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CONTINUOUS ESTIMATES OF SURVIVAL THROUGH EIGHT YEARS OF SERVICE USING FY 1979 CROSS-SECTIONAL DATA

Philip M. Lurie

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CONTINUOUS ESTIMATES OF SURVIVAL THROUGH EIGHT YEARS OF SERVICE USING FY 1979 CROSS-SECTIONAL DATA

Philip M. Lurie

Institute of Naval Studies

CENTER FOR NAVAL ANALYSES

SUMMARY

Survival curves for NPS male recruits were estimated through 8 years of service using the FY 1979 cross-sectional data base. Separate analyses were performed for Class A school attendees and non-A school attendees, holding constant the effects of age, educational level, and mental group. Mean survival times (the areas under the survival curves) were then calculated for each recruit profile. These times form the basis of a new SCREEN table which is computed by streamlining the table of mean survival times (over 4 years of service) and applying a cost-benefit analysis to determine optimal qualifying scores. The optimal qualifying score for A school attendees is 35 months and for non-A school attendees is 28 months.

As expected, we found that educational level has the greatest impact on survival. Recruits with a high school diploma survive considerably longer than non-high school graduates and those with a GED certificate. Through the first 4 years of service, the survival behavior of GEDs is very similar to that of non-high school graduates. However, after 8 years of service, GEDs who attend A school generally have a greater expected survival than corresponding non-high school graduates. This is very important, since it means that the benefit to the Navy of a GED certificate is not realized until after a recruit completes 4 years of service.

Surprisingly, mental group has only a mild impact on survival, with no consistent pattern observed. There is a clear pattern with respect to age, however. Ages 17-22 seem to be the optimal recruiting ages for A school attendees. For non-A school attendees, the optimal age range is 17-21. Survival declines with age after that.

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INTRODUCTION

With the onset of the all-volunteer force (AVF) in 1973, the Navy became increasingly concerned about the losses of first-term enlistees before the expiration of their obligated service. To help combat this problem, CNA developed a SCREEN (an acronym for "success chances of recruits entering the Navy") table (reference 1) of first-year survival probabilities to be used by recruiters in qualifying applicants for enlistment. It was put into effect in October 1976 and was revised in August 1977 (reference 2) and again in February 1980 (reference 3). The latest version of SCREEN is based on educational level, AFQT percentile score, and age.

Besides SCREEN, additional studies have been done by CNA which relate pre-service and in-service personnel characteristics to the probability of surviving to a given point in time (references 4, 5, and 6 for example). Each of these studies was based on a longitudinal population of recruits followed from the date of their enlistment until either attrition or completion of their first term of service. Thus, when considering 4-year obligors, for instance, it was necessary to follow a cohort through 4 years of service.

To avoid following individuals for such a long period of time, we decided to consider a cross-sectional data base from which to obtain estimates of survival. Besides requiring only a relatively short period of follow-up, use of a cross-sectional data base has the additional advantage of enabling us to observe the most recent survival patterns. The statistical technique which we use to obtain survival estimates is called a Cox regression model (references 7 and 8). This model has the advantage of being able to generate a continuous survival curve rather than just a point-in-time estimate.

The main data base consists of all NPS male enlistees in the Navy as of 31 December 1978. These individuals were followed until the end of calendar 1979. Then all NPS male accessions into the Navy during 1979 were added to the data base. The total population represents approximately half a million men. Since each individual in the data base can be tracked back to his date of enlistment, we are able to estimate entire career survival patterns, i.e., survival chances through 30 years of service. For the purpose of this analysis, however, we consider it adequate to track enlistees through 8 years of service (more or less 2 terms).

Our ultimate objective is to replace the current SCREEN table with one which is more comprehensive in the sense that more information is taken into account. The survival curves, though interesting in themselves, are of little help to recruiters in

qualifying applicants for enlistment. We therefore decided to summarize survival with the mean survival time (the area under the survival curve) measured in months. Although it is impossible (except under very special conditions) to capture all the information in a survival curve from a single summary measure, the entire survival curve is needed to compute the mean survival time, and we therefore feel that this figure is preferable to a simple point-in-time estimate. If the mean survival time is multiplied by the number of recruits entering the Navy in a particular year, we obtain the expected man-months of survival for that cohort.

Survival curves through 8 years of service were calculated for each combination of educational level (high school graduate, GED, or non-high school graduate), mental group (1-5), and age (17-24, $\geq$ 25). Since recruits in our data base entered the Navy over a 30-year period, many different test batteries were used in computing mental group. Consequently, to make the various test results comparable, we converted each form to the *current FY 1981* AFQT norms (reference 9).

FIRST-TERM SURVIVAL

Unless a correction is employed, cross-sectional data yield biased estimates of survival. This is because the longer a recruit's survival time, the greater his chances are of being included in the data base. Fortunately, the procedure for correcting the bias is quite simple. First, using only the 1979 cohort, we obtain an unbiased estimate of the first year of survival. Next, using only recruits with a 1978 active duty service date and a survival time of at least 1 year, we obtain an unbiased estimate of the second year of survival conditional on having survived the first. Multiplying the two estimates together then gives an unbiased estimate of survival over 2 years of service. Proceeding in this manner, i.e., by selecting unbiased subsets of the data, we can calculate estimates of survival for any number of years of service. Thus, by applying the Cox model one year at a time, we can estimate the yearly impact of pre-service characteristics on recruit survival.

Separate survival analyses were performed for Class A school attendees and non-A school attendees. By definition, a non-A school attendee is any recruit for whom we found no record of ever having attended A school. To be classified as an A school or non-A school attendee, however, a recruit must first have completed recruit training (RTC). The probabilities of completing RTC were estimated for the 1979 cohort with a probit model adjusting for mental group, educational level, and age. The probit coefficients are shown in appendix A, and the estimated probabilities are shown in table 1.

To qualify for enlistment today, all mental group 4A and 4B recruits must have high school diplomas, and all mental group 3L recruits must have at least a GED certificate. No mental group 4C or 5 recruits qualify for enlistment. However, due to the ASVAB renorming, we find recruits in the population who should have been screened out.

Once recruits complete RTC, we determine the effects of pre-service characteristics on survival. The coefficients from the yearly Cox regressions that estimate these effects (conditional on completion of RTC) are shown in appendix B for A school attendees and in appendix C for non-A school attendees. The only clearly discernable pattern across time is that the characteristics diminish in impact by the time 4 years of service are completed. This is intuitively reasonable, since we would expect pre-service characteristics to have less importance as the survival point becomes further removed from the time of enlistment.

For each combination of recruit characteristics, we estimated survival curves through 4 years of service using the non-proportional hazards generalization of the Cox regression model

TABLE 1

PROBABILITIES OF COMPLETING RTC

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.91	0.92	0.91	0.90	0.90	0.88	0.87	0.86	0.86
	GED	0.93	0.94	0.93	0.92	0.92	0.91	0.89	0.89	0.89
	HSG	0.96	0.97	0.96	0.95	0.96	0.94	0.94	0.93	0.94
2	NHSG	0.88	0.89	0.88	0.87	0.87	0.84	0.83	0.82	0.83
	GED	0.91	0.92	0.91	0.90	0.90	0.88	0.86	0.86	0.86
	HSG	0.95	0.95	0.94	0.94	0.94	0.92	0.92	0.91	0.91
3U	NHSG	0.85	0.87	0.85	0.83	0.84	0.81	0.79	0.78	0.79
	GED	0.88	0.90	0.88	0.87	0.87	0.84	0.83	0.82	0.83
	HSG	0.93	0.94	0.93	0.92	0.92	0.90	0.89	0.88	0.89
3L	NHSG	0.84	0.86	0.84	0.82	0.83	0.80	0.78	0.77	0.77
	GED	0.88	0.89	0.87	0.86	0.86	0.84	0.82	0.81	0.82
	HSG	0.92	0.93	0.92	0.91	0.91	0.90	0.88	0.88	0.88
4A	NHSG	0.81	0.83	0.80	0.79	0.79	0.76	0.74	0.72	0.73
	GED	0.85	0.86	0.84	0.83	0.83	0.80	0.78	0.77	0.78
	HSG	0.90	0.91	0.90	0.89	0.89	0.87	0.86	0.85	0.85
4B	NHSG	0.76	0.78	0.76	0.74	0.74	0.70	0.68	0.67	0.68
	GED	0.81	0.82	0.80	0.78	0.79	0.75	0.73	0.72	0.73
	HSG	0.87	0.89	0.87	0.85	0.86	0.83	0.82	0.81	0.81
4C	NHSG	0.66	0.69	0.66	0.63	0.64	0.60	0.57	0.56	0.57
	GED	0.72	0.74	0.71	0.69	0.69	0.65	0.63	0.62	0.63
	HSG	0.80	0.82	0.80	0.78	0.78	0.75	0.73	0.72	0.72

(reference 7). As examples, some curves are plotted in figures 1 and 2. The mean survival times, obtained as the area under the curves, are shown in table 2 for A school attendees and in table 3 for non-A school attendees.

From these tables, it is quite clear that the variable with the greatest impact on survival is educational level. Other patterns emerge when we plot the mean survival times of the 3 levels of education against mental group and age. These are shown in figures 3-6. First, ages 17-22 seem to be the optimal recruiting ages for A school attendees. For non-A school attendees, the optimal age range is 17-21. Survival declines with age after that, with the exception of non-A school attendees 25 years or older (we suspect this is due to the small sample size for these recruits).

A consistent relationship between mental group and survival is more difficult to ascertain except for high school graduates. For A school attendees, recruits in mental group 1 have the worst survival, but survival is relatively constant across the other mental groups, even down to mental group 4C. For non-A school attendees, there is a general upward trend in survival as mental test scores decrease, a relationship previously observed in the 1973 recruit cohort (reference 6). There is no clear relationship between mental group and survival for non-high school graduates or GEDs, but it is quite obvious from figures 5 and 6 that the survival behavior of GEDs is much more like that of non-high school graduates than that of high-school graduates.

FIG. 1: FIRST-TERM SURVIVAL OF A SCHOOL ATTENDEES: AGE = 18, MENTAL GROUP = 2
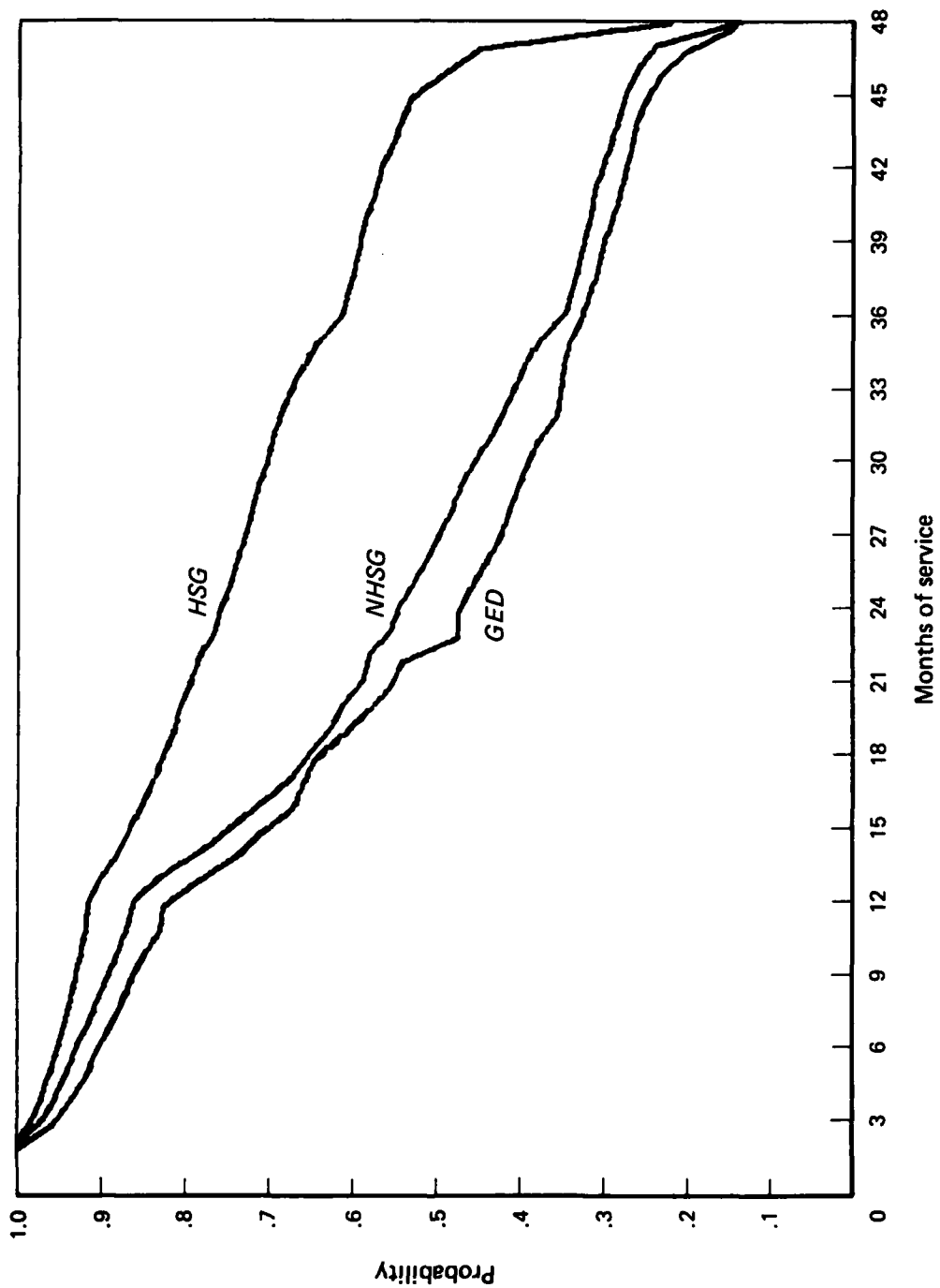
FIG. 2: FIRST-TERM SURVIVAL OF NON-A SCHOOL ATTENDEES: AGE = 18, MENTAL GROUP = 3L

TABLE 2

MEAN SURVIVAL TIMES FOR A SCHOOL ATTENDEES (IN MONTHS)

