

Member and Candidate Survey, 2002

Prepared for the Society of Actuaries
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Society of Actuaries Member and Candidate Survey 2002

Conducted by Erin Research Inc.

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1. EXECUTIVE SUMMARY

The SOA commissioned Erin Research to conduct this survey of members and candidates in order to establish baseline measures of satisfaction and to gain direction from members on strategic issues. The core measures address three broad areas: overall satisfaction with the SOA, perceptions of the state of the actuarial profession, and SOA performance in delivering 14 specific member services.

The survey was administered by Internet in order to involve as many members as possible in the process. Response was strong, with a response rate of 33 percent among members with valid e-mail addresses. The response among pre-ASA candidates was 24 percent.

Overall satisfaction stands at 6.5 out of 10. It varies to a relatively small degree across Practice Areas, Special Interest Sections, and regions of the world. There is some tendency for members in the insurance industry, and especially life insurance, to be more satisfied with the SOA than members in other areas, but differences across all these segments of the membership are small. Taken together, they account for only five percent of the variance in member satisfaction.

In sharp contrast, member satisfaction is profoundly dependent on the SOA's ability to deliver on the Value Propositions defined in the 2001 Strategic Plan. Members who experience good performance on the services implied by the Value Propositions tend to rate their overall satisfaction high. A structural equation model based on the Value Propositions accounts for 75 percent of the variance in member satisfaction. A parallel model relating candidate satisfaction to the candidate Value Propositions was also successful.

Focusing on the Value Propositions and the services that they imply presents a clear roadmap for improving member satisfaction. The two most important elements in this task – those that will contribute most to members satisfaction – are maintaining/enhancing the value of credentials and providing continuing education, especially in emerging areas.

Members consider three professions, MBAs, Financial Engineers and Accountants as presenting a challenge to the actuarial profession. Members are split on whether this challenge exists in areas where actuaries have traditionally been dominant, but there is a strong consensus that a challenge exists in areas where actuaries might wish to expand. Members recommend that the SOA act on two fronts: communicate a more up-to-date image of the profession to employers and help members improve their business management skills.

2. INTRODUCTION

This survey has six goals:

- Engage members and candidates in assessing the current state of SOA activity and charting a path forward;
- Produce baseline measures of member and candidate satisfaction;
- Produce baseline measures on members' perceptions of broad policy and strategic issues facing the Society;
- Examines links between member satisfaction and SOA performance in delivering services that it is committed to;
- Produce measures of SOA service delivery that will anchor the Customer quadrant of the Balanced Score Card;
- Construct a survey method that can be used to assess change over time.

3. SURVEY METHOD AND RESPONSE

The SOA wished to engage as many members as possible in charting the course forward. An Internet survey method was chosen as it reaches a large number of members in a short period of time and at low cost. E-mail addresses were available for approximately 80 percent of members and almost all candidates. In the near future, it should be possible to reach all members by e-mail.

A message from SOA President Jim MacGinnitie was e-mailed to each member and candidate on April 3, 2002, inviting them to participate in the survey. Reminders were sent to those who had not responded one week and two weeks following the initial message.

Response among members

In all, 2,340 members or 23 percent of the total membership participated in the survey. The response rate, based on members for whom valid e-mail addresses were available, is 33 percent. This is a strong response for a membership survey and shows that members have a high level of interest in the affairs of the profession.

The SOA membership list contains e-mail addresses for 80.4 percent of the 16,998 members. The “Valid e-mail” column consists of this 80.4 percent, minus e-mails that were undeliverable (bounce backs). Bounce backs occur either because the address no longer exists (e.g. the person has changed jobs), or because the server refuses to accept the e-mail (e.g. the recipient sets an “On vacation” message). Fourteen percent of the available addresses bounced back. About half of this number is likely due to people on vacation or away from the office at conferences etc. The other half is likely due to aging of the membership list. For example, if members change jobs every five years on average, the list ages at 1.66 percent per month.

Status in SOA	Total Membership	Number contacted (with valid e-mails)	Number of responses	Responses as a percent of contacts
FSA	9,575	6,735	2,340	35
ASA	7,423	5,006	1,572	31
All members	16,998	11,741	3,912	33
Pre-ASA Candidates	13,295	11,421	2,768	24
Total: Members and Candidates	30,293	23,162	6,680	29

Response among candidates

The response rate among candidates is 24 percent – this lower figure likely occurs because a) candidates are less involved in the activities of the Society and b) approximately half are under 26 years of age, a group that is typically difficult to survey.

RESPONSE BY PRACTICE AREA

Table 2 shows the composition of the survey sample by Practice Area. The composition of the sample is similar to that of the membership, but there are differences. For example:

- Those who have no Practice Area defined make up 19.5 percent of the membership list but only 15.7 percent of the sample. This group may be less involved in the affairs of the SOA, for example they are less likely to have e-mail addresses on file.
- Retirement Systems makes up a smaller proportion of the sample, 21.8 percent, than of the membership, 24.3 percent.
- Life Insurance makes up a larger proportion of the sample, 31.9 percent, than of the membership, 24.0 percent.

In order to ensure representative results, the sample was weighted to bring it in line with the actual membership.

The one group that is severely under-represented in the sample is retired members, partly because e-mail addresses are lacking for most in the group and partly because their response rate was lower than that of other members, even among those who did have e-mail addresses. Retired members were weighted up to 5.7 percent of the sample, reflecting their rate of participation in the survey, rather than the 8 percent that the membership list would imply.

Weights range from .65 for the Regulatory area to 1.14 for both Retirement Systems and Property/Casualty. The weight for retired members is 2.5 due to the small number of members with e-mail addresses.

Pre-ASA candidates were not included in the calculation of weights: each has a weight of 1.0.

Table 2. Member response by Practice Area
SOA 2002

Practice Area	Composition of membership		Unweighted sample		Weighted sample	
	N	%	N	%	N	%
Academic	40	0.2	13	0.3	9	0.2
Finance	813	4.8	203	5.3	188	4.9
Health Benefits Systems	2,330	13.7	669	17.4	539	14.1
Life Insurance	4,071	24.0	1,225	31.9	941	24.5
Non-traditional	762	4.5	160	4.2	176	4.6
Property & Casualty	143	0.8	29	0.8	33	0.9
Regulatory	31	0.2	11	0.3	7	0.2
Retirement Systems	4,132	24.3	836	21.8	956	24.9
No Area defined/blank	3,313	19.5	602	15.7	767	20.0
Retired members	1,363	8.0	87	2.3	219	5.7
Total	16,998	100	3,835	100	3,835	100

Notes: Table 1 shows 77 more members than Table 2, which is based on the fall 2001 membership list. The larger number of members in Table 1 is likely due to new members – people who became members since fall 2001. These 77 individuals do not appear in Table 2 because they have no Practice Area defined in the membership list. They are included in all reported results where Practice Area is not a variable.

“Practice Area” is the single area that members define as primary. In fact, members may work in several areas. For example, approximately 200 actuaries are employed in colleges and universities, but many of these do not define their primary area as “academic”.

RESPONSE BY REGION

Weights were also constructed to adjust for differences in regional response. They range from .63 for the Caribbean, where the response rate was high, to 2.6 for Europe, where the response rate was relatively low.

The membership file contains e-mail addresses for just 70 percent of members in Europe and Australia/NZ, compared to 80 percent overall. This may help explain the lower response from these regions. However, it does not explain the lower response from Canada, where the availability of e-mail addresses is similar to that in the US.

Country or region	Composition of membership		Unweighted sample		Weighted sample	
	N	%	N	%	N	%
Africa	62	0.4	3	0.1	8	.2
Asia	523	3.1	126	3.3	118	3.1
Australia, New Zealand	129	0.8	12	0.3	29	.8
Canada	2,979	17.5	543	14.2	673	17.6
Caribbean	73	0.4	26	0.7	16	.4
United States	12,558	73.9	3,065	79.9	2,838	74.0
Europe, Mid-East	658	3.9	57	1.5	149	3.9
Latin America	16	0.1	3	0.1	4	.1
Total	16,998	100	3,835	100	3,835	100

EFFECT OF WEIGHTING

Table 4 shows the effect of weighting by Practice Area and Region on core measures in the survey. The difference is minimal; the absolute value of the difference averages 0.03 across the 17 measures.

All results that follow in this report use weighted data.

Measure	Weighted	Unweighted
Satisfaction		
With the performance of SOA in supporting professional needs	6.48	6.52
With the performance of SOA in advancing the profession	6.28	6.28
More or less satisfied with SOA today than in past years?	5.52	5.50
Performance		
Experience studies	5.98	6.04
Other practical research	5.36	5.38
Theoretical research	4.50	4.45
Networking	6.31	6.41
Job search	5.02	5.07
Promote image among employers	5.19	5.18
Promote image in society	4.87	4.86
Maintain and enhance the value of credentials	6.12	6.12
Value of examinations	7.11	7.06
Continuing education: Current practice	6.56	6.62
Continuing education: Emerging issues	5.81	5.83
Communications	6.61	6.63
NAAJ	4.47	4.43
Quality of service	7.69	7.73

The number of respondents is approximately 3,800 to each question. Scores range from 0 (Very dissatisfied) to 10 (Very satisfied).

4. MEMBER PROFILE

SPECIAL INTEREST SECTIONS

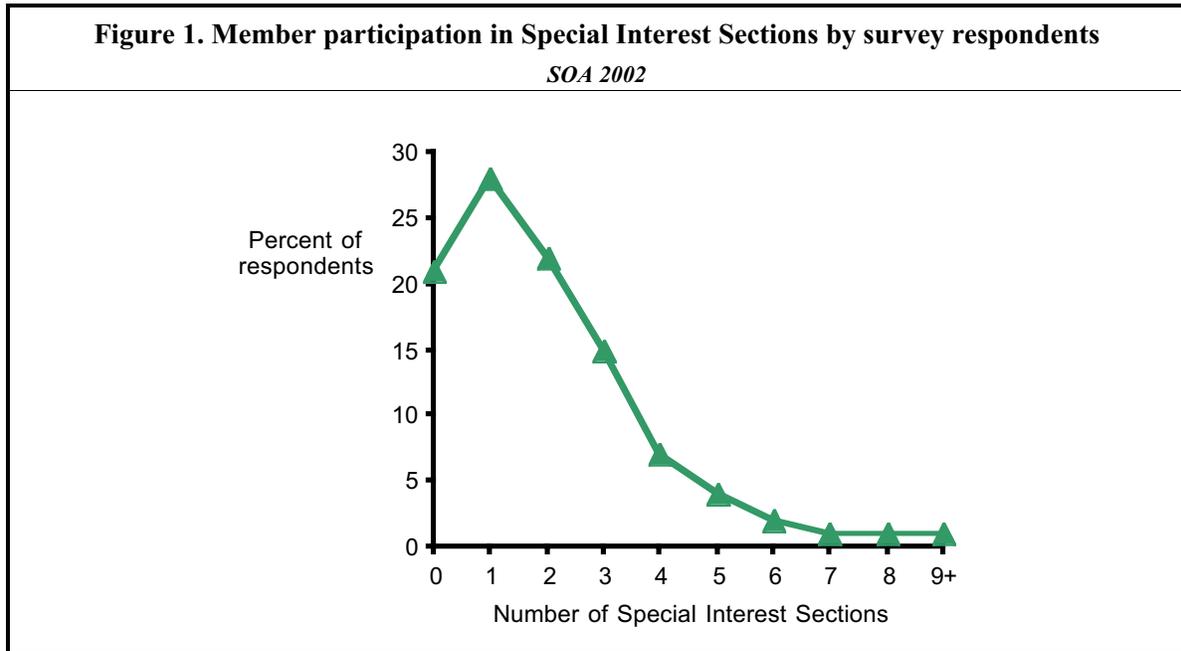
The SOA membership list reveals that members belong, on average, to 1.8 Special Interest Sections. Survey respondents are similar to the overall membership, belonging to 1.9 Sections on average.

Special Interest Section	Number of respondents	Percent of respondents
Actuary of the Future	268	6.8
Computer Science	439	11.2
Education & Research	198	5.0
Futurism	226	5.7
Health	807	20.5
Individual Life Ins. & Annuity Product Development	921	23.4
International	437	11.1
Investment	961	24.5
Life Insurance Company Financial Reporting	946	24.1
Long Term Care Insurance	182	4.6
Management and Personal Development	253	6.4
Non-traditional Marketing	310	7.9
Pension	961	24.4
Reinsurance	538	13.7
Smaller Insurance Company	185	4.7
Base for calculating percentages	3,931	–
Total number of Sections chosen	7,632	–

Note: Percents are based on the sample N. For example, the 268 members in the Actuary of the Future Section represent 6.8 percent of the sample of 3,931. Percentages add to more than 100 as some members belong to more than one Section.

Figure 1 shows participation of survey respondents in Special Interest Sections: 21 percent do not belong to any Section, 28 percent belong to one Section, and 9 percent belong to five or more Sections.

On average, ASAs belong to 1.6 Sections and FSAs to 2.2 Sections.



AGE AND GENDER

Figures 2 and 3 include pre-ASA candidates, as well as members, to give a perspective on the entire profession. Figure 2 shows the age profile of each group.

