently perceive slightly less competition than those who have practiced longer (the mean score runs from 60 for those with 1-2 years experience to 63 for those with more than 20 years of experience). The three factors together (practice area, credential and experience) account for three percent of the variance in the competition measure.

Figure 2. Are actuaries in your business facing more or less competition from related professions than they have in the past?

SOA Member Survey 2003



[1] The survey used 5-point and 7-point response scales. Mean scores in this report have been re-scaled into the more intuitive 0-to-100 format.

The majority of the variance in Figure 2 cannot be explained by survey measures, however respondents' written comments reveal that competition depends in large measure on their specific business context. Representative comments on several themes follow:

There is no competition in bastions where an actuarial stamp is required by regulation:

> *Competition is the same - we have to complete rate filings for the DOI, which require a credentialed actuary. (Health)*

> *Actuaries have a legal monopoly on pension actuarial work, so competition from other professions will never increase or decrease. There is some competition with respect to consulting on defined contribution plans. (Retirement Systems)*

Encroachment by other professions:

> *The MBAs are "eating our lunch". (Life Insurance)*

> *I believe that accountants and MBAs have become more aggressive in turning what were actuarial issues into general business issues and offering to deal with them. (Life Insurance)*

> *Actuarial work is less of a "black box" than it used to be; the mystique is less and other professions--investment and accounting are able to do some of the functions. (Finance)*

> *Actuaries oversee the work, but much of it is done by non-actuaries. Once the formulas are programmed into the spreadsheet, it does not take an actuary to operate the spreadsheet. (Finance)*

Lack of profile or recognition of the credential:

> *As an investment actuary, we're off our natural turf. The pension actuaries have been able to get into asset managers for a while, but it's very tough for an FSA to get hired by an asset manager not affiliated with an insurer. (Finance)*

> *The actuarial credential has little recognition -- certainly much less than CFA or CFP. (Finance)*

Actuarial training is not focused on investment:

> *I think not many people understand what an actuary can contribute to the investment industry, as the syllabus we need to learn in the SOA examination is quite different than what an investment professional has to learn. (Finance)*

> *Current financial economic approaches to interest rate and equity option modeling are not as well known by actuaries, putting them at a disadvantage compared with financial engineers or "quants". (Finance)*

Actuaries are encroaching on other professions:

> *It is the actuaries who are moving into non-traditional areas, so in this respect it is the actuaries who are competing with the non-actuaries for non-actuarial jobs. (Life Insurance)*

Stereotypes:

> *Actuaries are very much perceived to be insurance specialists who are really set in their ways (Finance)*

> *Sometimes I feel pigeon-holed into a narrow scope of opportunities. The term actuary causes others to not think of my talents in other ways within the corporation. (Retirement Systems)*

> *Issues relating to risk seem to be much more front-and-center these days, yet I don't get the feeling that the public is looking to actuaries for guidance. We're stuck with the image of being in a corner somewhere calculating mortality rates. (Retirement Systems)*

We are our own worst enemy:

> *We still have a shortage of well-rounded, articulate candidates with the math skills required to pass the exams. I have frequently wondered if we set the bar too high and lose qualified people to other professions, such as law, accounting, even medicine. (Retirement Systems)*

> *Actuaries are seen to be artificially restrictive to new Fellows. There will be an unnecessary shortage which ultimately will allow other professions to take over. (Life Insurance)*

Competition has always been stiff:

> *The high amount of competition has not increased in investments, nor decreased - we still remain far behind. (Finance)*

Competition has not increased:

> *Where I work, the actuaries are highly regarded. If we have a high-level opening in the actuarial area, we hire an actuary. We are also dedicated to building a student rotation program and running a summer intern program. (Health)*

> *I do not see that there are non-actuaries taking on actuarial roles. There is more competition in non-traditional actuarial roles for sure. (Life Insurance)*

> *I've been hearing "the profession is facing increased competition" for my entire 16 year career. Where is the proof? (Life Insurance)*

Things are looking up:

> *In the P&C reinsurance company I work at, actuaries are assuming more underwriting and management positions, in addition to growth in the actuarial roles. (Finance)*

> *Actuaries are in a better position in my organization than they were 5 years ago. (Life Insurance)*

Changing business world:

> *As large mutual companies have demutualized, there has been pressure from other disciplines (finance and investment) that has made it necessary for actuaries to defend and try to expand their "turf." (Retirement Systems)*

Popular image:

> *Unfortunately television has chosen to portray actuaries as life insurance agents. At best, actuaries are thought of as "keepers of mortality tables". I'd like to see a well-rounded picture of actuaries in the media, television and movies. (Retirement Systems)*

4. ADDITIONAL CREDENTIALS

Table 7 shows the proportion of members who hold credentials other than the ASA and FSA: 82 percent hold at least one such credential. Seventy-one percent hold other actuarial credentials, 27 percent hold other academic credentials, and 18 percent hold additional professional credentials. The number of credentials held increases consistently with age, as Figure 3 illustrates: the pursuit of credentials is a life-long affair.

Table 7. Members with actuarial, professional and academic credentials (other than FSA and ASA)

SOA Member Survey 2003

	Percent of members					
Percent who hold:	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
Other actuarial credentials	63	74	67	78	61	71
Other professional credentials	35	14	21	10	17	18
Other academic credentials	34	26	26	23	44	27
Any other credential	83	83	80	83	86	82
N	505	825	1,496	1,000	147	3,973

Each table entry is rounded independently; columns may not add to exactly 100 percent.

Figure 3. Credentials by age (excluding ASA, FSA)

SOA Member Survey 2003

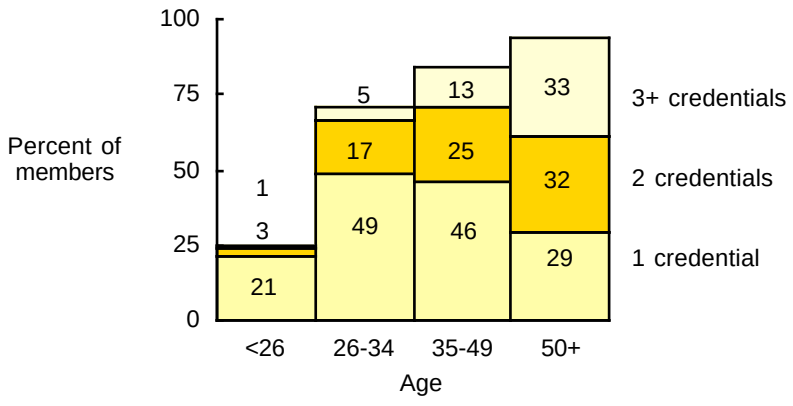


Table 8 shows the number of non-SOA credentials that members hold in each practice area.

Table 9 and Table 10 provide detail on the specific credentials than members hold:

- The MAAA is the most widely held actuarial credential, by a wide margin;
- Fellow of the Life Management Institute (FLMI) is the most widely held professional credential;
- A Masters or Ph.D. in mathematics is the most widely held academic credential.

Looking at "other professional credentials" in Table 10, exams in the NASD series are the most common entry, accounting for 51 of the 163 "Other" credentials. The HIA exams were mentioned by 10 people.

In the "other academic" category in Table 10, the most common degree is Masters in Actuarial Science (38 of the 200 "other" responses). Aside from this, degrees are spread across a diverse array of disciplines including areas such as engineering, computer science, operations research, political science, and others.

Table 8. Number of credentials that members hold in addition to FSA and ASA (including actuarial, professional and academic credentials)

SOA Member Survey 2003

	Percent of members					
Number of credentials	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
None	17	17	20	17	14	18
One	39	50	47	27	45	41
Two	28	24	20	31	23	25
Three	10	7	9	17	14	11
Four or more	7	2	5	8	3	5
Total percent	100	100	100	100	100	100
N	505	825	1,496	1,000	147	3,973

Each table entry is rounded independently; columns may not add to exactly 100 percent.

Table 9. Actuarial credentials that members hold

SOA Member Survey 2003

Credential	Percent of members who hold the credential: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
SOA credentials						
ASA	100	100	100	100	100	100
FSA	67	58	67	54	55	62
Non-SOA credentials						
MAAA	49	71	56	51	46	56
EA	6	4	2	55	8	16
FCIA	13	3	13	13	12	11
FCA, MCA, ACA	2	5	1	12	3	5
FSPA, MSPA	<1	<1	<1	6	–	2
FIA, AIA, FFA (UK)	1	<1	3	2	2	2
FCAS	1	<1	<1	1	6	1
FIA, FIAA, AIAA (Australia)	<1	<1	1	<1	–	1
ACAS	1	<1	<1	<1	<1	<1
N	505	825	1,496	1,000	147	3,973

Note: Percentages need not add to 100, as members have varying numbers of credentials.

Table 10. Non-actuarial credentials that members hold

SOA Member Survey 2003

Credential	Percent of members who hold the credential: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
PROFESSIONAL						
Fellow, Life Management Institute (FLMI)	7.2	7.0	10.0	1.9	4.5	6.8
Chartered Life Underwriter (CLU)	4.4	3.1	6.9	1.0	7.1	4.3
Chartered Financial Analyst (CFA)	19.5	.9	2.4	2.1	1.3	4.1
NASD Series-7	4.1	.9	2.5	2.0	2.6	2.3
Chartered Financial Consultant (ChFC)	1.7	1.2	3.6	.2	2.6	2.0
Accountant (CPA, CMS, CGA, CA, CMA)	1.0	.4	.9	.9	1.3	.8
Cert. Employee Benefits Specialist (CEBS)	.2	.8	.4	.9	–	.6
Cert. Financial Planner (CFP)	1.2	.1	.6	.8	.6	.6
Financial Risk Manager (FRM)	1.7	–	.3	.1	.6	.4
Cert. Property Casualty Underwriter (CPCU)	.4	–	.5	–	.6	.2
Canadian Investment Manager (CIM)	.2	–	.1	.1	–	.1
Cert. Human Resource Professional (CHRP)	.2	–	–	.2	–	.1
Professional Risk Manager (PRM)	.6	–	.1	–	–	.1
Certified Risk Planner (CRP)	–	–	.1	–	–	–
Other professional credentials	3.9	4.0	4.9	2.4	5.8	4.0
ACADEMIC						
Masters of Business Administration (MBA)	7.4	3.3	4.5	3.3	7.1	4.4
Masters or Ph.D. in Mathematics	13.2	12.7	12.4	11.6	14.2	12.4
Masters or Ph.D. in Economics	2.1	1.1	1.5	.8	1.9	1.3
Masters or Ph.D. in Statistics	2.1	1.1	1.5	.8	1.9	1.3
Financial Engineer, Masters or Ph.D. Finance	2.7	.6	.3	–	2.6	.7
Law, jurisprudence degree (JD, LLB)	.6	.1	.3	1.0	1.9	.5
Masters in Public Health (MPH)	–	.4	–	–	–	.1
Masters or Ph.D. in Demography	–	.1	–	–	–	.1
Masters in Health Administration (MHA)	–	–	–	–	–	–
Masters in Health Policy (MHP)	–	–	–	–	–	–
Medical Doctor (MD)	–	–	–	–	–	–
Other academic credentials	6.2	2.5	4.8	3.9	6.5	4.9
N	517	843	1,546	1,024	155	4,085

Note: Percentages need not add to 100, as members have varying numbers of additional credentials.