Mental group	Educational level					Age				
		17	18	19	20	21	22	23	24	25P
1	NHSG	33.1	35.0	34.7	34.0	33.7	33.2	31.9	31.9	30.6
	GED	33.8	35.5	35.3	34.6	34.3	33.9	32.6	32.8	31.6
	HSG	39.8	40.8	40.8	40.4	40.0	39.9	39.0	39.4	38.5
2	NHSG	35.0	36.8	36.3	35.7	35.6	35.0	33.8	33.6	32.4
	GED	35.9	37.5	37.1	36.5	36.4	35.9	34.7	34.7	33.6
	HSG	41.3	42.2	42.1	41.7	41.6	41.4	40.6	40.8	40.1
3U	NHSG	33.6	35.4	34.9	34.2	34.1	33.5	32.2	32.1	30.9
	GED	35.0	36.8	36.5	35.9	35.6	35.1	33.9	33.9	32.6
	HSG	41.7	42.6	42.4	42.1	42.0	41.8	41.0	41.1	40.5
3L	NHSG	32.4	34.4	34.0	33.4	33.1	32.5	31.2	31.2	29.8
	GED	33.8	35.8	35.5	35.0	34.5	34.0	32.8	32.9	31.4
	HSG	41.1	42.0	42.0	41.6	41.4	41.2	40.4	40.6	39.9
4A	NHSG	33.7	35.4	35.0	34.3	34.1	33.7	32.3	32.3	31.2
	GED	36.1	37.8	37.8	37.4	36.8	36.5	35.3	35.6	34.2
	HSG	41.2	42.2	42.1	41.8	41.6	41.4	40.6	40.8	40.0
4B	NHSG	33.4	35.2	34.9	34.3	34.0	33.6	32.2	32.3	31.1
	GED	35.6	37.5	37.5	37.1	36.4	36.1	34.9	35.3	33.8
	HSG	41.0	42.0	42.0	41.7	41.4	41.2	40.4	40.6	39.8
4C	NHSG	31.7	33.4	32.6	31.6	31.9	31.3	29.8	29.4	28.6
	GED	35.0	36.8	36.5	36.0	35.6	35.2	34.0	34.1	32.8
	HSG	40.3	41.4	41.1	40.7	40.6	40.4	39.5	39.5	38.9

TABLE 3

MEAN SURVIVAL TIMES FOR NON-A SCHOOL ATTENDEES (IN MONTHS)

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	27.4	27.8	27.7	27.3	27.0	25.2	23.8	21.6	22.6
	GED	27.5	27.9	28.1	27.1	26.4	25.3	23.2	21.9	22.3
	HSG	34.4	34.8	34.8	34.3	33.7	32.8	31.2	29.9	30.3
2	NHSG	28.1	28.5	28.4	28.1	27.8	26.0	24.5	22.3	23.4
	GED	28.4	28.8	28.9	28.0	27.3	26.2	24.2	22.7	23.2
	HSG	35.2	35.5	35.5	35.1	34.5	33.6	32.1	30.6	31.1
3U	NHSG	29.6	30.0	29.9	29.6	28.9	27.8	26.1	24.3	25.1
	GED	28.0	28.4	28.4	27.9	27.4	25.9	24.2	22.3	23.2
	HSG	37.2	37.5	37.5	37.1	36.6	35.9	34.5	33.4	33.7
3L	NHSG	27.5	27.9	27.8	27.7	27.1	25.6	24.1	22.0	23.0
	GED	25.9	26.3	26.1	25.9	25.5	23.7	22.3	20.1	21.2
	HSG	35.9	36.1	36.1	35.8	35.4	34.4	33.1	31.5	32.1
4A	NHSG	26.8	27.2	27.0	26.9	26.6	24.7	23.3	20.9	22.2
	GED	27.1	27.6	27.5	27.2	26.7	25.2	23.6	21.7	22.6
	HSG	36.9	37.1	37.1	36.8	36.3	35.4	34.1	32.7	33.2
4B	NHSG	26.2	26.6	26.5	26.2	25.9	24.0	22.5	20.3	21.4
	GED	26.4	26.9	26.9	26.4	25.8	24.4	22.7	20.9	21.7
	HSG	36.3	36.6	36.6	36.1	35.6	34.7	33.3	31.9	32.3
4C	NHSG	28.2	28.6	28.7	27.8	27.2	26.0	24.1	22.6	23.1
	GED	27.8	28.2	28.4	27.4	26.6	25.7	23.6	22.5	22.7
	HSG	36.6	36.9	37.0	36.1	35.6	34.9	33.4	32.6	32.6
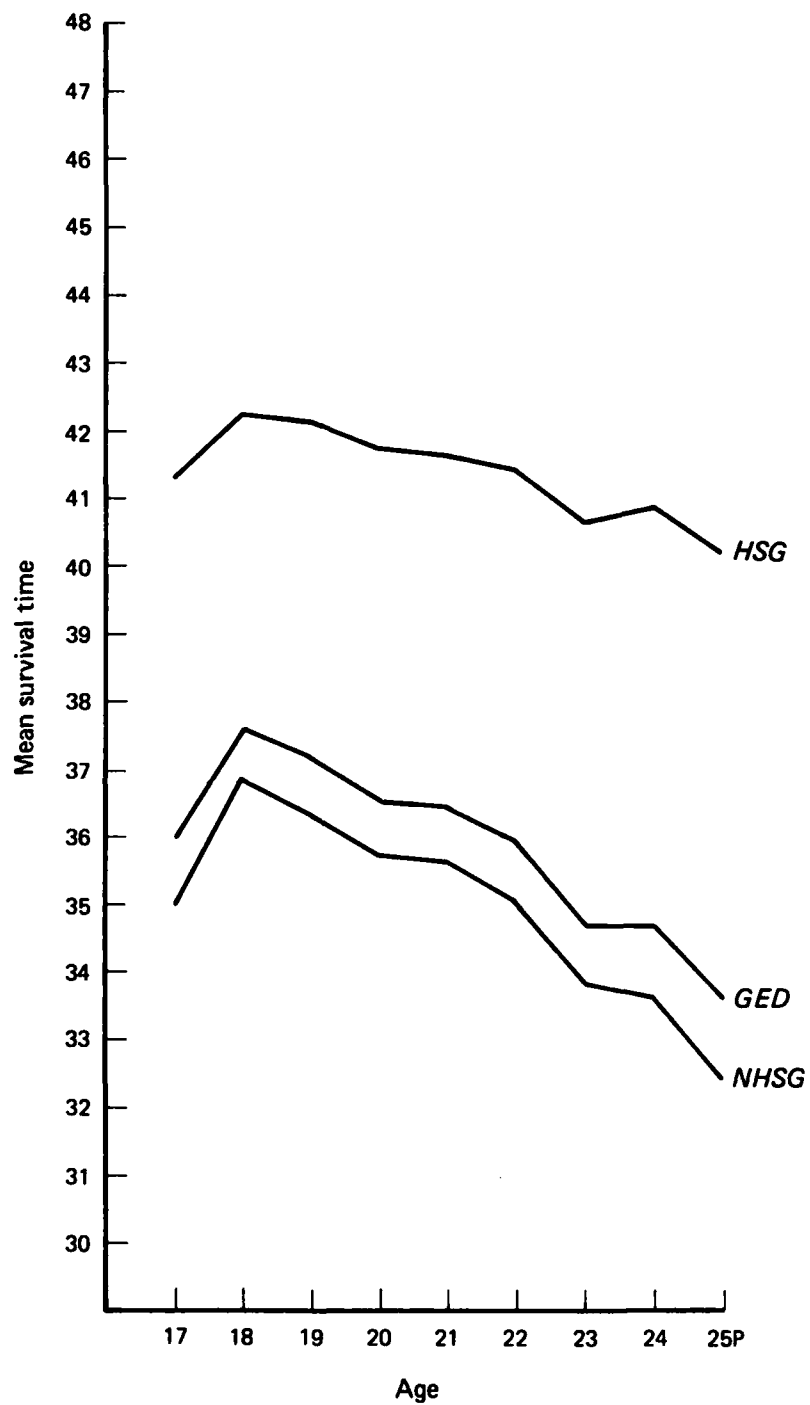
FIG. 3: MEAN SURVIVAL BY AGE FOR A SCHOOL
ATTENDEES: MENTAL GROUP = 2
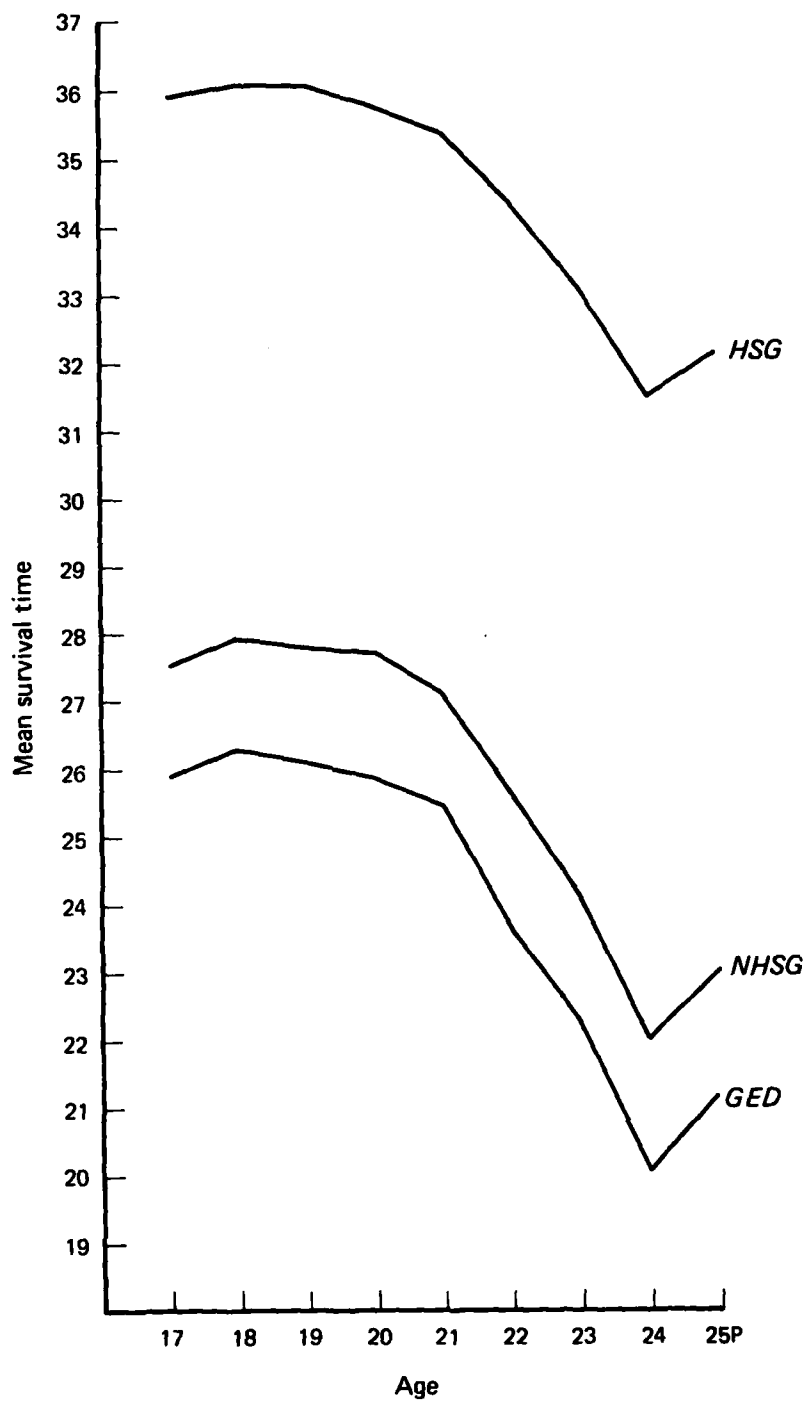
FIG. 4: MEAN SURVIVAL BY AGE FOR NON-A SCHOOL ATTENDEES: MENTAL GROUP = 3L
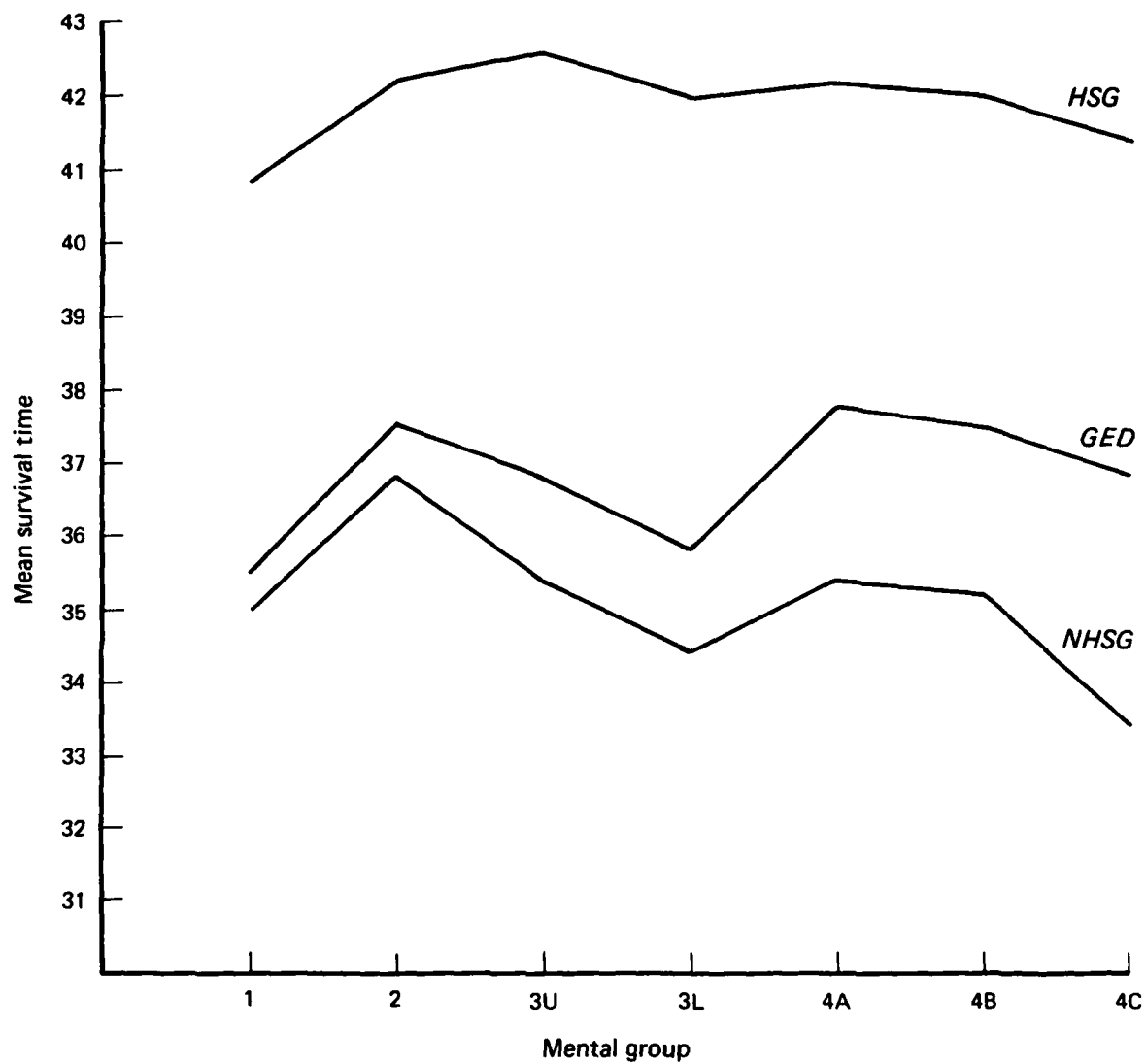
FIG. 5: MEAN SURVIVAL BY MENTAL GROUP FOR A
SCHOOL ATTENDEES: AGE = 18
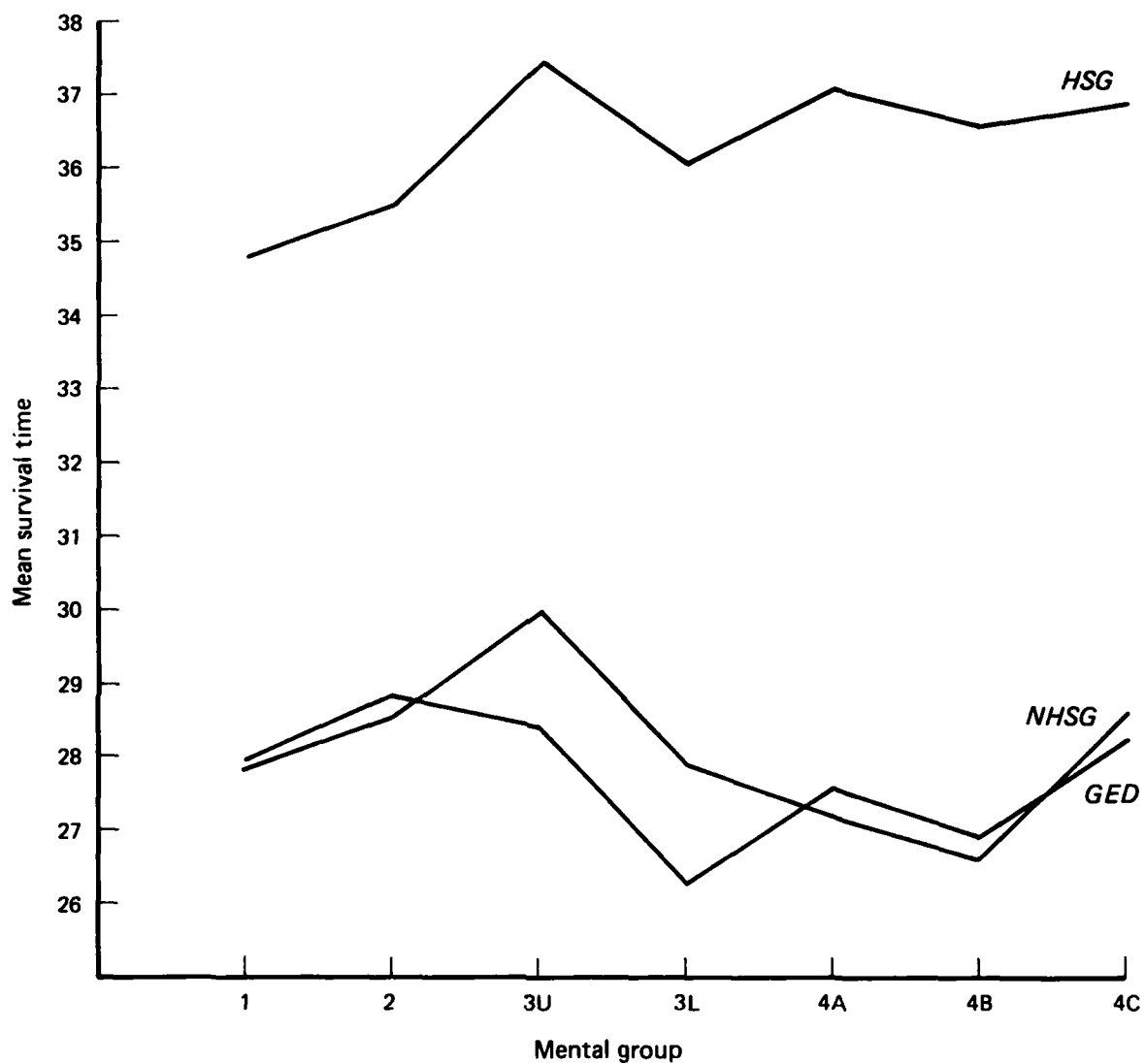
FIG. 6: MEAN SURVIVAL BY MENTAL GROUP FOR NON-A
SCHOOL ATTENDEES: AGE = 18