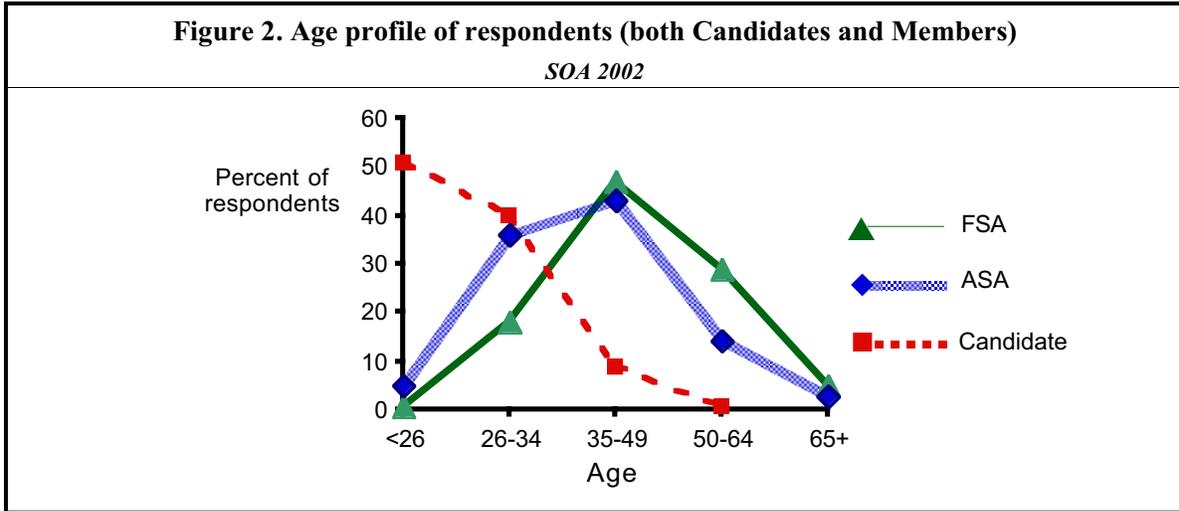
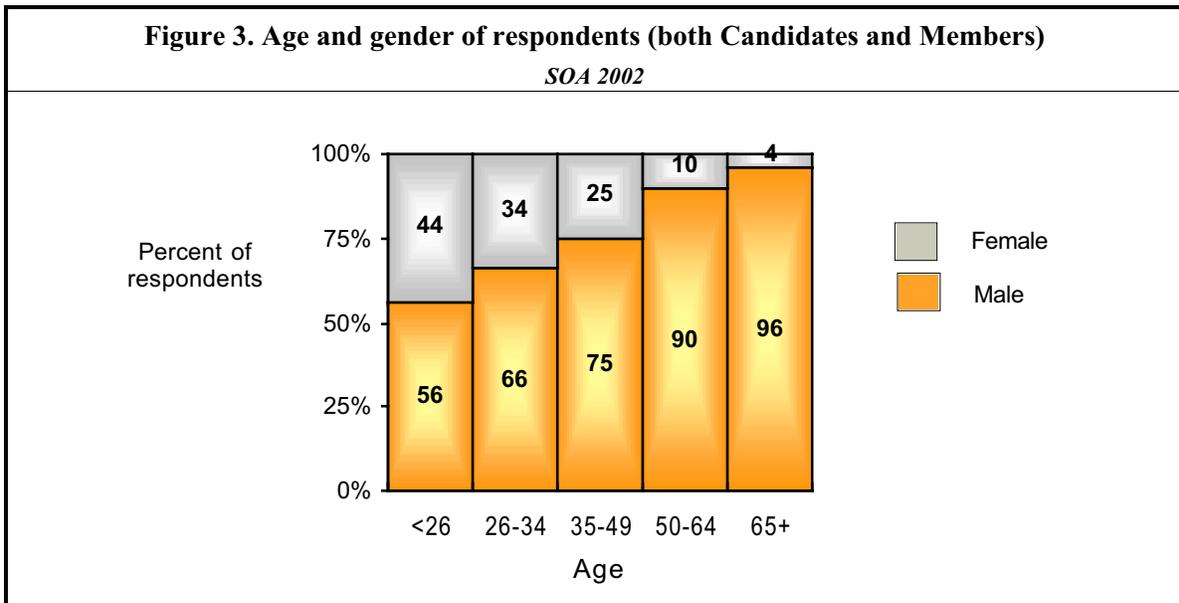


Figure 3 charts the increasing participation of women in the profession. Women constitute 21 percent of FSAs, 24 percent of ASAs and 60 percent of pre-ASA candidates.



CREENTIALS IN ADDITION TO ASA AND FSA

Figure 4. Number of additional actuarial credentials that Members hold

SOA 2002

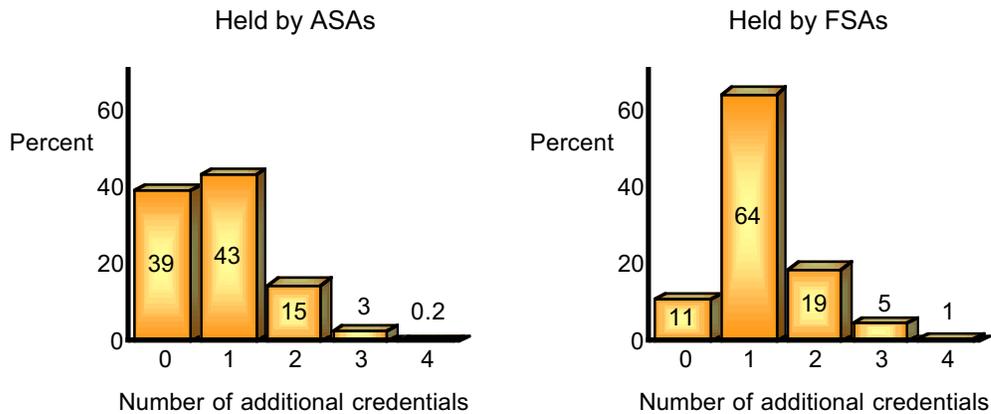


Figure 5. Actuarial credentials other than ASA and FSA that Members hold

SOA 2002

Credential	Percent holding the credential
MAAA	66
EA	18
FCIA	13
FCA, MCA, ACA	5
FIA	3
FSPA, MSPA	1
FCAS or ACAS	1
FIA (Australia)	0.7
Other	3
No additional credentials	23

Percentages add to more than 100 as some members hold more than one credential.

NON-ACTUARIAL CREDENTIALS

Nineteen percent of FSAs and 15 percent of ASAs report that they hold a non-actuarial credential.

Credential	Percent holding the credential
MBA	4
Chartered Financial Analyst (CFA)	3
Public Accountant (CPA, CMA, CGA, CA)	1
Law degree	0.4
Other	11
No additional credentials	83

Percentages add to more than 100 as some members hold more than one credential.

5. SATISFACTION WITH SOA

The survey contains two direct measures of satisfaction. Members rate their satisfaction with SOA “supporting my professional needs” at 6.5 out of 10, and satisfaction with SOA “advancing the profession” at 6.3. The correlation between the measures is .67.

Figure 6 raises the question of why some members are highly satisfied with the SOA while other members are dissatisfied. This issue is pursued in Section 9, where satisfaction is shown to be a function of SOA performance in delivering on the Value Propositions. The model explains 75 percent of the variance in satisfaction, using 9 different measures of SOA performance. Clearly, satisfaction is a complex construct. Raising satisfaction beyond the current level will require work in several different areas.

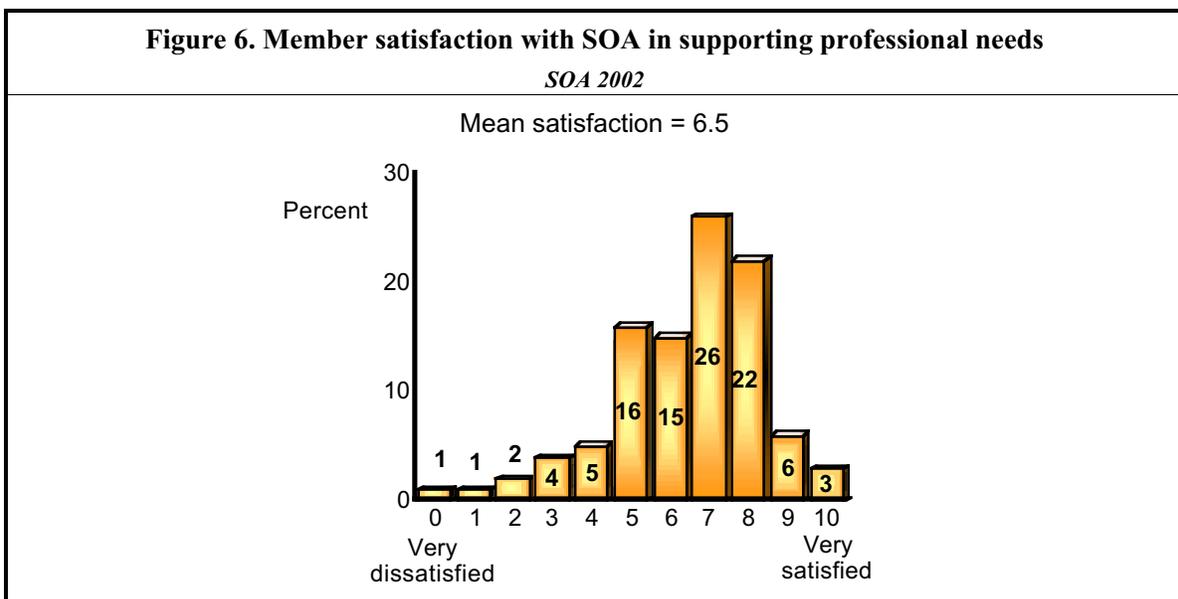


Figure 7. Member satisfaction with SOA in advancing the profession

SOA 2002

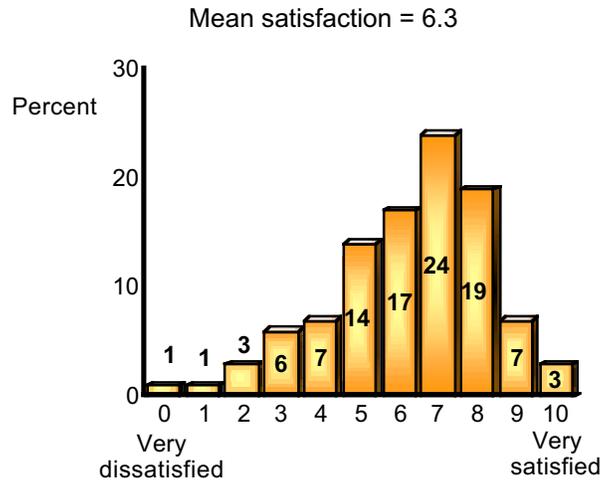
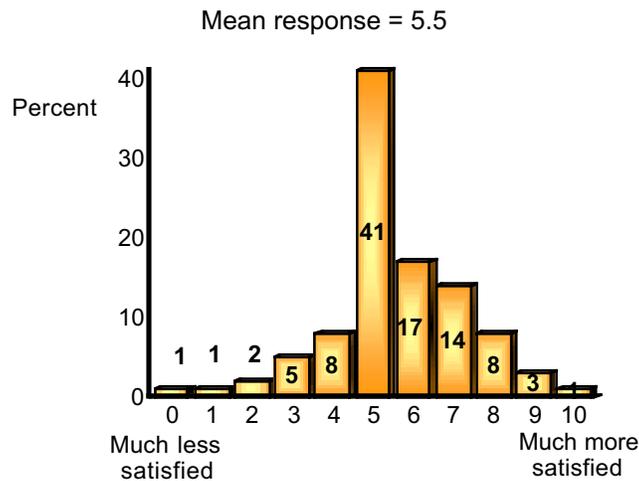


Figure 8 shows that 17 percent of members are less satisfied with the SOA today than in the past. The remainder are evenly divided, with 41 percent noting no change and 42 percent registering some greater degree of satisfaction. This strong skew in the “more satisfied” direction is encouraging. This is a standard survey question, and responses are frequently skewed toward the positive, but not often as strongly as here.

Figure 8. Member response to, “Are you more or less satisfied with SOA today than you have been in past years?”

SOA 2002



SATISFACTION ACROSS SEGMENTS OF THE MEMBERSHIP

Satisfaction ranges from 5.5 for Property and Casualty up to 7.0 among members who are retired. As the Property and Casualty sample includes just 34 individuals, the score may not be representative. On the other hand, a low rating may follow from the fact that these members look more to other associations for supporting professional needs – they are relatively happy with the SOA’s efforts to advance the profession.

Table 7. Member satisfaction by Practice Area		
<i>SOA 2002</i>		
Practice Area	Supporting your professional needs	Advancing the actuarial profession
Academic*	–	–
Finance	6.4	5.9
Health Benefits Systems	6.6	6.4
Life Insurance	6.7	6.4
Non-traditional	6.1	6.3
Property & Casualty (N=34)	5.5	6.6
Regulatory*	–	–
Retirement Systems	6.1	6.1
No area defined	6.6	6.4
Retired members	7.0	6.7
All members	6.5	6.3
Percent of variance that Practice Area accounts for	3.0	1.1

* N<15. Scores range from 0 (Very dissatisfied) to 10 (Very satisfied).

Membership in Special Interest Sections reflects involvement in the life of the Society, and satisfaction is slightly greater among members who are involved in one or two sections than among those who are involved in none. Those who are members of three or more sections do not differ significantly from those who are members of two sections.

Table 8. Member satisfaction by participation in Special Interest Sections		
<i>SOA 2002</i>		
Number of Special Interest Sections	Supporting your professional needs	Advancing the actuarial profession
None	6.1	6.1
One	6.4	6.4
Two or more	6.7	6.3
All members	6.5	6.3
Percent of variance that Special Interest Section accounts for	1.3	0.2

Scores range from 0 (Very dissatisfied) to 10 (Very satisfied).

Satisfaction with SOA support for professional needs does not differ significantly as a function of either gender or ASA/FSA status.

Small differences in satisfaction occur on the basis of region and age – each of these accounts for just 1 percent of the variance in satisfaction scores:

- Age: Satisfaction increases incrementally with age, from 6.1 for those under 26 to 6.6 for those aged 50-64. There is a further jump to 7.3 among those 65 and over.
- Region: Respondents from Europe/Mid-East score low at 6.0 while those in Australia/New Zealand and the Caribbean score 7.2 and 7.3. The US is 6.6, very close to the mean of 6.5, and Canada is slightly lower, 6.2

Combining the four strongest variables – Practice Area, number of Special Interest Sections, Age and Region in a single Analysis of Variance accounts for 5 percent of the variance in satisfaction with the way that the SOA supports professional needs. In other words, segmentation variables have a minimal impact on member satisfaction.

Satisfaction by Special Interest Section

Special Interest Section produces small differences in satisfaction. All Sections lie within ± 0.4 of the overall mean.

Table 9. Member satisfaction by Special Interest Section		
<i>SOA 2002</i>		
Special Interest Section	Supporting your professional needs	Advancing the actuarial profession
Actuary of the Future	6.4	5.9 *
Computer Science	6.5	6.3
Education & Research	6.4	6.1
Futurism	6.6	6.2
Health	6.6	6.4
Individual Life Insurance & Annuity Product Development	6.8 *	6.4
International	6.5	6.2
Investment	6.6	6.1
Life Insurance Co. Financial Reporting	6.9 *	6.5
Long Term Care Insurance	6.6	6.3
Management and Personal Development	6.6	6.2
Non-traditional Marketing	6.6	6.1
Pension	6.3 *	6.2
Reinsurance	6.9 *	6.5
Smaller Insurance Company	6.7	6.3
All members	6.5	6.3

* Statistically significant difference between Special Interest Section and other members. Alpha of .05 adjusted to correct for the 28 comparisons in the table.

Scores range from 0 (Very dissatisfied) to 10 (Very satisfied).

