The Mathematics of Alcoholics Anonymous

"As a celebrated American statesman put it, 'Let's look at the record."
Bill Wilson*, Alcoholics Anonymous*, page 50, A.A.W.S. Inc., 2001.

Part 2: A.A. membership surveys and the effectiveness of A.A.

Section 1: A.A. membership surveys

Most of the information that is available about the A.A. membership and specifically about the distribution of the length of sobriety in A.A. and the effectiveness of A.A. comes from A.A.'s triennial surveys of its membership. Starting in 1968 A.A. conducted a survey of its membership in the U.S.A./Canada region every three years (the 1995 survey was postponed until 1996) and published that data in a pamphlet. The information collected by the surveys covers such subjects as member age, ethnicity, gender, marital status, occupation, length of sobriety, frequency of meeting attendance and even the factors most responsible for the introduction of members to A.A. The reasoning for and the purpose of these surveys is described by A.A. as follows:

"Mindful of the lack of objective information about A.A. membership, and concerned that A.A.s and professionals alike were hampered in helping alcoholics because of it, the trustees of the General Service Board decided in 1968 to begin conducting anonymous surveys of the membership ... Today, survey results can be used reliably to provide information about A.A. as a whole..." [1]

 *"**THE REASONS FOR THIS SURVEY** are to inform A.A. members of the characteristics of their Fellowship; to identify trends in membership characteristics; to provide information about A.A. to the professional community; and to inform the general public."* [2]

In summary: objective and reliable information about the A.A. membership is required in order to inform the general public and to inform professionals involved in the treatment of alcoholics so that they, and A.A. itself, might better help alcoholics. Since it began collecting survey data in 1968, has A.A. stuck to its purpose and succeeded in achieving this goal - specifically in relation to data on the distribution of the length of sobriety achieved by A.A. members and the effectiveness of A.A?

Table 1 attempts to answer this question by showing how much information was gathered in several A.A. membership surveys, as measured by the number of respondents to the surveys, and how much information was published in the A.A. membership survey pamphlets, as measured by:

   i)   the number of categories provided for member occupations
   ii)   the number of categories provided for methods of member introduction to A.A.
   iii)   the number of ranges provided for length of sobriety achieved by A.A. members

Table 1: Selected information from A.A. membership survey pamphlets[3]

	1977 survey	1989 survey	2007 survey
# of respondents	17,000	9,000	8,000
# of member occupations	7	12	17
# of methods of member introduction to A.A.	5	11	16
# of sobriety ranges	3	3	4

The 1977 membership survey provided three broad ranges for the length of sobriety achieved by A.A. members: sober less than 1 year – 37%, sober between 1 to 5 years – 38% and sober more than 5 years – 25%. In the same survey there are seven separate categories for members' occupations and five different categories for the method of introduction of members to A.A.

The 1989 survey provided three broad ranges for the length of sobriety achieved by its members: sober less than 1 year – 34%, sober between 1 to 5 years – 37% and sober more than 5 years – 29%. In the same survey there are twelve separate categories for members' occupations and eleven different categories for the method of introduction of members to A.A.

The 2007 survey provided four broad ranges for the length of sobriety achieved by its members: sober less than 1 year – 31%, sober between 1 to 5 years – 24%, sober between 5 to 10 years – 12%, and sober more than 10 years – 33%. In the same survey there are seventeen separate categories for members' occupations and sixteen different categories for the method of introduction of members to A.A.

Despite collecting many thousands of data points in each survey the A.A. membership survey pamphlet provides very little detail on the length of sobriety achieved by A.A. members while providing approximately four times the level of detail on the much less important subjects of members' occupations and the method of introduction of members to A.A.

Over the forty years between 1968 and 2007 A.A. has conducted fourteen anonymous surveys of its membership and has collected approximately 140,000 individual survey forms in the process. A.A. is in possession of a huge amount of raw data regarding:

- time elapsed from a member's first meeting to time of last alcohol consumed
- the distribution of the length of sobriety achieved by A.A. members
- membership retention
- the effectiveness of its 12 Step program

Very little of this information is provided in the membership survey pamphlet or in any other A.A. publications.

In fact, A.A. has never shared any of the raw data from the 140,000 surveys it possesses with either its own members or any entity outside of A.A. and it cannot give any plausible or acceptable explanation as to why it will not share this vital information. It should be remembered that membership survey forms are anonymous and do not contain any information that could be used to personally identify any member.

Email responses from A.A. regarding requests for the raw data from the membership surveys stated that the raw data *"was not available for distribution"* and *"not available for viewing."* A.A. also stated that: *"There is nothing in the 'raw data' different from what is summarized in the pamphlet except that you would see responses to the same questions many thousands of times over."*

A.A. does not appear to understand that access to those many thousands of survey responses would make a full and complete statistical analysis of the raw data from the membership surveys possible. This would provide more in depth, more accurate and more useful information about A.A. to the public, A.A. members, health care professionals, medical researchers and government institutions. Releasing the raw data from the membership surveys would more completely fulfill the intended purpose of the membership surveys, i.e., it would more fully inform the general public and medical professionals ultimately leading to a better outcome for alcoholics.

Section 2: The A.A. internal report *"Comments on A.A.'s Triennial Surveys"*

When an A.A. internal report titled *"Comments on A.A.'s Triennial Surveys"* [4] (COTS) from 1989 was released to the public domain a lot more information was gained about the distribution of the length of sobriety in A.A. The COTS report contained an analysis of five A.A. surveys conducted between 1977 and 1989. A.A.'s General Service Office (GSO) in New York has confirmed that the COTS report was an internal document generated by its employees. This report was never officially released or published by A.A. in spite of the fact that the report had the following to say:

"… about half those coming to A.A. for the first time remain less than three months.", page 1

"…we lose within three months half of those who begin our program…", page 1

"…approximately 50% of those coming to A.A. leave within three months…This is undoubtedly one the most significant observations of the survey.", page 2

 "It seems impossible that such a systematic effect could be achieved by any mechanism other than a slow attrition of newcomers during the first year.", page 11

"After the first year, survey results show that attrition continues, but at a much slower rate.", page 11

"..it does appear that this result and its implied challenge to A.A. should be widely understood in the Fellowship.", page 11

Considering that the findings in this report were so crucially important to the alcoholic and their families, the medical profession, government agencies and the general public then this report should have been published or released immediately by A.A. Why would A.A. not want this information to get to treatment professionals as soon as possible so that they could adapt or change their treatment methods? Why would A.A. want to keep this crucial information from the public when it has stated that the primary purpose of the membership surveys was to properly inform the public and those in the medical profession about A.A?

Membership distribution & Newcomers in the first year of A.A. membership

The COTS report contained an analysis of five A.A. surveys conducted between 1977 and 1989 which shows, on pages 11-13 of the COTS report, the membership distributions in the first twelve months of attendance at A.A. Implicit in these distributions is proof of the large drop out rate within the first year of A.A. attendance. The graph of the membership distributions in A.A. for 1977-1989, Figure 1, shows (as previously mentioned) that approximately 50% of those in their first month have dropped out by the third month. Of those remaining, approximately 50% are still attending A.A. in the twelfth month giving a roughly 25% retention rate over the first twelve months. It will be shown in Section 3 of this report that membership attrition continues at a high rate well beyond the twelfth month of membership.

Figure 1 also shows that the first year membership distribution was essentially constant from 1977 to 1989. Since these membership distributions show such good repeatability from 1977, when the total A.A. membership was 403,590, until 1989, when the total A.A. membership was 978,982, then this allows us to draw the conclusion that membership distribution in the first year is not affected by the total number in the membership or the number of members in their first year of A.A. attendance. Thus it can be assumed that a similar first year distribution is valid for surveys carried out before and after the period from 1977 to 1989.