SECOND-TERM SURVIVAL

Strictly speaking, we are dealing in this section with survival through 4-8 years of service. Since 6-year obligors (6 YOs) and extenders are included in the data base, some first-termers are used in calculating the probabilities of surviving the next 4 years of service. In deriving survival curves through 8 years of service, it was necessary to track recruits back to 1972, a pre-AVF year. We do not believe this will cause any problems, however, because yearly survival estimates are computed conditionally. Thus, recruits who enlisted in 1972 are used only to compute the probability of completing 8 years of service given that they have already completed 7 years. We believe that this probability is not greatly dependent on whether or not the data are from pre-AVF years.

An examination of the coefficients of pre-service characteristics in appendices B and C shows that only possession of a high school diploma has much impact on survival through years 4-8. For A school attendees, this impact remained only until the 5th year, whereas for non-A school attendees it lasted throughout 8 years of service.

Appendices D and E give the yearly survival estimates for A school attendees and non-A school attendees, respectively. Remember that reservists (with a 3-year active duty obligation), 6 YOs, and extenders are all included in the data base, so that survival estimates after 4 years are lower than if we considered only reenlistees. We think these estimates are quite useful, however, because they represent the survival behavior of the entire active force of NPS males.

Figures 7 and 8 extend the survival curves of figures 1 and 2 through 8 years of service. Tables 4 and 5 show the mean survival times up to 8 years of service for each combination of recruit characteristics. They were obtained as the areas under the 8-year survival curves. There are some differences as well as similarities between these mean survival times and those based on 4 years of service (tables 2 and 3). The most obvious difference is in the effect of educational level. Whereas survival of GEDs is almost the same as for non-high school graduates based on 4 years of service, much bigger differences appear when survival is based on 8 years of service. For A school attendees, GEDs survive considerably longer than non-high school graduates for most combinations of mental group and age. However, for non-A school attendees, these differences are not as consistent. Recruits in mental groups 1 and 2 have a longer expected survival if they have GED certificates than if they are non-high school graduates. There is very little difference in survival between these two groups for mental groups 3U and 3L. But for mental groups 4A, B,
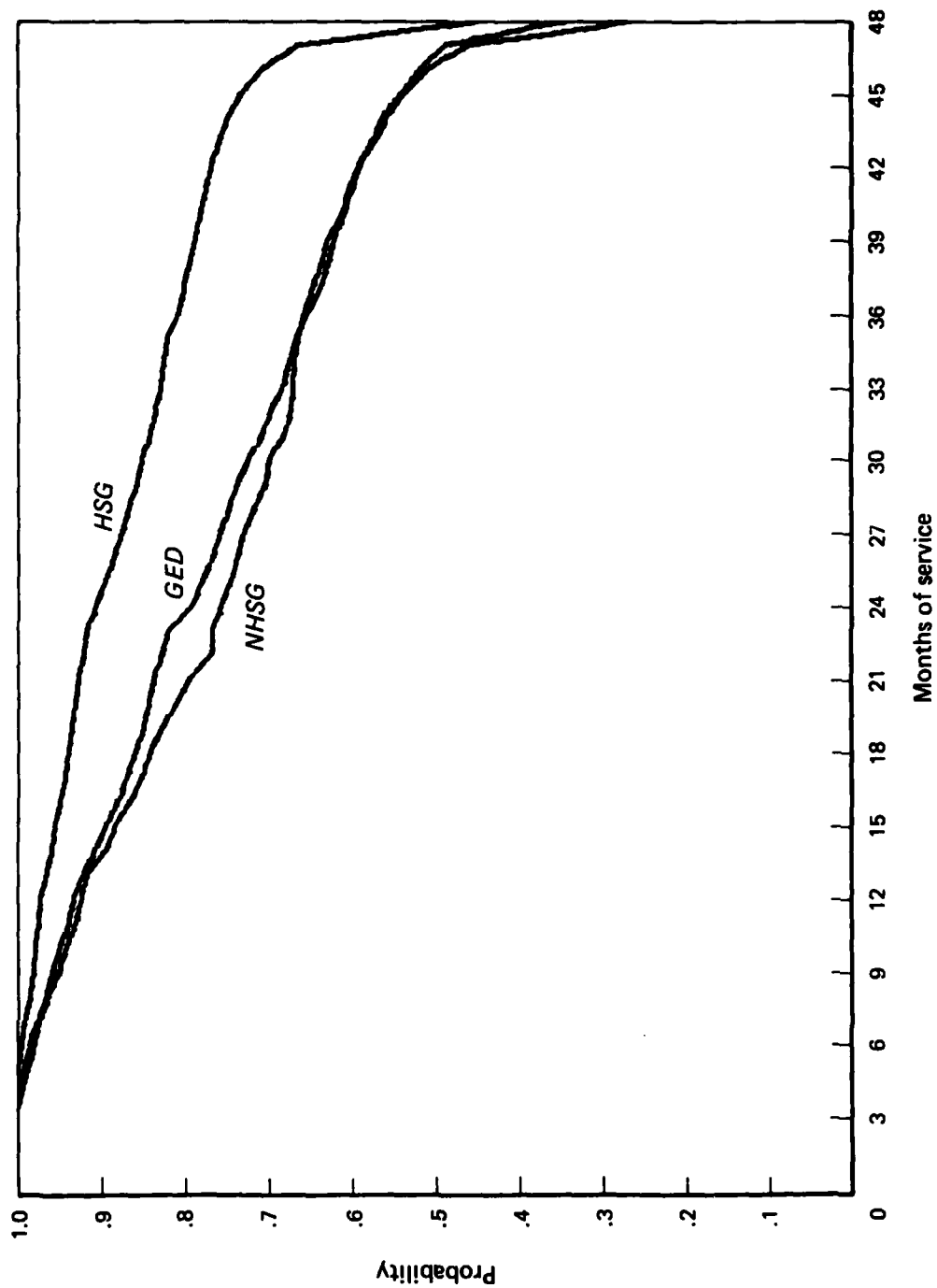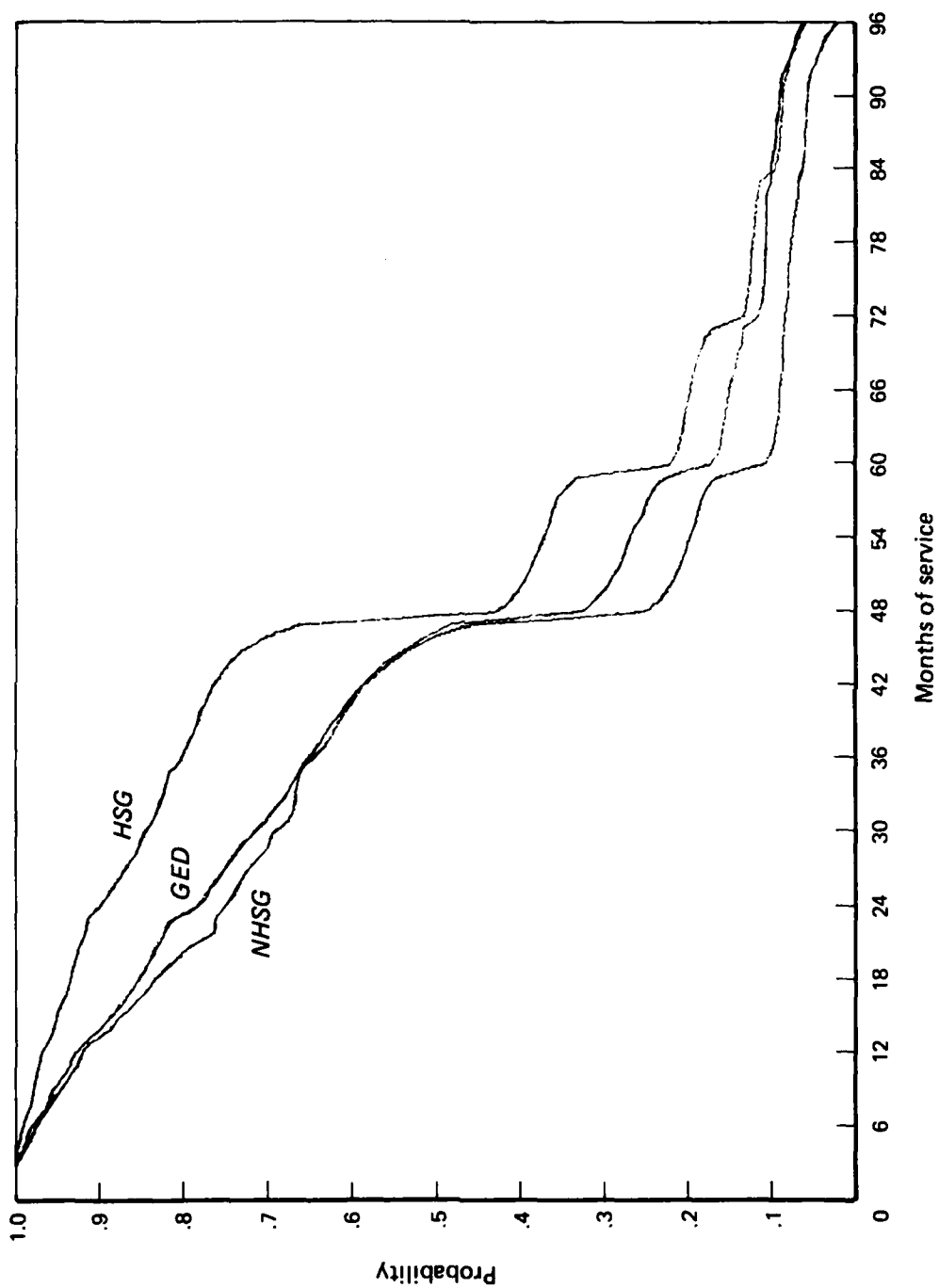
FIG. 7: TWO-TERM SURVIVAL OF A SCHOOL ATTENDEES: AGE = 18, MENTAL GROUP = 2