Satisfaction by employment type

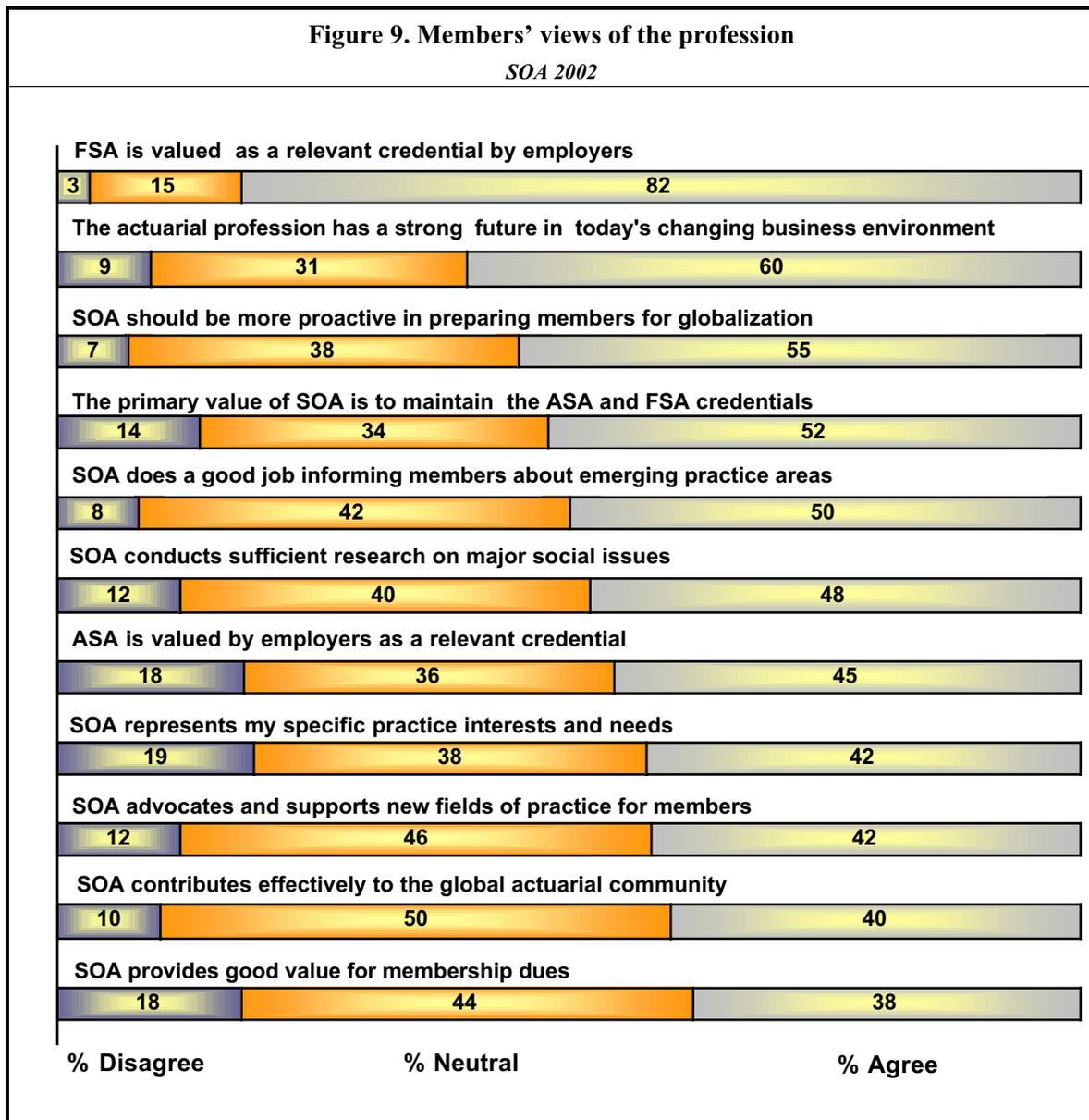
“Employment type” defines twelve groups that overlap somewhat with the Practice Areas. The four categories related to the insurance business all rate satisfaction above the mean for the profession, with scores of 6.7 or greater. (Retired members are also above the mean). Other employment types all score below the mean for the profession. This split between the insurance industry and others is not particularly sharp, as it accounts for only 2 percent of the variance in satisfaction.

Employment type	Supporting professional needs	Advancing the profession	Number of respondents
Consulting actuary	6.2	6.2	1320
Insurance broker	6.9	6.5	10
Insurance company	6.7	6.4	1766
Insurance department	6.9	6.7	29
Investment banker or advisor	6.1	5.6	55
Miscellaneous	6.2	6.4	62
Organizations serving the insurance business	7.0	6.4	32
Other government employee	6.1	6.7	65
Retired	7.0	5.8	210
Software developer/vendor	5.7	5.9	39
Unaffiliated	6.3	6.5	161
University and college	6.2	6.3	50
All members	6.5	6.3	3,799
% of variance Employment type accounts for	2.3	1.1	

Scores range from 0 (Very dissatisfied) to 10 (Very satisfied).

6. THE SOA AND THE PROFESSION

Figure 9 summarizes members' agreement with eleven statements about the profession. These statements were selected partly to guide strategic planning today, and partly to provide a baseline for tracking over time. In addition, several of these statements are useful measures of the Value Propositions; this topic is pursued further in Section 9.



Views of the profession by Practice Area

Differences among Practice Areas are all relatively small. The strongest difference occurs in respect to “SOA represents my specific practice interests and needs as a professional”, where Practice Area accounts for 7 percent of the variance in response. On other statements, Practice Area accounts for 2.5 percent of the variance or less.

Statement	Finance	Health Benefits	Life Insur.	Non-tra ditional	Retire- ment Systems	All mem- bers
FSA is valued as a relevant credential by employers in the marketplace *	7.5	8.0	8.0	7.6	7.8	7.9
The actuarial profession has a strong future in today’s changing business environment	6.6	6.7	6.7	6.5	6.7	6.7
SOA should be more proactive in preparing members for the impact that globalization will have on the profession *	6.8	6.1	6.7	6.6	6.4	6.6
The primary value of the SOA is to maintain the ASA and FSA credentials	6.2	6.3	6.3	5.9	6.3	6.3
SOA does a good job of informing members about emerging Practice Areas and issues *	6.2	6.3	6.4	6.1	6.1	6.3
SOA conducts sufficient research on major social issues (e.g. demographic risks) to fulfill its responsibility to the public	6.2	6.0	6.1	5.9	6.2	6.1
ASA is valued as a relevant credential by employers in the marketplace *	5.2	6.4	5.9	5.9	5.8	5.8
SOA represents my specific practice interests and needs as a professional *	5.4	5.8	6.3	4.3	5.1	5.7
The Society advocates and supports the development of new fields of practice	5.8	5.9	6.0	5.8	5.8	5.9
SOA contributes effectively to the global actuarial community, supporting the needs of members, candidates and regulators *	6.1	5.8	6.0	5.6	5.7	5.9
SOA provides good value for membership dues *	5.6	5.7	5.8	4.9	5.3	5.6
Base (minimum N for the 11 statements)	191	500	911	175	960	3,852

* Statistically significant difference among Practice Areas.

Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

Views of the profession by region

Views of the profession differ only slightly by region. The greatest difference occurs in response to “ASA is valued as a relevant credential by employers in the marketplace”, where region accounts for 4 percent of the variance in response.

Statement	USA	Canada	Other	All members
FSA is valued as a relevant credential by employers in the marketplace *	7.9	8.2	7.7	7.9
The actuarial profession has a strong future in today’s changing business environment *	6.6	6.9	6.9	6.7
SOA should be more proactive in preparing members for the impact that globalization will have on the profession *	6.4	7.0	7.4	6.6
The primary value of the SOA is to maintain the ASA and FSA credentials	6.3	6.4	6.4	6.3
SOA does a good job of informing members about emerging Practice Areas and issues	6.3	6.2	6.4	6.3
SOA conducts sufficient research on major social issues (e.g. demographic risks) to fulfill its responsibility to the public	6.1	6.1	6.2	6.1
ASA is valued as a relevant credential by employers in the marketplace *	6.1	4.8	5.8	5.8
SOA represents my specific practice interests and needs as a professional *	5.7	5.4	5.8	5.7
The Society advocates and supports the development of new fields of practice *	5.9	6.1	6.3	5.9
SOA contributes effectively to the global actuarial community, supporting the needs of members, candidates and regulators *	5.8	6.0	6.1	5.9
SOA provides good value for membership dues *	5.6	5.4	5.9	5.6
Base (minimum N for the 11 statements)	2,747	687	404	3,852

* Statistically significant difference among regions
Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

Views of the profession by Special Interest Section

Section	FSA is valued	Profession has a strong future	SOA more proactive re globalization	Value of SOA is to maintain credentials	Good job informing re emerging practice	Sufficient research on social issues
Actuary of the Future	7.7	6.7	7.1*	6.2	6.0	6.2
Computer Science	7.9	6.6	6.5	6.2	6.2	5.9
Education & Research	7.8	6.6	6.7	6.1	6.1	6.0
Futurism	7.7	6.5	7.1*	6.2	6.1	5.8
Health	8.0	6.7	6.4	6.2	6.2	5.9
Individual Life Ins. & Annuity	7.9	6.6	6.8*	6.2	6.4	6.1
International	7.9	6.7	7.4*	6.5	6.2	6.0
Investment	7.8	6.5*	6.9*	6.2	6.2	6.2
Life Insur. Co. Reporting	8.0	6.6	6.8	6.2	6.5*	6.1
Long Term Care Insur.	8.0	6.6	6.7	6.1	6.2	5.9
Management & Personal Devel	8.0	6.8	6.9	6.0	6.3	6.2
Non-traditional Marketing	7.9	6.7	6.8	6.2	6.0	6.0
Pension	7.8	6.8	6.5	6.4	6.2	6.2
Reinsurance	8.0	6.7	6.9*	6.1	6.3	6.0
Smaller Insurance Company	8.0	6.2	6.8	6.1	6.2	6.0
Mean of all members	7.9	6.7	6.6	6.3	6.3	6.1

* Significant difference between the Section and other members
Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

Table 14. Views of the profession by Special Interest Section, continued

SOA 2002

Section	ASA is valued by employers	SOA represents my practice interests	SOA supports development of new fields	SOA contributes to global community	SOA provides good value for fees	Minimum N for the Section
Actuary of the Future	5.7	5.7	5.8	6.1	5.8	263
Computer Science	6.1	5.7	5.9	5.8	5.6	432
Education & Research	5.4	5.4	6.0	6.1	5.6	193
Futurism	5.6	5.7	6.0	5.9	5.8	221
Health	6.2*	5.8	6.0	5.9	5.8	793
Individual Life Ins. & Annuity	5.8	6.3*	6.0	6.0	5.9	908
International	5.8	5.7	6.0	6.1	5.8	427
Investment	5.6	5.9	6.0	6.0	5.8	947
Life Insur. Co. Reporting	5.9	6.5*	6.1*	6.1*	6.1	931
Long Term Care Insur.	5.9	6.0	5.8	6.0	5.9	180
Management & Personal Devel	6.0	6.0	6.2	6.2	5.9	245
Non-traditional Marketing	5.8	5.8	5.7	5.9	5.7	306
Pension	5.8	5.3*	5.9	5.9	5.5	949
Reinsurance	5.8	6.2	6.0	6.0	6.1*	527
Smaller Insurance Company	6.3	6.2	5.8	6.1	6.0	182
Mean of all members	5.8	5.7	5.9	5.9	5.6	

* Significant difference between the Section and other members
 Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

7. SOA MEMBER SERVICES

For each of 14 SOA services, members rated how important the service was and how well the SOA performed in delivering it. Table 15 lists services in order of their perceived importance.¹ The full wording of each question appears in Appendix A.

Importance scores are high for any element that might give the actuarial profession an edge, specifically credentials, continuing education and image.

In general, one hopes to see a positive correlation between importance and performance scores. The very strong correlation of .79 for NAAJ, for example, indicates that members who regard the journal as important also find its content useful. By way of example:

- Those who assess the importance of NAAJ at 9 or 10 out of 10 give its content a mean rating of 7.4 out of 10.
- Those who assess the journal’s importance at less than 5 rate its content at 1.9.

At the other end of the spectrum, there is very little connection between importance and performance ratings for “maintaining/enhancing the value of credentials” – members who see this as an important function are divided on whether the SOA is doing a good job or not.

Table 15. Importance and performance scores for member services				
<i>SOA 2002</i>				
Service	Importance	Performance	Gap	R
Maintain/enhance value of credentials	8.4	6.1	2.3	.22
Maintain high examination standards	8.4	7.1	1.3	.27
Continuing education: Current practice	8.0	6.6	1.4	.54
Quality of service to members	7.9	7.7	.2	.56
Promote profession’s image among employers	7.5	5.2	2.3	.22
Promote profession’s image in society	7.5	4.9	2.6	.14
Communications: newsletters, publications	7.5	6.6	.9	.66
Continuing education: Emerging issues	7.2	5.8	1.4	.49
Networking, conferences, discussions	6.8	6.3	.5	.40
Experience studies	6.7	6.0	.7	.76
Other practical research	6.6	5.4	1.2	.65
Theoretical research	5.7	4.5	1.2	.72
NAAJ	5.5	4.5	1.0	.79
Job search information and resources	5.4	5.0	.4	.46

Scores range from 0 (Very low) to 10 (Very high).

¹ Importance scores typically top performance scores – it is rare for a survey to find otherwise.

Importance and performance scores by Practice Area

For the most part, the different Practice Areas rate members services in a similar manner. There are two notable departures from this generalization.

- The Life Insurance Area rates Experience Studies as both more important and better implemented than do other Practice Areas.
- There are substantial differences across Practice Areas in performance scores for networking, conferences & discussions.

Service	Finance	Health Benefits	Life Insur.	Non-traditional	Retirement Systems	All members
Maintain/enhance value of credentials	8.1	8.5	8.5	8.2	8.4	8.4
Maintain high examination standards	8.4	8.4	8.5	8.0	8.4	8.4
Continuing education: Current practice *	8.0	8.3	8.5	7.4	7.5	8.0
Quality of service to members *	8.1	8.1	8.1	7.7	7.8	7.9
Promote profession's image among employers	7.4	7.6	7.5	7.4	7.4	7.5
Promote profession's image in society	7.4	7.5	7.4	7.5	7.7	7.5
Communications: newsletters, publications *	7.8	7.5	7.8	7.4	7.1	7.5
Continuing education: Emerging issues *	7.7	7.2	7.5	7.0	6.7	7.2
Networking, conferences, discussions *	7.2	7.1	7.2	6.5	6.3	6.8
Experience studies *	5.7	6.6	7.7	5.4	6.1	6.7
Other practical research *	6.6	6.5	7.0	5.9	6.2	6.6
Theoretical research *	6.4	5.3	6.0	5.8	5.2	5.7
NAAJ *	6.6	5.1	5.8	5.7	4.8	5.5
Job search information and resources	5.1	5.7	6.0	5.5	5.3	5.4
Mean score for all 14 services *	7.1	7.1	7.4	6.8	6.8	7.1
Maximum number of ratings (some members did not rate every service)	193	504	910	175	962	3,928

* Statistically significant difference among Practice Areas

Scores range from 0 (Very low) to 10 (Very high).

Practice Area accounts for 8.4 percent of the variance in importance ratings of 'Experience studies', and 5.1 percent of the variance in importance ratings of 'Continuing education: Current practice'. For other services, Practice Area accounts for less than 4 percent of variance.

Table 17. Performance scores by Practice Area*SOA 2002*

Service	Finance	Health Benefits	Life Insur.	Non-traditional	Retirement Systems	All members
Maintain/enhance value of credentials	5.9	6.5	6.1	5.9	6.0	6.1
Maintain high examination standards	7.1	6.9	7.1	6.9	7.1	7.1
Continuing education: Current practice *	6.4	6.6	7.0	6.1	6.0	6.6
Quality of service to members	7.9	8.0	7.8	7.4	7.6	7.7
Promote profession's image among employers	5.0	5.3	5.2	4.9	5.1	5.2
Promote profession's image in society	4.7	5.0	4.9	4.5	4.8	4.9
Communications: newsletters, publications *	6.8	6.6	6.9	6.3	6.2	6.6
Continuing education: Emerging issues *	5.8	5.8	6.1	5.3	5.4	5.8
Networking, conferences, discussions *	6.5	6.8	6.8	6.0	5.5	6.3
Experience studies *	5.5	5.3	6.9	5.0	5.6	6.0
Other practical research *	5.5	4.9	5.7	5.0	5.1	5.4
Theoretical research *	5.2	3.9	4.7	4.5	4.0	4.5
NAAJ *	5.3	3.9	4.7	4.7	3.9	4.5
Job search information and resources *	4.8	5.2	5.2	4.9	4.9	5.0
Mean for all 14 services *	5.9	5.7	6.0	5.5	5.5	5.8
Maximum number of ratings (some members did not rate every service)	191	482	858	172	908	3,927

* Statistically significant difference

Scores range from 0 (Very low) to 10 (Very high).