Figure 1: Membership distributions in the first year of A.A. attendance (COTS)
1977, 1980, 1983, 1986 and 1989
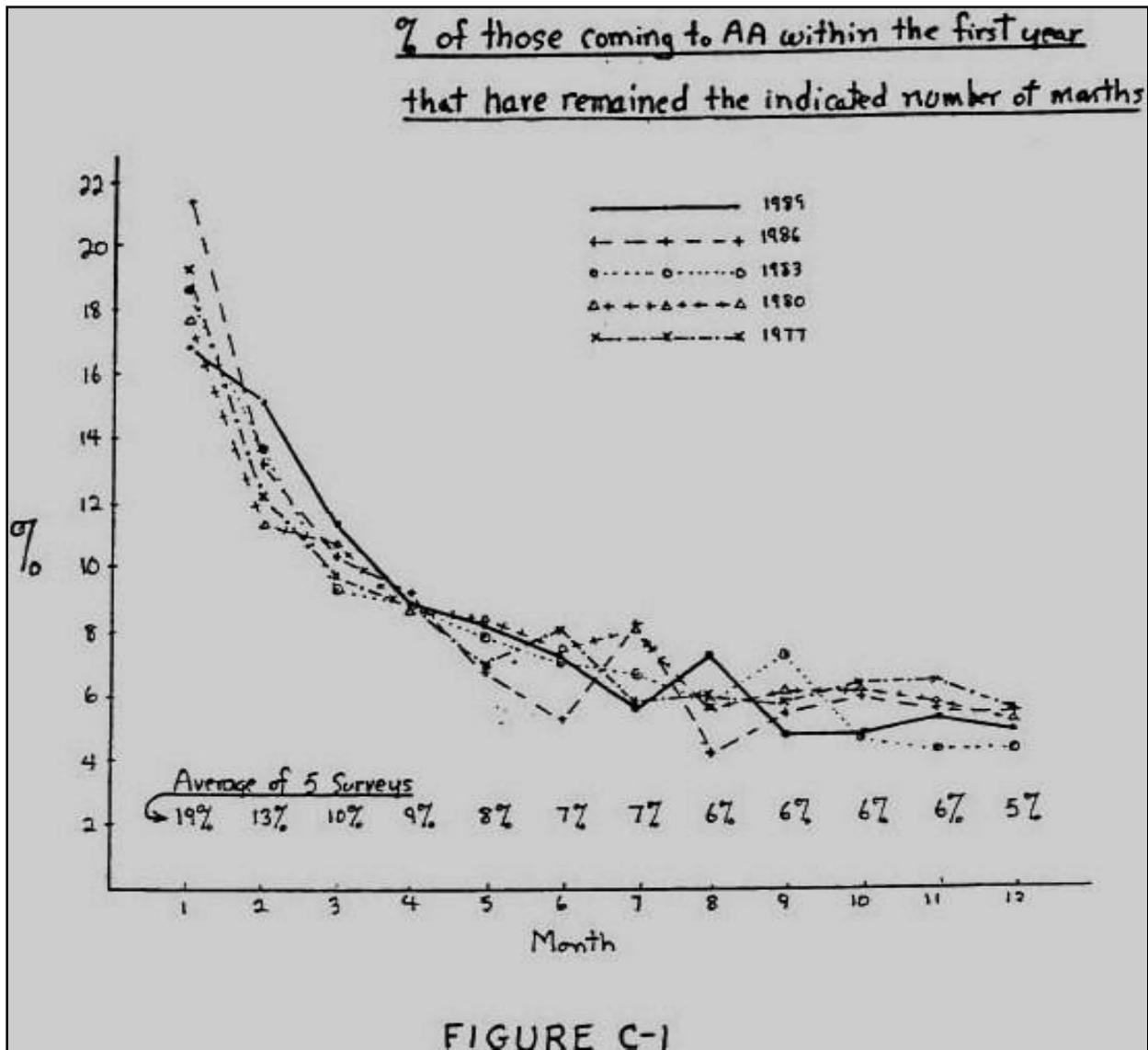
Graph as shown in the A.A. internal document C*omments on A.A.'s Triennial Surveys, page12.*

Table 2: Average membership distribution in the first year of A.A. attendance (COTS)
1977 to 1989

Month of membership	1	2	3	4	5	6	7	8	9	10	11	12
Percentage* of 1st year mem.	19	13	10	9	8	7	7	6	6	6	6	5

* Total percentages add up to 102%, presumably due to rounding errors.

There are two important results that can be calculated from the COTS data in Figure 1 and Table 2.

1. A.A. member retention during the first year

The retention of members over any range in the first twelve months of attendance can be easily calculated. With 10% in their 3rd month and 19% in their 1st month then the retention from 1st to 3rd month is 10/19 or 52.6% and thus member drop out from 1st to 3rd month is 47.4%. The drop out rate from 1st to 12th month is 73.7%. Therefore the maximum member retention and thus the maximum effectiveness of A.A. from the 1st to 12th month is 26.3%. The effectiveness of the A.A. program can only decrease from the 12th month onward as will be shown in Section 4 of this report.

It should be noted that Figure 1 states: *"% of those coming to AA within the first year that have remained the indicated number of months",* which makes reference only to the members' attendance at A.A. but it makes no explicit statement as to the length of sobriety attained. In its 1971 survey A.A. stated that 60% of its membership achieved sobriety during their first year of attendance at A.A. while 40% achieved sobriety at some time after their first year of A.A. attendance. So, length of attendance/membership does not necessarily equal length of sobriety although for simplicity it will be assumed that length of membership equals the maximum possible length of sobriety achieved while a member of A.A.

2. Calculation of the total number of newcomers to A.A. each year

The percentage of the A.A. membership in their first year, published in each A.A. survey, is an instantaneous value for those in their first year of membership at the time the survey was carried out but it does not provide a total for all of those who came to A.A. over the course of a year. The value for the percentage in the first year of membership represents the members who came to A.A. in the previous 12 months and remained as members but it excludes those who came to A.A. in the previous 12 months but discontinued attending within those same 12 months. Therefore the total number of newcomers to A.A. in any year will always be greater than the instantaneous value given in the A.A. membership survey.

The average first month membership percentage is 19% over the thirteen years and five A.A. surveys from 1977 to 1989. Since this data is so repeatable then it can be concluded that if a survey were to be conducted at any time between 1977 and 1989 then the percentage of the first year members in their first month would be 19%. In fact if a survey were to be conducted each month for twelve successive months it would show that in each monthly survey the percentage of the first year members in their first month would be 19% of the total members in their first year. Thus, over twelve successive months there would be a total of:

12 x 19% x the number of members in their first year of membership

This calculation gives the total number of newcomers to A.A. in a twelve month period.

For example, the COTS report states that there was 34.5% of the overall membership of 978,982 in their first year of membership in 1989 when the survey was conducted.

⇨   There were 978,982 x 0.345 = 337,749 members in their first year at the time of the survey

⇨   Over the 12 months of 1989 there were:

12 x 19% x 337,749 = 770,068 newcomers to A.A. in 1989

This calculation can be carried out for any year in which the following are known:

a)   The total number in the A.A. membership – provided in Tables 3 and 4
b)   The percentage of the total A.A. membership in their first year – this is given in each A.A. survey
        (and in the A.A. COTS report) and Table 3

Table 3

First year members as a percentage of total A.A. membership &

total number of newcomers to A.A. in survey years from 1968 - 2007

Survey year	Total A.A. members [5]	% of mem. in 1st year [3, 4]	# of mems. in 1st year	# of newcomers in survey year
2007	1,314,552	31.0%	407,511	929,125
2004	1,286,844	26.0%	334,579	762,841
2001	1,257,775	30.0%	377,333	860,318
1998	1,268,713	27.0%	342,553	781,020
1996	1,257,570	27.0%	339,544	774,160
1992	1,230,381	31.0%	381,418	869,633
1989	978,982	34.5%	337,749	770,067
1986	803,522	32.8%	263,555	600,906
1983	655,754	37.7%	247,219	563,660
1980	475,965	36.4%	173,251	395,013
1977	403,590	37.3%	150,539	343,229
1974	330,621	40.0%	132,248	301,526
1971	210,492	40.0%	84,197	191,969
1968	170,250	40.0%	68,100	155,268

In order to calculate the number of newcomers for the years in between the surveys it is necessary to plot the percentage of the total membership in their first year versus time for all survey years from 1968 to 2007 and use that to calculate the approximate percentage of first year members in non survey years and thus the total number of newcomers for each year from 1968 to 2007 – Figure 2 and Table 4.