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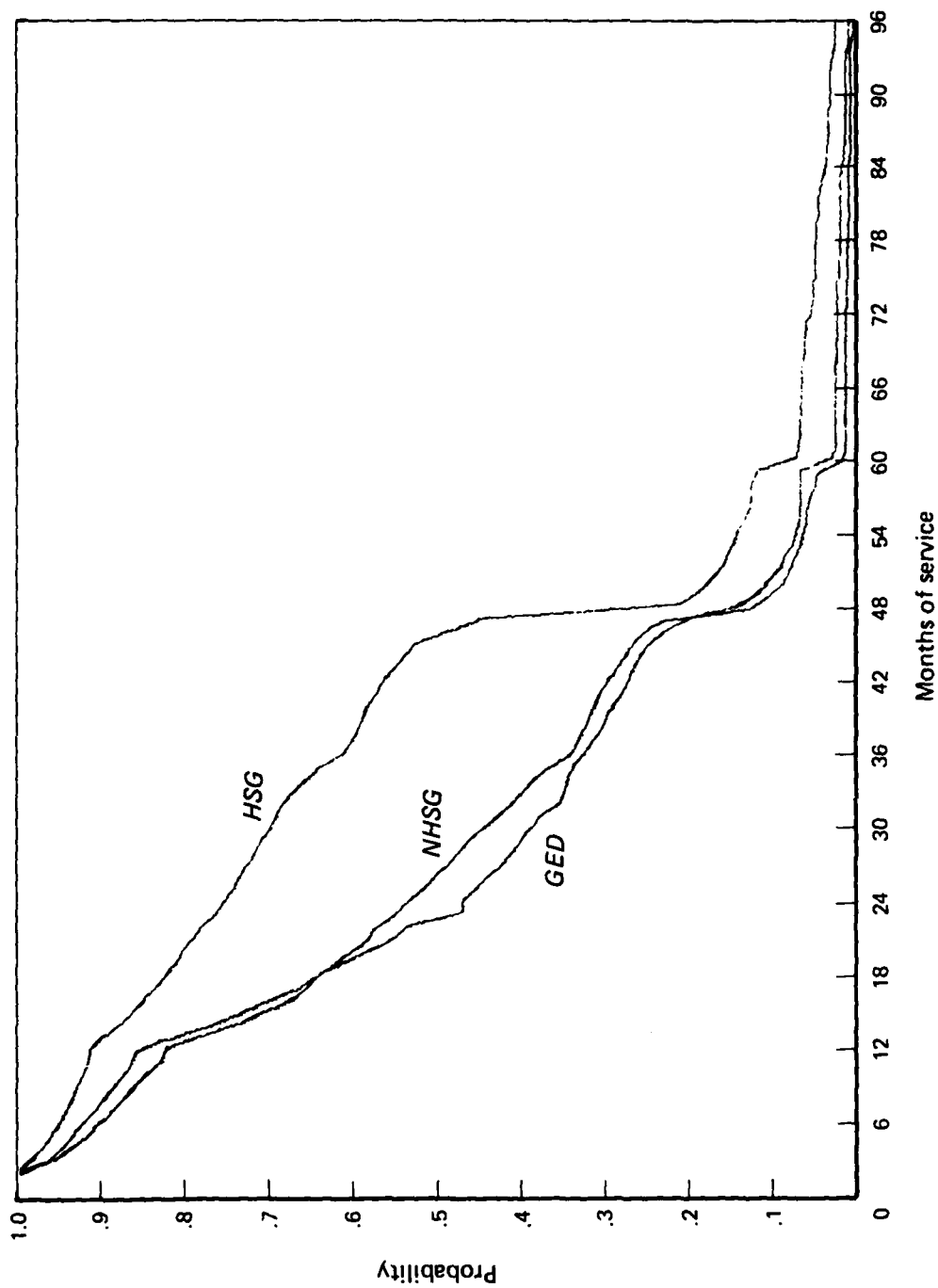
FIG. 8: TWO-TERM SURVIVAL OF NON-A SCHOOL ATTENDEES: AGE = 18, MENTAL GROUP = 3L

TABLE 4

MEAN SURVIVAL TIMES UP TO 8 YEARS OF SERVICE FOR A SCHOOL ATTENDEES

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	38.8	42.0	41.9	41.4	40.6	39.9	36.8	38.3	35.8
	GED	41.4	44.5	44.6	44.1	43.0	42.6	39.3	41.3	38.6
	HSG	50.6	52.7	53.1	53.1	52.0	51.9	48.7	51.4	49.1
2	NHSG	39.0	41.8	41.5	41.3	41.0	40.2	37.4	38.6	36.5
	GED	42.1	44.8	44.8	44.6	44.0	43.5	40.4	42.1	39.7
	HSG	49.6	51.4	51.7	52.0	51.4	51.1	48.3	50.6	48.6
3U	NHSG	36.8	39.6	39.2	38.9	38.7	38.0	35.3	36.3	34.3
	GED	38.8	41.6	41.5	41.3	40.7	40.1	37.4	38.6	36.4
	HSG	47.6	49.5	49.7	50.1	49.7	49.5	46.8	48.8	47.1
3L	NHSG	34.9	37.7	37.4	37.1	36.7	36.0	33.5	34.5	32.4
	GED	36.8	39.6	39.6	39.4	38.6	38.0	35.5	36.7	34.4
	HSG	45.9	47.8	48.0	48.4	48.0	47.7	45.2	47.1	45.3
4A	NHSG	36.1	38.5	38.2	37.9	37.7	37.1	34.8	35.9	33.9
	GED	43.1	46.2	46.6	46.4	45.1	44.7	41.3	43.4	40.8
	HSG	47.8	49.8	50.1	50.6	50.1	49.8	47.1	49.4	47.3
4B	NHSG	35.7	38.2	38.0	37.7	37.3	36.8	34.5	35.7	33.7
	GED	42.1	45.3	45.7	45.5	44.2	43.8	40.4	42.5	39.9
	HSG	47.4	49.6	49.9	50.3	49.8	49.5	46.8	49.1	47.0
4C	NHSG	34.3	36.8	36.1	35.4	35.5	34.8	32.2	32.8	31.2
	GED	41.6	44.7	44.8	44.3	43.3	42.8	39.3	41.0	38.7
	HSG	47.8	49.9	50.1	50.2	49.8	49.5	46.3	48.3	46.5

TABLE 5

MEAN SURVIVAL TIMES UP TO 8 YEARS OF SERVICE FOR NON-A SCHOOL ATTENDEES

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	29.0	29.1	28.8	28.7	28.5	26.5	25.0	22.4	23.3
	GED	32.2	32.0	31.9	31.3	30.4	29.3	26.9	24.6	24.8
	HSG	41.1	40.4	40.2	40.2	39.7	38.6	37.0	34.3	34.3
2	NHSG	31.2	31.0	30.6	30.7	30.5	28.2	26.8	23.6	24.6
	GED	35.3	34.9	34.8	34.2	33.1	31.8	29.3	26.5	26.9
	HSG	44.7	43.8	43.4	43.6	42.9	41.7	40.0	36.7	36.9
3U	NHSG	32.4	32.3	32.1	32.2	31.8	30.4	28.6	26.4	26.7
	GED	31.7	31.5	31.3	31.2	31.0	29.2	27.4	24.7	25.2
	HSG	44.0	43.1	42.8	42.9	42.8	41.6	40.4	38.0	37.5
3L	NHSG	29.0	29.1	28.9	29.0	28.7	27.0	25.4	23.0	23.8
	GED	27.9	27.9	27.7	27.7	27.6	25.5	24.0	21.3	22.2
	HSG	40.2	39.6	39.3	39.4	39.3	37.9	36.8	34.3	34.2
4A	NHSG	30.4	30.3	29.9	30.3	30.3	27.9	26.4	23.1	24.2
	GED	28.0	28.2	28.1	27.9	27.4	25.8	24.2	22.0	22.8
	HSG	43.2	42.3	41.9	42.0	42.1	40.6	39.5	36.8	36.5
4B	NHSG	29.5	29.4	29.2	29.4	29.3	27.0	25.4	22.3	23.4
	GED	27.3	27.5	27.4	27.0	26.5	24.9	23.3	21.2	21.9
	HSG	42.3	41.5	41.1	41.1	41.2	39.7	38.5	36.0	35.6
4C	NHSG	32.3	32.0	32.0	31.4	31.0	29.4	27.4	25.2	25.2
	GED	28.4	28.7	28.8	27.8	27.0	26.0	24.0	22.7	22.8
	HSG	41.8	41.0	40.8	40.1	39.9	38.7	37.3	35.6	34.6

and C, the relationship is reversed, i.e., non-high school graduates have a longer expected survival than GEDs.

On the one hand, it would seem that a SCREEN table based on 8 years of service would be more desirable than one based on 4 years, since survival patterns over a longer period of time are taken into account. On the other hand, we are assuming that the current survival patterns will hold true in the future, making a shorter-term prediction possibly more reliable than a longer-term one. These considerations will have to be weighed before choosing which estimates to use in the new SCREEN table.

DETERMINING QUALIFYING SCORES

Before tables 2 and 3 or 4 and 5 can be used for recruit screening, it is necessary that they be streamlined and that qualifying scores, i.e., cutoff points, be determined. The qualifying scores are determined by means of a cost-benefit analysis that considers the cheapest way of selecting recruits who survive longer but cost more. Since we have no accurate cost figures beyond 4 years of service, we are constrained for the time being to basing the new SCREEN tables on tables 2 and 3 (mean survival times through 4 years of service).

To be classified as an A school or non-A school attendee, a recruit must first have completed RTC. A streamlined version of table 1, which gives probabilities of completing RTC, is shown in table 6. The cost of putting a recruit through RTC is approximately $2500 in 1981 dollars. The 1979 figure of $2165 was obtained from CNET and adjusted for inflation.

TABLE 6

STREAMLINED PROBABILITIES OF COMPLETING RTC

Mental group	17-21			22+		
	HSG	GED	NHSG	HSG	GED	NHSG
1	96	93	91	94	89	87
2	95	91	88	92	87	83
3U	93	89	85	89	83	80
3L	92	88	85	89	83	78
4A	90	85	81	86	79	74
4B-C	86	80	75	81	72	66

Table 7 shows the effects of possible qualifying scores compared to the lowest score, which would let in an entire cohort. The data are scaled to the FY 1981 goal of 83 thousand NPS males. All dollar amounts are expressed in 1981 dollars.

If the only objective is to maintain the same endstrength at the end of RTC, table 7 indicates that it always costs more to be more selective than to simply allow all prospective recruits to enlist. This is because the cost of recruiting higher quality individuals more than offsets the savings realized by putting fewer recruits through RTC. Of course, the Navy is concerned with

TABLE 7

RTC SCREEN QUALIFYING SCORE EFFECTS PROJECTED FOR FY 1981 NPS MALES
(Numbers in thousands, dollars in millions)

Qualifying score	Qualified #	Qualified %	% RTC losses	Number completing RTC	Additional recruits to make 75.2BS[a]	Recruit goal = # qualified + add'l recruits	Reduction from 83.0	Savings = reduction x $2.5	Percent[b] of goal A	Percent[b] of goal C	Cost = $2.9A + $1.2C[c]	Additional recruits #	Additional recruits Cost	Net savings[d]
72	100.0	83.0	9.4	75.2	0.0	83.0	0.0	0.0	45	29	1.6	0.0	0.0	0.0
78	99.4	82.5	9.3	74.8	0.4	82.9	0.1	0.3	45	29	1.6	0.4	0.6	-0.3
81	98.8	82.0	9.2	74.4	0.9	82.9	0.1	0.3	46	30	1.7	0.9	1.5	-1.2
83	96.4	80.0	9.0	72.8	2.6	82.6	0.4	1.0	47	30	1.7	2.6	4.4	-3.4
86	84.5	70.2	8.2	64.4	11.8	82.0	1.0	2.5	53	34	1.9	11.8	22.4	-19.9

[a] Takes losses into account at cohort rate.

[b] Recruit quality categories: A is HSG mental groups 1-3U, B is NHSG mental groups 1-3U, C is HSG mental groups 3L-5, and D is NHSG mental groups 3L-5.

[c] B and D quality recruits are assumed to be relatively cheap to obtain.

[d] Net savings equals (savings = reduction x $2.5) minus (additional recruits cost).

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survival beyond completion of RTC, and the benefits of a screening policy will be realized when this is taken into account.

Tables 8 and 9 give streamlined mean survival times for A school attendees and non-A school attendees, respectively. Using the TAEG Incremental Costing Model (reference 10), we determined the average cost of training (not including RTC) an A school graduate as approximately $8000. For non-A school attendees, the average cost of apprenticeship training, provided by CNET, is approximately $800. Reference 11 computes training (including RTC) and non-training costs for Navy enlistees, allowing for attrition and non-completion of A school or apprenticeship training (although separate costs were not given for A school and non-A school attendees). Since our figures do not make these allowances, we scaled training costs down to reflect those given in reference 11. Knowing the proportions of A-school attendees, non-A school attendees, and RTC losses, we were then able to estimate the total (training and non-training) costs for A school attendees and non-A school attendees. Including RTC training but excluding recruiting costs, these figures are $9600 and $5100 for A-school attendees and non-A school attendees, respectively.