Practice Area accounts for 8.1 percent of the variance in performance ratings of 'Experience studies', and 7.1 percent of the variance in performance ratings of 'Networking, conferences and discussions'. For other services, Practice Area accounts for less than 4 percent of variance.

Importance and performance scores by Special Interest Section

Table 18 and Table 19 present ratings of member services for each Special Interest Section. To test for Sectional difference, the mean for the Section was compared to the mean for members who are not in that Section. There are 336 such tests in each of Tables 18 and 19, and to control for spurious results, the alpha was set at .00015 ($.05 \div 336$) in order to give a 5 percent probability of false positives for the table as a whole.

Table 18. Importance scores by Special Interest Section

<i>SOA 2002</i>							
Section	Maintain value of credentials	Maintain high exam standards	Continuing education: Current practice	Quality of service to members	Promote image among employers	Promote image in society	Communications
Actuary of the Future	8.5	8.4	8.2	8.1	7.8	7.8	7.9
Computer Science	8.4	8.3	8.1	7.9	7.7	7.5	7.9*
Education & Research	8.4	8.3	8.0	8.2	7.7	7.9	7.8
Futurism	8.6	8.4	8.4	8.2	7.6	8.0	8.0
Health	8.6	8.5	8.4*	8.2*	7.6	7.6	7.7
Individual Life Ins. & Annuity	8.5	8.5	8.6*	8.2*	7.6	7.4	8.0*
International	8.5	8.6	8.3	8.1	7.5	7.5	7.9*
Investment	8.5	8.5	8.3*	8.1	7.6	7.5	7.8*
Life Insur. Co. Reporting	8.6	8.6	8.6*	8.2*	7.6	7.4	8.0*
Long Term Care Insur.	8.5	8.4	8.5	8.3	7.5	7.4	7.8
Management and Personal	8.5	8.5	8.5	8.2	7.9	7.7	7.9
Non-traditional Marketing	8.5	8.4	8.3	8.2	7.6	7.5	7.7
Pension	8.4	8.4	7.6*	7.8	7.5	7.7	7.3
Reinsurance	8.5	8.6	8.5*	8.2	7.5	7.3	8.0*
Smaller Insurance Company	8.5	8.3	8.6*	8.3	7.3	7.5	8.0
Mean of all members	8.4	8.4	8.0	7.9	7.5	7.5	7.5
Section	Continuing education Emerging issues	Networking conferences discussions	Experience studies	Other practical research	Theoretical research	NAAJ	Job search info & resources
Actuary of the Future	7.8*	7.0	6.9	7.0	6.3	6.2*	5.5
Computer Science	7.3	6.8	7.0	6.9	6.2	6.3*	5.8
Education & Research	7.6	7.1	6.5	7.0	6.7*	7.2*	5.4
Futurism	7.9*	7.3	7.2	7.1	6.8*	6.7*	5.2
Health	7.3	7.2*	7.0	6.9*	5.8	5.5	5.4
Individual Life Ins. & Annuity	7.6*	7.3*	7.7*	7.2*	6.2*	6.0*	5.6
International	7.8*	7.4*	6.9	6.8	6.3*	6.3*	5.4
Investment	7.6*	7.1*	6.8	7.0*	6.5*	6.5*	5.5
Life Insur. Co. Reporting	7.6*	7.3*	7.6*	7.1*	6.3*	6.2*	5.4
Long Term Care Insur.	7.5	7.7*	8.1*	7.1	5.9	5.6	5.5
Management and Personal	7.7	7.5*	6.9	6.7	5.6	5.4	5.9
Non-traditional Marketing	7.7*	7.5*	7.5*	7.0	5.7	5.8	5.4
Pension	6.8*	6.5	6.3*	6.4	5.4	5.1*	5.2
Reinsurance	7.5*	7.5*	7.8*	7.3*	6.3*	6.2*	5.1
Smaller Insurance Company	7.5	7.6*	8.0*	7.2	5.7	5.5	5.4
Mean of all members	7.2	6.8	6.7	6.6	5.7	5.4	5.5

* Significant difference between the Section and other members.

Scores range from 0 (Very low) to 10 (Very high).

Table 19. Performance scores by Special Interest Section

<i>SOA 2002</i>							
Section	Maintain value of credentials	Maintain high exam standards	Continuing education: Current practice	Quality of service to members	Promote image among employers	Promote image in society	Communications
Actuary of the Future	5.8	6.8	6.7	7.8	5.0	4.7	6.8
Computer Science	6.1	7.0	6.6	7.8	5.3	4.9	6.8
Education & Research	6.0	6.8	6.8	7.7	5.4	5.0	6.7
Futurism	6.1	7.2	6.9	7.9	5.2	5.0	6.9
Health	6.3	7.1	6.7	8.0*	5.2	5.0	6.8
Individual Life Ins. & Annuity	6.1	7.0	7.1*	7.9	5.2	4.8	7.1*
International	6.2	7.1	6.8	7.8	5.3	4.9	6.9
Investment	6.0	7.0	6.8	7.8	5.1	4.8	6.9*
Life Insur. Co. Reporting	6.3	7.2	7.2*	8.0*	5.3	5.0	7.1*
Long Term Care Insur.	6.2	6.9	7.0	7.9	5.1	4.8	6.8
Management and Personal	6.0	6.9	7.0	8.0	5.2	4.7	6.9
Non-traditional Marketing	6.0	7.1	6.9	7.8	5.1	4.6	6.8
Pension	6.0	7.2	6.2*	7.6	5.1	4.9	6.4
Reinsurance	6.3	7.1	7.1*	7.9	5.2	4.9	7.2*
Smaller Insurance Company	6.4	7.0	7.1	8.0	5.2	4.8	7.1
Mean of all members	6.1	7.1	6.6	7.7	5.2	4.9	6.6

Section	Continuing education Emerging issues	Networking conferences discussions	Experience studies	Other practical research	Theoretical research	NAAJ	Job search info & resources
Actuary of the Future	6.0	6.4	6.2	5.7	5.0*	5.0*	5.0
Computer Science	5.9	6.4	6.2	5.6	4.9	5.1*	5.2
Education & Research	6.0	6.6	6.0	5.6	5.1	5.8*	5.1
Futurism	6.1	6.7	6.3	5.5	5.0	5.4*	5.1
Health	5.9	6.6*	5.7	5.2	4.3	4.3	5.2
Individual Life Ins. & Annuity	6.2*	7.0*	6.8*	5.8*	4.8*	4.9*	5.1
International	6.1	6.6	6.1	5.4	4.8	5.0*	4.9
Investment	6.0	6.6	6.2	5.7*	5.0*	5.3*	5.1
Life Insur. Co. Reporting	6.2*	7.0*	6.7*	5.8*	4.9*	5.0*	5.2
Long Term Care Insur.	6.1	6.9	6.8	5.6	4.5	4.5	4.9
Management and Personal	5.9	6.8	6.3	5.5	4.3	4.1	5.2
Non-traditional Marketing	6.2	6.7	6.6	5.6	4.6	4.6	5.0
Pension	5.5*	5.6*	5.7	5.3	4.2	4.1*	4.9
Reinsurance	6.2*	7.1*	6.7*	5.7	4.8*	5.0	5.0
Smaller Insurance Company	6.1	6.9	6.8*	5.8	4.4	4.3	5.0
Mean of all members	5.8	6.3	6.0	5.4	4.5	4.5	5.0

* Significant difference between the Section and other members.

Scores range from 0 (Very low) to 10 (Very high).

PRIORITIES FOR ACTION

Members reviewed the 14 SOA services and indicated their first, second and third choices for SOA action. Maintaining and enhancing the value of credentials is the clear focus, whether on the basis of members' first choice or on the basis of the three choices combined. (Table 20).

This said, maintaining the value of credentials is best viewed as a consequence of the 13 other services; it is not something that one acts on directly. Achievements in these more specific areas will contribute to valuable credentials.

From this perspective, members' top priorities for action span at least six areas, beginning with maintaining the value of the examination process and proceeding down the list to continuing education in emerging issues. Results show a continuum of priorities with no clear division into essential and non-essential issues.

There is considerable consistency between these direct priority ratings and the importance ratings in Table 15 – the value of credentials, the value of examinations, and continuing education in current practice rank one, two and three in each instance.

Service	Percent choosing as top priority	Percent choosing overall
Maintain and enhance the value of credentials	34	21
Value of examinations	13	12
Continuing education: Current practice	11	13
Experience studies	11	10
Promote image among employers	9	10
Promote image in society	8	9
Continuing education: Emerging issues	3	7
Networking	3	4
Other practical research	2	5
Communications	2	3
Theoretical research	1	2
Job search	1	2
NAAJ	1	1
Quality of service	1	1
Base number of choices	3,902	11,706

9. COMPETING PROFESSIONS

Members estimated the challenge posed by competing professionals in two contexts:

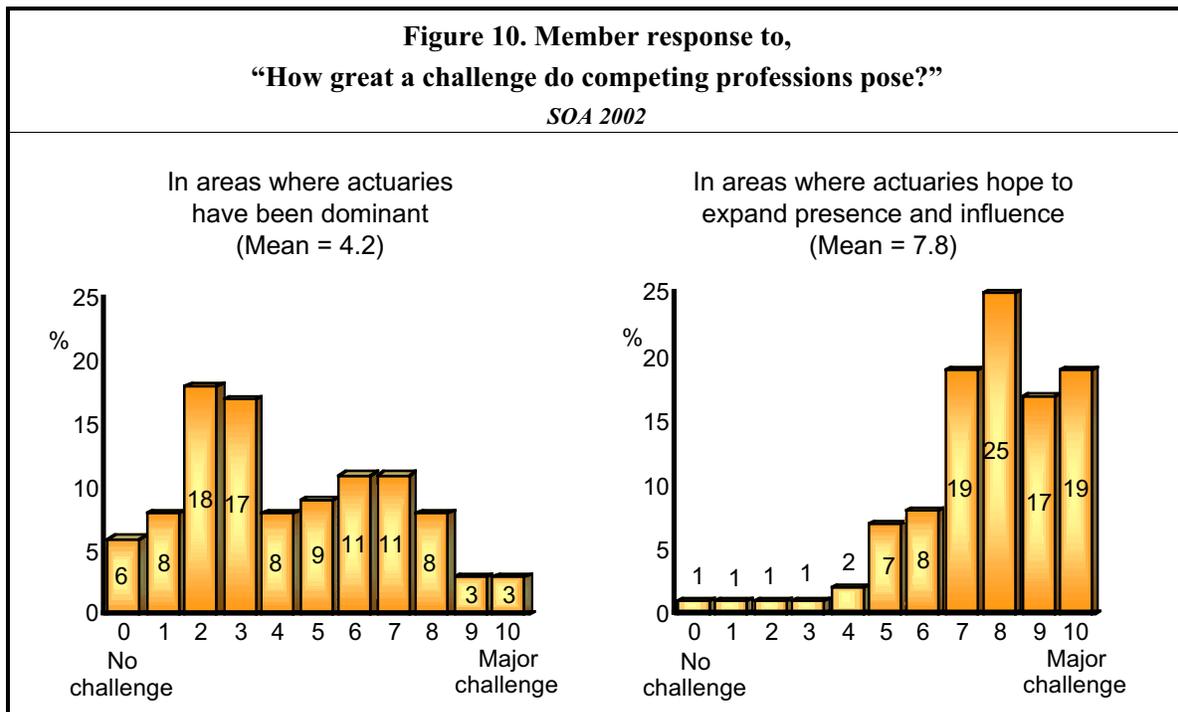
- Areas where actuaries have traditionally been dominant, and,
- Areas where actuaries hope to expand presence and influence.

Regarding the former context, Figure 10 has a bi-modal distribution, indicating a distinct split between members who have encountered no particular challenge from other professions and members who have encountered moderately strong competition. This single survey cannot tell whether the chart represents things as they have always been, or whether it represents an encroachment of other professions onto actuarial turf.

Not surprisingly, members see a greater challenge in areas where actuaries hope to expand, (although a fearless 6 percent of the profession are quite undeterred).

Members and candidates are very similar in their outlook (candidate data are not shown in the charts). The groups do not differ significantly with respect to areas where actuaries have traditionally been dominant. Members see a somewhat greater challenge than candidates in new areas; members' rate the challenge at 7.8, while candidates rate it 6.9.

Results differ only marginally across Practice Areas.



**Table 21. What other professions compete for employment with actuaries
in your area of work?**

SOA 2002

Profession	Percent of respondents	
	Members	Pre-ASA Candidates
MBA's, business graduates	45	31
Accountants	43	26
Financial engineers/analysts	42	44
Risk analysts	37	42
Statisticians	22	36
Economists	21	19
Other	8	4
None of these professions compete with actuaries	19	24

Columns add to more than 100 percent since respondents could select more than one competing profession.

Table 22. Which ONE profession presents the greatest competition?

SOA 2002

Profession	Percent of respondents	
	Members	Pre-ASA Candidates
MBA's, business graduates	28	17
Accountants	24	13
Financial engineers/analysts	23	29
Risk analysts	11	21
Economists	4	3
Statisticians	3	14
Other	7	4
Total	100	100
Base	3,162	2,080

The Health Benefits Area identifies one profession – MBAs – as its single leading competitor. In Finance, too, there is a lead competitor, Financial engineers/analysts.

In each other Practice Area, the competition is split more evenly among two or three different professions.

Competing profession	Percent					All members
	Finance	Health Benefits	Life Insur.	Non-traditional	Retirement Systems	
MBAs, business graduates	29	34	30	28	22	28
Accountants	14	16	24	14	30	24
Financial engineers/analysts	39	15	25	26	25	23
Risk analysts	15	14	14	14	6	11
Economists	1	7	1	1	7	4
Statisticians	–	7	2	2	1	3
Other	3	9	4	4	10	7
Total	100	100	100	100	100	100
Base	184	427	731	159	743	3,162

What attracts employers to competing professions?

Members are slightly more attuned to a challenge from other professions than pre-ASA candidates, but the differences are not pronounced. The member-candidate distinction accounts for two percent or less of the variance in response to each statement.

Approximately half the members in the sample employ or supervise other actuaries, and so bring an employer’s perspective to this issue. This employer group does not, however, differ significantly from members who are not employers on any of the measures appearing below.