THE IMPACT OF NON-ACTUARIAL CREDENTIALS

This section focuses on the 25 non-actuarial credentials listed in Table 10.

Members who hold non-actuarial credentials rated their reasons for taking the credentials and also the impact the credentials had on their career. Each item in Table 11 was presented as a response scale where 0 means "no impact at all" and 100 means "a very great impact". The right-hand column in Table 11 shows the mean rating across all 25 of the credentials. Thus, for all credentials, the mean rating for "Increased my confidence" is 56 out of 100. The degree of impact decreases down the list of eight items: the smallest impact occurs with respect to "Increased my level of compensation ", which scores 31 out of 100.

The credentials are listed in order of their overall impact: the CFA, a MA or Ph.D. in economics and the MBA all have similar impacts, 54 out of 100. The FLMI has the least impact, 27 out of 100.

In the body of Table 11:

- Entries in bold indicate that the credential scores ***above*** the mean of all credentials on that measure;
- Entries in italics indicate that the credential scores ***below*** the mean of all credentials on that measure;
- A dash indicates that the credential does not differ significantly from the mean for all credentials in the right-hand column.

Some highlights are:

- The CFA has higher impact than any of the other credentials in terms of "Increased my career options". The MBA and advanced degrees in statistics also have an above-average impact in this area.
- The MBA has the greatest impact in terms of "Improved my business skills", while the CFA and advanced degrees in statistics also have an above-average impact.
- The FLMI has a below-average rating in each area with the exception of "Gained knowledge of my industry", where it is above-average.

Table 11. Impact on career of specific non-actuarial credentials

SOA Member Survey 2003

Motivations and impacts	CFA	Econ-omics	MBA	Statis-tics	Mathe-matics	NASD 7	CLU	FLMI	All creds
Impact									
Increased my confidence	–	**64**	–	**66**	**62**	*41*	*29*	*34*	56
Improved my technical skills	–	–	*39*	**73**	**64**	*32*	*14*	*15*	53
Increased my career options	**73**	–	**59**	**57**	–	–	*26*	*14*	49
Attained increased recognition, prestige	**69**	–	**57**	–	–	*31*	–	*29*	45
Improved my business skills	**48**	**54**	**75**	–	*23*	–	–	*32*	38
Improved my communication skills	*29*	**53**	**65**	–	*34*	*19*	*28*	*25*	38
Gained knowledge of my industry	**61**	**53**	–	–	*20*	**52**	**51**	**46**	36
Increased my level of compensation	–	–	**39**	–	–	*18*	*8*	*14*	31
Reasons for pursuing the credential									
For intellectual interest	**70**	**69**	–	–	**63**	*40*	*38*	*43*	57
Allowed me to move out of actuarial	**39**	–	–	–	*14*	–	*5*	*6*	19
My employer required it	–	**24**	–	–	*7*	**36**	–	–	12
Mean impact (over the 8 impact scales)	54	54	54	51	42	37	28	27	38
N	76	29	101	120	382	32	28	110	878

FUTURE CREDENTIALS

Twenty percent of respondents state that they are working toward a credential at this time and 12 percent indicate that they intend to do so within the next two years.

The credentials included in this survey question are those shown in Table 12, i.e. the FSA plus 25 academic and professional credentials. Other actuarial credentials were not listed, however 2 percent of respondents described actuarial credentials under the "Other professional credentials" option. One-quarter of this group listed the EA, with smaller numbers citing the ACAS, FCAS, other NASD exams, and several other actuarial credentials.

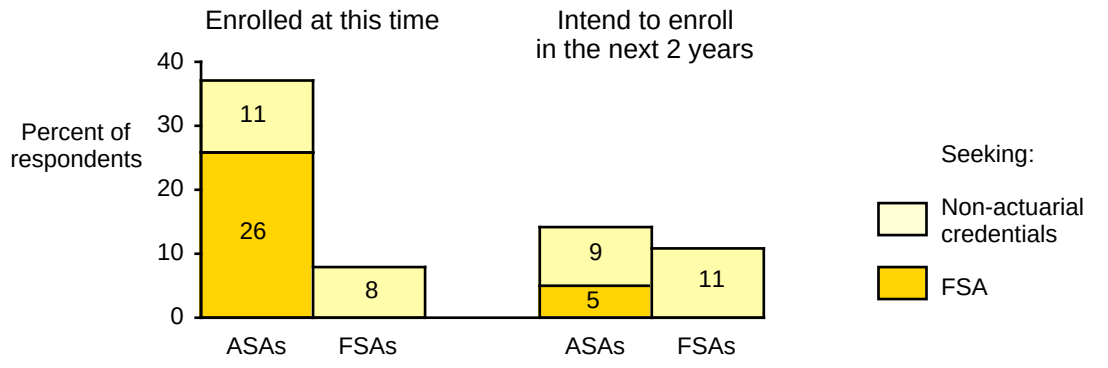
Respondents in the Finance/Investment practice area are the most likely to seek additional credentials (37 percent) followed by those in Life Insurance (34 percent), Health (30 percent) and Retirement Systems (28 percent).

ASAs are more active in pursuing additional credentials than FSAs (Figure 4), however this is almost entirely due to ASAs studying for the FSA. Twenty-six percent of ASAs are currently enrolled in FSA courses, and another 5 percent intend to enroll within two years.

ASAs and FSAs show very similar levels of interest in non-SOA credentials, represented by the lighter areas in Figure 4.

Figure 4. Members seeking additional credentials

SOA Member Survey 2003



Percentages are based on all respondents, N = 3,894.

Table 12 examines the one-third of members who are currently studying for an additional credential or who intend to seek one. The FSA is the most frequently cited credential by a wide margin, followed by the CFA and MBA.

Table 12. Credentials that members are pursuing or intend to pursue

SOA Member Survey 2003

Credential	Percent					
	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	Total
PROFESSIONAL						
Fellow, Society of Actuaries (FSA)	26	51	37	44	31	39
Chartered Financial Analyst (CFA)	41	10	24	20	27	23
Cert. Financial Planner (CFP)	4	3	4	8	4	5
Financial Risk Manager (FRM)	10	1	3	1	0	3
Accountant (CPA, CMS, CGA, CA, CMA)	2	1	3	1	0	2
Chartered Financial Consultant (ChFC)	1	1	4	0	4	2
Chartered Life Underwriter (CLU)	0	1	4	0	0	2
Fellow, Life Management Institute (FLMI)	1	3	3	4	4	2
NASD Series-7	1	0	3	0	0	2
Certified Employee Benefits Specialist (CEBS)	1	3	0	0	0	1
Certified Risk Planner (CFP)	1	0	1	0	0	1
Professional Risk Manager (PRM)	2	1	2	1	0	1
Canadian Investment Manager (CIM)	0	0	0	0	0	0
Cert. Human Resource Professional (CHRP)	1	0	0	0	0	0
Cert. Property/Casualty Underwriter (CPCU)	0	0	0	0	4	0
Other professional	6	7	4	11	27	7
ACADEMIC						
Masters of Business Administration (MBA)	12	19	17	8	4	14
Financial Engineer, Masters, Ph.D. Finance	8	1	5	4	8	4
Law, jurisprudence degree (JD, LLB)	1	2	4	3	0	2
Masters or Ph.D. in Economics	2	3	2	1	4	2
Masters or Ph.D. in Mathematics	3	1	2	1	0	2
Masters or Ph.D. in Statistics	1	3	2	1	0	2
Masters in Health Administration (MHA)	0	1	0	0	0	0
Masters in Health Policy (MHP)	0	1	0	0	0	0
Masters in Public Health (MPH)	0	2	0	0	0	0
Masters or Ph.D. in Demography	0	1	0	0	0	0
Medical Doctor (MD)	1	0	0	0	0	0
Other academic	3	3	2	4	8	3
N	191	236	516	276	26	1,245

Columns add to more than 100 as some members are pursuing both an academic and a professional credential.

Percentages are based on members within each practice area who are pursuing or intend to pursue additional credentials.

REASONS FOR PURSUING ADDITIONAL CREDENTIALS

Members who were pursuing additional credentials were presented with ten reasons for doing so, and rated each on a scale from "Not a reason" to "A major reason". Results appear in Table 13, which is set out in the same manner as Table 11:

- Entries in bold indicate that the credential scores ***above*** the mean for all credentials, (the "Overall mean" column);
- Entries in italics indicate that the credential scores ***below*** the mean of all credentials;
- A dash indicates that the credential does not differ significantly from the mean for all credentials.

Increasing career options is the strongest motivation for pursuing new credentials, with an agreement score of 79 out of 100. The FSA scores especially high on this measure.

The three major credentials – FSA, CFA and MBA have very different profiles. The FSA represents greater career options, compensation and prestige. The MBA is narrowly identified with business skills. The CFA is identified with intellectual interest and technical skills. Note that the "other" column, which includes all credentials in Table 12 except the FSA, CFA and MBA, scores below the mean on most measures.