Tables 10 and 11 show the effects of possible qualifying scores on the relative costs of maintaining the same total man-months of service. The optimal qualifying score for A school attendees is 35 and for non-A school attendees is 28. Note that all high school graduates qualify with these scores, regardless of mental group. Also note that if these qualifying scores are adopted, the projected 4-year endstrength is greater than that observed with no screening.

Since our survival curves were estimated using the entire active NPS force (3 YOs, 4 YOs, 6 YOs), it would probably be better, from a recruiter's standpoint, to express the SCREEN tables in proportions, i.e., the mean survival times divided by 48 months. The qualifying scores then become 73 for A school attendees and 58 for non-A school attendees. The new SCREEN tables with lines denoting the minimum acceptable qualifying scores are shown in tables 12 and 13.

TABLE 8

STREAMLINED MEAN SURVIVAL
TIMES FOR CLASS A SCHOOL ATTENDEES

Mental group	17-22			23+		
	HSG	GED	NHSG	HSG	GED	NHSG
1	40	36	35	39	32	31
2	42	37	36	40	34	33
3U	42	36	35	41	33	32
3L	42	36	34	40	32	31
4A	42	37	34	40	34	32
4B-C	42	36	34	39	33	29

TABLE 9

STREAMLINED MEAN SURVIVAL
TIMES FOR NON-A SCHOOL ATTENDEES

Mental group	17-21			22+		
	HSG	GED	NHSG	HSG	GED	NHSG
1	35	28	28	31	23	23
2	35	29	28	32	24	24
3U	37	28	29	35	24	26
3L	36	28	28	33	22	24
4A	37	28	27	34	23	22
4B-C	37	28	27	34	26	26

TABLE 10

CLASS A SCHOOL QUALIFYING SCORE EFFECTS PROJECTED FOR FY 1981 NPS MALES
(Numbers in thousands, dollars in millions)

Qualifying score (months)	Qualified #	Qualified $	Mean mos.	4-year survival $ lost[a]	4-year survival Endstrength	Additional recruits required[b]	Recruit goal = $ qualified + add'l recruits	Reduction from 20.7	Savings = reduction x $5.1	Projected 4-year endstrength	Percent of goal[c] A	Percent of goal[c] C	Cost = $2.9A + $1.2C[d]	Additional recruits $	Additional recruits Cost	Net savings[e]
22	100.0	20.7	33.4	78.2	4.5	0.0	20.7	0.0	0.0	4.5	26	42	1.3	0.0	0.0	0.0
27	98.1	20.3	33.6	78.0	4.5	0.3	20.6	0.1	0.5	4.5	26	43	1.3	0.3	0.4	0.1
28	94.8	19.6	33.8	77.8	4.3	0.8	20.4	0.3	1.5	4.5	27	44	1.3	0.8	1.0	0.5
29	79.5	16.5	34.9	76.2	3.9	3.3	19.8	0.9	4.6	4.7	32	53	1.6	3.3	5.3	-0.7
31	67.5	14.0	36.0	75.4	3.4	5.2	19.2	1.5	7.7	4.7	38	62	1.8	5.2	9.4	-1.7

[a] This is the loss rate up to and including 4 years of service. Thus, for example, an individual who completes 4 years of obligated service but does not extend or reenlist is counted as a loss.

[b] This is the number of additional recruits necessary to maintain the total man-months served (487,930 man-months) by the entire non-A school cohort.

[c] Recruit quality categories: A is HSG mental groups 1-3U, B is NHSG mental groups 1-3U, C is HSG mental groups 3L-5, and D is NHSG mental groups 3L-5.

[d] B and D quality recruits are assumed to be relatively cheap to obtain.

[e] Net savings equals (savings = reduction x $5.1) minus (additional recruits cost).

TABLE 11

NON-A SCHOOL QUALIFYING SCORE EFFECTS PROJECTED FOR FY 1981 NPS MALES
(Numbers in thousands, dollars in millions)

Qualifying score (months)	Qualified #	%	Mean mos.	4-year survival % lost[a]	4-year survival Endstrength	Additional recruits required[b]	Recruit goal = # qualified + # add'l recruits	Reduction from 53.8	Savings = reduction x $9.6	Projected 4-year endstrength	Percent of goal[c] A	Percent of goal[c] C	Cost = $2.9A + $1.2C[d]	Additional recruits #	Additional recruits Cost	Net savings[e]
29	100.0	53.8	40.3	64.9	18.9	0.0	53.8	0.0	0.0	18.9	55	24	1.9	0.0	0.0	0.0
34	99.3	53.4	40.4	64.8	18.8	0.3	53.7	0.1	1.0	18.9	55	24	1.9	0.3	0.6	0.4
35	94.4	50.8	40.7	64.0	18.3	2.4	53.2	0.6	5.8	19.2	58	25	2.0	2.4	4.8	1.0
36	86.3	46.4	41.2	62.6	17.3	6.2	52.6	1.2	11.5	19.7	63	28	2.2	6.2	13.6	-2.1
39	78.4	42.2	41.7	61.6	16.2	9.8	52.0	1.8	17.3	20.0	70	30	2.4	9.8	23.5	-6.2

[a] This is the loss rate up to and including 4 years of service. Thus, for example, an individual who completes 4 years of obligated service but does not extend or reenlist is counted as a loss.

[b] This is the number of additional recruits necessary to maintain the total man-months served (1,529,385 man-months) by the entire A school cohort.

[c] Recruit quality categories: A is HSG mental groups 1-3U, B is NHSG mental groups 1-3U, C is HSG mental groups 3L-5, and D is NHSG mental groups 3L-5.

[d] B and D quality recruits are assumed to be relatively cheap to obtain.

[e] Net savings equals (savings = reduction x $9.6) minus (additional recruits cost).

TABLE 12

FINAL SCREEN SCORES FOR
CLASS A SCHOOL ATTENDEES

Mental group	17-22			23+		
	HSG	GED	NHSG	HSG	GED	NHSG
1	83	75	73	81	67	65
2	88	77	75	83	71	69
3U	88	75	73	85	69	67
3L	88	75	71	83	67	65
4A	88	77	71	83	71	67
4B-C	88	75	71	81	69	60

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a
Line denotes minimum SCREEN eligibility.

TABLE 13

FINAL SCREEN SCORES FOR
NON-A SCHOOL ATTENDEES

Mental group	17-21			22+		
	HSG	GED	NHSG	HSG	GED	NHSG
						⌐—a
1	73	58	58	65	48	48
2	73	60	58	67	50	50
3U	77	58	60	73	50	54
3L	75	58	58	69	46	50
			—a			
4A	77	58	56	71	48	46
4B-C	77	58	56	71	54	54

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aLine denotes minimum SCREEN eligibility.

CONCLUSIONS

1.   The present SCREEN table, giving first-year survival probabilities, can be replaced with one giving expected months of service over 4 years.

2.   The optimal qualifying score is 35 months for A school attendees and 28 months for non-A school attendees.

3.   Educational level has the greatest impact on survival for both A school and non-A school attendees. Recruits with a high school diploma survive considerably longer than either GEDs or non-high school graduates. This is especially true for non-A school attendees in mental groups 3 and 4.

4.   For high school graduate A school attendees, survival is relatively constant across mental groups. For high school graduate non-A school attendees, there is a general upward trend in survival as mental test scores decrease. There is no clear relationship between mental group and survival for GEDs or non-high school graduates.

5.   The optimal recruiting ages for A school attendees appear to be 17-22. For non-A school attendees, the optimal range is 17-21.

6.   Prospective A school attendees ages 23 and older (22 and older for non-attendees) should be enlisted only if they are high school graduates.

7.   Prospective A school attendees 17-22 years old (17-21 years old for non-attendees) who are non-high school graduates should be enlisted only if they are in the upper mental groups.

8.   Although Class A school attendance improves survival of all 3 educational groups, it is particularly important for GED and non-high school graduates.

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APPENDIX A

COEFFICIENT ESTIMATES FROM THE PROBIT
ANALYSIS OF CHANCES OF COMPLETING RTC

TABLE A-1

COEFFICIENT ESTIMATES FROM THE PROBIT
ANALYSIS OF CHANCES OF COMPLETING RTC

Variable	Coefficient	Standard deviation	X^{2a}
Constant	0.86311	0.17585	24.091
MGRP1	0.48171	0.17907	7.236
MGRP2	0.32727	0.17516	3.491
MGRP3U	0.17982	0.17527	1.053
MGRP3L	0.14453	0.17546	0.679
MGRP4A	0.01276	0.17589	0.005
MGRP4B	-0.14943	0.17652	0.717
MGRP4C	-0.43933	0.17858	6.052
GED	0.14488	0.02882	26.686
HSG	0.42633	0.01928	488.965
AGE18	0.06239	0.02246	7.716
AGE19	-0.02174	0.02502	0.755
AGE20	-0.08192	0.03000	7.457
AGE21	-0.06364	0.03680	2.991
AGE22	-0.17898	0.04171	18.413
AGE23	-0.24066	0.04718	26.019
AGE24	-0.27828	0.05559	25.059
AGE25P	-0.25342	0.04289	34.912

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[a]All chi-squared (X^2) values in this and subsequent tables
have one degree of freedom. The five percent significance level
of a X^2 distribution with one degree of freedom is 3.841. All
X^2 values greater than 3.841 are considered significant.

APPENDIX B

COEFFICIENT ESTIMATES FROM THE COX REGRESSION
ANALYSIS OF SURVIVAL FOR A SCHOOL ATTENDEES

TABLE B-1

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES:
2-12 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.07617	0.71424	0.011
MGRP2	0.05144	0.70939	0.005
MGRP3U	0.07502	0.71011	0.011
MGRP3L	-0.01826	0.71102	0.001
MGRP4A	-0.10541	0.71406	0.022
MGRP4B	-0.24873	0.72349	0.118
MGRP4C	0.39366	0.74012	0.283
GED	-0.30665	0.07856	15.237
HSG	-1.08571	0.05826	347.324
AGE18	-0.07273	0.07020	1.073
AGE19	0.18911	0.07694	6.040
AGE20	0.32731	0.09037	13.119
AGE21	0.11040	0.11804	0.875
AGE22	0.23787	0.13498	3.106
AGE23	0.34587	0.15015	5.306
AGE24	0.52845	0.17086	9.566
AGE25P	0.47287	0.12878	13.483

TABLE B-2

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES:
12-24 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.40159	0.27210	2.178
MGRP2	-0.57807	0.26274	4.841
MGRP3U	-0.64663	0.26528	5.942
MGRP3L	-0.45398	0.26655	2.901
MGRP4A	-0.46153	0.27300	2.858
MGRP4B	-0.38608	0.28925	1.782
MGRP4C	-0.47961	0.38101	1.585
GED	-0.16837	0.07944	4.492
HSG	-1.09167	0.05949	336.761
AGE18	-0.31081	0.06345	23.999
AGE19	-0.32951	0.07573	18.934
AGE20	-0.32166	0.09636	11.142
AGE21	-0.18241	0.11186	2.659
AGE22	-0.09824	0.12927	0.578
AGE23	-0.00137	0.14479	0.000
AGE24	-0.02544	0.16739	0.023
AGE25P	0.21650	0.12950	2.795

TABLE B-3

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES: 24-36 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.04692	0.24372	0.037
MGRP2	-0.60547	0.23935	6.399
MGRP3U	-0.91233	0.24184	14.231
MGRP3L	-0.75006	0.24296	9.531
MGRP4A	-0.80483	0.24909	10.440
MGRP4B	-0.72851	0.26816	7.381
MGRP4C	-0.68541	0.35754	3.675
GED	-0.10106	0.07683	1.730
HSG	-0.65878	0.05640	136.457
AGE18	-0.07967	0.05983	1.773
AGE19	-0.17257	0.06871	6.308
AGE20	-0.10079	0.08144	1.531
AGE21	0.03094	0.09156	0.114
AGE22	-0.06587	0.10976	0.360
AGE23	0.07491	0.12498	0.359
AGE24	-0.13438	0.16347	0.676
AGE25P	-0.02197	0.12576	0.031

TABLE B-4

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES: 36-48 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.11749	0.58358	0.041
MGRP2	0.12996	0.57809	0.051
MGRP3U	0.24076	0.57858	0.173
MGRP3L	0.31127	0.57897	0.289
MGRP4A	0.20652	0.58122	0.126
MGRP4B	0.25833	0.58656	0.194
MGRP4C	0.34912	0.60252	0.336
GED	-0.10924	0.07179	2.315
HSG	-0.52181	0.05407	93.123
AGE18	-0.10197	0.05619	3.293
AGE19	-0.14380	0.06194	5.389
AGE20	-0.14453	0.07192	4.038
AGE21	-0.10161	0.08149	1.555
AGE22	-0.12682	0.09551	1.763
AGE23	0.13202	0.11047	1.428
AGE24	0.02746	0.13677	0.040
AGE25P	0.04006	0.10873	0.136

TABLE B-5

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES: 48-60 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.45896	0.29992	2.342
MGRP2	0.09144	0.27944	0.107
MGRP3U	0.45100	0.28099	2.576
MGRP3L	0.58861	0.28090	4.391
MGRP4A	0.72232	0.29172	6.131
MGRP4B	0.68177	0.31081	4.811
MGRP4C	0.31963	0.32685	0.956
GED	-0.20985	0.09020	5.412
HSG	-0.26921	0.06293	18.299
AGE18	-0.09864	0.06179	2.548
AGE19	-0.08488	0.06726	1.593
AGE20	-0.25747	0.07751	11.035
AGE21	-0.38448	0.09054	18.032
AGE22	-0.32618	0.10303	10.023
AGE23	-0.32344	0.11978	7.292
AGE24	-0.60923	0.13878	19.272
AGE25P	-0.40919	0.12021	11.587