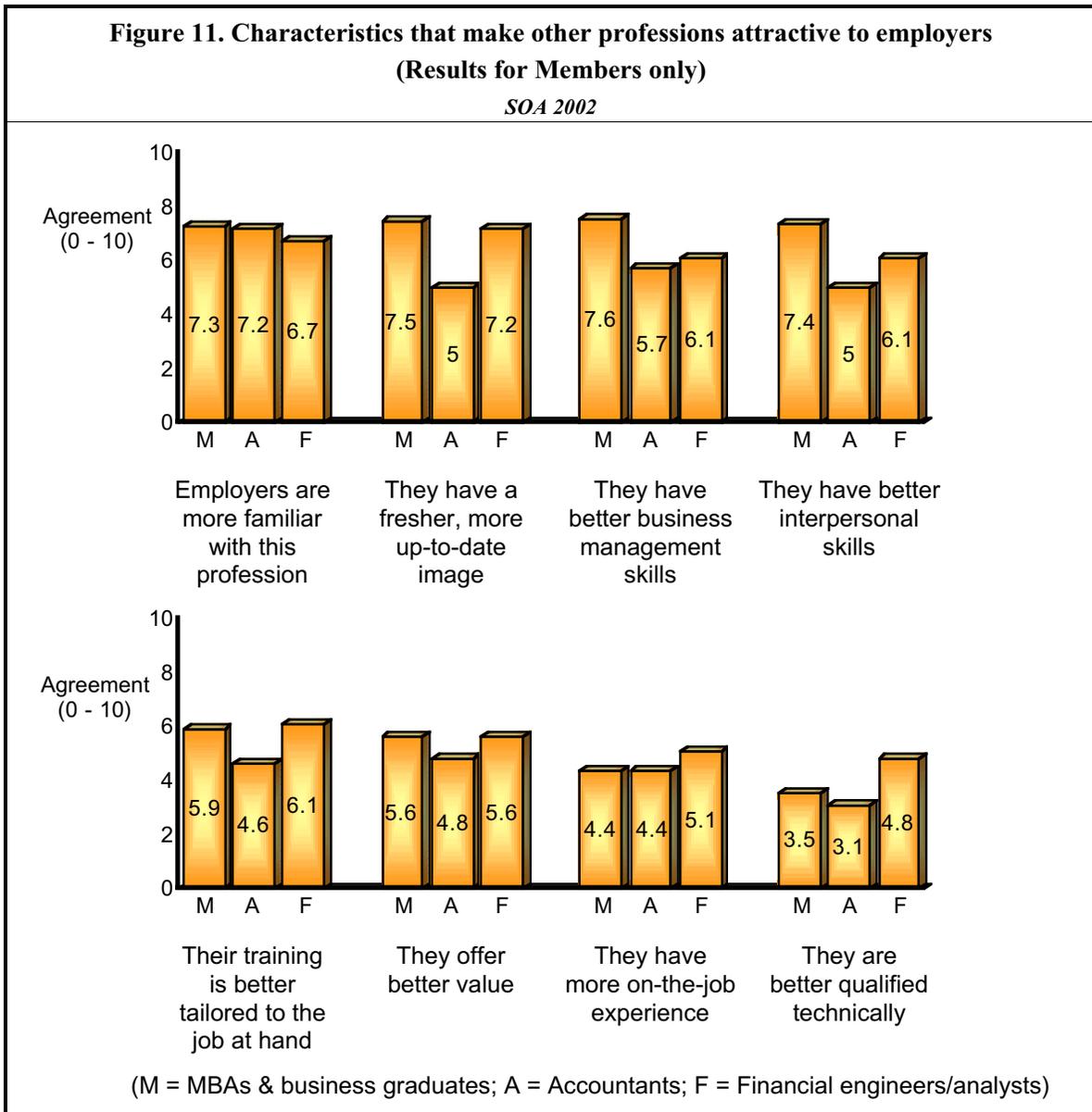
Table 24. Agreement with, “How do employers view members of this competing profession?”		
<i>SOA 2002</i>		
Statement	Mean agreement	
	Members	Pre-ASA Candidates
Employers are more familiar with the other profession and what it offers	6.8	6.3
They have a fresher, more up-to-date image than actuaries	6.4	5.8
They have better business management skills than actuaries	6.2	5.6
They have better interpersonal skills than actuaries	6.0	5.8
Their training is better tailored to the job at hand	5.5	5.3
They offer better value than actuaries	5.3	4.8
They have more on-the-job experience than actuaries	4.6	4.8
They are better qualified technically than actuaries	3.9	3.8

Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

Figure 11 focuses on accountants, financial engineers/analysts and MBAs – the three professions presenting the greatest challenge. Members who perceive that MBAs are the greatest challenge see their strengths as better business management skills (7.6 out of 10), a more up-to-date image (7.5), better interpersonal skills (7.4), and greater familiarity among employers (7.3).

Members who identify financial engineers/analysts as the greatest challenge put this profession past the 7-out-of-10 mark on just one dimension – a more up-to-date image. Members who identify accountants as the greatest challenge also give one score higher than 7-out-of-10 – with regard to accountant’s greater recognition among employers.

None of these three professions is seen as posing a major threat on the dimensions in the lower row, i.e. better training, better value, more experience or better technical qualifications.



The survey asked how the SOA should respond to the challenge of other professions, and members' recommendations mirror their perceptions of the problem, shown in Table 24.

Members report, in Table 24, that the problem centres on communication: other professions have a more up-to-date image and employers are more familiar with what these professions offer. The top-ranked solution is therefore to promote a more dynamic image of the profession.

Members also perceive that employers may see other professions as having better business skills, hence the endorsement for the SOA helping managers to acquire business management skills.

Table 25. How should SOA meet the challenge posed by other professions?		
<i>SOA 2002</i>		
Statement	Mean agreement	
	Members	Pre-ASA Candidates
Promote a more dynamic image of the profession	7.9	8.0
Help managers acquire business management skills	6.8	7.1
Help managers acquire interpersonal skills	5.9	6.6

Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

9. MEMBER VALUE PROPOSITIONS

This section maps survey measures onto the Value Propositions defined in the Strategic Plan, and then tests the relationship between the Value Propositions and member satisfaction. The seven Value Propositions are discussed in turn.

1. USE OF A WIDELY RECOGNIZED AND VALUED CREDENTIAL

Measures

	Agreement	
• ASA is valued as a relevant credential by employers in the marketplace		5.8
• FSA is valued as a relevant credential by employers in the marketplace		7.9
• The primary value of the SOA is to maintain the ASA and FSA credentials		6.3
	Importance	Performance
• SOA works to maintain and enhance the value of actuarial credentials in the marketplace	8.4	6.1
• SOA maintains high standards in the examination process, ensuring the value of actuarial credentials	8.4	7.1
• SOA works to enhance the image of the actuarial profession to employers	7.5	5.2
• SOA works to enhance the image of the actuarial profession in society	7.5	4.9

Discussion

“Maintaining and enhancing credentials” is members’ highest priority, and “maintaining high standards in examinations” is their second priority.

Members see that employers have high regard for the FSA, but less for the ASA. Enhancing the perceived value of the ASA would seem a logical focus.

The importance/performance gap for maintaining and enhancing credentials is 2.3 points. The gap for enhancing the profession’s image among employers is 2.4, and that for the image in society is 2.6. These are the three largest gaps of all the 14 SOA services. Respondents will clearly support initiatives intended to raise the profile of the credentials, especially the ASA.

2. SYSTEMATIC OPPORTUNITIES TO LEARN ABOUT EMERGING TRENDS IN THE FIELD AND NEW AREAS OF PRACTICE

Measures

	Agreement	
• The Society advocates and supports the development of new fields of practice for members		5.9
• SOA does a good job of informing members about emerging Practice Areas and issues		6.3
	Importance	Performance
• SOA provides courses events, and seminars on emerging fields and opportunities	7.2	5.8

3. USEFUL AND TIMELY STATISTICS AND RESEARCH

Measures

	Importance	Performance
• SOA publishes experience studies that actuaries can draw on in their day-to-day work	6.7	6.0
• SOA provides other practical research and information for actuaries to use in their day-to-day work	6.6	5.4
• SOA provides theoretical research to advance the frontiers of actuarial practice	5.7	4.5

Discussion

These importance scores are mid-range. This reflects the fact that experience studies and other types of research are highly important to some and of little interest to others. Note the strong correlation of .74 between importance and performance ratings for experience studies (Table 15). In concrete terms, those who assign experience studies an importance of 8 or more rate performance on them at 7.5, while those who assign an importance less than 8 rate performance at just 4.6. Experience studies work relatively well for those who use them.

4. CONNECTIONS INTO NETWORKS OF OTHER PROFESSIONALS WITH WHOM THE MEMBER CAN DISCUSS CURRENT PRACTICE ISSUES, IDENTIFY NEW CAREER OPPORTUNITIES, AND POTENTIALLY ADVANCE TO MORE RESPONSIBLE AND LUCRATIVE POSITIONS

Measures

	Importance	Performance
• SOA provides opportunities for networking and discussion through conferences and other means	6.8	6.3
• SOA provides information and resources for job search	5.4	5.0

Discussion

The relatively low importance scores follow from the fact that large proportions of members do not regard these activities as very high in importance. But many do – 44 percent rate networking at 8+ in importance and 28 percent rate job search at 8+.

It seems likely that the importance of these SOA functions will vary over a person’s career.

Considering those who assign importance of 8+ to these functions, performance ratings are 7.1 for networking and 6.1 for job search.

5. CONTINUING PROFESSIONAL EDUCATION TO KEEP MEMBERS UP TO DATE ON ADVANCES IN ACTUARIAL SCIENCE AND TO MEET THE CONTINUING EDUCATION REQUIREMENTS TO KEEP CREDENTIALS CURRENT

Measures

	Importance	Performance
<ul style="list-style-type: none">SOA provides courses, events, and seminars on issues that arise in current practice	8.0	6.6

Discussion

“Continuing education in current practice” is members’ third priority for SOA action.

The survey contains just one question that bears on this proposition. The proposition has several elements, and additional questions might be considered in future surveys, e.g. “SOA’s continuing education keeps me up-to-date on advances in actuarial science”, or “SOA’s continuing education programs enable me to keep my credentials current”.

6. OPPORTUNITIES FOR LEARNING THROUGH WHICH MEMBERS CAN BROADEN THEIR SKILL SETS AND TAKE ADVANTAGE OF EMERGING PROFESSIONAL CHALLENGES

This proposition is stated in very general terms. It overlaps with the more specifically worded Value Propositions that describe opportunities for learning (propositions 2, 3, 4, 5 and 7), and the relevant measures are not repeated here.

7. PUBLICATIONS, IN A VARIETY OF MEDIA AND THROUGH A VARIETY OF ACCESS CHANNELS, TO SUPPORT THE FOREGOING LIST OF SERVICES

Measures

	Importance	Performance
• SOA provides newsletters and publications that keep members up-to-date on SOA and activities in the profession	7.5	6.6
• NAAJ provides theoretical content to advance the knowledge base of the profession	5.5	4.5

MEASURES OF SATISFACTION

Four measures of satisfaction complete the picture. The first three are clear satisfaction measures. The fourth, value for dues, is included because the Strategic Plan specifically links value for dues to satisfaction.

	Satisfaction
• How satisfied are you with the performance of SOA in supporting your professional needs?	6.5
• How satisfied are you with the performance of SOA in advancing the actuarial profession?	6.3
• In general, are you more or less satisfied with SOA today than you have been in past years?	5.5
• SOA provides good value for membership dues	Agreement 5.6

IMPACT OF MEMBER VALUE PROPOSITIONS ON SATISFACTION

Delivering on the Value Propositions should have a positive effect on member satisfaction. There are two general ways to test this hypothesis:

1. **Over time:** Do scores on the measures that are relevant to the Value Propositions increase over time? Is there a corresponding increase in satisfaction?
2. **Among members at this point in time:** Are members who perceive that the SOA performs well in delivering value more satisfied than members who rate the SOA performance lower?

Method 1 must wait for a further membership survey, but method 2 can be tested now.

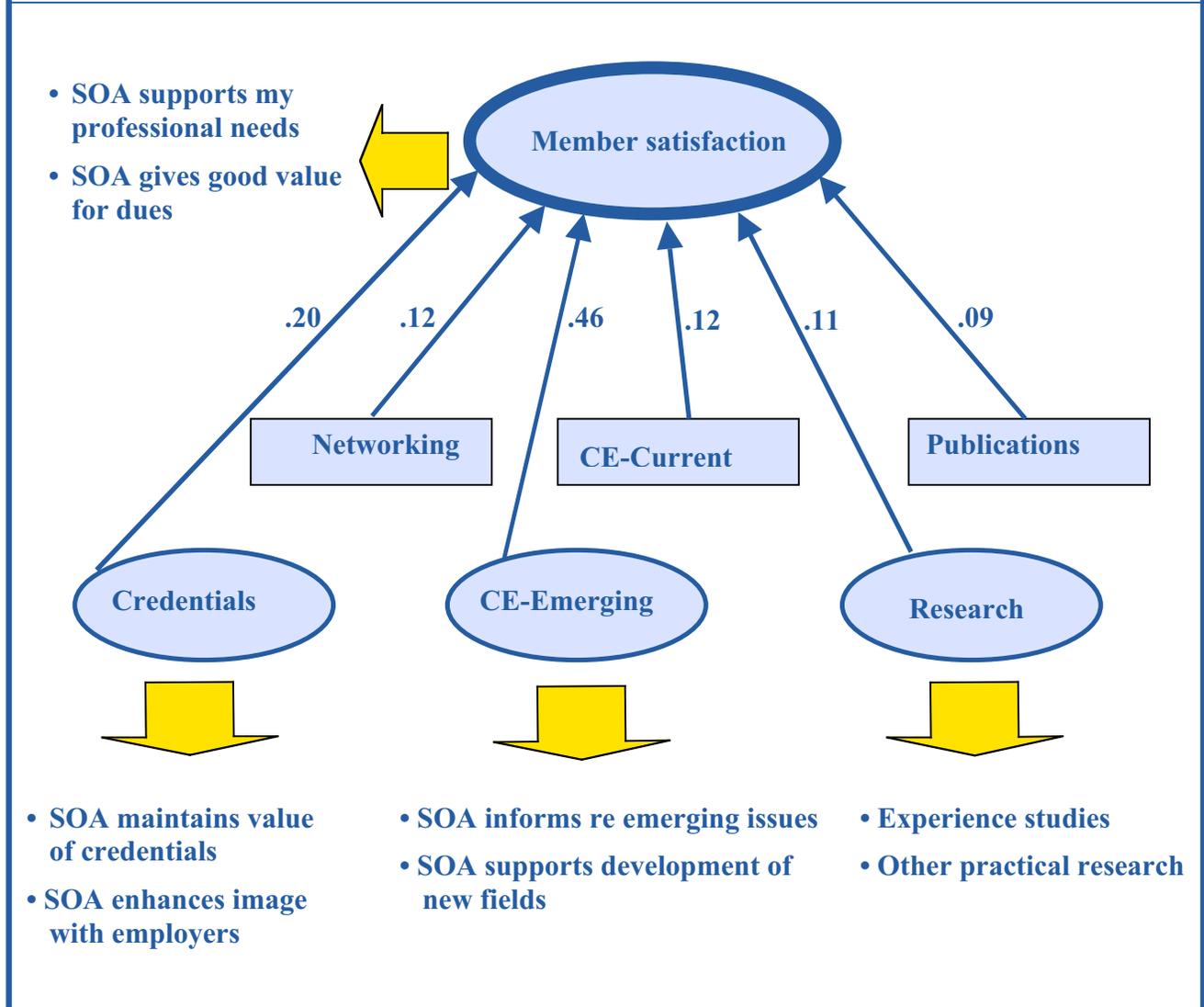
The structural equation model in Figure 12 links six of the seven Value Propositions to satisfaction (the seventh proposition, “opportunities for learning” is redundant in this context, as discussed above.)