Table 13. Reasons for pursuing the FSA and other non-actuarial credentials

SOA Member Survey 2003

	Motivation (0– 100)*				
Reason for pursuing the credential	**FSA**	**CFA**	**MBA**	**Other**	**Overall mean**
To increase my career options	**84**	–	–	*71*	79
For increased recognition, prestige	**76**	–	*59*	*49*	64
For intellectual interest	*54*	**67**	–	**65**	60
To gain knowledge of my industry	**64**	–	*53*	–	58
To increase my sense of accomplishment	**67**	*51*	–	*51*	58
To improve my business skills	*49*	**60**	**82**	*50*	56
To increase my level of compensation	**76**	*46*	–	*36*	56
To improve my technical skills	–	**60**	*43*	–	52
To improve my communication skills	*27*	*25*	**58**	*26*	31
My employer requires it	**36**	*12*	*12*	*11*	21
N	453	246	133	370	1,245

* Zero on the rating scale is "Not a reason"; 100 is "A major reason".

Table 14 compares the experience of those who have taken additional credentials with the motivations for those who are currently pursuing or intend to pursue credentials. The "Looking back" column repeats the results for "all respondents" from Table 11. The "Looking forward" column repeats information in Table 13.[2] (Note that, to a small extent, the credentials being compared in the two groups are different. For example, Financial Engineer is a larger component of future credentials than of past credentials.)

With this caveat in mind, Table 14 shows that the anticipation of a credential tends to be viewed more positively than the actual achievement of it. The opposite holds for "improved communication skills" – this appears to be an unanticipated benefit.

Table 14. Impact of additional credentials – looking back and looking forward

SOA Member Survey 2003

	Impact on career (0 – 100)		
Reasons and impact	**Looking back**	**Looking forward**	**Difference**
Increased career options	51	76	-24
Greater knowledge of my industry	42	58	-16
Improved business skills	44	60	-16
Increased level of compensation	32	44	-12
Increased recognition, prestige	49	57	-8
Intellectual interest	58	62	-4
Improved technical skills	54	53	1
Increased confidence, sense of accomplishment	57	50	7
Improved communication skills	40	29	11

Each table entry is rounded independently.

[2] The FSA is excluded from this comparison because Table 11 is restricted to non-actuarial credentials.

5. THE ACTUARIAL IMAGE

Actuaries who have good communication skills have little competition.

Companies today put emphasis on the ability to verbally communicate and interact with others as THE primary criteria for promotion throughout the company structure, regardless of the field.

Actuaries are still portrayed as the dull technician. We need to be viewed as the interesting professional by communicating better and explaining concepts in a more interesting way and steering clear of technical mumbo jumbo.

We need an infusion of prestige to the perception of our work and our field. I think even Schmidt would feel a little better about himself if that were to happen.

A set of eighteen skills and characteristics were defined to reflect the qualities that actuaries are well known for in the business world, as well as desirable qualities that may be less characteristic of the profession, at least in the eyes of the world. The set draws on several sources: consultation with SOA staff, volunteers and Board members, as well as the 2002 Market Opportunities Research.

The survey asked respondents to review the skills and characteristics and describe "actuaries you know in your area of employment". The focus is thus on members' direct experience, and not on stereotypes. Members answered two questions about each trait:

- How do you view the performance of actuaries in this area?
- How important is it for actuaries to improve their performance in this area?

ACTUARIES' VIEWS OF THE PROFESSION

Members' ratings of actuarial performance and of the need for improvement appear in Table 15.

Members rate core actuarial skills such as "Quantitative modeling skills" and "Solves complex problems" high in performance. Members also rate the importance of improving these skills as relatively low.

Business skills, both "Business communication skills" and "Business acumen" are rated lowest in actual performance and highest in importance – making them a clear focus for development.

One might expect to find a mirror-image relationship between the performance and need-for-improvement ratings, but this is not the case. There is a modest correlation of -.37 between the two sets of measures.

Table 15. Skills and characteristics

SOA Member Survey 2003

Skill/attribute	Current performance (0 – 100)	Importance of improvement (0 – 100)	Difference
Business communication skills	48	83	35
Business acumen	52	75	23
Proactive	53	75	22
Risk management skills (global or enterprise)	54	74	20
Leadership	57	76	19
Can focus on the big picture	59	77	18
Bold, takes informed risks	47	65	18
Knowledge of financial institutions and markets	53	70	17
Innovative thinker	59	75	16
Intellectual agility	65	75	10
Advisor	60	70	10
Team player	60	67	6
Financial assessment and reporting	70	73	2
Reliably gets the right solution	71	70	-1
Quantitative modelling skills	77	73	-4
Industry knowledge	73	66	-7
Solves complex problems	79	69	-10
Ethical	82	69	-12

Each table entry is rounded independently.

DIMENSIONS OF THE ACTUARIAL IMAGE

The 18 skills and attributes provide interesting information in their own right, however they overlap somewhat in meaning, and factor analyses were conducted to determine if a simpler structure could be found. Analyses were carried out separately on the performance and on the importance measures. Two items with low communalities and somewhat fuzzy definitions were dropped: they are "advisor" and "intellectual agility", which had a double-barreled definition of "Synthesize/transform data and insights into practical methods or solutions; ongoing self-development".

The performance and the importance measures both factor into three almost identical dimensions, which can be characterized as:

- Business skills
- Financial skills
- The ability to get the right answer

It would, of course, be possible to find very different dimensional structure in the importance and performance data. The fact that they are essentially the same makes drawing implications from the results that much more straightforward.

The factor loadings appear in Table 16, providing fine detail for those who are interested. Others can read the "Implications", following, without loss of context.

Implications

Consider the three dimensions in terms of the performance/importance data in Table 15:

"The ability to get the right answer"

This factor has three strong elements:

- Ethical
- Reliably gets the right solution
- Solves complex problems.

Members rate actuarial performance high on all three elements, and the need for improvement low on all three elements.

"Business skills"

This factor is anchored by four items:

- Business communication
- Business acumen
- Bold, takes informed risks
- Leadership.

These are all measures on which members rate actuarial performance as relatively low and the need for improvement as high.

"Financial skills"

This factor consists of three items:

- Knowledge of financial instruments and markets
- Risk management skills
- Financial assessment and reporting.

These vary in their performance and importance scores. Members ascribe relatively low performance and a high need for improvement to the first two, while Financial assessment and reporting scores relatively high in performance.

The clear message is that actuaries perceive that the profession will benefit from a stronger focus on business communication, business leadership and related skills.

Assuming that the wider world shares actuaries' views of their profession, "getting the right answer" would be a sound foundation for promoting the profession. From a marketing perspective, it may be possible to link the "business skills" issue to "getting the right answer", so that "business skills" gains by association with the stronger element.

Table 16. Factor loadings: Members' perceptions of actuarial performance

SOA Member Survey 2003

	Performance			Need for improvement		
Measure	**Business skills**	**Finance skill**	**Getting right answer**	**Business skills**	**Finance skills**	**Getting right answer**
Business communication	**.78**	-	-	**.74**	-	-
Business acumen	**.75**	-	-	**.79**	-	-
Bold, takes informed risks	**.72**	-	-	**.63**	-	-
Leadership	**.70**	-	-	**.69**	-	-
Can focus on big picture	**.67**	-	-	**.60**	-	-
Proactive	**.64**	-	-	**.60**	-	-
Innovative thinker	**.54**	-	-	**.45**	-	.40
Team player	**.52**	-	-	**.45**	-	.43
Knowledge of finan. inst. markets	-	**.80**	-	-	**.79**	-
Risk management	-	**.71**	-	-	**.74**	-
Financial assessment reporting	-	**.67**	-	-	**.60**	.43
Quantitative (modeling)	-	**.57**	-	-	.49	**.58**
Ethical	-	-	**.73**	-	-	**.82**
Reliably gets right solution	-	-	**.72**	-	-	**.81**
Solves complex problems	-	-	**.71**	-	-	**.81**
Industry knowledge	-	-	-	-	-	**.59**
Weighted score	54	63	76	70	74	72

Measures are listed in the order indicated by the analysis of performance measures.

The analysis accounts for 55 percent of the variance in the performance measures and 60 percent of the variance in the importance measures. Extraction is direct oblimin.

Given the oblique rotation, factor loadings are partial regression coefficients of the variables onto the factors.

Loadings less than .40 are omitted. The order of extraction for the importance scores was "Getting it right", then "Business skills", then "Finance skills". The importance and performance factors are printed in the same order here to facilitate comparison.

The "weighted score" is the sum of factor loadings times performance scores, on the original 0 – 100 scale.

Differences among segments of the membership

There is considerable consistency among segments of the actuarial profession with regard to the factors outlined above. Differences, when they occur, are small. The following differences are evident in an analysis of factor scores.

Practice areas differ in these ways:

- Members in the Finance area rate their performance on the business skills factor slightly lower than others. Finance is .11 standard deviations below the mean. This effect accounts for 2.2 percent of the variance in factor scores.
- Members in the Finance and Life areas rate the importance of improving finance skills higher than others. (Finance is .33 standard deviations above the mean and Life Insurance is .15 standard deviations above the mean. Health and Retirement Systems are slightly below the mean.) This effect accounts for 4.4 percent of the variance in factor scores.

In addition, those who perceive that the profession is facing greater competition differ slightly from other members. They see business skills and financial skills as being more important to improve than do other members. (Business skills is .23 standard deviations above the mean; financial skills is .22 standard deviations above the mean, and the effects account for between 1 and 2 percent of the variation in scores.)

These differences accord with intuition, however they account for very small proportions of variance, suggesting that an organization-wide strategy is appropriate for moving forward.

In conclusion, the actuarial image as described in the 18 individual measures and in the factor analyses encompasses all practice areas as well as all other groups of members that are identifiable in this survey. At this point in time, actuaries in all walks of the profession view their skills and characteristics along similar lines.

