



SOCIETY OF ACTUARIES

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# THE Actuary

## Actuarial examination candidacy and its effects on social relationships

by Stacey Brundin

This article is based on an independent study examining the effects that time spent studying for actuarial exams has on social relationships, especially marriage relationships.

A questionnaire was mailed to 83 persons who attended Lebanon Valley College (1) with a major of actuarial science or (2) with a math major and known to be working in an actuarial field. Lebanon Valley College is a small, church-related, liberal arts college.

Fifty-four responses were received, for an excellent return rate of 65%. The return from those known to be working in the field was 70%.

Consistent with male dominance in the actuarial field, there were responses from 37 males and 17 females, ranging in age from 22 to 44. The oldest male was 44 and graduated in 1965, while the oldest female was 29 and graduated in 1980. There were responses from 13 male Fellows (FSA or FCAS) and only one female Fellow. For information on marital status, see Appendix A.

The remaining information is based on tabulations which exclude three responses received from people who did not graduate from Lebanon Valley College and did not pursue an actuarial career.

Most respondents felt there was no link between their actuarial careers and their marital status. A few

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## Analysis of CDC AIDS case data

by Thomas W. Reese

The Centers for Disease Control (CDC) make available, at the end of each quarter, a computer diskette containing data about each AIDS case reported to date. A separate record for each reported AIDS case gives information about age, region of residence, type of infection transmission, month of diagnosis, reporting month, etc. Information is given only in broad categories, such as ages 13-29, so that individual cases cannot be identified. Sorting these records in different ways allows analysis that is not possible from the information in the CDC's weekly reports.

To relate the information more closely to the general insured population, I have made some analyses that exclude all intravenous drug abuser (IVDA) cases. That modification reduced the number of AIDS cases being analyzed by about 25%. Results discussed in the four studies below apply to this non-IVDA population unless stated otherwise.

### Regional analysis

The distribution of today's AIDS cases

represents infections as of some years ago, not current or future infections. Part of the higher prevalence of current cases in certain areas simply reflects an earlier introduction of the epidemic in some places.

For example, of cases diagnosed through 1982, over 42% of patients whose residence is known lived in the Northeast region's Standard Metropolitan Statistical Areas (SMSAs) of one million or more residents, while less than 14% were not residents of an SMSA with over one million population. Currently, however, only about 23% of these cases are from the Northeast region SMSAs, while the proportion not from an SMSA with more than one million residents has climbed to about 22%.

This is not to say that geographic variation isn't important. The AIDS concentration in the Northeast SMSAs, with under 8% of the total population in the 1980 U.S. census, is certainly greater than that of the non-SMSA population, with over 58% of

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**Actuarial examination cont'd**

persons waited to get married until after reaching a certain exam level, at this waiting period was short. Many participants had first met their spouses at work, and in this way their careers affected their marital status. These single persons were single by choice and did not feel that their career was involved in that choice.

Fifty-one percent of the respondents had no children. Twenty-five men said that taking the exams had no effect on the timing of the birth-dates of their children, while nine men said they had delayed or were delaying children until after completing the exams or reaching a certain exam level. Of the women, eight said there was no effect and six said they had delayed or were delaying children for the exams. These results suggest that the woman is still the major caregiver in the family.

Only 10 responses came from persons no longer taking actuarial exams. Some said their social relationships with friends and family suffered, which contributed to their decision to discontinue the exams. Others said they stopped taking exams because their career goals changed, not because of the demands of studying. How many actuarial students stopped taking the exams and did not respond to the questionnaire is not known.

Many actuarial students said they spent as many as 20 hours a week preparing for actuarial exams. This varied a great deal, with some spending as little as six hours and others as many as 35. There was some indication that more time was spent on the upper-level exams:

Almost everyone felt that the amount of time spent studying reduces the amount of time left for social relationships and activities, especially in the two months before each exam (April and October). Many students socialized with each other either for studying or non-studying purposes, and in these cases an actuarial career created more social opportunities. Some respondents also said existing relationships are strengthened by the time spent studying, because the time spent in the relationship comes better appreciated.

Most of the respondents used the space on the questionnaire provided for additional comments. A common theme was that an understanding spouse promotes exam success

through the added support brought to the relationship. Also, many of the respondents suggested that students spread out their studying evenly during the year, in order to reduce the stress of cramming close to exam time. Some of the more helpful comments are shown in Appendix B.

It is hoped that this study will help other students interested in an

actuarial career. For those planning to have both a family and a career, this study highlights areas of possible conflict, but it also is encouraging in its optimism. Respondents indicated that the rewards of an actuarial career make the time spent worthwhile, and social relationships need not be overly sacrificed to achieve career goals.

## APPENDIX A

### Number of Responses

	Married		Single		Engaged	
	M	F	M	F	M	F
Fellow	11	1	2	—	—	—
Enrolled	1	—	—	—	—	—
Associate	5	—	3	1	1	1
Student	3	5	3	3	—	1
N.L.T.E. <sup>1</sup>	6	3	—	1	—	—
Not Applicable <sup>2</sup>	1	1	1	—	—	—

<sup>1</sup>No Longer Taking Exams

<sup>2</sup>There were three responses from people who did not graduate from Lebanon Valley College and did not pursue an actuarial career.

Also, two additional responses were received after the study was completed.

**APPENDIX B**

"I have observed that studying has a very large effect on those who are studying while married, and especially so for those who have kids. Marriage relationships and child rearing are much more time encompassing than dating if they are to be handled well."