Figure 2: First year members as a percentage of total A.A. membership, 1968 – 2007
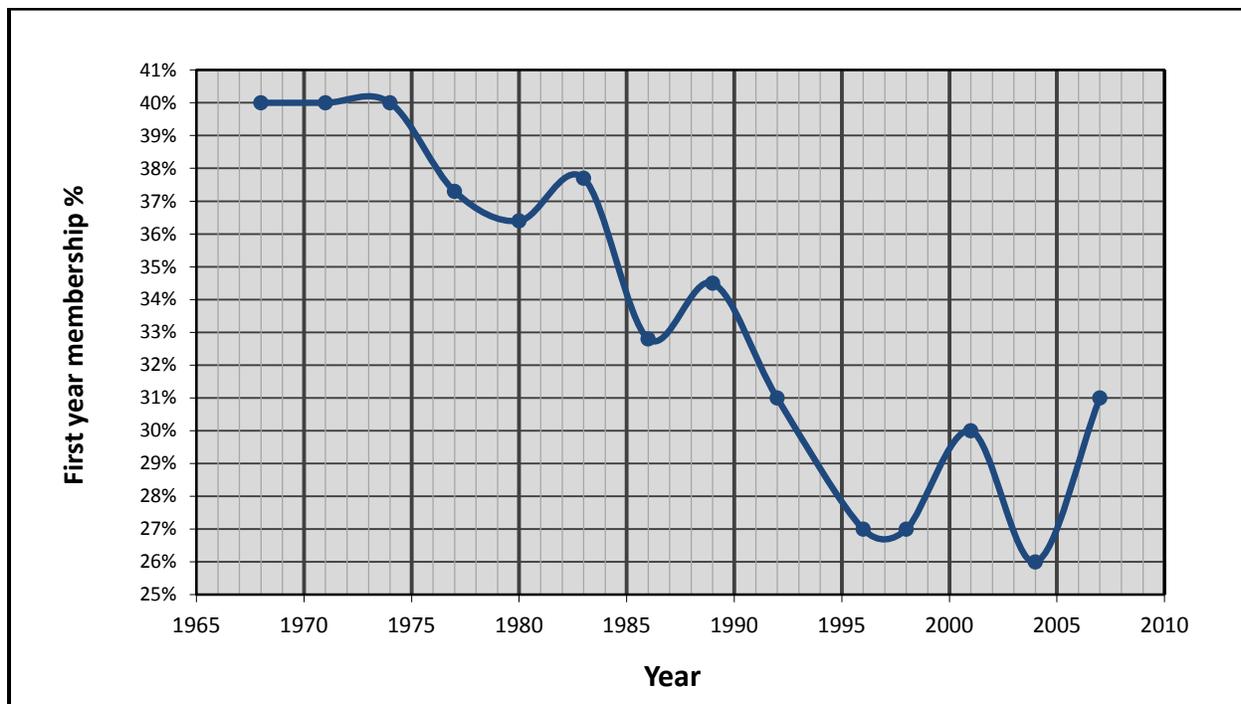
Table 4: First year membership and number of newcomers to A.A. from 1968 to 2007

Year	Total A.A. mem.[5]	% of mem. in 1st year	# of mem. in 1st year	# of newcomers
2007	**1,314,552**	**31.0%**	**407,511**	**929,125**
2006	1,308,712	29.0%	379,526	865,320
2005[†]	1,179,210	27.0%	318,387	725,922
2004	**1,286,844**	**26.0%**	**334,579**	**762,841**
2003	1,283,819	26.9%	345,347	787,392
2002	1,265,304	28.8%	364,408	830,849
2001	**1,257,775**	**30.0%**	**377,333**	**860,318**
2000	1,260,928	29.4%	370,713	845,225
1999	1,258,490	28.2%	354,894	809,159
1998	**1,268,713**	**27.0%**	**342,553**	**781,020**
1997	1,268,578	26.6%	337,442	769,367
1996	**1,257,570**	**27.0%**	**339,544**	**774,160**
1995	1,251,192	27.8%	347,831	793,056
1994	1,223,017	28.8%	352,229	803,082
1993	1,231,000	29.9%	368,069	839,197
1992	**1,230,381**	**31.0%**	**381,418**	**869,633**
1991	1,170,454	32.3%	378,057	861,969
1990	1,100,155	33.7%	370,752	845,315
1989	**978,982**	**34.5%**	**337,749**	**770,067**
1988	916,782	34.1%	312,623	712,780
1987	853,097	33.0%	281,522	641,870
1986	**803,522**	**32.8%**	**263,555**	**600,906**
1985	750,511	34.1%	255,924	583,507
1984	702,311	36.3%	254,939	581,261
1983	**655,754**	**37.7%**	**247,219**	**563,660**
1982	585,134	37.6%	220,010	501,624
1981	519,749	36.9%	191,787	437,275
1980	**475,965**	**36.4%**	**173,251**	**395,013**
1979	444,547	36.5%	162,260	369,952
1978	409,984	36.8%	150,874	343,993
1977	**403,590**	**37.3%**	**150,539**	**343,229**
1976	368,756	38.2%	140,865	321,172
1975	336,549	39.2%	131,927	300,794
1974	**330,621**	**40.0%**	**132,248**	**301,526**
1973	261,002	40.0%	104,401	238,034
1972	244,426	40.0%	97,770	222,917
1971	**210,492**	**40.0%**	**84,197**	**191,969**
1970	193,321	40.0%	77,328	176,309
1969	179,680	40.0%	71,872	163,868
1968	**170,250**	**40.0%**	**68,100**	**155,268**

Survey years are in bold.

† A drop of over 100,000 in 2005 and subsequent recovery in 2006 seems unlikely.

Table 3 shows the total number of newcomers to A.A. for all survey years from 1968 to 2007. Using Figure 2 the percentage of the A.A. membership in their first year of attendance was approximated for all non survey years between 1968 and 2007. These values were then used to calculate (as shown on page five of this report) the number of newcomers to A.A. in each year from 1968 to 2007, Table 4.

What does the large annual number of newcomers to A.A. represent in real terms? In 1992 A.A. reported that there were 55,600 A.A. meetings in the U.S.A. & Canada. With 869,633 newcomers to A.A. in 1992 this equals an average of 15.6 newcomers to each A.A. meeting per year. In 2000 with 845,225 newcomers and 56,839 meetings there were 14.9 newcomers to each A.A. meeting that year and in 2007 with 929,125 newcomers and 58,340 meetings there were 15.9 newcomers to each A.A. meeting that year. Anybody who has attended A.A. for a significant period of time will know that an average of 15 – 16 newcomers to each A.A. meeting per year is quite conservative.

The Substance Abuse and Mental Health Services Administration's (SAMHSA) Treatment Episode Data Set [6] (TEDS) details the number of admissions to alcohol and drug treatment facilities each year in the U.S.A. TEDS reports show total admissions, admissions by primary substance of abuse, admissions by gender, age, race, etc. These reports provide useful data for comparative purposes.
In 1992 of 1,560,311 total admissions 924,660 were for alcohol only abuse plus alcohol abuse combined with a secondary drug. In 2000 of 1,758,579 total admissions 812,723 were for alcohol only abuse plus alcohol abuse combined with a secondary drug. In 2007 of 1,924,783 total admissions 785,551 were for alcohol only abuse plus alcohol abuse combined with a secondary drug. Even though the total number, and percentage, of admissions for all categories of alcohol abuse declined from 1992 to 2007 there are still many hundreds of thousands of people who are treated for alcohol abuse each year and the overwhelming majority of those will have attendance at A.A. meetings recommended to them as part of their treatment plan for the maintenance of their sobriety. A considerable part of the massive annual supply of newcomers to A.A. is being provided by the 13,648 (2007-SAMHSA) drug and alcohol treatment facilities in the U.S.A.

However, not all newcomers to A.A. come from treatment facilities. Data from the 1992 to 2007 A.A. membership surveys, where members were asked to give the two factors most responsible for their introduction to A.A., shows that just one third of A.A. members cited a treatment facility as being one of the factors most responsible for their introduction to A.A. Approximately one third of members were self motivated to attend A.A., one third were encouraged by an existing A.A. member, one quarter were encouraged by a family member, 16% under advice of a counseling agency or health care provider and 13% attended A.A. under the order of a court or within a correctional facility.
With a long term membership retention rate of 2 – 5% (Section 4) A.A. needs to use as many sources as possible to attract the huge amount of newcomers that it needs each year in order to maintain its membership at current levels.

Knowing the annual number of newcomers to A.A. in a given year allows the membership retention rate in A.A. to be calculated by comparing the number of members still remaining in A.A. with a certain length of sobriety with the number of newcomers who came to A.A. during a given year in the past.

To do this the number of members still remaining in A.A. with a certain length of sobriety in a given year is required, i.e., the sobriety distribution within A.A. in a given year. In the next section the sobriety distributions will be calculated for the years 1989 and 2007. With this data the membership retention and thus the effectiveness of A.A. over various time periods can be calculated.

Section 3: Sobriety distribution in the A.A. membership in 1989 and 2007

a) A.A. sobriety distribution in 1989

The following information was provided by A.A. regarding length of sobriety for the A.A. membership in its 1989 membership survey pamphlet:

Length of Sobriety
- *Sober less than 1 year*   *34%*
- *Sober between 1-5 years*   *37%*
- *Sober greater than 5 years*   *29%*

At first look attention is not drawn to any particular number since the numbers in each sobriety range are similar. There doesn't seem to be anything that is immediate and obvious evidence of A.A.'s high drop out rate. However, the sobriety ranges get progressively longer: the first range is one year long, the second range is four years long and the third range may be as long as fifty years. The shape of the sobriety distribution curve is not quickly apparent from just these three data ranges.