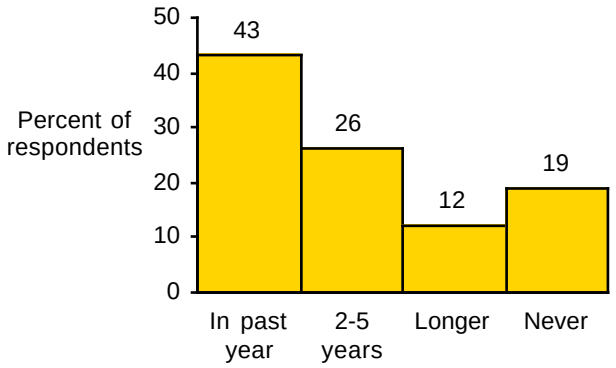
6. CONTINUING EDUCATION

Nearly half the respondents had attended an SOA continuing education event within the past year.

While the SOA is a major source of continuing education, members have a wide range of options available.

Figure 5. Have you attended SOA continuing education events?

SOA Member Survey 2003



Respondents indicated all of the CE events that they had attended in the previous year (Table 17). Their employer's in-house events and SOA events were attended with almost equal frequency; all other sources are considerably less used.

Among Canadian members, 59 percent have attended a Canadian Institute of Actuaries' event in the past year while 24 percent have attended an SOA event.

Members also indicated which of the sources in Table 17 was their primary source of CE, and 47 percent cited the SOA, compared to 22 percent who mentioned their employer and less than ten percent who mentioned other organizations. The SOA is therefore a preferred source of CE.

Table 18 shows attendance at CE events for members of each Section.

Table 17. Attendance at CE events in the past year

SOA Member Survey 2003

CE event	Percent of respondents: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
My employer's in-house programs	39	43	39	65	34	46
SOA	46	58	53	23	21	44
Prof. associations (not actuarial)	22	14	13	17	18	15
Consulting firms	15	12	15	9	7	13
Canadian Institute of Actuaries	11	3	13	14	10	11
American Academy of Actuaries	6	12	7	7	4	8
Enrolled Actuaries meetings	3	2	1	26	3	8
University/academic programs	11	4	6	3	20	6
Conference of Consulting Actuaries	2	6	1	12	3	5
American Society of Pension Actuaries	1	1	–	9	1	3
Casualty Actuarial Society	3	1	–	–	10	1
Other actuarial associations	15	16	21	8	15	16
Other sources	8	8	5	5	11	6

Columns add to more than 100 percent as members selected all organizations that provided them with CE .

Table 18. Attendance at CE events in the past year: Section results

SOA Member Survey 2003

Percent of respondents

CE Event	Actuary Future	Life Ins Fin Rprt	Comp Science	LTC Ins	Edn & Research	Mgmt Personal Devel	Futur-ism	Non-trad Mktg
My employer's in-house programs	47	41	40	46	42	50	46	38
SOA	44	61	53	63	54	62	45	54
Prof. associations (not actuarial)	15	14	12	15	20	17	21	17
Consulting firms	14	16	13	16	13	18	13	17
Canadian Institute of Actuaries	12	10	7	9	14	10	14	11
American Academy of Actuaries	8	9	7	11	10	12	7	8
Enrolled Actuaries meetings	5	1	7	2	5	2	10	2
University/academic programs	9	5	6	5	26	10	10	7
Conference of Consulting Actuaries	5	1	1	3	4	3	8	2
American Society of Pension Actuaries	1	<1	3	1	3	1	4	1
Casualty Actuarial Society	1	<1	1	1	5	1	1	–
Other actuarial associations	20	22	20	18	20	22	19	26
Other sources	6	6	6	7	6	7	6	6
Number of respondents	285	1,160	421	244	196	309	202	365

	Health	Pension	Life Ins Annuity	Rein-surance	Inter-national	Smaller Consult Co	Invest-ment	Smaller Insur Co
My employer's in-house programs	46	64	40	40	53	26	44	26
SOA	56	26	60	62	48	48	49	69
Prof. associations (not actuarial)	15	17	15	17	19	28	18	17
Consulting firms	13	10	16	16	16	13	14	16
Canadian Institute of Actuaries	5	14	10	12	12	11	13	9
American Academy of Actuaries	12	8	9	10	7	15	8	12
Enrolled Actuaries meetings	5	27	1	2	5	19	6	<1
University/academic programs	5	3	6	7	10	6	9	5
Conference of Consulting Actuaries	7	12	1	2	4	12	4	3
American Society of Pension Actuaries	2	9	<1	1	2	12	2	<1
Casualty Actuarial Society	1	1	<1	2	1	1	1	–
Other actuarial associations	19	9	22	23	25	22	17	27
Other sources	8	5	6	6	7	7	6	7
Number of respondents	1,040	968	1,112	708	403	182	960	239

Columns add to more than 100 percent as members selected all organizations that provided them with CE.

Reasons for not attending SOA CE events

Those who had not attended SOA Continuing Education events in the past year were asked why. Table 19 shows reasons for non-attendance by practice area. Inconvenient timing is the primary reason (though not always by a wide margin) in Finance, Health Benefits and Life Insurance. "Other organizations offer more relevant programs" is the primary reason for those in Retirement Systems.

Table 19. Reasons for not attending SOA CE events – by Practice Area

SOA Member Survey 2003

	Percent of respondents					
SOA CE event	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
Cost was too great	26	30	29	19	27	25
My employer would not sponsor	25	26	26	19	25	24
My employer limits travel	24	25	27	16	11	22
Was not aware of the programs	6	4	6	5	3	5
Locations were not convenient	20	17	28	21	17	22
Timing was not convenient	**36**	**43**	**32**	30	18	**33**
Content was not of interest	29	28	20	27	**37**	26
Other organizations more relevant	30	19	18	**44**	28	29

N = 2,274.

Columns add to more than 100 percent as members could select multiple options.

PREFERENCES FOR CE EVENTS

Respondents were asked to think of the most recent SOA CE event they had attended and to indicate whether they would prefer the presentation of content to be altered. They wrote in their preferred balance of content in terms of :

- Strategic and business topics *versus* technical actuarial topics
- Broad coverage of multiple topics *versus* in-depth coverage of a single topic.

Technical topics and in-depth coverage are preferred by small margins of respondents. There are not significant differences among practice areas in the results shown in Table 20 and Table 21. There is a slight tendency for those who are older or have more years of experience to prefer more technical material. Among those under 35 years of age, 35 percent expressed a wish for a greater technical emphasis; among those age 50 and over, 47 percent voted for a greater technical emphasis.

Table 20. Balance between technical and strategic topics

SOA Member Survey 2003

Balance	Percent of members
75% or more on strategic	11
51 – 74% on strategic	18
50% on each topic	28
51 – 74% on technical	23
75% or more on technical	20
Total percent	100
N	3,258

Table 21. Balance between in-depth and broader coverage of topics

SOA Member Survey 2003

Balance	Percent of members
75% on broad coverage	9
51 – 74% broad coverage	13
50% on each	28
51 – 74% on in-depth coverage	24
75% or more on in-depth coverage	26
Total percent	100
N	3,258

Table 22 shows respondents' preferences for the length of CE events.

Table 22. Length of Continuing Education events

SOA Member Survey 2003

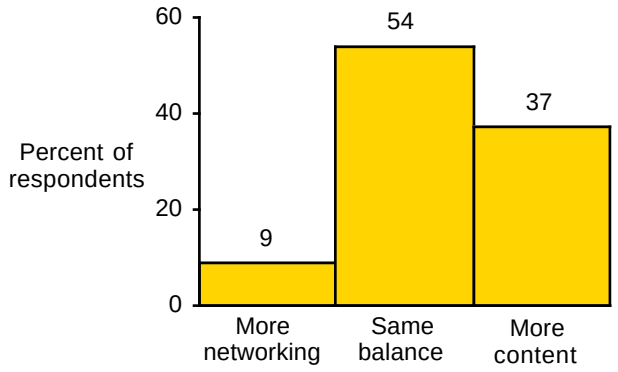
Length	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
1 to 1.5 days	14	9	10	16	16	12
1.5 to 2 days	44	36	45	38	27	41
2 to 3 days	26	40	30	32	27	32
Can't say: Prefer more in-depth coverage rather than a specific length	16	15	16	14	29	16
Total percent	100	100	100	100	100	100
N	507	822	1,509	999	146	3,983

Each table entry is rounded independently; columns may not add to exactly 100 percent.

The survey asked what balance major SOA meetings should strike between the teaching of content and time allowed for networking. Choices reaffirm the preceding messages - if there is any shift it should be in the direction of greater content. Practice areas differ only to a minimal degree in their preferences: the Finance area emphasizes content to a slightly greater degree than the other areas (49 percent of those in Finance voted for more content, versus 39 percent in Life Insurance, and 36 percent in each of Health and Retirement Systems).

Figure 6. Preferred balance between networking and teaching of content

SOA Member Survey, 2003



7. PUBLICATIONS

Table 23 shows the proportion of members who use publications from 15 different sources.

Table 23. Use of publications

SOA Member Survey 2003

Source of publication	Percent of members who use each publication: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
SOA	91	91	94	84	78	90
American Academy of Actuaries	57	77	65	58	38	64
My employer's publications	53	55	49	73	38	56
General business journals	61	55	51	47	47	52
Consulting firms	44	52	45	42	27	45
Government sources	37	50	36	62	30	45
Non-actuarial professional assoc.	46	36	35	26	28	34
Canadian Institute of Actuaries	22	7	22	23	17	19
Clipping services	12	21	14	20	10	16
Enrolled Actuaries materials	4	2	1	51	2	14
University/academic publications	23	14	11	8	29	13
Other actuarial associations	13	6	16	8	12	11
Conference of Consulting Actuaries	3	6	2	20	1	7
American Soc. of Pension Actuaries	1	1	–	22	1	6
Casualty Actuarial Society	7	5	3	1	23	4
Other	9	4	5	5	6	5
N	501	819	1,493	989	138	3,940

Columns add to more than 100 percent as respondents selected multiple options.

Respondents who indicated that they did not use SOA publications were asked why. The large majority of their answers stated that the publications were not relevant, either because the person worked in an area that was outside the focus of the publication or because they were too technical. Representative comments are:

> *Most of the publications do not contain materials relevant to my practice and day-to-day work requirements.*

> *Either too theoretical (NAAJ) or not enough depth (the others). I need info on "rules of thumb", and simple models.*

Not relevant to day-to-day work. Very technical in nature, most of the time.

My position does not require the depth of technical knowledge contained in the majority of articles.

They usually aren't relevant and most are theoretical as opposed to practical in nature.