"In reality, I think studying is actually more of an excuse than a good reason not to get married. Married people with no kids have the highest exam success ratio (by my observation) because they have the constant support and urging and because someone else can do the household chores."

"Most actuaries either go for the exams first, children later or vice versa. Very few can do both. (I do know of one female ASA who successfully stayed home with her infants to breastfeed and study.)"

"Your questions dealt mainly with the impact of studies on the relationship. I feel the relationship can have a bigger impact on the studies. For example, I got married after two exams. I saw the exams as unpleasant events that made it more difficult to have a normal relationship. So that

makes you redouble your efforts to get the exams over with as quickly as possible. You also need the support of the other person in the relationship."

"One problem that I encountered while taking the exams is that only actuaries and other actuarial students

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## New address, phone for Society

As of August 15, the Society of Actuaries has a new address and phone number. The address is 475 North Martingale Road, Suite 800, Schaumburg, Illinois 60173-2226. The main number is 312-706-3500. The FAX number is 312-706-3599.

The membership services office of the American Academy of Actuaries and the office of the Conference of Actuaries in Public Practice also have relocated to the new address. The new AAA telephone number is 312-706-3513, and CAPP's new telephone number is 312-706-3535.

**Actuarial examination cont'd**  
realize the difficulty of the exams. People who were not actuaries could not understand why I had to study so much. The worst part was trying to explain to them how you studied so hard and failed the exam."

"A supportive spouse is a definite advantage in the quest to complete the exams!"

"Taking actuarial exams places an enormous burden on a marital relationship. It requires a very under-

standing spouse to really make the combination work."

"I think it is important to realize that a successful actuarial career is possible even for people who place a priority on marriage and family."

"Stopping taking the exams was the best decision I ever made. There is more to life than taking tests and I am able to enjoy everything else that goes on around me."

"Even though exams take up a lot of time, I know that it will pay off in

the end. My future is definitely worth the time spent. If a relationship (friendship, marriage, or any other type) can't survive exams, then it probably wouldn't survive any other crises either. There has to be a balance though. If you spend every spare moment studying, it will make you crazy."

Stacey Brundin, not a member of the Society, is a 1988 graduate of Lebanon Valley College and is an actuarial student with the Guardian Life Insurance Company of America.

# Recent smoker/nonsmoker mortality experience

by James D. Brock

**S**moker mortality ratios are generally double the ratios for nonsmokers, according to the latest intercompany experience.

Fourteen companies reported smoker/nonsmoker experience separately for the 1984-85 individual life insurance mortality study compiled by the Committee on Individual Life Experience Studies. We have combined those results with the 1983-84 experience contributed by nine companies and previously reported by Harry Woodman in *The Actuary* in November 1987.

The differences in the ratios peak at issue ages 40-49 (Table 1). By duration the spread is highest in the first three durations, where most of the available experience is concentrated (Table 2). The exposures are predominantly male nonsmoker lives (Table 3). The "Unknown" category represents experience for which smoker/nonsmoker classification was not available. Expected deaths are based on the 1975-80 Select Basic Tables.

The smoker/nonsmoker analysis is an ongoing feature of the annual mortality studies published in the *TSA Reports of the Society*. Detailed tables for the 1983-84 and 1984-85 experience will be available later this year from the Society's Research Department.

James D. Brock is Senior Vice President and Actuary at The Prudential Select Marketing Company. He is a member of the SOA Individual Life Insurance Mortality Experience Study Committee.

## ALL STANDARD ISSUES — EXPERIENCE BETWEEN 1983 AND 1985 ANNIVERSARIES

(Amounts shown in \$1,000 units)

TABLE 1 — By Issue Age, Male and Female Combined

Age at Issue	Nonsmoker		Smoker		Unknown	
	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio
0-19	\$ 4,654	62%	\$ 1,305	97%	\$ 41,612	92%
20-29	34,432	66	13,104	109	93,722	96
30-39	88,656	73	40,286	144	172,269	89
40-49	84,906	70	49,304	170	221,431	98
50-59	72,836	82	33,314	171	179,487	100
60 plus	32,195	83	11,227	154	69,676	105
All Ages	\$317,680	74%	\$148,541	153%	\$778,196	96%

TABLE 2 — By Duration, Male and Female Combined

Duration	Nonsmoker		Smoker		Unknown	
	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio
1	\$ 94,357	69%	\$ 44,034	148%	\$ 15,671	224%
2	93,356	71	43,668	153	25,606	145
3	64,025	67	30,320	146	47,232	126
4	41,398	98	17,596	168	64,979	99
5-15	24,543	100	12,923	171	624,709	92
All	\$317,680	74%	\$148,541	153%	\$778,196	96%

TABLE 3 — All Issue Ages and Durations Combined

	Nonsmoker		Smoker		Unknown	
	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio	Actual Deaths	Mortality Ratio
Medical						
Male	\$147,690	83%	\$51,866	171%	\$371,685	88%
Female	12,314	91	5,919	179	45,399	104
Total	160,004	84	57,785	172	417,084	90
Para-Medical						
Male	\$ 70,045	64%	\$44,098	159%	\$149,773	104%
Female	11,162	70	7,033	161	30,878	111
Total	81,206	65	51,131	159	180,651	105
Non-Medical						
Male	\$ 60,791	70%	\$32,356	133%	\$137,860	107%
Female	15,679	58	7,269	104	42,601	101
Total	76,469	67	39,625	127	180,461	105