TABLE B-6

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES: 60-72 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.01633	0.23402	0.005
MGRP2	0.29078	0.21810	1.777
MGRP3U	0.44365	0.22588	3.858
MGRP3L	0.42033	0.22874	3.377
MGRP4A	0.24488	0.25430	0.927
MGRP4B	0.06174	0.27420	0.051
MGRP4C	-0.12794	0.27762	0.212
GED	0.01906	0.14246	0.018
HSG	-0.07030	0.09932	0.501
AGE18	0.16711	0.09753	2.936
AGE19	0.05951	0.10809	0.303
AGE20	-0.03499	0.12439	0.079
AGE21	0.21770	0.13847	2.472
AGE22	0.18018	0.15272	1.392
AGE23	0.24848	0.16418	2.290
AGE24	0.12372	0.18512	0.447
AGE25P	0.28509	0.16531	2.974

TABLE B-7

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES: 72-84 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.13427	0.25079	0.287
MGRP2	-0.12000	0.22900	0.275
MGRP3U	-0.60402	0.25553	5.588
MGRP3L	-0.40896	0.25522	2.568
MGRP4A	-0.56825	0.31118	3.335
MGRP4B	-0.13373	0.29576	0.204
MGRP4C	-0.39394	0.30080	1.715
GED	-0.17947	0.20381	0.775
HSG	-0.23620	0.14857	2.527
AGE18	0.11917	0.14847	0.644
AGE19	0.17420	0.15802	1.215
AGE20	0.24293	0.17273	1.978
AGE21	0.20310	0.19787	1.054
AGE22	0.41198	0.21951	3.523
AGE23	0.50852	0.24861	4.184
AGE24	-0.01947	0.36060	0.003
AGE25P	0.06882	0.27843	0.061

TABLE B-8

COX REGRESSION COEFFICIENTS FOR A SCHOOL ATTENDEES: 84-96 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.48078	0.28739	2.799
MGRP2	0.36957	0.26393	1.961
MGRP3U	0.04579	0.27627	0.027
MGRP3L	0.27872	0.27569	1.022
MGRP4A	0.28532	0.30276	0.888
MGRP4B	0.15540	0.32301	0.231
MGRP4C	0.18933	0.29561	0.410
GED	-0.08634	0.16002	0.291
HSG	-0.12339	0.12425	0.986
AGE18	0.19279	0.13641	1.997
AGE19	0.03793	0.14289	0.070
AGE20	-0.03756	0.15884	0.056
AGE21	0.15598	0.18793	0.689
AGE22	0.28380	0.20699	1.880
AGE23	0.56145	0.22046	6.486
AGE24	0.01952	0.29549	0.004
AGE25P	0.25121	0.22092	1.293

APPENDIX C

COEFFICIENT ESTIMATES FROM THE COX REGRESSION
ANALYSIS OF SURVIVAL FOR NON-A SCHOOL ATTENDEES

TABLE C-1

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES:
2-12 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	1.68671	1.01449	2.764
MGRP2	1.63325	1.00354	2.649
MGRP3U	1.39612	1.00364	1.935
MGRP3L	1.36684	1.00382	1.854
MGRP4A	1.39782	1.00439	1.937
MGRP4B	1.59512	1.00476	2.520
MGRP4C	1.81025	1.00693	3.232
GED	0.24584	0.08071	9.277
HSG	-0.42936	0.05752	55.720
AGE18	-0.04271	0.06793	0.395
AGE19	-0.08698	0.07716	1.271
AGE20	0.13103	0.08977	2.131
AGE21	0.15802	0.10669	2.193
AGE22	0.23322	0.12547	3.455
AGE23	0.39705	0.14180	7.841
AGE24	0.41235	0.15135	17.423
AGE25P	0.43253	0.12269	12.429

TABLE C-2

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES:
12-24 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.83606	0.53039	2.485
MGRP2	0.80523	0.47111	2.921
MGRP3U	0.74135	0.47011	2.487
MGRP3L	1.07356	0.46989	5.220
MGRP4A	0.95254	0.47200	4.073
MGRP4B	0.92648	0.47658	3.779
MGRP4C	0.32201	0.51697	0.388
GED	-0.08126	0.10242	0.629
HSG	-0.97582	0.07537	167.640
AGE18	-0.03204	0.08427	0.145
AGE19	0.02748	0.09672	0.081
AGE20	-0.07627	0.13196	0.334
AGE21	-0.14121	0.16488	0.733
AGE22	0.17783	0.17328	1.053
AGE23	0.19332	0.19798	0.954
AGE24	0.57607	0.21741	7.021
AGE25P	0.33242	0.18485	3.234

TABLE C-3

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES: 24-36 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.47197	0.44422	1.129
MGRP2	0.32707	0.38650	0.716
MGRP3U	0.38298	0.38530	0.988
MGRP3L	0.46711	0.38430	1.477
MGRP4A	0.26119	0.38568	0.459
MGRP4B	0.25376	0.38849	0.427
MGRP4C	0.20276	0.41364	0.240
GED	0.09975	0.08057	1.533
HSG	-0.81475	0.06117	177.388
AGE18	-0.04042	0.07004	0.333
AGE19	-0.09622	0.08302	1.343
AGE20	-0.12904	0.11021	1.371
AGE21	0.17215	0.12755	1.822
AGE22	-0.11511	0.17983	0.410
AGE23	0.21464	0.18687	1.319
AGE24	-0.02961	0.25067	0.014
AGE25P	0.20079	0.17604	1.301

TABLE C-4

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES: 36-48 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.26260	0.42458	0.383
MGRP2	-0.40747	0.38491	1.121
MGRP3U	-0.28839	0.38548	0.560
MGRP3L	-0.05713	0.38271	0.022
MGRP4A	-0.20454	0.38520	0.282
MGRP4B	-0.24794	0.38784	0.409
MGRP4C	0.11282	0.39217	0.083
GED	0.04422	0.09910	0.199
HSG	-0.40832	0.07255	31.678
AGE18	0.09459	0.09016	1.101
AGE19	0.15928	0.09702	2.695
AGE20	0.18489	0.11493	2.588
AGE21	0.16319	0.13356	1.493
AGE22	0.30009	0.15044	3.979
AGE23	0.26337	0.19386	1.846
AGE24	0.41423	0.21084	3.860
AGE25P	0.59932	0.15435	15.077

TABLE C-5

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES: 48-60 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	-0.35052	0.22056	2.526
MGRP2	-0.91367	0.18652	23.995
MGRP3U	0.04460	0.19193	0.054
MGRP3L	0.32676	0.18324	3.180
MGRP4A	0.20327	0.20095	1.023
MGRP4B	0.32113	0.20406	2.477
MGRP4C	0.09519	0.19363	0.242
GED	-0.05535	0.15084	0.135
HSG	-0.43286	0.10118	18.301
AGE18	0.15727	0.11564	1.850
AGE19	0.15965	0.12454	1.643
AGE20	-0.00440	0.14007	0.001
AGE21	-0.28839	0.15231	3.585
AGE22	-0.33003	0.16986	3.775
AGE23	-0.46065	0.21391	4.637
AGE24	-0.74669	0.23378	10.201
AGE25P	-0.52035	0.19121	7.405

TABLE C-6

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES: 60-72 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.03265	0.17494	0.035
MGRP2	-0.12524	0.15332	0.667
MGRP3U	-0.13865	0.20000	0.481
MGRP3L	0.07585	0.19600	0.150
MGRP4A	0.06000	0.20855	0.083
MGRP4B	0.15388	0.20524	0.562
MGRP4C	-0.04821	0.16608	0.084
GED	0.10846	0.19729	0.302
HSG	-0.26370	0.12201	4.671
AGE18	0.36118	0.15038	5.769
AGE19	0.55505	0.15718	12.470
AGE20	0.31337	0.18340	2.920
AGE21	0.57734	0.18964	9.269
AGE22	0.23894	0.22924	1.086
AGE23	0.00004	0.26138	0.000
AGE24	0.75776	0.22821	11.026
AGE25P	0.32212	0.22670	2.019

C-3

TABLE C-7

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES: 72-84 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.39200	0.20246	3.749
MGRP2	0.28655	0.17141	2.795
MGRP3U	0.04964	0.21943	0.051
MGRP3L	-0.01740	0.21493	0.007
MGRP4A	-0.10349	0.24390	0.180
MGRP4B	-0.29488	0.26920	1.200
MGRP4C	-0.47910	0.21004	5.203
GED	-0.22711	0.24608	0.852
HSG	-0.02765	0.14331	0.037
AGE18	0.17606	0.17563	1.005
AGE19	0.07128	0.18881	0.143
AGE20	0.05717	0.19929	0.082
AGE21	-0.06612	0.24647	0.072
AGE22	-0.00924	0.28813	0.001
AGE23	-0.29720	0.34165	0.757
AGE24	0.41458	0.31153	1.771
AGE25P	-0.05454	0.27202	0.040

TABLE C-8

COX REGRESSION COEFFICIENTS FOR NON-A SCHOOL ATTENDEES: 84-96 MONTHS

Variable	Coefficient	Standard deviation	x^2
MGRP1	0.30200	0.23766	1.615
MGRP2	0.33964	0.17831	3.628
MGRP3U	0.30175	0.20033	2.202
MGRP3L	0.32997	0.19932	2.741
MGRP4A	0.31122	0.22438	1.924
MGRP4B	0.34540	0.22700	2.315
MGRP4C	0.32601	0.19033	2.934
GED	-0.13372	0.16782	0.635
HSG	-0.25608	0.11495	4.962
AGE18	-0.10234	0.14678	0.486
AGE19	-0.13521	0.15380	0.773
AGE20	-0.22964	0.17233	1.776
AGE21	-0.17869	0.19689	0.824
AGE22	-0.12553	0.22788	0.303
AGE23	-0.21178	0.27660	0.586
AGE24	-0.28784	0.29047	0.982
AGE25P	-0.18539	0.21514	0.743

APPENDIX D

YEARLY SURVIVAL ESTIMATES FOR A SCHOOL ATTENDEES

TABLE D-1

PROBABILITIES OF COMPLETING MORE THAN 1 YEAR OF SERVICE

Mental group	Educational level	Age 17	18	19	20	21	22	23	24	25P
1	NHSG	0.91	0.92	0.90	0.88	0.90	0.89	0.88	0.86	0.86
	GED	0.92	0.93	0.91	0.89	0.91	0.90	0.89	0.87	0.88
	HSG	0.97	0.97	0.96	0.95	0.96	0.96	0.95	0.94	0.95
2	NHSG	0.91	0.92	0.90	0.88	0.91	0.89	0.88	0.86	0.87
	GED	0.92	0.93	0.91	0.90	0.92	0.91	0.90	0.88	0.88
	HSG	0.97	0.97	0.96	0.95	0.96	0.96	0.95	0.94	0.95
3U	NHSG	0.90	0.91	0.88	0.86	0.89	0.87	0.86	0.84	0.84
	GED	0.93	0.93	0.91	0.90	0.92	0.91	0.90	0.88	0.88
	HSG	0.97	0.97	0.96	0.95	0.96	0.96	0.95	0.94	0.95
3L	NHSG	0.91	0.91	0.89	0.87	0.90	0.88	0.87	0.85	0.86
	GED	0.93	0.94	0.92	0.91	0.93	0.92	0.91	0.89	0.89
	HSG	0.97	0.97	0.96	0.96	0.97	0.96	0.96	0.95	0.95
4A	NHSG	0.91	0.91	0.89	0.87	0.89	0.88	0.87	0.84	0.85
	GED	0.96	0.96	0.95	0.94	0.95	0.95	0.94	0.93	0.93
	HSG	0.97	0.97	0.97	0.96	0.97	0.97	0.96	0.95	0.96
4B	NHSG	0.92	0.92	0.90	0.89	0.91	0.90	0.89	0.86	0.87
	GED	0.96	0.97	0.96	0.95	0.96	0.95	0.95	0.94	0.94
	HSG	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.96	0.96
4C	NHSG	0.85	0.86	0.82	0.80	0.83	0.81	0.79	0.76	0.77
	GED	0.93	0.94	0.92	0.91	0.93	0.92	0.91	0.89	0.89
	HSG	0.96	0.96	0.95	0.94	0.95	0.94	0.94	0.92	0.93

TABLE D-2

PROBABILITIES OF COMPLETING MORE THAN 2 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.66	0.72	0.71	0.70	0.69	0.66	0.63	0.62	0.58
	GED	0.70	0.76	0.75	0.74	0.73	0.71	0.68	0.67	0.63
	HSG	0.86	0.89	0.88	0.88	0.88	0.86	0.85	0.84	0.82
2	NHSG	0.70	0.75	0.74	0.72	0.72	0.70	0.67	0.66	0.62
	GED	0.74	0.79	0.77	0.76	0.76	0.74	0.71	0.70	0.67
	HSG	0.88	0.90	0.90	0.89	0.89	0.88	0.87	0.86	0.84
3U	NHSG	0.67	0.73	0.71	0.69	0.69	0.67	0.64	0.62	0.58
	GED	0.68	0.75	0.73	0.72	0.71	0.69	0.66	0.65	0.61
	HSG	0.89	0.91	0.90	0.90	0.89	0.88	0.87	0.87	0.85
3L	NHSG	0.63	0.70	0.69	0.67	0.66	0.64	0.61	0.60	0.55
	GED	0.65	0.72	0.71	0.70	0.68	0.66	0.63	0.62	0.57
	HSG	0.87	0.90	0.89	0.89	0.88	0.87	0.86	0.86	0.83
4A	NHSG	0.70	0.75	0.73	0.72	0.72	0.69	0.67	0.65	0.61
	GED	0.75	0.80	0.79	0.79	0.77	0.76	0.73	0.73	0.68
	HSG	0.87	0.90	0.89	0.89	0.88	0.87	0.86	0.85	0.83
4B	NHSG	0.69	0.75	0.73	0.72	0.72	0.69	0.67	0.65	0.61
	GED	0.74	0.79	0.79	0.78	0.77	0.75	0.73	0.72	0.67
	HSG	0.86	0.89	0.89	0.88	0.88	0.87	0.85	0.85	0.83
4C	NHSG	0.66	0.71	0.68	0.66	0.67	0.64	0.61	0.59	0.56
	GED	0.73	0.78	0.77	0.76	0.75	0.73	0.71	0.70	0.66
	HSG	0.85	0.88	0.87	0.87	0.87	0.85	0.84	0.83	0.81