There is a large proportion of the membership, 34%, in their first year and some quick mental arithmetic shows that there must be an average of approx. 9% in each of the years two to five and finally a very approximate average of 1% in each year above year five. These are rough approximations but it does give a quick mental picture of the sobriety distribution. This process takes, 1) some mental arithmetic, 2) a little time, and 3) an investigate mindset. Most people on being presented with the survey data as shown by A.A. are not likely to question either the validity of the data or the implications of this data for the drop out rate. The data above, as given in the 1989 A.A. survey, is shown in Figure 3.

Figure 3: Distribution of length of sobriety in A.A. in 1989 – A.A. survey data
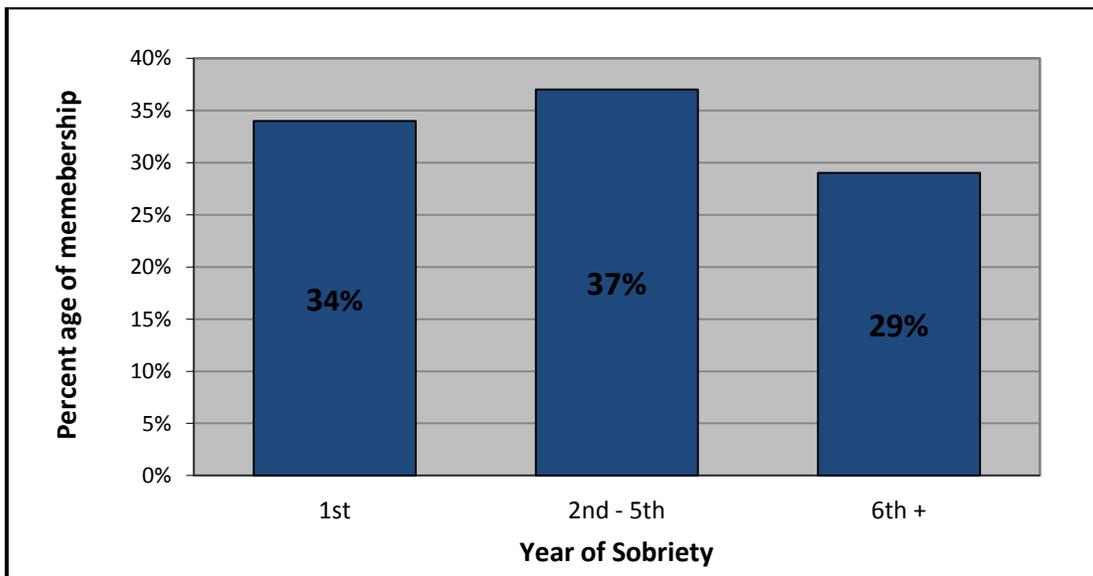

Much more detail on the sobriety distribution in A.A. in 1989 is given in the A.A. internal document, *"Comments on A.A.'s Triennial Surveys"* (COTS) page 23. The COTS data is shown in Table 5 and a graph is shown in Figure 4.

Table 5: Sobriety distribution in A.A. in 1989 – COTS data [4]

Year of sobriety	% of mem.	Year of sobriety	% of mem.
1	34.5	21-25	1.0
2	13.3	26-30	0.5
3	9.8	31-35	0.3
4	7.4	36-40	0.1
5	5.8	41-45	0.1
6-10	17.2	45+	0.0
11-15	6.8	No response	0.4
16-20	2.8		

Figure 4: Sobriety distribution in A.A. in 1989 – COTS data
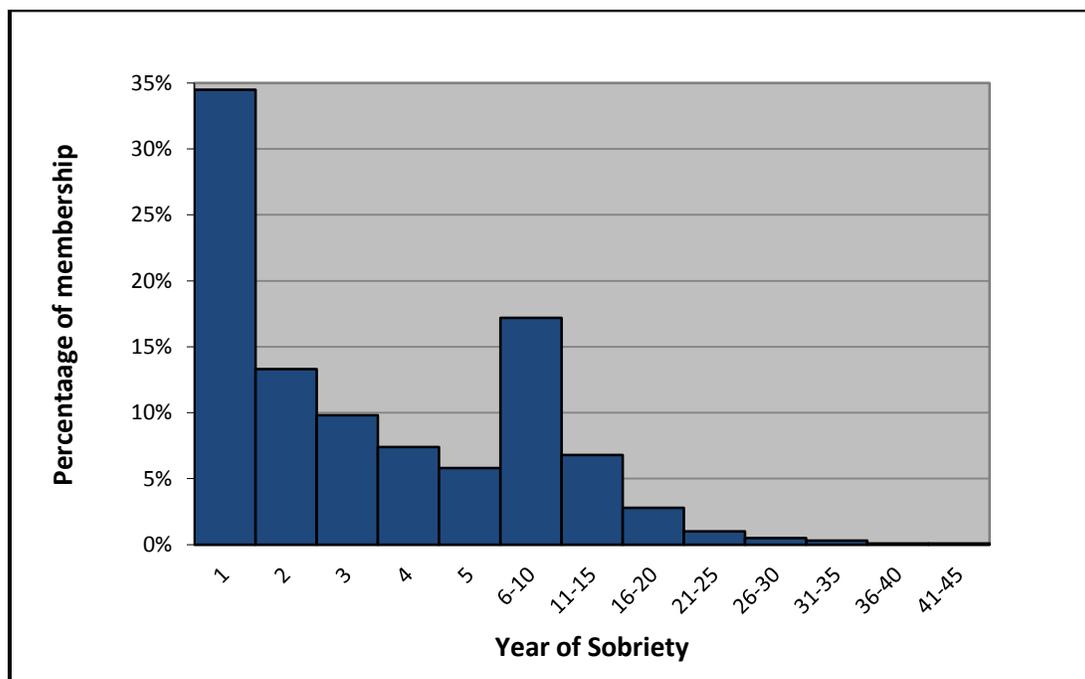
From the sobriety distribution data and graph, Table 5 and Figure 4, a clearer picture of the distribution of sobriety within A.A. in 1989 is seen and implied in this data is clear evidence of the high drop out rate. In the first year of sobriety there is 34.5% of the membership but this decreases to 13.3% in the second year and further decreases to 5.8% by the fifth year. Years 6-10 contain 17.2% of the membership while years 21-25 contain only 1.0% of the membership.

If this data is plotted with simple averaging in the sobriety ranges 6-10 years and above an even clearer picture of the sobriety distribution is obtained: Table 6 and Figure 5.

It should be remembered that the data tables and graphs provided here agree with and are mathematically equivalent to the data published in the 1989 A.A. membership survey. The only difference is that more detail is provided in this report than is provided in the A.A. survey.

Table 6: Sobriety distribution in A.A. in 1989 – COTS data with simple averaging

Year of sobriety	% of mem.	Year of sobriety	% of mem.	Year of sobriety	% of mem.
1	34.5	16	0.56	31	0.06
2	13.3	17	0.56	32	0.06
3	9.8	18	0.56	33	0.06
4	7.4	19	0.56	34	0.06
5	5.8	20	0.56	35	0.06
6	3.44	21	0.20	36	0.02
7	3.44	22	0.20	37	0.02
8	3.44	23	0.20	38	0.02
9	3.44	24	0.20	39	0.02
10	3.44	25	0.20	40	0.02
11	1.36	26	0.10	41	0.02
12	1.36	27	0.10	42	0.02
13	1.36	28	0.10	43	0.02
14	1.36	29	0.10	44	0.02
15	1.36	30	0.10	45	0.02