They are not necessary for my job.

It would be better to provide more real-life cases and details of actuarial applications.

Most times I only need actuarial tables - these publications are not needed for my work at this time.

Some respondents found the publications too US-based, e.g.:

Not so relevant to Hong Kong market and sometimes too technical to apply in daily work.

I do not practice in the U.S. and therefore the vast majority of SOA material and events have no value to me.

A minority were unaware of the publications, e.g.:

I have recently attained the ASA and do not receive these publications yet.

Other comments:

My employer does a great job summarizing the publications that are out there.

I don't know why - I'm facing information overload.

I've only been working for 3 years and at this stage in my career I'm not as concerned with industry goings-on as I am with doing the work.

NO TIME!

Time constraints and ease with which information is accessible through our intranet.

All respondents rated the usefulness of the SOA's general interest publications using a 5-point scale from "Not at all useful" to "Very useful" (Table 24).

As always, the mean ratings do not tell the whole story. For each of the publications in Table 24, (as well as for the Section publications in Table 25), some members gave ratings of 1 out of 5 and others 5 out of 5. Figure 7 shows the distribution of responses to *The Actuary* by way of example. Thirty percent of respondents gave this journal either 4 or 5 out of 5. Thirteen percent rated NAAJ at 4 or 5 out of 5, and 14 percent gave *The Record* 4 or 5 out of 5. Each publication therefore serves an important function to some members. Forty-one percent of respondents rated at least one of these publications at 4 or 5 out of 5.

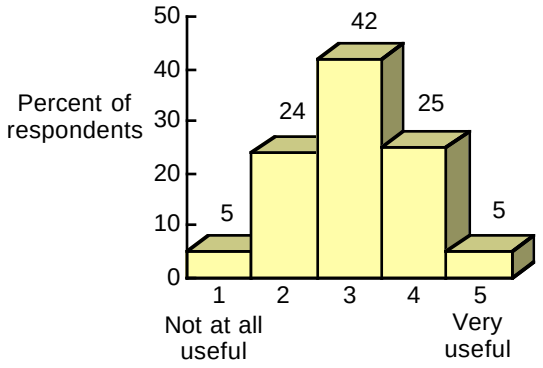
Table 24. Ratings of general publications

SOA Member Survey 2003

	Rating of usefulness (0 = Not at all useful; 100 = Very useful)					
Publication	Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
The Actuary	49	50	54	47	47	50
North American Actuarial Journal	44	29	34	25	38	32
The Record	33	36	40	24	22	34

Figure 7. Distribution of ratings for *The Actuary*

SOA Member Survey 2003



In the survey, respondents used a 5-point rating scale labelled 1 through 5 as in Figure 7. In Table 24 and Table 25 ratings are presented on the more intuitive 100-point scale.

SECTION PUBLICATIONS

Publications of the larger Sections tend to get higher usefulness ratings – the correlation between the number of people who rated a publication and its usefulness score is 0.61. Possibly the larger Sections have more resources to devote to their publications. Two smaller-audience publications that get high ratings are *Long Term Care News* and *The Stepping Stone*.

Table 25. Usefulness ratings of Section publications

SOA Member Survey 2003

Publication	Usefulness (0=Not at all useful 100=Very useful)	No. of respon-dents
Life Insurance Co. Financial Reporting: *The Financial Reporter*	68	1,110
Individual Life Insurance/Annuity Product Devel: *Product Matters!*	67	1.067
Long Term Care Insurance Section: *Long Term Care News*	63	229
Health Section: *Health Section News*	62	993
Management & Personal Devel. Section: *The Stepping Stone*	61	328
Pension Section: *Pension Section News*	60	877
Reinsurance Section: *Reinsurance News*	59	676
International Section: *International News*	58	372
Smaller Insurance Company Section: *small talk*	58	220
Pension Forum	55	837
Investment Section: *Risks & Rewards*	52	907
Nontraditional Marketing Section: *NewsDirect*	51	355
Smaller Consulting Firm Section: *The Independent Consultant*	51	162
Health Benefits Area: *Joint Society/Academy Health Section News*	49	873
Education & Research Section: *Expanding Horizons*	46	173
Futurism Section: *Actuarial Futures*	44	183
Actuary of the Future Section: *Actuary of the Future Section News*	43	256
Computer Science Section: *CompAct (Formerly Digital Doings)*	43	389

Respondents were asked to choose the one SOA publication that was most useful to them. Table 26 presents these results in two ways. The first column shows the actual number of people who identified each publication as most useful. *The Actuary* tops this list: it was chosen most useful by 1,098 members, or 29 percent of all respondents who read it.

In addition to this overall measure, it is important to consider a publication's readership. The number of readers a publication has varies widely, depending largely on the size of the Section. The right-hand column of Table 26 shows a relative index of usefulness – the ratio of most-useful choices to the number of readers (the number of readers being the number of survey respondents

who indicated that they read the publication). The ratio is not shown for publications that were considered "most useful" by fewer than 20 readers.

This relative ranking identifies three Section publications as more useful in their own contexts than the top overall publication, *The Actuary*. These are *Health Section News*, *Pension Section News*, and *The Financial Reporter*.

The relative rankings accord well with the straight usefulness ratings in Table 24 and Table 25. *Health Section News*, *Pension Section News*, and *The Financial Reporter* all rated 60 or better out of 100, and *The Actuary* scored 50.

SOA can use this information to assess the viability of publications in their present format. However, it is important to note that not all publications are designed as comprehensive references, and some would not be expected to be the "single most useful" choice of their readers.

Table 26. What is the most useful publication?

SOA Member Survey 2003

Publication	Raw number	Choices: readers ratio
Health Section: *Health Section News*	453	.46
Pension Section: *Pension Section News*	396	.45
Life Insurance Co. Financial Reporting: *The Financial Reporter*	402	.36
The Actuary	1,098	.29
Individual Life Insurance/Annuity Product Devel: *Product Matters!*	290	.27
Investment Section: *Risks & Rewards*	186	.21
Long Term Care Insurance Section: *Long Term Care News*	47	.21
Pension Forum	125	.15
Reinsurance Section: *Reinsurance News*	87	.13
North American Actuarial Journal	317	.09
The Record	242	.08
International Section: *International News*	29	.08
Management & Personal Devel. Section: *The Stepping Stone*	25	.08
Health Benefits Area: *Joint Society/Academy Health Section News*	44	.05
Nontraditional Marketing Section: *NewsDirect*	18	–
Smaller Insurance Company Section: *small talk*	15	–
Smaller Consulting Firm Section: *The Independent Consultant*	5	–
Computer Science Section: *CompAct (Formerly Digital Doings)*	3	–
Futurism Section: *Actuarial Futures*	2	–
Actuary of the Future Section: *Actuary of the Future Section News*	1	–
Education & Research Section: *Expanding Horizons*	–	–
Total number of "most useful" choices	3,785	

Future directions

Members were asked to consider the one publication that they had chosen as "most useful", and to answer a set of questions about the directions they would recommend for it.

The first question, shown in Table 27, asked whether the publication should become more technical, more practical, or remain about the same as at present. Three publications, *Joint Society/Academy Health Section News*, *Reinsurance News* and *Long Term Care News* strike just about the right balance between practical and technical. For all other journals, a majority of readers favour continuing with the present balance, ***and*** a strong minority favours a more practical approach.

Additional questions asked about the specific content that members would like to see in each publication. This information appears in Appendix A.

Table 27. Balance between technical and practical content
(Ratings of those who chose each publication as their "most relied on")
SOA Member Survey 2003

	Percent of respondents			
Publication	**More technical**	**Same balance**	**More practical**	**Total**
North American Actuarial Journal (NAAJ)	5	51	44	100
International Section: *International News*	4	54	43	100
The Record	7	63	31	100
The Actuary	5	65	30	100
Pension Section: *Pension Section News*	5	66	29	100
Individual Life Annuity Product Development	8	66	26	100
Investment Section: *Risks & Rewards*	6	68	26	100
Pension Forum	7	68	26	100
Health Section: *Health Section News*	10	65	25	100
Management & Personal Devel: *The Stepping Stone*	–	76	24	100
Life Insurance Co: *The Financial Reporter*	4	76	20	100
Health Benefits: *Joint Society/Academy Health Sect News*	10	71	19	100
Reinsurance Section: *Reinsurance News*	14	69	17	100
Long Term Care Insurance: *Long Term Care News*	17	70	13	100

Rows may not add to exactly 100 percent due to rounding.
Results are not reported for publications that were rated by fewer than 20 members.

8. PRACTICE AREA PRIORITIES

INTRODUCTION

This chapter reports priorities of members in the four main practice areas:

- Finance/Investment and Enterprise Risk Management
- Health Benefits
- Life insurance
- Retirement Systems.

Questions were developed by staff actuaries and the Practice Area Advancement Committee Leaders. The purpose of this set of questions is to assess members' priorities for SOA activity. The general format was to present members with a set of 8 to 12 activities and ask them to identify their top three priorities from among them. In one instance, (Health), a question asks members to state the percentage of time that the SOA should devote to each of several activities.

Within each practice area, three topics are addressed:

- Strategic issues,
- Technical issues, and
- Topics for experience studies.

Three of the strategic questions are common to all practice areas, but the majority are area-specific. Responses to the common questions appear in Table 28 immediately following.

Priorities are highly consistent across segments of the membership including age, region., and years of experience.

Table 28. Questions common to all Practice Areas

SOA Member Survey 2003

Practice area	Percent placing activity… In top 3 priorities	First priority
Increasing membership awareness and actuarial knowledge about the issues of enterprise risk management		
Finance/Investment and Enterprise Risk Management	24	6
Health Benefits	4	1
Life Insurance	25	8
Retirement Systems	6	1
Promoting opportunities for actuaries to become Chief Risk Officers		
Finance/Investment and Enterprise Risk Management	13	3
Health Benefits	5	1
Life Insurance	13	3
Retirement Systems	5	1
Increasing membership awareness and actuarial knowledge about rising professional liability claims against actuarial profession		
Finance/Investment and Enterprise Risk Management	5	1
Health Benefits	4	2
Life Insurance	6	1
Retirement Systems	6	1

FINANCE/INVESTMENT, ENTERPRISE RISK MANAGEMENT

Table 29 and Table 30 show priorities of members working in Finance/Investment, and Enterprise Risk Management.