TABLE D-3

PROBABILITIES OF COMPLETING MORE THAN 3 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.50	0.56	0.57	0.55	0.52	0.52	0.48	0.49	0.44
	GED	0.49	0.54	0.55	0.53	0.50	0.50	0.46	0.49	0.44
	HSG	0.69	0.73	0.73	0.72	0.70	0.70	0.67	0.70	0.66
2	NHSG	0.60	0.65	0.65	0.63	0.62	0.60	0.57	0.58	0.53
	GED	0.60	0.65	0.65	0.63	0.61	0.61	0.57	0.58	0.54
	HSG	0.77	0.80	0.81	0.79	0.78	0.78	0.76	0.77	0.74
3U	NHSG	0.52	0.58	0.58	0.56	0.54	0.53	0.49	0.50	0.46
	GED	0.56	0.62	0.62	0.60	0.58	0.57	0.54	0.55	0.50
	HSG	0.79	0.82	0.82	0.81	0.80	0.79	0.77	0.78	0.76
3L	NHSG	0.47	0.54	0.54	0.52	0.49	0.49	0.45	0.46	0.41
	GED	0.51	0.58	0.58	0.56	0.54	0.53	0.49	0.51	0.45
	HSG	0.76	0.79	0.80	0.79	0.77	0.77	0.74	0.76	0.73
4A	NHSG	0.51	0.56	0.56	0.54	0.52	0.52	0.47	0.49	0.45
	GED	0.59	0.65	0.65	0.64	0.61	0.61	0.57	0.59	0.55
	HSG	0.77	0.80	0.80	0.79	0.77	0.77	0.75	0.76	0.73
4B	NHSG	0.49	0.55	0.55	0.53	0.50	0.50	0.46	0.49	0.44
	GED	0.57	0.63	0.64	0.62	0.59	0.59	0.55	0.58	0.53
	HSG	0.75	0.79	0.79	0.78	0.76	0.76	0.74	0.76	0.72
4C	NHSG	0.46	0.51	0.50	0.48	0.46	0.46	0.42	0.43	0.39
	GED	0.56	0.61	0.62	0.60	0.58	0.57	0.53	0.56	0.51
	HSG	0.74	0.77	0.77	0.76	0.75	0.75	0.72	0.73	0.70

PROBABILITIES OF COMPLETING MORE THAN 4 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.22	0.27	0.28	0.27	0.25	0.25	0.19	0.21	0.19
	GED	0.27	0.32	0.33	0.32	0.29	0.30	0.23	0.26	0.24
	HSG	0.40	0.44	0.46	0.45	0.43	0.43	0.36	0.40	0.38
2	NHSG	0.21	0.25	0.26	0.25	0.24	0.24	0.17	0.20	0.18
	GED	0.28	0.33	0.34	0.33	0.31	0.31	0.24	0.27	0.25
	HSG	0.39	0.43	0.44	0.43	0.42	0.42	0.34	0.38	0.36
3U	NHSG	0.18	0.22	0.23	0.22	0.21	0.21	0.15	0.17	0.15
	GED	0.20	0.24	0.25	0.25	0.23	0.23	0.16	0.19	0.17
	HSG	0.31	0.35	0.36	0.35	0.34	0.34	0.26	0.30	0.28
3L	NHSG	0.15	0.19	0.20	0.20	0.18	0.18	0.12	0.15	0.13
	GED	0.17	0.21	0.22	0.21	0.20	0.20	0.14	0.16	0.14
	HSG	0.27	0.32	0.33	0.32	0.31	0.31	0.23	0.27	0.25
4A	NHSG	0.19	0.23	0.24	0.23	0.21	0.22	0.15	0.18	0.16
	GED	0.24	0.29	0.30	0.29	0.27	0.28	0.21	0.24	0.22
	HSG	0.35	0.40	0.41	0.41	0.39	0.39	0.31	0.35	0.33
4B	NHSG	0.17	0.21	0.22	0.22	0.20	0.20	0.14	0.17	0.15
	GED	0.22	0.27	0.28	0.28	0.25	0.26	0.19	0.22	0.20
	HSG	0.33	0.38	0.39	0.39	0.37	0.37	0.29	0.33	0.31
4C	NHSG	0.15	0.18	0.19	0.18	0.17	0.17	0.11	0.13	0.12
	GED	0.20	0.24	0.25	0.25	0.23	0.23	0.17	0.19	0.18
	HSG	0.30	0.35	0.36	0.35	0.34	0.34	0.26	0.29	0.28

TABLE D-5

PROBABILITIES OF COMPLETING MORE THAN 5 YEARS OF SERVICE

Mental group	Educational level	Age 17	18	19	20	21	22	23	24	25P
1	NHSG	0.13	0.17	0.17	0.18	0.17	0.17	0.13	0.16	0.13
	GED	0.18	0.22	0.23	0.23	0.22	0.22	0.17	0.21	0.18
	HSG	0.26	0.30	0.31	0.32	0.32	0.32	0.27	0.32	0.28
2	NHSG	0.08	0.11	0.11	0.12	0.13	0.12	0.09	0.12	0.10
	GED	0.14	0.17	0.18	0.19	0.19	0.19	0.14	0.18	0.15
	HSG	0.19	0.22	0.23	0.25	0.25	0.25	0.20	0.25	0.22
3U	NHSG	0.06	0.08	0.08	0.09	0.09	0.09	0.06	0.09	0.07
	GED	0.08	0.11	0.11	0.12	0.12	0.12	0.09	0.12	0.09
	HSG	0.11	0.14	0.14	0.16	0.17	0.17	0.13	0.17	0.15
3L	NHSG	0.04	0.06	0.06	0.07	0.07	0.07	0.05	0.07	0.05
	GED	0.06	0.08	0.09	0.10	0.10	0.09	0.07	0.09	0.07
	HSG	0.09	0.11	0.12	0.13	0.14	0.14	0.10	0.14	0.12
4A	NHSG	0.04	0.05	0.05	0.06	0.07	0.07	0.05	0.07	0.05
	GED	0.17	0.21	0.22	0.23	0.22	0.22	0.16	0.20	0.17
	HSG	0.14	0.17	0.17	0.19	0.20	0.20	0.16	0.21	0.17
4B	NHSG	0.04	0.05	0.05	0.06	0.07	0.06	0.04	0.07	0.05
	GED	0.16	0.20	0.21	0.22	0.20	0.20	0.15	0.19	0.16
	HSG	0.13	0.17	0.17	0.19	0.20	0.19	0.15	0.20	0.17
4C	NHSG	0.05	0.07	0.07	0.08	0.08	0.08	0.05	0.07	0.06
	GED	0.16	0.20	0.21	0.21	0.20	0.20	0.14	0.17	0.15
	HSG	0.16	0.20	0.20	0.22	0.22	0.22	0.16	0.21	0.18

TABLE D-6

PROBABILITIES OF COMPLETING MORE THAN 6 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.11	0.14	0.14	0.15	0.14	0.14	0.10	0.13	0.11
	GED	0.14	0.16	0.17	0.18	0.16	0.17	0.13	0.16	0.13
	HSG	0.19	0.21	0.22	0.24	0.22	0.22	0.18	0.22	0.19
2	NHSG	0.07	0.09	0.09	0.10	0.10	0.10	0.07	0.09	0.07
	GED	0.10	0.12	0.12	0.14	0.13	0.13	0.09	0.13	0.10
	HSG	0.12	0.13	0.14	0.16	0.15	0.15	0.12	0.16	0.13
3U	NHSG	0.05	0.06	0.07	0.08	0.08	0.07	0.05	0.08	0.06
	GED	0.05	0.06	0.07	0.08	0.07	0.07	0.05	0.07	0.05
	HSG	0.09	0.10	0.11	0.13	0.13	0.12	0.09	0.13	0.10
3L	NHSG	0.03	0.05	0.05	0.06	0.06	0.06	0.04	0.06	0.04
	GED	0.04	0.05	0.05	0.06	0.06	0.06	0.04	0.06	0.04
	HSG	0.07	0.08	0.09	0.11	0.10	0.10	0.07	0.11	0.09
4A	NHSG	0.03	0.04	0.04	0.05	0.05	0.05	0.03	0.06	0.04
	GED	0.14	0.17	0.18	0.19	0.17	0.17	0.12	0.16	0.13
	HSG	0.10	0.11	0.12	0.14	0.13	0.13	0.10	0.14	0.11
4B	NHSG	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.06	0.04
	GED	0.14	0.16	0.17	0.18	0.16	0.17	0.12	0.15	0.13
	HSG	0.10	0.12	0.12	0.14	0.14	0.14	0.10	0.14	0.11
4C	NHSG	0.04	0.06	0.06	0.07	0.06	0.06	0.04	0.06	0.05
	GED	0.14	0.17	0.18	0.18	0.16	0.17	0.12	0.15	0.12
	HSG	0.13	0.15	0.15	0.17	0.16	0.16	0.12	0.16	0.13

D-6

TABLE D-7

PROBABILITIES OF COMPLETING MORE THAN 7 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.08	0.09	0.10	0.10	0.09	0.09	0.06	0.10	0.08
	GED	0.12	0.14	0.14	0.15	0.13	0.13	0.10	0.14	0.11
	HSG	0.13	0.14	0.14	0.15	0.14	0.12	0.09	0.15	0.12
2	NHSG	0.05	0.06	0.07	0.07	0.07	0.06	0.04	0.07	0.06
	GED	0.09	0.10	0.11	0.12	0.11	0.10	0.08	0.11	0.09
	HSG	0.09	0.10	0.10	0.11	0.10	0.10	0.07	0.12	0.09
3U	NHSG	0.04	0.06	0.06	0.07	0.07	0.06	0.04	0.07	0.05
	GED	0.05	0.05	0.06	0.07	0.06	0.06	0.04	0.06	0.04
	HSG	0.08	0.09	0.10	0.11	0.11	0.10	0.08	0.12	0.09
3L	NHSG	0.03	0.04	0.04	0.05	0.05	0.05	0.03	0.05	0.04
	GED	0.03	0.04	0.05	0.05	0.05	0.04	0.03	0.05	0.03
	HSG	0.06	0.07	0.08	0.09	0.09	0.08	0.06	0.09	0.07
4A	NHSG	0.02	0.03	0.03	0.03	0.04	0.03	0.02	0.04	0.03
	GED	0.12	0.13	0.14	0.15	0.13	0.13	0.09	0.13	0.11
	HSG	0.09	0.10	0.11	0.12	0.12	0.11	0.08	0.13	0.10
4B	NHSG	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.04	0.02
	GED	0.10	0.12	0.12	0.13	0.12	0.11	0.07	0.11	0.09
	HSG	0.09	0.10	0.10	0.12	0.11	0.11	0.08	0.12	0.10
4C	NHSG	0.03	0.04	0.04	0.04	0.04	0.04	0.02	0.04	0.03
	GED	0.11	0.13	0.14	0.14	0.12	0.12	0.08	0.12	0.10
	HSG	0.11	0.13	0.14	0.15	0.14	0.14	0.10	0.14	0.12

TABLE D-8

PROBABILITIES OF COMPLETING MORE THAN 8 YEARS OF SERVICE

Mental group	Educational level	Age 17	18	19	20	21	22	23	24	25P
1	NHSG	0.03	0.03	0.03	0.04	0.03	0.02	0.01	0.04	0.02
	GED	0.08	0.08	0.09	0.10	0.08	0.07	0.05	0.09	0.06
	HSG	0.09	0.08	0.09	0.10	0.08	0.07	0.04	0.10	0.07
2	NHSG	0.02	0.02	0.03	0.03	0.03	0.02	0.01	0.03	0.02
	GED	0.06	0.06	0.07	0.08	0.07	0.06	0.04	0.07	0.05
	HSG	0.06	0.06	0.07	0.08	0.07	0.06	0.04	0.08	0.06
3U	NHSG	0.03	0.04	0.05	0.05	0.05	0.05	0.03	0.05	0.04
	GED	0.03	0.04	0.04	0.05	0.04	0.04	0.02	0.05	0.03
	HSG	0.06	0.06	0.07	0.08	0.08	0.07	0.05	0.09	0.06
3L	NHSG	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.04	0.02
	GED	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.03	0.02
	HSG	0.04	0.05	0.05	0.06	0.06	0.05	0.03	0.07	0.05
4A	NHSG	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.03	0.02
	GED	0.07	0.08	0.09	0.09	0.08	0.07	0.04	0.08	0.06
	HSG	0.07	0.07	0.08	0.09	0.08	0.08	0.05	0.09	0.07
4B	NHSG	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02
	GED	0.07	0.07	0.08	0.08	0.07	0.06	0.04	0.08	0.05
	HSG	0.07	0.07	0.08	0.09	0.08	0.08	0.05	0.10	0.07
4C	NHSG	0.02	0.02	0.03	0.03	0.03	0.02	0.01	0.03	0.02
	GED	0.07	0.08	0.09	0.09	0.08	0.07	0.04	0.08	0.06
	HSG	0.09	0.09	0.10	0.11	0.10	0.10	0.06	0.11	0.08