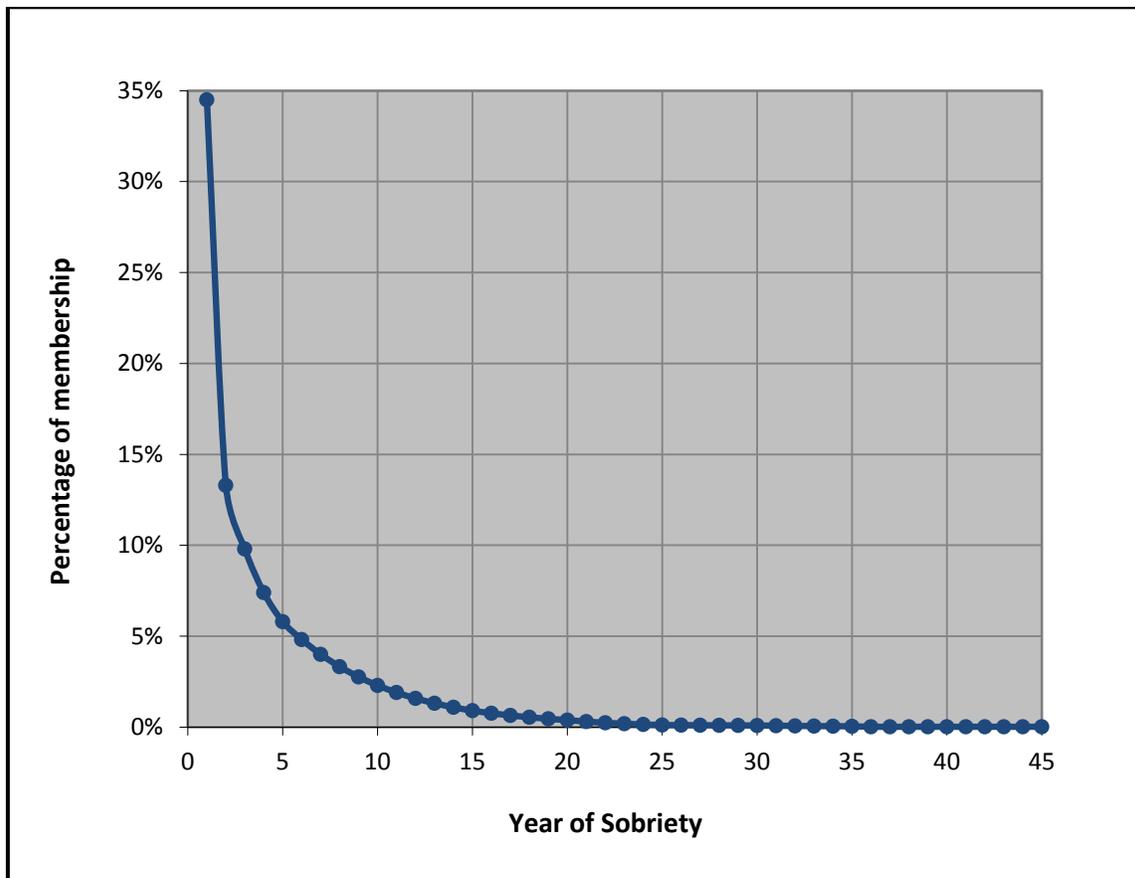**Figure 5: Sobriety distribution in A.A. in 1989 – COTS data with simple averaging**
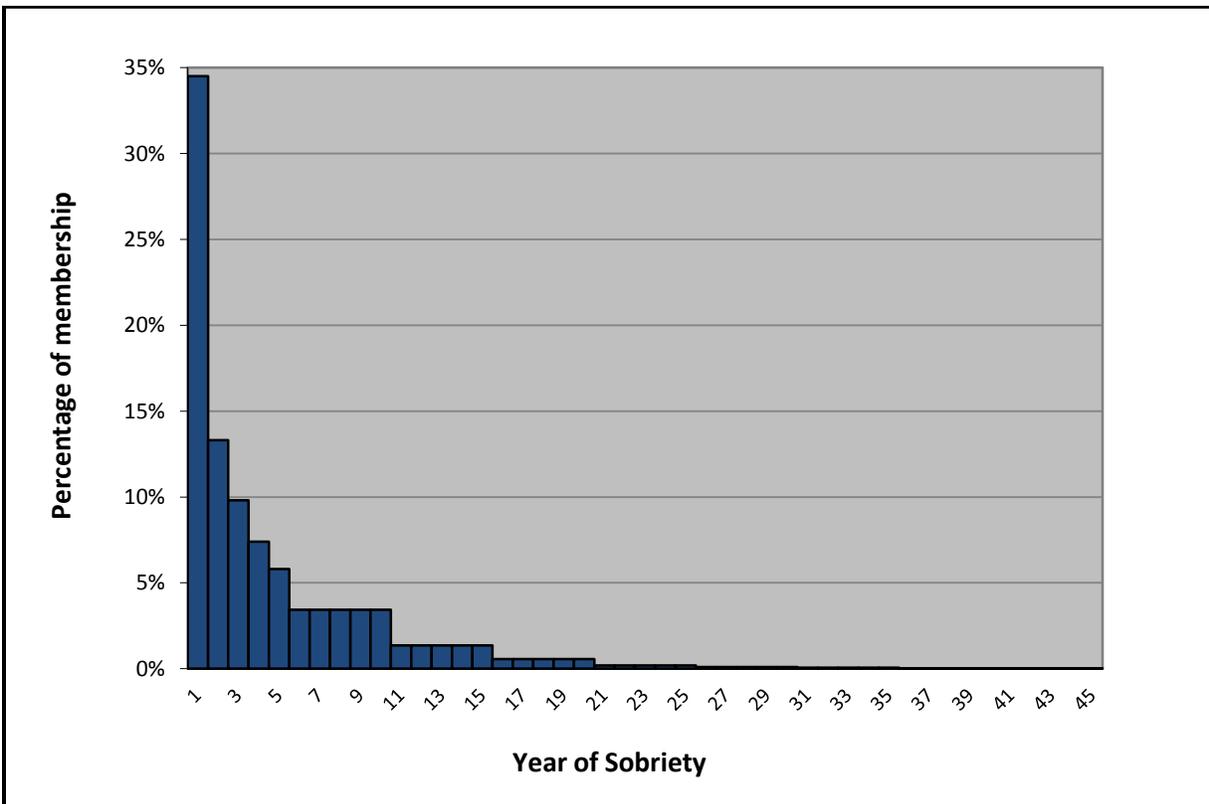
From the data and the sobriety distribution the existence of a high drop out rate is obvious. However, populations do not usually move step wise as shown. Generally a smooth and continuous distribution would be expected. If interpolation is used to smooth out this distribution then the sobriety distribution data in Table 7 and the sobriety distribution curve in Figure 6 is obtained.

Table 7: Sobriety distribution in A.A. in 1989 – COTS data with interpolation

Year of Sob.	% of mem.	# of mem.	Year of Sob.	% of mem.	# of mem.	Year of Sob.	% of mem.	# of mem.
1	34.50	337,749	16	0.765	7,486	31	0.078	762
2	13.30	130,205	17	0.645	6,315	32	0.068	663
3	9.80	95,940	18	0.544	5,327	33	0.059	576
4	7.40	72,445	19	0.459	4,493	34	0.051	501
5	5.80	56,781	20	0.387	3,790	35	0.044	436
6	4.818	47,167	21	0.305	2,984	36	0.020	196
7	4.002	39,180	22	0.240	2,350	37	0.020	196
8	3.324	32,546	23	0.189	1,851	38	0.020	196
9	2.762	27,035	24	0.149	1,457	39	0.020	196
10	2.294	22,457	25	0.117	1,148	40	0.020	196
11	1.905	18,652	26	0.111	1,087	41	0.020	196
12	1.582	15,491	27	0.105	1,030	42	0.020	196
13	1.314	12,866	28	0.100	976	43	0.020	196
14	1.092	10,686	29	0.094	925	44	0.020	196
15	0.907	8,875	30	0.090	876	45	0.020	196

Figure 6: Sobriety distribution curve in A.A. in 1989
COTS data with interpolation

In Figure 6 there is a smooth and continuous sobriety distribution curve for the membership of A.A. in 1989. The decrease in the percentage of members in each successive year is obvious and alarming. The data in both Table 7 and Figure 6 are approximations that are calculated from official A.A. data. These approximations must be made in order to get a clearer picture of the distribution of sobriety in A.A. in 1989 since A.A. will not release the raw data from its membership surveys to the public. However, the data presented in Table 7 and figure 6 is mathematically equivalent to the data published in the official 1989 A.A. membership survey pamphlet and to that found in the A.A. internal COTS report.

It must be noted that the distribution given in Table 7 and shown in Figure 6 is one of an infinite set of distributions that agrees with the data given in the 1989 survey data. Each distribution in that set will be marginally different from every other. However, these differences will be so very small, since all the distributions must agree with the data in the 1989 A.A. membership survey pamphlet and to that found in the A.A. internal COTS report, that they will not significantly affect the calculation of the effectiveness of A.A.

Let's remind ourselves of the information provided in the official 1989 A.A. survey pamphlet:

Length of Membership
- *Sober less than 1 year*   *34%*
- *Sober between 1-5 years*   *37%*
- *Sober greater than 5 years*   *29%*

Figure 6, showing the sobriety distribution for all years from year 1 to year 45, is much more informative than the three broad ranges given by A.A. in its 1989 membership survey pamphlet.