The top three strategic priorities all speak to securing recognition for the actuarial profession in the larger business community.

Table 29. Strategic priorities in Finance/Investment, and Enterprise Risk Management

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
Identification of current knowledge/skills gaps between actuaries and other relevant professionals and establishment of appropriate educational opportunities for actuaries to respond to increasing competition from other credentials	63	21
Advancement of the profession and professional recognition of actuaries in the broader financial services industry	55	30
Establishment of the actuarial profession as a source of research, standards, practical guidance, and expertise for solving various financial problems	55	22
Understanding of practice differences in actuarial versus non-actuarial approaches to various finance/investment/risk management problems	45	7
Increasing membership awareness and actuarial knowledge about the issues of enterprise risk management	24	6
Proactively reaching out to outside financial service organizations through joint seminars, cross-recruiting of speakers, mutual exam recognition, etc.	20	4
Identification of current knowledge/skills gaps and educational opportunities for actuaries to capitalize on the likely increase in demand for various skills due to the future adoption of International Accounting Standards	19	5
Promoting opportunities for actuaries to become Chief Risk Officers	13	3
Increasing membership awareness and actuarial knowledge about rising professional liability claims against actuarial profession	5	1
Other	1	1
Total (N of respondents = 527)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Table 30. Technical priorities in Finance/Investment, and Enterprise Risk Management

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
Stochastic valuation/modelling	52	24
Enterprise risk management techniques	47	20
Hedging strategies	37	11
Transfer of risks to financial markets	31	7
Fair value accounting	31	10
Embedded value	26	8
Use of new derivative products	20	5
Econometric modelling	20	6
New asset classes (e.g. credit derivatives)	18	4
Equity-driven benefits on variable products	12	6
Mean regression methods	5	1
Other	1	<1
Total (N of respondents =519)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Four options were presented to determine members' priorities for experience studies in the finance and investment area. Risk-based capital related studies is the majority choice.

Table 31. "What should be the primary focus of experience studies in Finance/Investment, and Enterprise Risk Management?"

SOA Member Survey 2003

Area of focus	Percent
Risk-based capital related studies	65
Insurance company expenses by product type and distribution channel	17
Private placement bond experience	9
Other	10
Total percent	100

N = 493

Each table entry is rounded independently; columns may not add to exactly 100 percent.

The ten percent who responded "other" wrote in their choices. Several said "all of the above". A partial list of additional suggestions follows:

Pension Risk Management

Trend identification and analysis, money management

Effects of new financial reporting regulations

Studies of individual investors -- how portfolio structure influences portfolio longevity, best mix of annuities vs. stocks/bonds, etc.

Life insurance company investment performance (both total return and book yield)

Policy holder behavior

Non-insurance company global hedging

Asset experience in general, not just private placement bonds

General investment and portfolio management, less "insurance" related material

Risk Management in Investment Strategies

Annuity mortality experience (deferred phase)

Investment Strategy Analyses by Product Type

Credit risk

Fair Value of Liabilities

Derivatives

Risk management survey.

HEALTH BENEFITS

Table 32 to Table 34 describe priorities of members working in Health Benefits.

Table 32. Strategic priorities in Health Benefits

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
Healthcare affordability and the uninsured	41	19
Healthcare system reform	41	17
Trends in product development (consumer directed health plans, tiered networks, medical products, etc.)	41	11
Demonstration and measurement of variability of health care (costs, quality, outcomes, delivery)	40	12
Identifying and monitoring short- and long-term trends relative to health benefits e.g. the aging population, rate of unemployment, interest rate levels, advancements in medical technology	34	8
Data analysis/data mining issues (including the need for relevant and timely industry experience data)	27	9
Expanding the role of the health actuary (increasing visibility among other professionals and employers in the healthcare and health insurance industries, and other industries)	26	13
Risk assessment/adjustment and predictive modelling	18	4
Performance assessment (including disease management and cost-benefit analyses of medical technologies)	9	1
Promoting opportunities for actuaries to become Chief Risk Officers	5	1
Provider contracting challenges	5	<1
Increasing membership awareness and actuarial knowledge about the issues of enterprise risk management	4	1
Increasing membership awareness and actuarial knowledge about rising professional liability claims against the actuarial profession	4	2
Impact of terrorism	1	<1
Other	3	2
Total (N of respondents =858)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Table 33. Technical priorities in the Health Benefits:
"What percentage of your time do you spend on each activity?"
SOA Member Survey 2003

Activity	Percent of time
Managed care, including HMO, POS, PPO, and like products	33
Employee benefits	9
Medical non-managed care, including Medicare supplement, supplemental policies, Critical Illness and other specialty products	8
Disability Income	8
Healthcare policy (understanding implications of reform, research on the uninsured, consulting for international healthcare systems, etc.)	6
Financial management, including cash flow testing, asset management, solvency issues	6
Social Insurance, including U.S. Medicare, U.S. Medicaid, Canadian provincial plans	5
Long-Term Care Insurance	5
Actuarial analysis (non-traditional applications, including medical effectiveness studies, population health research, academic research, etc.)	5
Other	5
Dental products	4
Group Life	3
Risk management (at an enterprise level)	2
Credit Disability and Credit Life	<1
Total percent	100

N = 844

Each table entry is rounded independently; columns may not add to exactly 100 percent.

Recommendations for experience studies appear in Table 34. From the options suggested, "Large claims" is a decided first choice for 47% of members. A sizeable proportion, 17 percent, opted for "other" topics. Several themes are apparent in these "Other listings":

- All of the options are equally important
- Managed care
- Group medical/group health
- Individual medical
- Medical expenses, medical insurance, medical trends.

Table 34. "What should be the primary focus of experience studies in the Health practice area? "

SOA Member Survey 2003

Area of focus	Percent
Large claims (medical expense coverage)	47
Long-term care	21
Group long-term disability	9
Individual disability income	3
Group life insurance	2
Short-term disability	1
Other	17
Total percent	100

N = 796

Each table entry is rounded independently; columns may not add to exactly 100 percent.

LIFE INSURANCE

Table 35 to Table 37 show priorities of members working in Life Insurance.

Table 35. Strategic priorities in Life Insurance

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
Convergence of financial services organizations (banking, securities, insurance firms are coming together)	45	14
Relevance of individual insurance and annuity products to customers in light of changing demographics, mortality risk, family structures and availability of substitute programs (social insurance etc.)	43	17
Relevance of traditional actuarial roles in a changing business landscape	42	20
Possible future legislation impacting the competitive position of life insurance and annuity products (such as elimination of personal taxes on interest and/or dividends)	26	8
Increasing membership awareness and actuarial knowledge about the issues of enterprise risk management	25	8
International accounting standards	24	8
Globalization – North American insurance companies are increasingly being acquired and owned by foreign organizations	20	7
Consolidation of insurance organizations (M&A)	19	6
Competition from other professions	19	5
Promoting opportunities for actuaries to become Chief Risk Officers	13	3
Paradigm shift in American culture (increased litigation, public emphasis on the short-term, form over substance etc.)	8	2
Rapid growth of insurance markets in emerging economies, while growth of actuarial membership is flat in North America	7	2
Increasing membership awareness and actuarial knowledge about rising professional liability claims against actuarial profession	6	1
Other	1	1
Total (N of respondents =1,594)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Table 36. Technical priorities in Life Insurance

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
How to identify and measure various risks embedded in a product and determine an adequate return	37	15
ALM in current investment environment	35	13
Pricing and reserving of guarantees on variable products	34	14
Fair value of liabilities	33	14
Understanding long-term mortality trends and pricing long-term mortality guarantees under uncertainty	29	11
Projecting future morbidity, persistency and expenses over the long term	20	4
Interpretation and implementation of guidance in GAAP reporting	20	6
Actuary's role in solvency management (STAT reporting)	19	6
Determination of economic capital at the product level	18	4
How to find and use valid data in a rapidly changing environment	18	5
Embedded value reporting	18	5
Pricing of preferred mortality classes	12	3
Protective value of emerging underwriting tools	6	1
Other	1	<1
Total (N of respondents =1,535)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Table 37 reports members' recommendations for mortality experience studies. Considering the group who indicated "Other", a large minority did not suggest topics, but wrote requests for more frequent or more up-to-date or more detailed studies. A similar number requested studies for specific countries or for studies comparing different countries. The remainder suggested specific topics: the list is diverse with few common threads. A partial listing follows:

Experience at older ages
GI Underwriting
Product Attributes, e.g. COI type
Reinsurance mortality
Risk class relationships
Impact of reinsurance
Web-site availability of tables
Older age mortality
Experience by Cause of Death
Experience by underwriting characteristics (e.g. cholesterol level)
Tobacco/No-tobacco vs. Smoker/Non-smoker/Preferred Non-smoker. Various classes of Tobacco and No-Tobacco.
Number of risk classes (are you antiselected against with too many classes?)
Type of Product
Antiselective lapse impact on mortality.

Table 37. What enhancements to current SOA mortality experience studies will make them more useful to you?

SOA Member Survey 2003

Enhancement	Percent *
Experience by risk class	71
Experience by underwriting type	66
Experience by distribution channel	58
Policy size	49
Select period variation	40
Conversion mortality	38
Company size	24
Other	6

* Percentages add to more than 100 as respondents could choose as many options that they wished. On average, respondents checked 3.5 of the 8 options.

N = 1,321

RETIREMENT SYSTEMS

Table 38 to Table 40 show priorities of members working in Retirement Systems.