TABLE E-1

PROBABILITIES OF COMPLETING MORE THAN 1 YEAR OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.82	0.83	0.83	0.80	0.79	0.78	0.74	0.74	0.74
	GED	0.76	0.77	0.77	0.73	0.72	0.70	0.66	0.66	0.65
	HSG	0.87	0.88	0.88	0.86	0.85	0.84	0.82	0.82	0.81
2	NHSG	0.83	0.83	0.84	0.81	0.80	0.79	0.75	0.75	0.75
	GED	0.77	0.78	0.79	0.74	0.73	0.72	0.68	0.67	0.67
	HSG	0.88	0.88	0.89	0.86	0.86	0.85	0.83	0.82	0.82
3U	NHSG	0.85	0.85	0.86	0.83	0.82	0.81	0.78	0.78	0.77
	GED	0.81	0.82	0.82	0.78	0.78	0.76	0.73	0.73	0.72
	HSG	0.90	0.91	0.91	0.89	0.89	0.88	0.86	0.86	0.86
3L	NHSG	0.85	0.86	0.86	0.83	0.83	0.81	0.79	0.78	0.78
	GED	0.81	0.82	0.83	0.79	0.79	0.77	0.74	0.73	0.73
	HSG	0.91	0.91	0.91	0.89	0.89	0.88	0.86	0.86	0.86
4A	NHSG	0.84	0.85	0.85	0.82	0.82	0.80	0.77	0.77	0.77
	GED	0.83	0.84	0.85	0.81	0.81	0.79	0.76	0.76	0.75
	HSG	0.90	0.91	0.91	0.89	0.89	0.88	0.86	0.86	0.85
4B	NHSG	0.81	0.82	0.82	0.79	0.78	0.77	0.73	0.73	0.72
	GED	0.80	0.81	0.82	0.78	0.77	0.76	0.72	0.71	0.71
	HSG	0.88	0.89	0.89	0.87	0.86	0.85	0.83	0.83	0.82
4C	NHSG	0.77	0.78	0.79	0.74	0.74	0.72	0.68	0.67	0.67
	GED	0.76	0.77	0.78	0.73	0.72	0.71	0.66	0.66	0.65
	HSG	0.86	0.86	0.87	0.84	0.83	0.82	0.79	0.79	0.79

TABLE E-2

PROBABILITIES OF COMPLETING MORE THAN 2 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.48	0.49	0.48	0.48	0.49	0.41	0.39	0.28	0.35
	GED	0.56	0.57	0.57	0.55	0.56	0.49	0.46	0.39	0.43
	HSG	0.71	0.72	0.72	0.71	0.72	0.66	0.64	0.57	0.61
2	NHSG	0.49	0.50	0.49	0.50	0.51	0.42	0.40	0.30	0.36
	GED	0.58	0.59	0.58	0.57	0.57	0.51	0.48	0.40	0.45
	HSG	0.72	0.73	0.73	0.72	0.73	0.67	0.65	0.58	0.63
3U	NHSG	0.60	0.61	0.60	0.60	0.61	0.54	0.51	0.42	0.48
	GED	0.53	0.55	0.54	0.53	0.54	0.47	0.44	0.35	0.40
	HSG	0.79	0.79	0.79	0.78	0.79	0.74	0.73	0.67	0.70
3L	NHSG	0.53	0.54	0.53	0.53	0.55	0.46	0.44	0.33	0.40
	GED	0.46	0.47	0.46	0.46	0.48	0.39	0.37	0.26	0.33
	HSG	0.75	0.75	0.75	0.75	0.75	0.70	0.68	0.61	0.65
4A	NHSG	0.47	0.48	0.46	0.47	0.49	0.40	0.38	0.27	0.34
	GED	0.50	0.52	0.50	0.51	0.52	0.44	0.41	0.31	0.37
	HSG	0.77	0.78	0.77	0.77	0.77	0.73	0.71	0.64	0.68
4B	NHSG	0.46	0.47	0.46	0.46	0.47	0.39	0.36	0.26	0.32
	GED	0.49	0.50	0.49	0.49	0.50	0.42	0.40	0.30	0.36
	HSG	0.75	0.76	0.76	0.75	0.75	0.71	0.69	0.63	0.66
4C	NHSG	0.56	0.57	0.57	0.55	0.56	0.49	0.46	0.38	0.43
	GED	0.58	0.59	0.59	0.57	0.57	0.51	0.48	0.41	0.45
	HSG	0.79	0.79	0.79	0.77	0.77	0.74	0.72	0.68	0.70

TABLE E-3

PROBABILITIES OF COMPLETING MORE THAN 3 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.35	0.36	0.36	0.37	0.34	0.31	0.26	0.21	0.24
	GED	0.36	0.38	0.39	0.38	0.33	0.34	0.27	0.25	0.25
	HSG	0.54	0.55	0.56	0.56	0.52	0.52	0.45	0.44	0.44
2	NHSG	0.37	0.39	0.38	0.39	0.37	0.33	0.29	0.23	0.26
	GED	0.40	0.41	0.42	0.41	0.37	0.36	0.30	0.28	0.28
	HSG	0.57	0.58	0.58	0.58	0.55	0.54	0.48	0.46	0.47
3U	NHSG	0.39	0.40	0.41	0.41	0.36	0.36	0.30	0.28	0.28
	GED	0.37	0.39	0.39	0.39	0.36	0.34	0.28	0.25	0.26
	HSG	0.64	0.65	0.66	0.66	0.62	0.62	0.56	0.55	0.55
3L	NHSG	0.33	0.34	0.34	0.35	0.31	0.30	0.24	0.21	0.22
	GED	0.31	0.32	0.32	0.33	0.30	0.27	0.23	0.18	0.20
	HSG	0.60	0.61	0.61	0.61	0.58	0.57	0.52	0.49	0.50
4A	NHSG	0.31	0.33	0.32	0.33	0.30	0.28	0.23	0.18	0.21
	GED	0.31	0.32	0.32	0.33	0.29	0.28	0.22	0.19	0.20
	HSG	0.65	0.66	0.66	0.66	0.63	0.63	0.58	0.55	0.56
4B	NHSG	0.31	0.32	0.32	0.33	0.30	0.27	0.22	0.18	0.20
	GED	0.30	0.31	0.32	0.32	0.28	0.27	0.22	0.19	0.20
	HSG	0.64	0.65	0.65	0.65	0.62	0.61	0.56	0.53	0.54
4C	NHSG	0.39	0.40	0.40	0.40	0.36	0.35	0.29	0.27	0.27
	GED	0.36	0.38	0.39	0.38	0.33	0.34	0.27	0.26	0.25
	HSG	0.67	0.68	0.69	0.68	0.64	0.65	0.59	0.58	0.58

TABLE E-4

PROBABILITIES OF COMPLETING MORE THAN 4 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.12	0.12	0.11	0.10	0.10	0.08	0.07	0.04	0.04
	GED	0.22	0.22	0.21	0.20	0.18	0.17	0.14	0.12	0.10
	HSG	0.31	0.30	0.29	0.28	0.27	0.24	0.22	0.19	0.16
2	NHSG	0.15	0.14	0.13	0.13	0.13	0.10	0.09	0.06	0.05
	GED	0.25	0.25	0.25	0.24	0.22	0.20	0.17	0.14	0.13
	HSG	0.35	0.34	0.33	0.33	0.31	0.28	0.26	0.22	0.19
3U	NHSG	0.19	0.18	0.18	0.17	0.16	0.14	0.12	0.09	0.08
	GED	0.20	0.20	0.19	0.19	0.17	0.15	0.13	0.10	0.09
	HSG	0.30	0.29	0.27	0.27	0.26	0.23	0.21	0.18	0.14
3L	NHSG	0.13	0.13	0.12	0.12	0.11	0.09	0.08	0.05	0.04
	GED	0.14	0.14	0.13	0.13	0.12	0.10	0.08	0.06	0.05
	HSG	0.23	0.22	0.20	0.20	0.19	0.16	0.15	0.12	0.09
4A	NHSG	0.19	0.19	0.18	0.19	0.17	0.14	0.12	0.09	0.09
	GED	0.06	0.06	0.05	0.05	0.04	0.03	0.03	0.02	0.01
	HSG	0.28	0.26	0.25	0.24	0.23	0.20	0.19	0.15	0.12
4B	NHSG	0.19	0.19	0.18	0.19	0.17	0.14	0.12	0.09	0.09
	GED	0.06	0.06	0.05	0.05	0.05	0.03	0.03	0.02	0.01
	HSG	0.28	0.27	0.25	0.24	0.24	0.20	0.20	0.16	0.12
4C	NHSG	0.20	0.19	0.19	0.18	0.16	0.14	0.12	0.10	0.08
	GED	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.00
	HSG	0.21	0.19	0.18	0.17	0.16	0.13	0.13	0.10	0.07

TABLE E-5

PROBABILITIES OF COMPLETING MORE THAN 5 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.03	0.03	0.02	0.03	0.04	0.03	0.03	0.02	0.02
	GED	0.12	0.11	0.11	0.11	0.12	0.11	0.10	0.09	0.07
	HSG	0.15	0.13	0.12	0.14	0.15	0.14	0.14	0.13	0.10
2	NHSG	0.07	0.06	0.06	0.06	0.07	0.06	0.06	0.04	0.03
	GED	0.18	0.17	0.17	0.17	0.17	0.16	0.14	0.12	0.10
	HSG	0.23	0.21	0.20	0.21	0.23	0.21	0.20	0.18	0.15
3U	NHSG	0.05	0.04	0.04	0.05	0.06	0.05	0.05	0.05	0.03
	GED	0.07	0.06	0.06	0.07	0.08	0.07	0.07	0.06	0.05
	HSG	0.15	0.12	0.12	0.13	0.15	0.14	0.14	0.13	0.09
3L	NHSG	0.02	0.02	0.01	0.02	0.03	0.02	0.02	0.02	0.01
	GED	0.04	0.03	0.03	0.03	0.04	0.04	0.03	0.03	0.02
	HSG	0.09	0.07	0.07	0.08	0.09	0.08	0.08	0.08	0.05
4A	NHSG	0.07	0.06	0.06	0.07	0.08	0.07	0.07	0.05	0.05
	GED	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.00
	HSG	0.14	0.12	0.11	0.12	0.14	0.12	0.12	0.11	0.08
4B	NHSG	0.06	0.05	0.05	0.06	0.07	0.06	0.06	0.05	0.04
	GED	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	HSG	0.13	0.11	0.10	0.11	0.13	0.12	0.12	0.11	0.08
4C	NHSG	0.08	0.07	0.06	0.07	0.08	0.08	0.07	0.06	0.05
	GED	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	HSG	0.11	0.09	0.09	0.09	0.10	0.09	0.09	0.08	0.05

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TABLE E-6

PROBABILITIES OF COMPLETING MORE THAN 6 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01
	GED	0.09	0.07	0.06	0.07	0.06	0.07	0.07	0.04	0.04
	HSG	0.11	0.08	0.07	0.09	0.09	0.10	0.10	0.07	0.07
2	NHSG	0.05	0.04	0.03	0.04	0.04	0.04	0.04	0.02	0.02
	GED	0.13	0.11	0.10	0.11	0.10	0.11	0.10	0.06	0.07
	HSG	0.18	0.14	0.13	0.15	0.14	0.15	0.15	0.10	0.10
3U	NHSG	0.04	0.03	0.03	0.04	0.05	0.05	0.04	0.04	0.03
	GED	0.06	0.05	0.05	0.06	0.07	0.06	0.06	0.05	0.04
	HSG	0.13	0.10	0.09	0.10	0.11	0.11	0.11	0.09	0.07
3L	NHSG	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	GED	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02
	HSG	0.07	0.05	0.05	0.06	0.06	0.06	0.07	0.05	0.04
4A	NHSG	0.06	0.05	0.05	0.06	0.07	0.06	0.06	0.04	0.04
	GED	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	HSG	0.12	0.10	0.09	0.10	0.11	0.10	0.11	0.08	0.07
4B	NHSG	0.05	0.04	0.04	0.05	0.06	0.05	0.05	0.04	0.04
	GED	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
	HSG	0.11	0.09	0.08	0.09	0.10	0.10	0.10	0.08	0.06
4C	NHSG	0.07	0.06	0.05	0.06	0.07	0.07	0.06	0.05	0.04
	GED	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
	HSG	0.10	0.08	0.07	0.08	0.08	0.07	0.08	0.06	0.04

TABLE E-7

PROBABILITIES OF COMPLETING MORE THAN 7 YEARS OF SERVICE

Mental group	Educational level	Age								
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
	GED	0.05	0.03	0.03	0.04	0.04	0.04	0.04	0.02	0.03
	HSG	0.07	0.05	0.04	0.05	0.06	0.06	0.07	0.03	0.04
2	NHSG	0.04	0.03	0.02	0.03	0.03	0.03	0.03	0.01	0.02
	GED	0.08	0.06	0.06	0.07	0.06	0.06	0.07	0.03	0.04
	HSG	0.12	0.09	0.08	0.10	0.09	0.10	0.11	0.05	0.07
3U	NHSG	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02
	GED	0.04	0.03	0.03	0.04	0.05	0.04	0.05	0.03	0.03
	HSG	0.09	0.06	0.06	0.07	0.08	0.08	0.09	0.05	0.05
3L	NHSG	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01
	GED	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.01
	HSG	0.05	0.04	0.03	0.04	0.05	0.04	0.05	0.03	0.03
4A	NHSG	0.05	0.03	0.03	0.04	0.05	0.04	0.05	0.03	0.03
	GED	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
	HSG	0.10	0.07	0.07	0.08	0.09	0.08	0.09	0.06	0.05
4B	NHSG	0.04	0.03	0.03	0.04	0.05	0.04	0.04	0.03	0.03
	GED	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
	HSG	0.09	0.07	0.06	0.07	0.08	0.08	0.09	0.06	0.05
4C	NHSG	0.06	0.04	0.04	0.05	0.06	0.05	0.05	0.04	0.03
	GED	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
	HSG	0.09	0.06	0.06	0.06	0.07	0.06	0.07	0.04	0.03

TABLE E-8

PROBABILITIES OF COMPLETING MORE THAN 8 YEARS OF SERVICE

Mental group	Educational level					Age				
		17	18	19	20	21	22	23	24	25P
1	NHSG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01
	GED	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.01	0.02
	HSG	0.04	0.03	0.03	0.04	0.04	0.04	0.05	0.02	0.03
2	NHSG	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
	GED	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.02	0.03
	HSG	0.07	0.06	0.05	0.07	0.06	0.06	0.08	0.04	0.05
3U	NHSG	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01
	GED	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02
	HSG	0.06	0.05	0.04	0.05	0.06	0.06	0.07	0.04	0.04
3L	NHSG	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00
	GED	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	HSG	0.04	0.03	0.02	0.03	0.03	0.03	0.04	0.02	0.02
4A	NHSG	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02
	GED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HSG	0.07	0.05	0.05	0.06	0.07	0.06	0.07	0.04	0.04
4B	NHSG	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02
	GED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HSG	0.07	0.05	0.05	0.06	0.06	0.06	0.07	0.04	0.04
4C	NHSG	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.02
	GED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HSG	0.06	0.05	0.04	0.05	0.05	0.05	0.05	0.03	0.03