Using a similar process the full sobriety distribution curve for the membership of A.A. in 2007 can be generated.

b) **A.A. membership distribution in 2007**

In its 2007 membership survey pamphlet A.A. reported the following data regarding the distribution of the length of sobriety among A.A. members:

Length of Sobriety
- **Sober less than 1 year**   **31%**
- **Sober between 1-5 years**   **24%**
- **Sober between 5-10 years**   **12%**
- **Sober more than 10 years**   **33%**

As with the 1989 A.A. survey data it is difficult at first look to get a clear picture of the distribution of sobriety in A.A. from just these four ranges for length of sobriety attained by members. However, there is some obvious evidence of the decrease in membership over time. It can be seen that with 24% sober between 1-5 years and 12% sober between 5-10 years then there must be a roughly 50% decrease over these ranges. This must surely be of great concern to anyone reading the survey and yet A.A. doesn't point out this fact to the reader or offer any explanation for it.

The data above, as given in the 2007 A.A. survey, is shown in Figure 7.

### Figure 7: Distribution of length of sobriety in A.A. in 2007
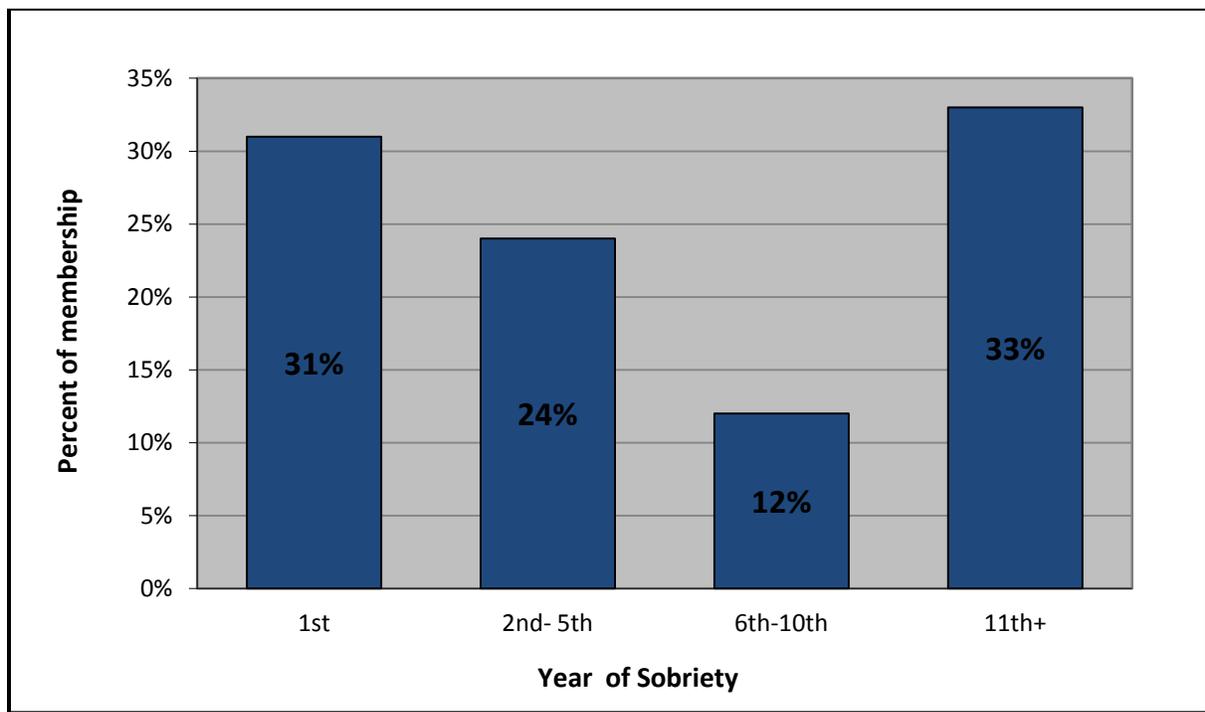
Further analysis using simple averaging and interpolation shows the true picture of the distribution of sobriety in the A.A. membership in 2007. A maximum sobriety of 63 years is chosen for 2007 since in the 1989 survey the maximum sobriety was in the 45th year and thus eighteen years later the maximum sobriety attained by any member cannot be any greater than the 63rd year although life expectancy data dictates that the numbers with this length of sobriety will be very low.

Table 8: Sobriety distribution in A.A. in 2007
A.A. survey data with simple averaging

Year of sobriety	% of mem.	Year of sobriety	% of mem.	Year of sobriety	% of mem.
1	31.00	22	0.623	43	0.623
2	6.00	23	0.623	44	0.623
3	6.00	24	0.623	45	0.623
4	6.00	25	0.623	46	0.623
5	6.00	26	0.623	47	0.623
6	2.40	27	0.623	48	0.623
7	2.40	28	0.623	49	0.623
8	2.40	29	0.623	50	0.623
9	2.40	30	0.623	51	0.623
10	2.40	31	0.623	52	0.623
11	0.623	32	0.623	53	0.623
12	0.623	33	0.623	54	0.623
13	0.623	34	0.623	55	0.623
14	0.623	35	0.623	56	0.623
15	0.623	36	0.623	57	0.623
16	0.623	37	0.623	58	0.623
17	0.623	38	0.623	59	0.623
18	0.623	39	0.623	60	0.623
19	0.623	40	0.623	61	0.623
20	0.623	41	0.623	62	0.623
21	0.623	42	0.623	63	0.623

Figure 8: Sobriety distribution in A.A. in 2007
A.A. survey data with simple averaging
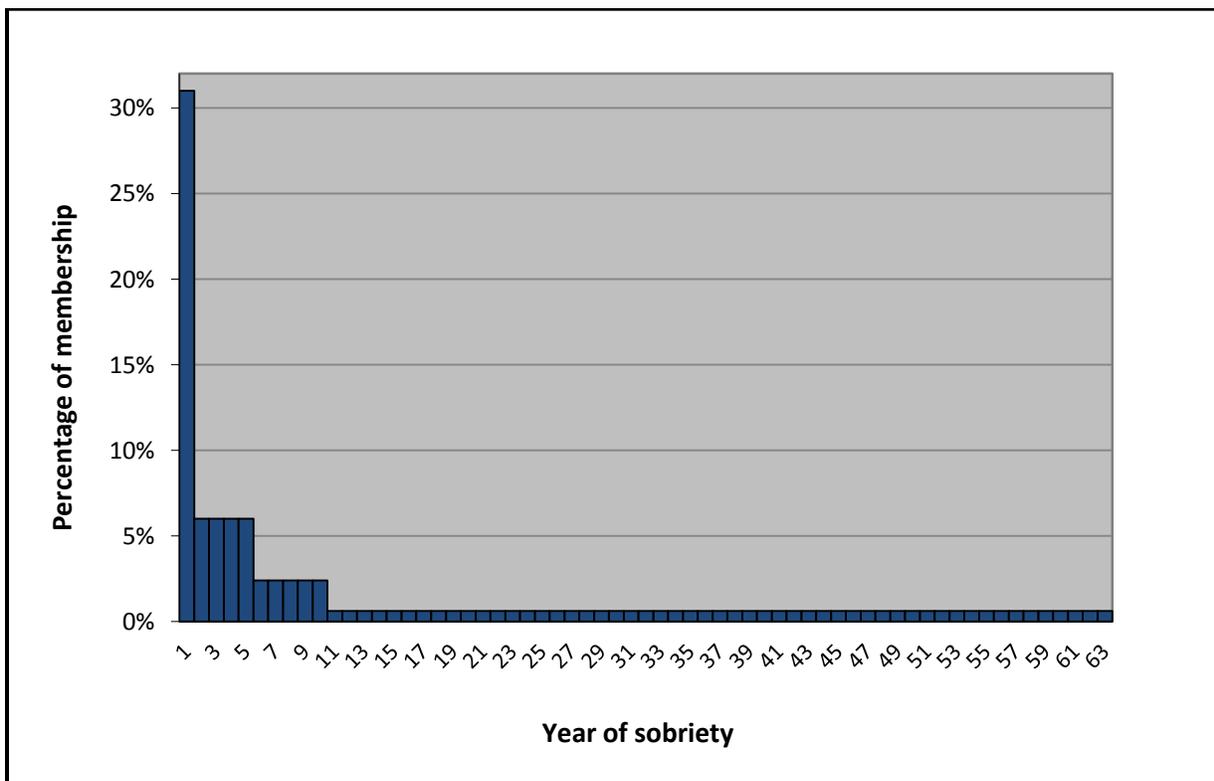
As previously sated in the analysis of the 1989 survey data, populations do not usually move step wise as shown. Generally a smooth and continuous distribution would be expected. If interpolation is used to smooth out the distribution the sobriety distribution as shown in Table 9 and Figure 9 is obtained.