Table 38. Strategic priorities in Retirement Systems

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
Future of the Defined Benefit Plan	59	39
New perspectives on accounting, funding and measurement of liability from financial economics	47	19
Plan Design Innovations – choice & variation in cash balance design, flexibility in DB plan design, etc.	47	10
Understanding demographic trends and their implications	29	6
Public perception of retirement plans	29	7
Dealing with post-retirement needs & risks	23	6
Pre-retirement planning: Financial planning, phased retirement, etc	22	4
Social insurance issues	17	3
International plan design, funding issues and accounting rules	8	2
Increasing membership awareness and actuarial knowledge about the issues of enterprise risk management	6	1
Increasing membership awareness and actuarial knowledge about rising professional liability claims against actuarial profession	6	1
Promoting opportunities for actuaries to become Chief Risk Officers	5	1
Other	1	1
Total (N of respondents =1,068)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Table 39. Technical priorities in Retirement Systems

SOA Member Survey 2003

Activity	Percent placing activity… In top 3 priorities	First priority
Setting funding and accounting assumptions, methods, funding targets	59	27
Pension asset/liability management principles and consulting	46	17
Financial economics of pension plans and their effect on the plan sponsor's balance sheet	45	16
Plan design technical issues (accrual rules, converting from traditional DB to cash balance type plans	39	14
Pension funding in a low-interest rate environment	35	12
Setting plan sponsor appropriate demographic assumptions	25	4
Plan investment issues	23	3
Plan administration and qualification (benefit calculations, nondiscrimination testing, Form 5500 filings)	15	3
Managing professional liability risk and sponsor requests	9	2
Factors to consider when purchasing annuities	5	1
Other	2	1
Total (N of respondents = 1,030)	300	100

Left column adds to 300%, within rounding error, as members chose 3 priorities.

Table 40. "What should be the primary focus of experience studies in the Retirement Systems practice area? "

SOA Member Survey 2003

Area of focus	Percent
Retirement Plan mortality studies	40
Rates of retirement	24
Turnover tables and/or termination rates by industry	17
Group annuity mortality studies	9
Uninsured plan mortality studies	6
Other	4
Total percent	100

N = 978

Each table entry is rounded independently; columns may not add to exactly 100 percent.

Approximately 20 percent of the "Other" comments wanted "all of the above". The remainder show little pattern, for example:

DC plan rollover rates by type of financial institution

Developing average medical costs by age

Focus on whether or not systems are producing adequate benefits for retirees.

Implication of the shortness of workforce due to retirement of Baby Boomers - what impact it will have on future design of pension plan

Investment returns and economic factors

Lump sum versus annuity selection - looking at MULTIPLE contingent factors

Mortality and retirement

Phased retirement

Plan design and macroeconomic impact on all assumptions

Rates of withdrawal from the U.S. workforce which reflect movement from one employer to another and transition to part-time or seasonal work

Risk reduction endeavors.

9. OVERALL PRIORITIES

The survey asked members to define the amount of time and resources that the SOA should devote to each of twelve activities. Respondents could enter any percentage for any option.

Table 41 reports the mean percent of time and resources that members recommend SOA should devote to each activity, by practice area and overall. Practice areas are highly similar in their response.

The first three activities, in order of priority, all have to do with education. Together, members would have these account for 38 percent of SOA activity.

The activities numbered 5, 7 and 8 all have to do with practice area initiatives; these total 25 percent of total time and resources.

The activities numbered 4 and 6 describe research and total 18 percent of time and resources. This could represent somewhat more effort than the SOA currently devotes to research.

There is some recognition for the need to attract and retain volunteers. Without their work in the core areas of education, practice area initiatives and research, the SOA would potentially require more staff and higher fees.

Table 41. Priorities by practice area

SOA Member Survey 2003

Activity	Percent of resources: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Total
1. Developing continuing education programs (Ed)	15	15	15	13	14
2. Input to the Exam and Education committees on basic education (Ed)	12	12	12	13	12
3. Development of basic education materials for exam preparation (Ed)	12	12	12	13	12
4. Prioritizing and conducting experience studies (Res)	9	11	11	9	10
5. Identifying emerging issues specific to your practice area (PA)	9	9	8	9	9
6. Prioritizing and conducting research projects (Res)	8	9	8	8	8
7. Encouraging emerging practice specialties (PA)	9	7	9	8	8
8. Developing relationships with external organizations (PA)	8	7	8	8	8
9. Education of the public (Comm)	7	7	7	8	7
10. Timely communication of events and issues (Comm)	5	5	5	5	5
12. Attraction, retention and renewal of volunteer enthusiasm	4	4	4	4	4
13. Other	1	1	1	1	1
Total percent	100	100	100	100	100

N = 4,411

Each table entry is rounded independently; columns may not add to exactly 100 percent.

RESEARCH PRIORITIES

The following chapter reports on members' recommendations for experience studies in each practice area. An additional question to all members asked about SOA research into new actuarial techniques and phenomena. Specifically, should this research focus on topics that have immediate practical application to the job, or on long-term issues with potential future significance for the profession but not necessarily an immediate practical application?

A majority of members in each practice area favour an emphasis on practical issues. About one-quarter recommend an even 50:50 split, and a minority would place the emphasis on long-term research.

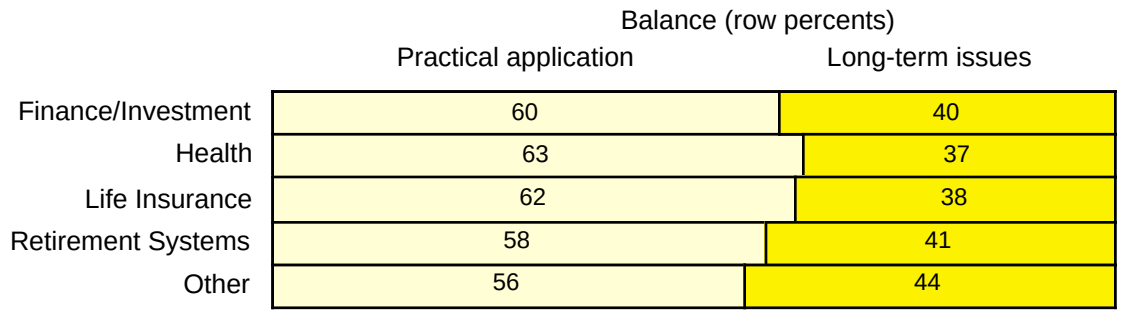
Table 42. Balance of emphasis in research on new issues (in addition to experience studies)

SOA Member Survey 2003

Balance	Percent of members
75% or more on research with immediate practical application	29
51 – 74% on research with immediate practical application	32
50% on each topic	25
51 – 74% on long-term issues	11
75% or more on long-term issues	3
Total percent	100
N	3,985

Figure 8. Balance of emphasis in research on new issues, by practice area

SOA Member Survey 2003



N = 3,985

Table 43 and Table 44 show members' priorities among ten possible areas of new research. Table 43 presents the proportion of members in each practice area who placed the research among their top three priorities. Table 44 reports the proportion who placed the research as their single top priority. The overall rankings are highly similar in both instances.

Table 43. Research priorities in addition to experience studies

SOA Member Survey 2003

Topic	Percent of members placing the topic among their top three priorities: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
Develop new techniques to solve problems	56	47	53	48	46	51
Provide updated data resources for setting actuarial assumptions	34	54	51	42	37	47
Discover relationships or analyze an issue through data-oriented (rather than theoretical) research	40	52	37	32	40	39
Provide surveys of current actuarial practices and product designs	32	34	42	39	26	38
Develop new tools i.e. computer models	26	26	27	24	32	26
Understand implications of current external trends for systems we work with	23	29	17	32	30	25
Develop links between actuarial science and other types of applications	34	15	21	29	29	24
Expand theoretical knowledge base	29	18	23	19	28	22
Produce manuals applying new areas to our work	18	14	19	13	15	16
Provide insight on public attitudes of importance to us	10	11	9	22	17	13
Total	300	300	300	300	300	300
N	506	827	1,499	1,003	147	3,982

Columns add to 300 (within rounding error), as members each chose three areas of research.

Table 44. Research priorities in addition to experience studies

SOA Member Survey 2003

Topic	Percent of members placing the topic as their single top priority: Finance/ Investment, Enterprise Risk Mgmt	Health Benefits	Life Insurance	Retirement Systems	Other	All respondents
Develop new techniques to solve problems	26	21	21	21	24	22
Provide updated data resources for setting actuarial assumptions	12	25	21	17	17	20
Discovering relationships or analyzing an issue through data-oriented (rather than theoretical) research	13	20	11	9	12	13
Provide surveys of current actuarial practices and product designs	8	10	17	14	8	13
Develop links between actuarial science and other types of applications	11	4	7	10	5	7
Develop new tools i.e. computer models	7	5	7	6	8	6
Understand implications of current external trends for systems we work with	6	8	4	9	8	6
Expand theoretical knowledge base	10	4	6	5	10	6
Produce manuals applying new areas to our work	4	2	6	4	4	4
Provide insight on public attitudes of importance to us	2	2	2	5	6	3
Total	100	100	100	100	100	100
N	506	827	1,499	1,003	147	3,982

Each table entry is rounded independently; columns may not add to exactly 100 percent.

APPENDIX A: FUTURE DIRECTIONS FOR PUBLICATIONS

As was reported in Chapter 7, members chose the one SOA publication that they relied on the most and then answered a set of questions about possible directions that the publication could pursue in the future.

Table 46 through Table 50 present members' recommendations for each publication separately. No results are reported for publications that were rated by fewer than 20 members.

Because each publication was rated by an entirely different group of members, it is interesting to note that there are strong similarities in members' recommendations for different publications. In all instances a large proportion of members (generally a clear majority) would like more emphasis in two areas:

- "How to" articles that explore different solutions to a problem, discussing the pros and cons of each;
- Business case studies.

Also, in each publication, a large proportion of members (often a clear majority) would like to see less emphasis on minutes of practice and session meetings.

In many instances, members recommend that less emphasis be placed on "Articles with content relevant to my geographic area", however it is necessary when interpreting this result to recall that most members, 71 percent, work in the US. This group sees little need for a greater emphasis on their geographic area. Among respondents from Canada and other countries, there are substantial minorities who would place a greater emphasis on their own geographic regions (Table 45).

Table 45. Should publications contain more or less emphasis on "articles with content relevant to your own geographic area"?

SOA Member Survey 2003

	Percent of respondents			
Region	**Less emphasis**	**Same balance**	**More emphasis**	**Total**
USA	37	55	8	100
Canada	18	48	33	100
Other countries	13	43	44	100

N = 3,900.

Rows may not add to exactly 100 percent due to rounding.