The model uses two measures of satisfaction and 9 more to represent the Value Propositions. These were selected from the set described earlier in this section on the basis of their ability to cleanly predict satisfaction. The measures are as follows:

Satisfaction	Based on
Member satisfaction	Satisfaction with the performance of the SOA in supporting your professional needs SOA provides good value for membership dues

Value proposition	Based on
1. Credentials	SOA works to maintain/ enhance the value of credentials SOA works to enhance the image of the profession among employers
2. CE-emerging	SOA does a good job informing members re emerging issues SOA supports the development of new fields of practice
3. Research	SOA publishes experience studies SOA provides other practical research and information
4. Networking	SOA provides opportunities for networking and discussion
5. CE-current	SOA provides information on issues in current practice
7. Publications	SOA provides newsletters and publications

Figure 12. Structural model relating Value Propositions to member satisfaction
SOA 2002



Numbers beside arrows are standardized regression weights. Rectangles represent single observed variables. Ellipses represent latent variables.

This equation establishes that *each SOA Value Proposition contributes materially to member satisfaction*. It emphasizes the precedence of two propositions – the actuarial credential and a focus on continuing education in emerging issues.

Model statistics**Goodness of fit**

Root mean square error of approximation	.039
90 percent CL	.033 – .044

Squared multiple correlations

Satisfaction: Latent measure	.75
Satisfaction with performance of SOA in supporting professional needs	.60
SOA gives good value for dues	.63
SOA maintains value of credentials	.49
SOA enhances image with employers	.55
SOA informs re emerging issues	.66
SOA supports development of new fields	.60
Experience studies	.45
Other practical research	.77

Correlations among predictor variables

Credentials ↔ CE Emerging	.72
CE Emerging ↔ Research	.46
Credentials ↔ Research	.51
Networking ↔ Communications	.40
Communications ↔ CE Current Practice	.48
Research ↔ Networking	.43
Credentials ↔ Networking	.43
Credentials ↔ Communications	.45
Credentials ↔ CE Current Practice	.47
CE Emerging ↔ Networking	.38
CE Emerging ↔ Communications	.47
CE Emerging ↔ CE Current Practice	.43
Research ↔ Communications	.48
Research ↔ CE Current Practice	.50
Networking ↔ CE Current Practice	.50

Next steps

Accounting for 75 percent of the variance in member satisfaction is a strong result, and future research can build on these results:²

- There may be additional survey questions that tap elements of the Value Propositions that are not addressed at this time.
- Members may value services that are not reflected in the present Value Propositions, i.e., there may be reason to construct one or more additional Value Propositions.
- Variables outside of the SOA ambit may affect satisfaction with the organization, for example, those who are happier in their jobs may state that they are happier with the organization.

IMPLICATIONS FOR ACTION

“Value of credentials” and “continuing education in emerging areas” are the two Value Propositions that contribute most strongly to satisfaction. Moreover, performance scores for the several SOA services that measure these Value Propositions are not overly high – they range from 5.1 to 7.1. It follows that:

- Substantive improvements on these measures is an attainable goal (if ratings were already in the 8.5 range further improvement could be very difficult to achieve).
- Improvements in these areas can be expected to pay off with increases in overall satisfaction.

Improved ratings in these areas can be achieved in one or both of two ways:

- If the SOA is, in fact, doing an excellent job in maintaining the value of credentials and/or in providing continuing education on emerging areas, then the solution may be better communication of its accomplishments to members.
- If the SOA can do more to enhance the value of the profession in the eyes of employers and the public, or to improve its CE offerings, then forward-moving initiatives are indicated.

The other four Value Propositions may have lesser impact on member satisfaction, but to the extent that the SOA has resources to commit, improvements in these areas will also produce positive results.

² Survey research never explains 100 percent of the variance in a situation. Seventy-five percent is about the ceiling. The major limitations are that: 1) Survey questions are imperfect measures of the underlying themes they represent; 2) Respondents are inconsistent in their use of response scales; 3) Extraneous factors such as the respondent’s frame of mind when filling out the survey may affect answers.

10. CANDIDATES' VIEWS

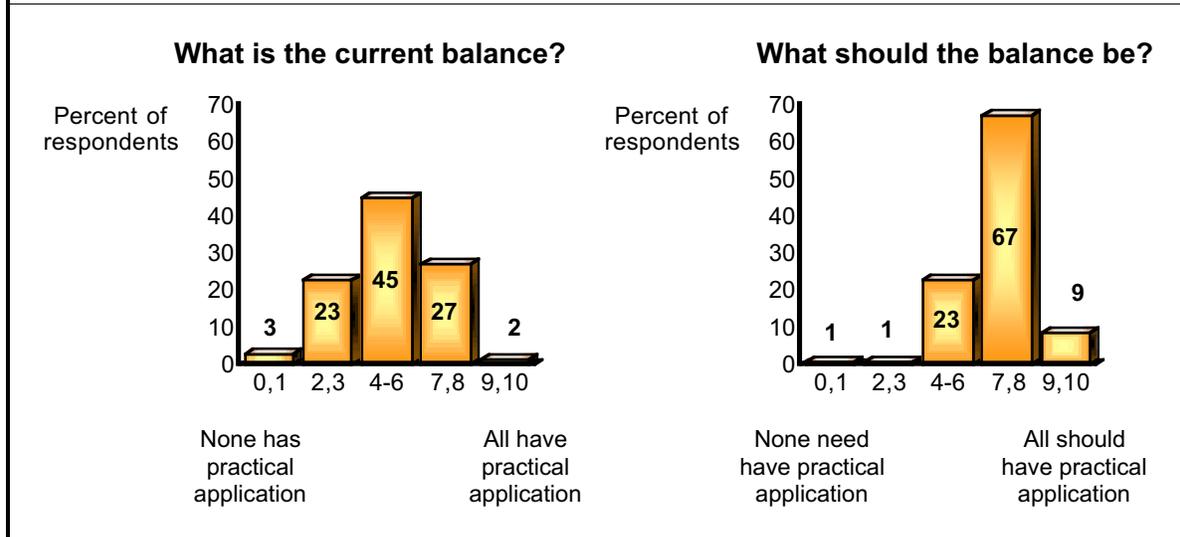
“Candidates” include two distinct groups, pre-ASA candidates, who constitute 76 percent of candidates in the present sample, and ASAs pursuing the FSA, who constitute 24 percent. There are differences between these constituencies, though they are generally small in magnitude.

Candidates who are pursuing the FSA rate overall satisfaction with SOA support for professional needs at 6.4 out of 10, very close to the member mean of 6.5. Pre-ASA candidates are slightly lower at 6.0. ASAs who are pursuing the FSA do not differ significantly from pre-ASAs on either of the other satisfaction measures, (SOA’s performance in advancing the profession and change in satisfaction over the past years).

The Strategic Plan states that the SOA will offer students, “a range of choices for learning actuarial applications in a variety of business fields and employment settings”. This suggests that students vary in their needs and interests. As a consequence, students can be expected to vary on the options proposed to them in the survey.

**Figure 13. The balance between practical and theoretical material:
ASAs who plan to complete the FSA**

SOA 2002



**Figure 14. The balance between practical and theoretical material:
Pre-ASA Candidates**

SOA 2002

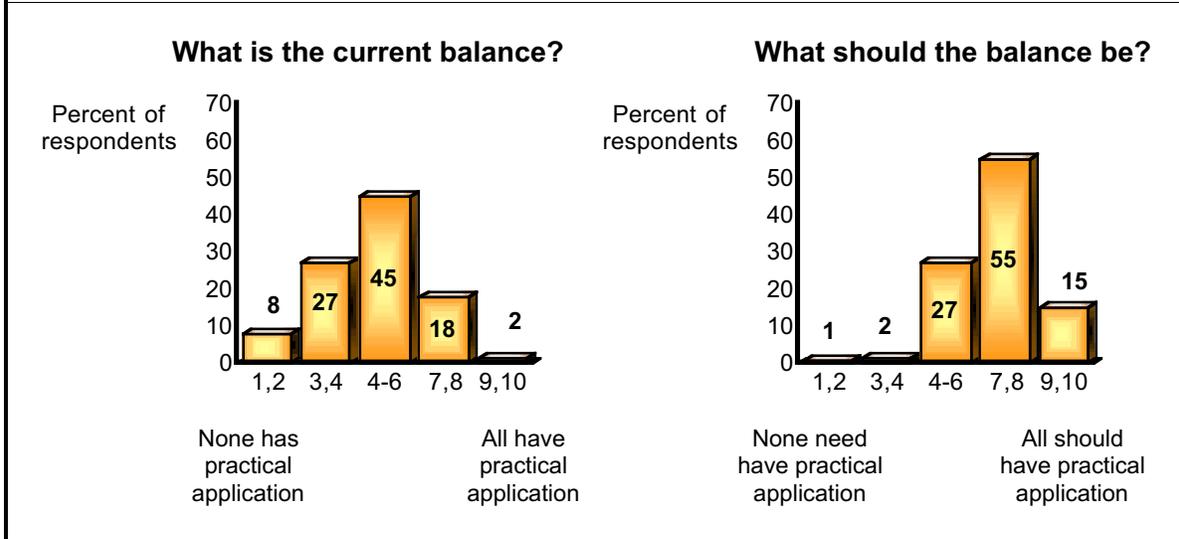


Figure 15 summarizes the information in Figure 13 and Figure 14, showing the proportion of ASA and pre-ASA candidates who would like to see a shift in orientation of the curriculum. Clearly, most want a more practical approach.

Figure 15. In what direction should the balance shift?

SOA 2002

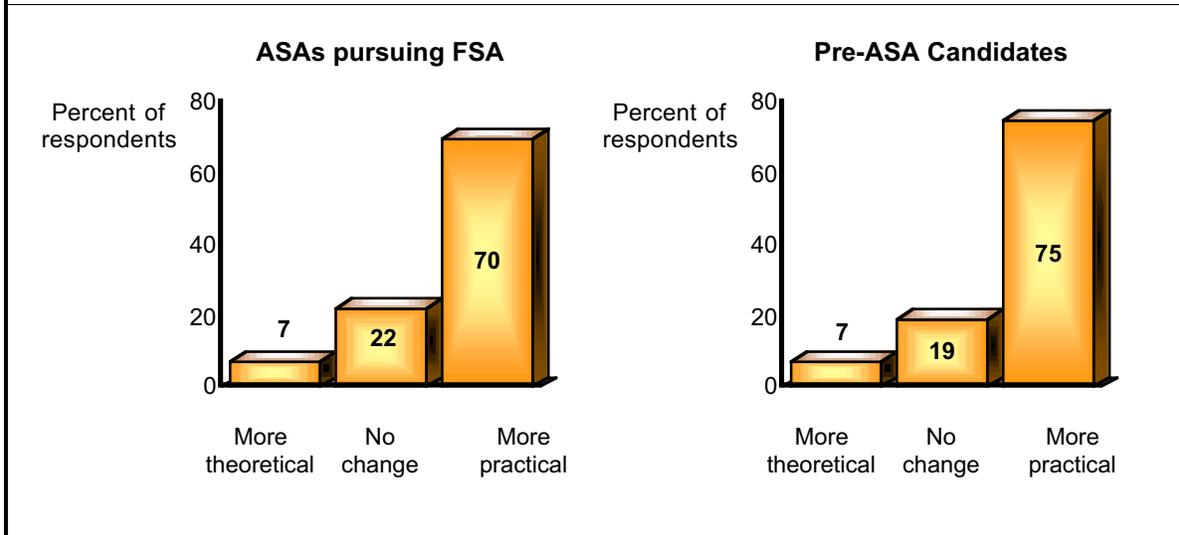
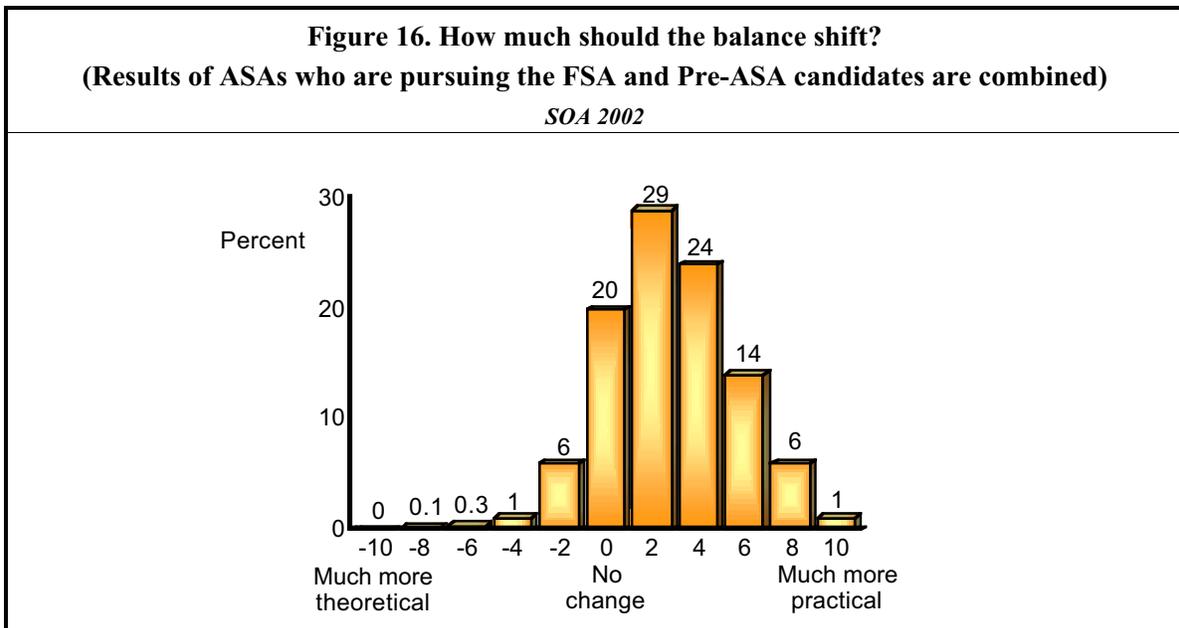


Figure 16 shows finer detail on the degree of change that respondents seek (results for ASAs and Pre-ASAs are combined). The chart is obtained by subtracting a person’s score for “What is the current balance?” from their response to “What should the balance be?”

The zero point on the horizontal axis represents the 20 percent of respondents who see the present balance as appropriate. The “+10” point represents those who would like the balance to be a full ten points more practical (i.e. they rated the present balance as totally theoretical and would prefer a curriculum that was totally practical).

The mean of the distribution is 2.4 – on average, candidates would prefer the curriculum to be more practical by 2.4 points out of 10.



SERVICES TO CANDIDATES

Study notes, career information and job search rank about equally in importance. The correlations between importance and performance are moderately strong in each case, indicating that there is some tendency for those who find the resource important to also find it useful.