Table 9: Sobriety distribution in A.A. in 2007
A.A. survey data with interpolation

Year of sob.	% of mem.	# of mem.	Year of sob.	% of mem.	# of mem.	Year of sob.	% of mem.	# of mem.
1	31.0	407,511	22	1.438	18,903	43	0.0625	822
2	10.1	132,770	23	1.369	17,996	44	0.0475	624
3	6.01	79,005	24	1.294	17,010	45	0.0357	469
4	4.38	57,577	25	1.214	15,959	46	0.0266	350
5	3.51	46,141	26	1.129	14,841	47	0.0197	259
6	2.957	38,871	27	1.040	13,671	48	0.0144	189
7	2.577	33,876	28	0.949	12,475	49	0.01046	138
8	2.317	30,458	29	0.858	11,279	50	0.00751	99
9	2.137	28,092	30	0.767	10,083	51	0.00536	70
10	2.012	26,449	31	0.678	8,913	52	0.00380	50
11	1.930	25,371	32	0.594	7,808	53	0.00270	35
12	1.870	24,582	33	0.515	6,770	54	0.00191	25
13	1.822	23,951	34	0.442	5,810	55	0.00135	18
14	1.782	23,425	35	0.373	4,903	56	0.00095	12
15	1.745	22,939	36	0.311	4,088	57	0.00067	9
16	1.714	22,531	37	0.257	3,378	58	0.00047	6
17	1.679	22,071	38	0.209	2,747	59	0.00033	4
18	1.641	21,572	39	0.168	2,208	60	0.00023	3
19	1.600	21,033	40	0.1333	1,752	61	0.00016	2
20	1.552	20,402	41	0.1048	1,378	62	0.000111	1
21	1.498	19,692	42	0.0814	1,070	63	0.000077	1

This data gives a smooth and continuous sobriety distribution curve for the membership of A.A. in 2007. The decrease in the percentage of members in each successive year is similar to that exhibited by the A.A. membership in 1989. The data in both Table 9 and Figure 9 are approximations that are calculated from official A.A. data. These approximations must be made in order to get a clear picture of the distribution of sobriety in A.A. in 2007 since A.A. will not release the raw data from the surveys to the public. However, the data presented in Table 9 and Figure 9 is mathematically equivalent to the data published in the official 2007 A.A. membership survey pamphlet.

It must be noted that the distribution given in Table 9 shown in Figure 9 is one of an infinite set of distributions that agrees with the data given in the 2007 A.A. membership survey pamphlet. Each distribution in that set will be marginally different from every other. However, these differences will be so very small, since all the distributions must agree with the data in the 2007 A.A. membership survey pamphlet, that they will not significantly affect the calculation of the effectiveness of A.A.

Figure 9: Sobriety distribution curve in A.A. in 2007
A.A. survey data with interpolation
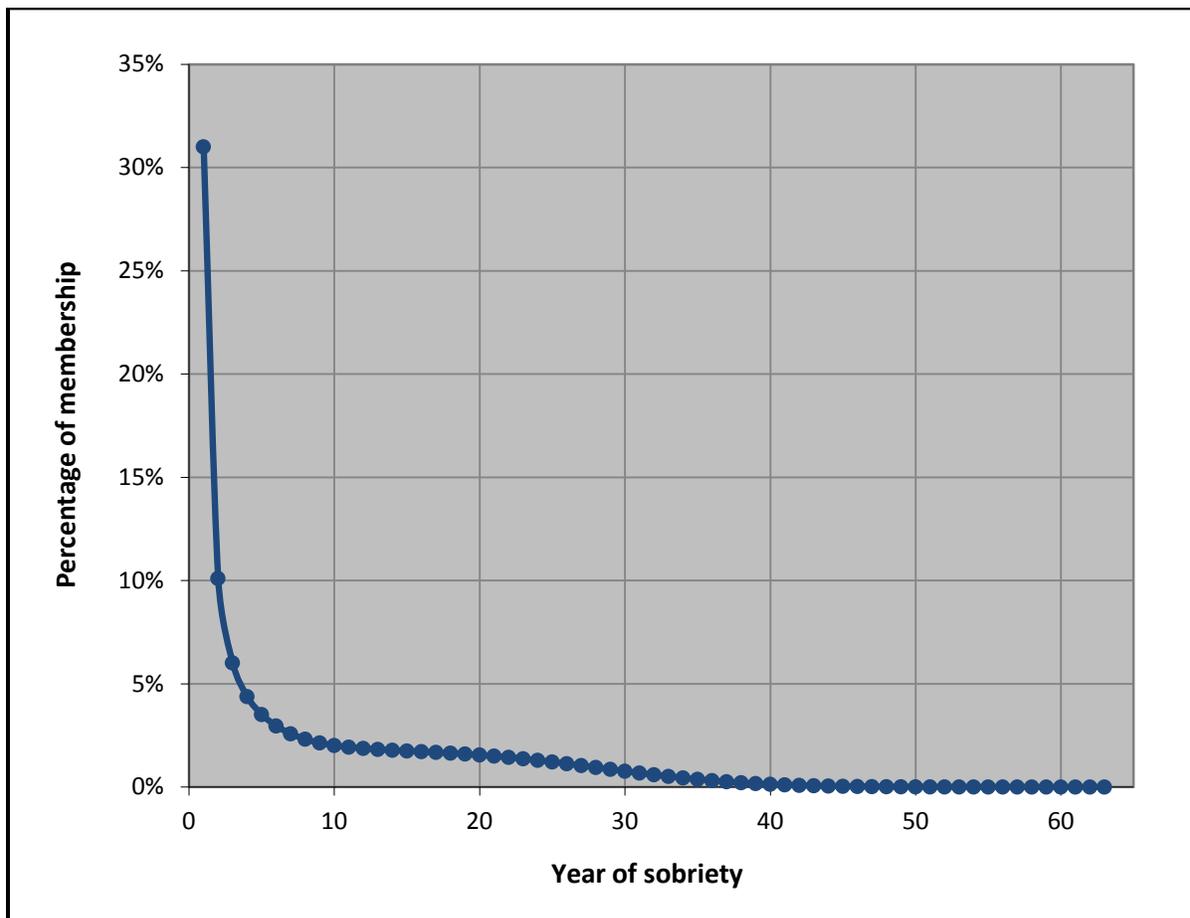
Let's remind ourselves of the information provided in the official 2007 A.A. survey pamphlet:

Length of Sobriety
- **Sober less than 1 year**   **31%**
- **Sober between 1-5 years**   **24%**
- **Sober between 5-10 years**   **12%**
- **Sober more than 10 years**   **33%**

Figure 9, the sobriety distribution for all years from year 1 to year 63 in 2007, shows how much information could be shared by A.A. Contrast this with the four broad ranges for sobriety that are provided by A.A. in its membership survey pamphlet.

With 8,000 survey forms collected from the membership in its 2007 survey (and 9,394 collected in 1989) much more information could and should be provided by A.A. regarding the length of sobriety achieved by its members if A.A. is to fulfill the intended purpose of the membership surveys which was, according to A.A., to properly inform the public and medical professionals about A.A.

Section 4: The A.A. membership retention rate & the effectiveness of A.A.

In order to accurately calculate the A.A. membership retention rate, or A.A. effectiveness, it is required to compare the number of newcomers who went to A.A. in a given year in the past with the number of members remaining in A.A. with a particular length of sobriety at some later time. In section 2 the number of newcomers who went to A.A. in each year from 1968 to 2007 was calculated. In Section 3 the sobriety distribution in A.A. in the years 1989 and 2007 was calculated. Thus, the member retention, or A.A. effectiveness, in the years 1989 and 2007 can now be calculated.

Table 10: Membership retention in A.A. in 1989

Year of sobriety in 1989	Start year	# of newcomers in start year	# of mem. remaining in 1989	Retention %
1st	**1989**	**770,067**	**n/a**	**n/a**
2nd	1988	712,780	130,205	18.27%
3rd	1987	641,870	95,940	14.95%
4th	**1986**	**600,906**	**72,445**	**12.06%**
5th	1985	583,507	56,781	9.73%
6th	1984	581,261	47,167	8.11%
7th	**1983**	**563,660**	**39,180**	**6.95%**
8th	1982	501,624	32,546	6.49%
9th	1981	437,275	27,035	6.18%
10th	**1980**	**395,013**	**22,457**	**5.69%**
11th	1979	369,952	18,652	5.04%
12th	1978	343,993	15,491	4.50%
13th	**1977**	**343,229**	**12,866**	**3.75%**
14th	1976	321,172	10,686	3.33%
15th	1975	300,794	8,875	2.95%
16th	**1974**	**301,526**	**7,486**	**2.48%**
17th	1973	238,034	6,315	2.65%
18th	1972	222,917	5,327	2.39%
19th	**1971**	**191,969**	**4,493**	**2.34%**
20th	1970	176,309	3,790	2.15%
21st	1969	163,868	2,984	1.82%
22nd	**1968**	**155,268**	**2,350**	**1.51%**

Survey years are in bold; n/a = not applicable.