Table 46. Future directions

(Ratings of those who chose each publication as their "most relied on")

SOA Member Survey 2003

Content area	Less emphasis	Same balance	More emphasis	Total
The Actuary (N = 1,098)				
"How to" articles exploring solutions to a problem	2	44	54	100
Business case studies	5	42	53	100
Articles on trends that are specific to the industry	8	55	37	100
Articles on trends that affect the profession at large	6	57	37	100
Information about external research and sources	21	62	17	100
References for government reports and resources	25	62	13	100
Minutes of practice and Section meetings	58	39	3	100
Articles with synopses of recent SOA research	18	65	17	100
Articles with synopses of recent CE events	26	63	11	100
Articles with content relevant to my geographic area	29	53	18	100
North American Actuarial Journal (N =317)				
"How to" articles exploring solutions to a problem	4	36	60	100
Business case studies	9	39	52	100
Articles on trends that are specific to the industry	6	64	30	100
Articles on trends that affect the profession at large	15	63	23	100
Information about external research and sources	13	60	28	100
References for government reports and resources	27	60	13	100
Minutes of practice and Section meetings	62	35	3	100
Articles with synopses of recent SOA research	14	62	25	100
Articles with synopses of recent CE events	33	60	8	100
Articles with content relevant to my geographic area	31	55	14	100
The Record (N =242)				
"How to" articles exploring solutions to a problem	0	34	65	100
Business case studies	2	46	52	100
Articles on trends that are specific to the industry	3	64	33	100
Articles on trends that affect the profession at large	13	69	18	100
Information about external research and sources	7	63	30	100
References for government reports and resources	14	62	24	100
Minutes of practice and Section meetings	28	62	11	100
Articles with synopses of recent SOA research	9	66	26	100
Articles with synopses of recent CE events	10	65	25	100
Articles with content relevant to my geographic area	26	58	16	100

Rows may not add to exactly 100 percent due to rounding.

Table 47. Future directions

(Ratings of those who chose each publication as their "most relied on")

SOA Member Survey 2003

Content area	Less emphasis	Same balance	More emphasis	Total
Health Section News (N =453)				
"How to" articles exploring solutions to a problem	0	34	66	100
Business case studies	5	45	51	100
Articles on trends that are specific to the industry	4	48	49	100
Articles on trends that affect the profession at large	22	57	21	100
Information about external research and sources	9	57	33	100
References for government reports and resources	13	59	28	100
Minutes of practice and Section meetings	53	44	3	100
Articles with synopses of recent SOA research	13	67	20	100
Articles with synopses of recent CE events	27	63	10	100
Articles with content relevant to my geographic area	32	54	14	100
Joint Society/Academy Health Section News (N =44)				
"How to" articles exploring solutions to a problem	0	51	49	100
Business case studies	5	51	44	100
Articles on trends that are specific to the industry	3	50	48	100
Articles on trends that affect the profession at large	5	73	22	100
Information about external research and sources	7	66	27	100
References for government reports and resources	2	71	27	100
Minutes of practice and Section meetings	29	66	5	100
Articles with synopses of recent SOA research	15	56	29	100
Articles with synopses of recent CE events	12	68	20	100
Articles with content relevant to my geographic area	23	63	15	100
Product Matters! (N =290)				
"How to" articles exploring solutions to a problem	0	31	69	100
Business case studies	8	38	54	100
Articles on trends that are specific to the industry	6	54	40	100
Articles on trends that affect the profession at large	26	58	15	100
Information about external research and sources	11	62	27	100
References for government reports and resources	18	65	17	100
Minutes of practice and Section meetings	48	46	7	100
Articles with synopses of recent SOA research	14	65	21	100
Articles with synopses of recent CE events	24	64	12	100
Articles with content relevant to my geographic area	36	53	11	100

Rows may not add to exactly 100 percent due to rounding.

Table 48. Future directions

(Ratings of those who chose each publication as their "most relied on")

SOA Member Survey 2003

Content area	Less emphasis	Same balance	More emphasis	Total
International News (N =29)				
"How to" articles exploring solutions to a problem	4	46	50	100
Business case studies	0	32	68	100
Articles on trends that are specific to the industry	4	46	50	100
Articles on trends that affect the profession at large	32	32	36	100
Information about external research and sources	21	50	29	100
References for government reports and resources	14	50	36	100
Minutes of practice and Section meetings	57	39	4	100
Articles with synopses of recent SOA research	18	75	7	100
Articles with synopses of recent CE events	29	64	7	100
Articles with content relevant to my geographic area	14	50	36	100
Risks & Rewards (N =186)				
"How to" articles exploring solutions to a problem	2	38	60	100
Business case studies	3	40	57	100
Articles on trends that are specific to the industry	10	62	28	100
Articles on trends that affect the profession at large	15	65	20	100
Information about external research and sources	7	52	41	100
References for government reports and resources	25	58	17	100
Minutes of practice and Section meetings	51	46	4	100
Articles with synopses of recent SOA research	13	66	21	100
Articles with synopses of recent CE events	18	69	13	100
Articles with content relevant to my geographic area	39	52	9	100
The Financial Reporter (N =402)				
"How to" articles exploring solutions to a problem	0	33	67	100
Business case studies	6	52	42	100
Articles on trends that are specific to the industry	5	74	21	100
Articles on trends that affect the profession at large	23	63	14	100
Information about external research and sources	10	70	21	100
References for government reports and resources	14	66	20	100
Minutes of practice and Section meetings	38	57	5	100
Articles with synopses of recent SOA research	9	73	19	100
Articles with synopses of recent CE events	17	68	15	100
Articles with content relevant to my geographic area	35	56	9	100

Rows may not add to exactly 100 percent due to rounding.

Table 49. Future directions

(Ratings of those who chose each publication as their "most relied on")

SOA Member Survey 2003

Content area	Less emphasis	Same balance	More emphasis	Total
Long Term Care News (N =47)				
"How to" articles exploring solutions to a problem	0	43	57	100
Business case studies	0	62	38	100
Articles on trends that are specific to the industry	2	38	60	100
Articles on trends that affect the profession at large	30	57	13	100
Information about external research and sources	4	47	49	100
References for government reports and resources	7	54	39	100
Minutes of practice and Section meetings	44	50	7	100
Articles with synopses of recent SOA research	4	60	36	100
Articles with synopses of recent CE events	23	60	17	100
Articles with content relevant to my geographic area	50	46	4	100
The Stepping Stone (N =25)				
"How to" articles exploring solutions to a problem	0	36	64	100
Business case studies	0	36	64	100
Articles on trends that are specific to the industry	23	59	18	100
Articles on trends that affect the profession at large	5	64	32	100
Information about external research and sources	14	73	14	100
References for government reports and resources	27	68	5	100
Minutes of practice and Section meetings	64	32	5	100
Articles with synopses of recent SOA research	32	59	9	100
Articles with synopses of recent CE events	27	59	14	100
Articles with content relevant to my geographic area	27	59	14	100
Pension Section News (N =396)				
"How to" articles exploring solutions to a problem	0	36	64	100
Business case studies	8	42	50	100
Articles on trends that are specific to the industry	10	56	34	100
Articles on trends that affect the profession at large	18	60	22	100
Information about external research and sources	22	63	15	100
References for government reports and resources	17	64	19	100
Minutes of practice and Section meetings	55	43	2	100
Articles with synopses of recent SOA research	24	66	10	100
Articles with synopses of recent CE events	29	60	11	100
Articles with content relevant to my geographic area	36	52	12	100

Rows may not add to exactly 100 percent due to rounding.

Table 50. Future directions

(Ratings of those who chose each publication as their "most relied on")

SOA Member Survey 2003

Content area	Less emphasis	Same balance	More emphasis	Total
Pension Forum (N =125)				
"How to" articles exploring solutions to a problem	5	35	61	100
Business case studies	8	38	55	100
Articles on trends that are specific to the industry	11	58	32	100
Articles on trends that affect the profession at large	25	57	19	100
Information about external research and sources	19	58	23	100
References for government reports and resources	26	56	19	100
Minutes of practice and Section meetings	56	41	3	100
Articles with synopses of recent SOA research	23	62	15	100
Articles with synopses of recent CE events	32	61	7	100
Articles with content relevant to my geographic area	45	45	11	100
Reinsurance News (N =87)				
"How to" articles exploring solutions to a problem	1	42	57	100
Business case studies	6	38	56	100
Articles on trends that are specific to the industry	7	66	27	100
Articles on trends that affect the profession at large	25	59	17	100
Information about external research and sources	15	58	28	100
References for government reports and resources	16	64	21	100
Minutes of practice and Section meetings	52	42	6	100
Articles with synopses of recent SOA research	18	57	25	100
Articles with synopses of recent CE events	34	52	15	100
Articles with content relevant to my geographic area	42	47	11	100

Rows may not add to exactly 100 percent due to rounding.

APPENDIX B: THE CHALLENGES OF DAILY WORK

In order to provide context for the SOA's work in supporting members' day-to-day work, the survey asked members how great a challenge they faced in ten areas. Table 51 presents mean responses, scaled from 0 = "No challenge at all" to 100 = "A very great challenge".

There is a wide range of opinion on most items, which the mean scores do not convey. For example, 43 percent gave a 4 or 5 out of 5 response to "Finding the data I need" and also to "Communicating the results and implications of my work".

Table 51. Challenges of daily work, by practice area

SOA Member Survey 2003

	Mean rating of challenge (0– 100)					
Issue	**Finance/ Investment, Enterprise Risk Mgmt**	**Health Benefits**	**Life Insurance**	**Retirement Systems**	**Other**	**Total** ***Row %***
Finding time to juggle clients, work assignments	71	74	70	75	68	72
Finding time to stay current on the political, social, and business environment	69	69	70	73	64	71
Staying up-to-date with new technical developments	65	56	63	59	56	61
Finding the data I need	56	66	59	46	59	57
Communicating the results & implications of my work	55	52	56	57	55	55
Finding information re: current political social and business environment	53	54	56	52	54	54
People management	50	53	53	57	53	54
Lack of sufficient influence within the organization	47	42	49	42	46	45
Developing the mathematical and computer skills I need	45	41	45	36	43	42
Perception of the actuarial profession limits my ability to pursue opportunities	42	36	41	35	38	39