Table 26. Importance and performance scores for services to candidates				
(Results of ASAs who are pursuing the FSA and Pre-ASA candidates are combined)				
<i>SOA 2002</i>				
Service	Importance	Performance	Gap	R
SOA provides study notes to prepare for exams	7.3	6.0	1.3	.65
SOA provides information and resources for career development	7.1	5.7	1.4	.56
SOA provides info and resources for job search	7.0	5.5	1.5	.54
SOA publishes “The Future Actuary”	6.0	5.6	0.4	.85

Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

NATION-SPECIFIC CONTENT

A substantial minority of candidates would like to see nation-specific content added to the curriculum. The proportions are similar in the US, Canada and elsewhere.

Table 27. Should nation-specific elements be introduced into the curriculum?		
<i>SOA 2002</i>		
	Percent of respondents	
	ASA pursuing FSA	Pre-ASA candidates
Overall result		
Yes	41	37
No	59	63
Total	100	100
Proportion who favor nation-specific content by region		
USA	42	35
Canada	41	41
Elsewhere	39	44

TRAVEL TIME

A small majority of ASAs and a larger majority of Pre-ASA Candidates favor some adjustment to the present system.

Position	Percent of respondents	
	ASA pursuing FSA	Pre-ASA candidates
Travel time should be shortened	20	25
Travel time should be more predictable (fixed duration)	17	15
Both of these	18	30
Neither of these	45	30
Total	100	100
Base	828	2,720

ACADEMIC CREDITS AND PARTNERSHIPS

A small majority of ASAs and a larger majority of pre-ASA Candidates favor either exemptions for university credits or the establishment of prerequisite courses or both.

Table 29. Opinions on academic credits		
<i>SOA 2002</i>		
Position	Percent of respondents ASA pursuing FSA	Pre-ASA candidates
SOA should grant exemptions for equivalent university credits	13	27
SOA should define widely available university/college courses as prerequisites	20	14
Both of these	20	27
Neither of these	48	33
Total	100	100
Base	822	2,735

There is strong support for partnerships with colleges and universities, particularly among pre-ASA candidates.

Table 30. Should SOA explore alternate means for actuarial education, e.g. through partnerships with colleges and universities?		
<i>SOA 2002</i>		
Position	Percent of respondents ASA pursuing FSA	Pre-ASA candidates
Yes	56	72
No	44	28
Total	100	100
Base	859	2,732

Views of the profession

To round out the picture, Table 31 compares how members and pre-ASA candidates view the profession. “Member” includes all members – not just those who are pursuing the FSA. Members and pre-ASA Candidates are highly similar in their response to most statements. They differ to a meaningful degree on just two: Pre-ASA candidates register higher levels of agreement to, “The actuarial profession has a strong future in today’s changing business environment” and “ASA is valued as a relevant credential by employers in the marketplace”.

Table 31. Views of the profession: Members and Pre-ASA Candidates			
<i>SOA 2002</i>			
Statement	Members (ASA and FSA)	Pre-ASA Candidates	Percent of variance
FSA is valued as a relevant credential by employers in the marketplace *	7.9	8.1	1.0
The actuarial profession has a strong future in today’s changing business environment *	6.7	7.1	5.3
SOA should be more proactive in preparing members for the impact that globalization will have on the profession *	6.6	6.8	1.5
The primary value of the SOA is to maintain the ASA and FSA credentials *	6.3	6.5	1.4
SOA does a good job of informing members about emerging Practice Areas and issues	6.3	6.2	0.0
SOA conducts sufficient research on major social issues (e.g. demographic risks) to fulfill its responsibility to the public	6.1	6.1	0.1
ASA is valued as a relevant credential by employers in the marketplace *	5.8	6.4	8.7
SOA represents my specific practice interests and needs as a professional *	5.7	5.8	0.3
The Society advocates and supports the development of new fields of practice	5.9	5.9	0.0
SOA contributes effectively to the global actuarial community, supporting the needs of members, candidates and regulators *	5.9	6.0	0.4
SOA provides good value for membership dues	5.6	5.6	0.1
Base (minimum N for the 11 statements)	3,852	2,549	

* Statistically significant between members and pre-ASA candidates
Scores range from 0 (Strongly disagree) to 10 (Strongly agree).

11. CANDIDATE VALUE PROPOSITIONS

The SOA Strategic Plan defines five Value Propositions for Candidates. This section links survey measures to these Value Propositions and develops a model relating the Propositions to overall satisfaction. “Candidates” in this section includes both ASA and pre-ASA candidates.

1. PROVIDE BASIC EDUCATION AND SUPPORT DURING THE EDUCATION PROCESS THROUGH A VARIETY OF AVENUES TO ATTAIN PROFESSIONAL CERTIFICATION

Measures

• SOA represents my specific practice interests and needs as a professional		Agreement
		5.8
• SOA provides information and resources for career development	Importance	Performance
	7.1	5.7

2. OFFER A RANGE OF CHOICES FOR LEARNING ACTUARIAL APPLICATIONS IN A VARIETY OF BUSINESS FIELDS AND EMPLOYMENT SETTINGS

Measures

• Balance between theoretical and practical material in the curriculum		Balance of practical and theoretical
		2.4
Scores range from -10 (should be much more theoretical), to 0 (perfectly balanced) to +10 (should be much more practical)		

A proper balance between practical and theoretical material is one element of “a range of choices”. This question set should be expanded in the future to address this Value Proposition more completely. Questions could include, for example, choices between self-study and college/university courses.

3. CERTIFY SKILL AND KNOWLEDGE TO EMPLOYERS AND OTHERS, IN A VARIETY OF ACTUARIAL APPLICATIONS AND BUSINESS FIELDS, WHICH WILL SUPPORT CAREER OPPORTUNITIES IN VARIOUS EMPLOYMENT SETTINGS

Measures

	Agreement
• The primary value of SOA is to maintain the ASA and FSA credentials	6.6
• ASA is valued as a relevant credential by employers in the marketplace	6.9
• FSA is valued as a relevant credential by employers in the marketplace	8.2

4. ADMIT TO A PROFESSION WITH HIGH BUSINESS STATUS, MANAGEMENT OPPORTUNITIES, AND A POTENTIALLY FULFILLING CAREER

Measures

	Agreement
• The actuarial profession has a strong future in today's changing business environment	7.3

Additional measures for this Value Proposition could be constructed in future surveys.

5. PROVIDE CONTINUING EDUCATION, PUBLICATIONS, RESEARCH SUPPORT, AND PROFESSIONAL NETWORKING

Measures

	Importance	Performance
• SOA provides study notes to help candidates prepare for examinations	7.3	6.0
• SOA publishes "The Future Actuary" to make pre-ASA candidates aware of issues and events	6.0	5.6
• SOA provides information and resources for job search	7.0	5.5

MEASURES OF SATISFACTION

	Agreement
• How satisfied are you with the performance of SOA in supporting your professional needs?	6.1
• How satisfied are you with the performance of SOA in advancing the actuarial profession?	6.2
• In general, are you more or less satisfied with SOA today than you have been in past years?	5.6
• SOA provides good value for membership dues	5.6

IMPACT OF CANDIDATE VALUE PROPOSITIONS ON SATISFACTION

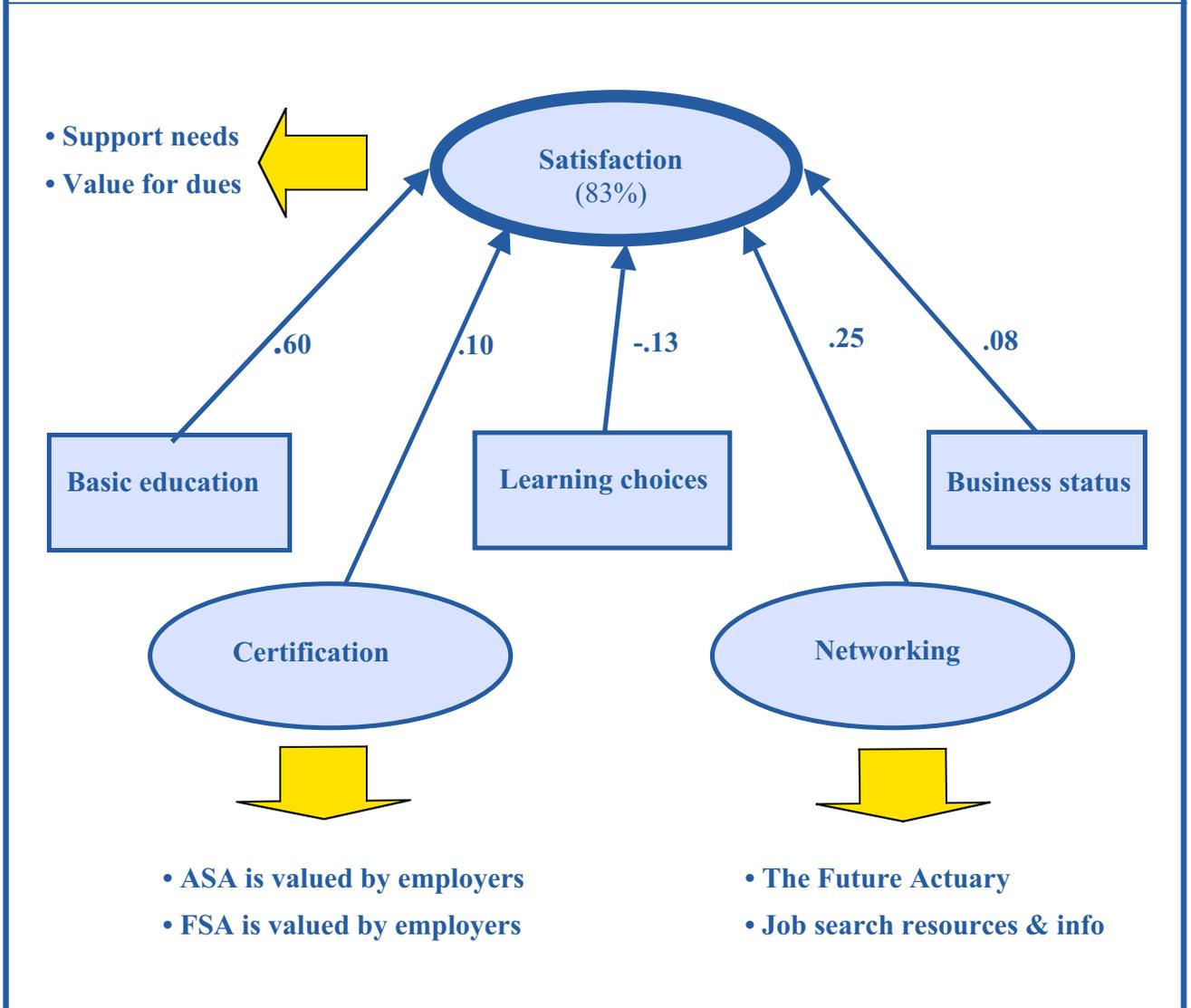
The structural equation model in Figure 17 relates the Value Propositions to candidate satisfaction. It uses 9 of the variables discussed earlier in this section, and it accounts for 83 percent of the variance in satisfaction. Each of the five Candidate Value Propositions contributes to satisfaction.

“Providing a basic education” is the strongest component, with a standardized regression weight of .60. Betas for the other four components range from .08 to .25. The negative value on the coefficient for “Learning choices” simply reflects the fact that Candidates view the curriculum as somewhat too theoretical rather than too practical.

Satisfaction	Based on
Candidate satisfaction	Satisfaction with the performance of SOA in supporting your professional needs SOA provides good value for membership dues

Value propositions	Based on
1. Basic education	SOA represents my specific practice interests and needs
2. Learning choices	Balance between theoretical and practical material. (Candidates who consider the curriculum either too practical or too theoretical get higher scores.)
3. Certification	ASA is valued as a relevant credential by employers FSA is valued as a relevant credential by employers
4. Business status	Profession has a strong future in today’s business environment
5. Networking, support	SOA publishes “The Future Actuary” SOA provides information and resources for job search

Figure 17. Structural model relating Value Propositions to Candidate satisfaction
 SOA 2002



Numbers beside the thin arrows are standardized regression weights. Rectangles represent single observed variables. Ellipses represent latent variables, which are constructed from the measures identified by bullets.

Model statistics

Goodness of fit

Root mean square error of approximation	.037
90 percent CL	.030 – .045

Squared multiple correlations

Satisfaction: latent measure	.83
Satisfaction with performance of SOA in supporting professional needs	.51
SOA gives good value for dues	.60
ASA is valued by employers	.57
FSA is valued by employers	.57
SOA provides The Future Actuary	.41
SOA provides job search resources and info	.38

Correlations among predictor variables

Certification ↔ Networking	.35
Learning choices ↔ Business status	-.16
Networking ↔ Learning choices	-.31
Certification ↔ Learning choices	-.16
Certification ↔ Business status	.50
Networking ↔ Business status	.37
Certification ↔ Basic education	.46
Networking ↔ Basic education	.52
Learning choices ↔ Basic education	-.37
Business status ↔ Basic education	.39

12. RECOMMENDATIONS

Survey results represent one-third of members with active e-mail addresses and 23 percent of the total membership. They constitute a firm basis for planning.

Results of the research suggests four broad avenues for action.

1. Maintain and enhance the value credentials

Members' clear priority for SOA action is to maintain and enhance the value of actuarial credentials. While all aspects of the Society's work add value to the credentials, members recommend a focus on:

- Maintaining the value of the exam system
- Providing continuing education
- Improving the image of the profession among employers and in society at large.

2. Assess member satisfaction periodically

This research was designed to provide baseline measures of satisfaction and service delivery for future tracking. The model relating satisfaction to member services (as set out in the Value Propositions) indicates that the measures are appropriate and can be used successfully in the future surveys of members and candidates.

3. Establish a baseline for employer perceptions of the actuarial profession

SOA will require accurate measures of how employers perceive the actuarial profession in order to design a strategy for improving the actuarial image, and in order to assess the eventual effectiveness of the strategy.

4. Apply results to the Balanced Score Card

The core measures of the survey – satisfaction, ratings of member services, and views of the profession – constitute a quantitative foundation for the “Customer” quadrant of the Balanced Score Card (the portion of the Score Card that assesses the SOA's effectiveness in delivering services to members and candidates).

Appendix

Member and Candidate Survey

Conducted by Erin Research Inc. April 2002

SATISFACTION MEASURES

	Very dissatisfied	Very satisfied
a) How satisfied are you with the performance of SOA in supporting your professional needs?	0 1 2 3 4 5 6 7 8 9 10	
b) How satisfied are you with the performance of SOA in advancing the actuarial profession?	0 1 2 3 4 5 6 7 8 9 10	
c) In general, are you more or less satisfied with SOA today that you have been in past years?	0 1 2 3 4 5 6 7 8 9 10	

SOA AND THE PROFESSION

	Strongly disagree	Strongly agree
a) The actuarial profession has a strong future in today's changing business environment	0 1 2 3 4 5 6 7 8 9 10	
b) SOA does a good job of informing members about emerging Practice Areas and issues	0 1 2 3 4 5 6 7 8 9 10	
c) The primary value of SOA is to maintain the ASA and FSA credentials	0 1 2 3 4 5 6 7 8 9 10	
d) The Society advocates and supports the development of new fields of practice for members	0 1 2 3 4 5 6 7 8 9 10	
e) SOA conducts sufficient research on major social issues (e.g. demographic risks) to fulfill its responsibility to the public	0 1 2 3 4 5 6 7 8 9 10	
f) SOA provides good value for membership dues	0 1 2 3 4 5 6 7 8 9 10	
g) SOA represents my specific practice interests and needs as a professional	0 1 2 3 4 5 6 7 8 9 10	
h) ASA is valued as a relevant credential by employers in the marketplace	0 1 2 3 4 5 6 7 8 9 10	
i) FSA is valued as a relevant credential by employers in the marketplace	0 1 2 3 4 5 6 7 8 9 10	
j) SOA should be more proactive in preparing members for the impact that globalization will have on the profession	0 1 2 3 4 5 6 7 8 9 10	
k) SOA contributes effectively to the global actuarial community, supporting the needs of members, candidates and regulators	0 1 2 3 4 5 6 7 8 9 10	

ABOUT YOU

1. What are your main Practice Areas? *Check all that apply.*

- | | |
|---|--|
| <input type="checkbox"/> Finance | <input type="checkbox"/> Property & Casualty |
| <input type="checkbox"/> Health Benefits Systems | <input type="checkbox"/> Regulatory |
| <input type="checkbox"/> Life Insurance | <input type="checkbox"/> Retired |
| <input type="checkbox"/> Retirement Systems | <input type="checkbox"/> Academic |
| <input type="checkbox"/> Non-Traditional: <i>Please specify</i> _____ | |

2. Do you belong to any Special Interest Sections? *Check all that apply.*

- | | |
|--|---|
| <input type="checkbox"/> Actuary of the Future | <input type="checkbox"/> Life Insurance Co. Financial Reporting |
| <input type="checkbox"/> Computer Science | <input type="checkbox"/> Long Term Care Insurance |
| <input type="checkbox"/> Education & Research | <input type="checkbox"/> Management and Personal Development |
| <input type="checkbox"/> Futurism | <input type="checkbox"/> Non-traditional Marketing |
| <input type="checkbox"/> Health | <input type="checkbox"/> Pension |
| <input type="checkbox"/> Individual Life Ins. & Annuity Product Devel. | <input type="checkbox"/> Reinsurance |
| <input type="checkbox"/> International | <input type="checkbox"/> Smaller Insurance Company |
| <input type="checkbox"/> Investment | |

3. What is your current status?

- FSA ASA Pre-ASA Candidate

4. How long ago did you achieve the ASA or FSA designation – i.e. the most recent of these? Within...

- 1 yr 2-3 yr 4-10 yr 11-20 yr Longer

5. If you currently hold the ASA, are you planning to complete the FSA?

- Yes No

6. Do you have actuarial credentials in addition to the ASA or FSA?

- | | |
|--|---|
| <input type="checkbox"/> FCAS or ACAS | <input type="checkbox"/> FIA (Australia) |
| <input type="checkbox"/> EA | <input type="checkbox"/> FSPA, MSPA |
| <input type="checkbox"/> FCA, MCA, ACA | <input type="checkbox"/> MAAA |
| <input type="checkbox"/> FCIA | <input type="checkbox"/> Other: <i>Please specify</i> _____ |
| <input type="checkbox"/> FIA | <input type="checkbox"/> No additional credentials |

7. Do you have non-actuarial credentials that are relevant to your work?

- | | |
|---|--|
| <input type="checkbox"/> Chartered Financial Analyst (CFA) | <input type="checkbox"/> MBA |
| <input type="checkbox"/> Lawyer | <input type="checkbox"/> Public Accountant (CPA, CMA, CGA, CA) |
| <input type="checkbox"/> Other: <i>Please specify</i> _____ | <input type="checkbox"/> No additional credentials |

8. Do you manage or employ actuaries in your work?

- Yes No

9. Age

- 25 or under 26 – 34 35 – 49 50 – 64 65 +

10. Gender

- Male Female

11. In what country or region do you practice? *Check all that apply.*

- Africa Asia/Pacific Australia, New Zealand
 Europe Canada Caribbean
 Central/S. America Mid-east Mexico USA

COMPETING PROFESSIONS

1. In your own professional experience, how great a challenge do competing professions pose to the actuarial profession...

	No challenge	A major challenge
a) In areas where actuaries have traditionally been dominant	0 1 2 3 4 5 6 7 8 9 10	
b) In areas where actuaries hope to expand their presence and influence	0 1 2 3 4 5 6 7 8 9 10	

2. What other professions compete with actuaries for employment in your area of work?

- | | |
|--|---|
| <input type="checkbox"/> a) Accountants | <input type="checkbox"/> e) Risk analysts |
| <input type="checkbox"/> b) Economists | <input type="checkbox"/> f) Statisticians |
| <input type="checkbox"/> c) Financial engineers/analysts | <input type="checkbox"/> g) Other: _____ |
| <input type="checkbox"/> d) MBAs, business graduates | <input type="checkbox"/> None of these (<i>Skip to Section E</i>) |

Which ONE of these professions presents the greatest competition?

Write the letter from a) to g): _____

3. Consider the one profession that you identified as representing a particular challenge to actuaries. In your experience, how do employers view members of this profession?

	Strongly disagree	Strongly agree
a) They offer better value than actuaries	0 1 2 3 4 5 6 7 8 9 10	
b) They are better qualified technically than actuaries	0 1 2 3 4 5 6 7 8 9 10	
c) They have better business management skills than actuaries	0 1 2 3 4 5 6 7 8 9 10	
d) They have better interpersonal skills than actuaries	0 1 2 3 4 5 6 7 8 9 10	
e) They have a fresher, more up-to-date image than actuaries	0 1 2 3 4 5 6 7 8 9 10	
f) Their training is better tailored to the job at hand	0 1 2 3 4 5 6 7 8 9 10	
g) Employers are more familiar with the other profession and what it offers	0 1 2 3 4 5 6 7 8 9 10	
h) They have more on the job experience than actuaries	0 1 2 3 4 5 6 7 8 9 10	

4. How should SOA meet the challenge posed by other professions?

	Strongly disagree	Strongly agree
a) SOA should do more to help members acquire business management skills	0 1 2 3 4 5 6 7 8 9 10	
b) SOA should do more to help members acquire interpersonal skills	0 1 2 3 4 5 6 7 8 9 10	
c) SOA should communicate and promote a more dynamic image for the profession	0 1 2 3 4 5 6 7 8 9 10	

SERVICES TO MEMBERS

SOA strives to provide a range of services to members. For each of the 14 services following, please indicate how important the service is to you as a professional, and how well SOA performs it.

1. Experience studies

SOA publishes experience studies that actuaries can draw on in their day-to-day work.

	Very low rating	Very high rating
• How important is it to you that SOA provides experience studies?	0 1 2 3 4 5 6 7 8 9 10	
• How useful are the experience studies that SOA currently provides?	0 1 2 3 4 5 6 7 8 9 10	
• How would you rate the timeliness with which these studies are published?	0 1 2 3 4 5 6 7 8 9 10	

2. Other practical research

SOA provides other practical research and information for actuaries to use in their day-to-day work.

• How important is it to you that SOA provides practical research?	0 1 2 3 4 5 6 7 8 9 10	
• How useful is the practical research that SOA currently provides?	0 1 2 3 4 5 6 7 8 9 10	

3. Theoretical research

SOA provides theoretical research to advance the frontiers of actuarial practice.

• How important is it to you that SOA provides theoretical research?	0 1 2 3 4 5 6 7 8 9 10	
• How useful is the theoretical research that SOA currently provides?	0 1 2 3 4 5 6 7 8 9 10	

4. Networking

SOA provides opportunities for networking and discussion through conferences and other means.

• How important is networking to you?	0 1 2 3 4 5 6 7 8 9 10	
• How effective is SOA in providing these opportunities?	0 1 2 3 4 5 6 7 8 9 10	

5. Job search

SOA provides information and resources for job search.

- How important is to you that SOA provides resources to aid in job search when needed? 0 1 2 3 4 5 6 7 8 9 10
- How effective is SOA in providing it? 0 1 2 3 4 5 6 7 8 9 10

6. Image among employers

SOA works to enhance the image of the actuarial profession to employers.

- | | Very low
rating | Very high
rating |
|--|------------------------|---------------------|
| • How important is this function to you? | 0 1 2 3 4 5 6 7 8 9 10 | |
| • How effective is SOA in providing it? | 0 1 2 3 4 5 6 7 8 9 10 | |

7. Image in society

SOA works to enhance the image of the actuarial profession in society at large.

- How important is this function to you? 0 1 2 3 4 5 6 7 8 9 10
- How effective is SOA in providing it? 0 1 2 3 4 5 6 7 8 9 10

8. Value of credentials

SOA works to maintain and enhance the value of actuarial credentials in the marketplace.

- How important is this function to you? 0 1 2 3 4 5 6 7 8 9 10
- How effective is SOA in achieving it? 0 1 2 3 4 5 6 7 8 9 10

9. Value of examinations

SOA maintains high standards of the examination process, ensuring the value of actuarial credentials.

- How important is this function to you? 0 1 2 3 4 5 6 7 8 9 10
- How effective is SOA in providing it? 0 1 2 3 4 5 6 7 8 9 10

10. Continuing education: Current practice

SOA provides courses, events, and seminars on issues that arise in current practice.

- How important is it to you that SOA provides continuing education on issues in daily practice? 0 1 2 3 4 5 6 7 8 9 10
- How useful is the continuing education on current practice that SOA currently provides? 0 1 2 3 4 5 6 7 8 9 10

11. Continuing education: Emerging fields and non-traditional opportunities

SOA provides courses events, and seminars on emerging fields and opportunities.

- How important is it to you that SOA provides continuing education in these areas? 0 1 2 3 4 5 6 7 8 9 10
- How useful is the continuing education in these areas that SOA currently provides? 0 1 2 3 4 5 6 7 8 9 10

12. Communications

SOA provides newsletters and publications that keep members up-to-date on SOA and activities in the profession.

- How important is it to you that SOA provides such newsletters and publications ? 0 1 2 3 4 5 6 7 8 9 10
- How useful are the newsletters and publications that SOA currently provides? 0 1 2 3 4 5 6 7 8 9 10

13. NAAJ

NAAJ provides theoretical content to advance the knowledge base of the profession.

- How important is it to you that SOA publishes this journal? 0 1 2 3 4 5 6 7 8 9 10
- How useful is the content of this journal? 0 1 2 3 4 5 6 7 8 9 10

14. Quality of service

SOA staff seeks to provide service to you such as dues payment and event registration in a timely and courteous manner.

- How important is timely and courteous service? 0 1 2 3 4 5 6 7 8 9 10
- How effective are SOA staff in providing it? 0 1 2 3 4 5 6 7 8 9 10

15. Of these 14 core services, **which three are your highest priorities** for SOA action?
Type 1 beside your first choice, 2 beside your second choice and 3 beside your third choice.

- | | |
|--|---|
| <input type="checkbox"/> Experience studies | <input type="checkbox"/> Value of credentials |
| <input type="checkbox"/> Other practical research | <input type="checkbox"/> Value of examinations |
| <input type="checkbox"/> Theoretical research | <input type="checkbox"/> Continuing education: Current practice |
| <input type="checkbox"/> Networking | <input type="checkbox"/> Continuing education: Emerging issues |
| <input type="checkbox"/> Job search | <input type="checkbox"/> Communications |
| <input type="checkbox"/> Promote image among employers | <input type="checkbox"/> NAAJ |
| <input type="checkbox"/> Promote image in society | <input type="checkbox"/> Quality of service |

16. Finally, do you have any suggestions that would help SOA to

- advance the profession, or
- serve your own professional needs?

OTHER PROFESSIONAL AFFILIATIONS

-
1. What professional organizations do you belong to in addition to SOA?
Check as many as apply. Write in any that are not listed.

- American Academy of Actuaries
- American Institute of Certified Public Accountants
- American Society of Pension Actuaries
- Association for Investment Management and Research
- Canadian Institute of Actuaries
- Casualty Actuarial Society
- Conference of Consulting Actuaries
- Global Association of Risk Professionals
- International Association of Financial Engineers
- Other: _____
- Other: _____

-
2. What benefits do you derive from these organizations that SOA does not offer?
Check as many as apply.

- A local perspective: closer contact with events in my state, country, region
- Technical information that SOA does not provide
- Courses and seminars that SOA does not provide
- Opportunities for contact and networking
- Opportunity to represent the profession to regulatory or government agencies
- Other credentials that are valuable in my work
- A forum for discussing issues in my area of interest
If this is the case, what is your area of interest? _____
- Other: _____

CANDIDATES

This section was administered to ASA and pre-ASA candidates .

1. The actuarial curriculum contains a balance of practical and theoretical material.

How would you describe the current balance between practical and other material?

None of the material has practical application to my work	0	1	2	3	4	5	6	7	8	9	10	All the material has practical application to my work
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What should the balance be?

None of the material need have practical application to my work	0	1	2	3	4	5	6	7	8	9	10	All the material should have practical application to my work
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2. The current examination system does not test nation-specific elements of actuarial practice such as law, taxation, and regulations.

Should these nation-specific elements be introduced into the curriculum?

- Yes No (*Skip to question 3*)

If you are in favor of nation-specific material, how should it be taught?

Check each option that you consider appropriate.

- Through courses with rigorous exams, as with other required material
- Through regular courses but without rigorous exams, e.g. a short test to ensure familiarity with the basics
- Through a seminar with minimal testing
-

3. Which statement best describes your opinion of travel time (i.e. the number of years required to complete the FSA)?

- Travel time should be shortened
- Travel time should be made more predictable – e.g. fixed in duration
- Both of the above
- Neither of the above
-

4. Which of these options do you recommend?

- SOA should grant **exemptions** to portions of the actuarial curriculum for equivalent college/university courses in economics, finance, statistics etc.
- SOA should define widely available courses in economics, finance, statistics etc. as **prerequisites** to entry
- Both are acceptable
- Neither is acceptable
-

5. Should SOA explore alternate means for actuarial training and examinations, e.g. through partnerships with colleges and universities?

- Yes No

SOA provides a number of services to candidates. For each of the four services following, please indicate how important the service is to you, and how well SOA performs it.

6. **Study notes**

SOA provides study notes to help candidates prepare for examinations.

	Very low rating	Very high rating
• How important is it to you that SOA provides study notes?	0 1 2 3 4 5 6 7 8 9 10	
• How helpful are the current notes to your exam preparation?	0 1 2 3 4 5 6 7 8 9 10	

7. **"The Future Actuary"**

SOA publishes "The Future Actuary" to make pre-ASA candidates aware of issues and events.

• How important is it to you that SOA provides this publication?	0 1 2 3 4 5 6 7 8 9 10
• How useful is the content of the publication?	0 1 2 3 4 5 6 7 8 9 10

8. **Career opportunities**

SOA provides information and resources for career development.

• How important is it to you that SOA provides information and resources for career development?	0 1 2 3 4 5 6 7 8 9 10
• How useful are the information and resources that SOA currently provides?	0 1 2 3 4 5 6 7 8 9 10

9. **Job search**

SOA provides information and resources for job search.

• How important is it to you that SOA provides information and resources to aid in job search when needed?	0 1 2 3 4 5 6 7 8 9 10
• How useful are the information and resources that SOA currently provides?	0 1 2 3 4 5 6 7 8 9 10

10. Finally, do you have any suggestions that would help SOA to

- advance the profession, or
- serve your own professional needs?

Thank you for participating!