It can now be stated, based on A.A. data for 1989, that:

Of all the newcomers who attended A.A. in 1988, 18.27% of those completed one year of sobriety and were at some point in their second year of sobriety in 1989.

Of all the newcomers who attended A.A. in 1984, 8.11% of those completed five years of sobriety and were at some point in their sixth year of sobriety in 1989.

Of all the newcomers who attended A.A. in 1979, 5.04% of those completed ten years of sobriety and were at some point in their eleventh year of sobriety in 1989.

Of all the newcomers who attended A.A. in 1969, 1.82% of those completed twenty years of sobriety and were at some point in their twenty first year of sobriety in 1989.

Table 11: Membership retention in A.A. in 2007

Year of sobriety in 2007	Start year	# of newcomers in start year	# of mem. remaining in 2007	Retention %
1st	**2007**	**929,125**	n/a	n/a
2nd	2006	865,320	132,770	15.34%
3rd	2005	725,922	79,005	10.88%
4th	**2004**	**762,841**	**57,577**	**7.55%**
5th	2003	787,392	46,141	5.86%
6th	2002	830,849	38,871	4.68%
7th	**2001**	**860,318**	**33,876**	**3.94%**
8th	2000	845,225	30,458	3.60%
9th	1999	809,159	28,092	3.47%
10th	**1998**	**781,020**	**26,449**	**3.39%**
11th	1997	769,367	25,371	3.30%
12th	1996	774,160	24,582	3.18%
13th	**1995**	**793,056**	**23,951**	**3.02%**
14th	1994	803,082	23,425	2.92%
15th	1993	839,197	22,939	2.73%
16th	**1992**	**869,633**	**22,531**	**2.59%**
17th	1991	861,969	22,071	2.56%
18th	1990	845,315	21,572	2.55%
19th	**1989**	**770,067**	**21,033**	**2.73%**
20th	1988	712,780	20,402	2.86%
21st	1987	641,870	19,692	3.07%
22nd	**1986**	**600,906**	**18,903**	**3.15%**
23rd	1985	583,507	17,996	3.08%
24th	1984	581,261	17,010	2.93%
25th	**1983**	**563,660**	**15,959**	**2.83%**
26th	1982	501,624	14,841	2.96%
27th	1981	437,275	13,671	3.13%
28th	**1980**	**395,013**	**12,475**	**3.16%**
29th	1979	369,952	11,279	3.05%
30th	1978	343,993	10,083	2.93%
31st	**1977**	**343,229**	**8,913**	**2.60%**
32nd	1976	321,172	7,808	2.43%
33rd	1975	300,794	6,770	2.25%
34th	**1974**	**301,526**	**5,810**	**1.93%**
35th	1973	238,034	4,903	2.06%
36th	1972	222,917	4,088	1.83%
37th	**1971**	**191,969**	**3,378**	**1.76%**
38th	1970	176,309	2,747	1.56%
39th	1969	163,868	2,208	1.35%
40th	**1968**	**155,268**	**1,752**	**1.13%**

Survey years are in bold; n/a = not applicable.

It can now be stated, based on A.A. data for 2007, that:

Of all the newcomers who attended A.A. in 2006, 15.34% of those completed one year of sobriety and were at some point in their second year of sobriety in 2007.

Of all the newcomers who attended A.A. in 2002, 4.68% of those completed five years of sobriety and were at some point in their sixth year of sobriety in 2007.

Of all the newcomers who attended A.A. in 1997, 3.30% of those completed ten years of sobriety and were at some point in their eleventh year of sobriety in 2007.

Of all the newcomers who attended A.A. in 1987, 3.07% of those completed twenty years of sobriety were at some point in their twenty first year of sobriety in 2007.

Table 12 compares the effectiveness of A.A. in 1989 and 2007.

Table 12: Effectiveness of A.A. in 1989 and 2007

Years of sobriety completed	1989	2007
1	18.27%	15.34%
5	8.11%	4.68%
10	5.04%	3.30%
15	2.48%	2.59%
20	1.82%	3.07%

It was shown in Section 2 that the retention rate in A.A. is approximately 50% within the first few months of attendance of A.A. and that by the twelfth month of attendance the retention rate is 26.3%. In addition to this it can now be seen that in 1989 of all newcomers who began attending A.A. only 18.27% of those completed one year of attendance at A.A. remaining until some point in their second year of attendance. In 2007 this number had decreased to 15.34%. In fact the retention rates at the one, five and ten year milestones have decreased significantly from 1989 to 2007. The retention rates at fifteen years are similar. The 2007 twenty year retention rate shows an appreciable increase over 1989.

Overall in A.A. in 1989 the chances of achieving sustained recovery, described as five years or more since remission of dependence[7], were between 2 - 8%, i.e., A.A. failed for 92 – 98% of all newcomers.

In 2007 the chances of achieving sustained recovery in A.A. were between 2 – 5%, i.e., A.A. failed for 95 – 98% of all newcomers.

What is also concerning is that such a small fraction of those that complete one year of sobriety in A.A. will go on to complete 5, 10 or 20 years of sobriety in A.A. It can be assumed that those who have completed one year of sobriety are motivated and dedicated both to their sobriety and to attendance at A.A. However, from the 2007 data it can be seen that of those that had completed one year of sobriety in A.A. less than one in three will go on to complete five years of sobriety and approximately one in five will go on to complete ten years of sobriety or more.

None of these results reflect the often repeated A.A. quote and slogan *"Rarely have we seen a person fail who has thoroughly followed our path."* [8]

Even though the effectiveness of A.A. has been shown to be incredibly low there are several other reasons why the effectiveness may be even lower than that already calculated.

1. Relapse

Prior attempts at achieving and maintaining sobriety by the A.A. 12 Step method need to be factored in to the calculated effectiveness. If a member has relapsed during a previous attempt at A.A. then that counts as a failure - not of the individual but of the process. If, on a second attempt, an individual achieves and maintains sobriety using the A.A. program then the overall success rate of A.A for that individual is 1 out of 2 or 50%. Similarly, on a third attempt the overall success rate would be 1/3 or 33.3% and so on. For every n attempts the individual's success rate would be 1/n.

Therefore the relapse corrected effectiveness would be:

$$\sum (P_1 + P_2/2 + P_3/3 + \ldots + P_n/n) \text{ x Calculated effectiveness}$$

Where P_n = the percentage of members who have attempted A.A. *n* number of times before achieving a specific length of sobriety and,

n = the total number of attempts at A.A. by P_n percent of members before achieving a specific length of sobriety.

For example: take the 3.30% of members who had completed 10 years of sobriety and were at some point in their 11th year of sobriety in 2007. If 90% had never relapsed, 5% had relapsed just once on a prior attempt at A.A. (2 total attempts) and the remaining 5% had relapsed twice before on prior attempts at A.A. (3 total attempts) then the relapse corrected effectiveness of A.A. at the 10 year mark would be:

$$\sum (90\% + 5\%/2 + 5\%/3) \text{ x } 3.30\% = 94.17\% \text{ x } 3.30\% = 3.11\%$$

This is only an example but it does demonstrate the effect which relapse has on the calculated effectiveness of A.A. Since not all members will achieve 10 years of sobriety on their first attempt then the relapse corrected effectiveness of A.A. will always be less than the calculated effectiveness. Surprisingly, A.A. membership survey forms do not ask for any information on how many times a member has relapsed or how many attempts have been made using the A.A. program before achieving a particular length of sobriety. It would appear that A.A. simply does not want to know anything about this vital information. The effect of relapse on the effectiveness of A.A. cannot be accurately evaluated but it could if only A.A. would add two simple questions to its membership survey form.

Considering the data from the University of Georgia's National Treatment Center Survey studies (UGa-NTCS) it can be appreciated that relapse may be a significant contributor to a correction of the calculated effectiveness of A.A. In 2004 the UGa-NTCS reported that 54.5% of the total caseload in private treatment centers and 61.7% of the total caseload in public treatment centers were relapsers.[9,10] Therefore, it can be assumed that there will be a certain percentage of those who complete major milestones of A.A. sobriety that will take more than one attempt at A.A. to complete that sobriety milestone thus reducing the calculated effectiveness of A.A. to some degree.

2. Simultaneous external treatments during A.A. attendance

The 2007 A.A. membership survey reported the following:

"After coming to A.A., 63% of the members received some type of treatment or counseling, such as medical, psychological, spiritual, etc. 86% of those members who received treatment or counseling said it played an important part in their recovery from alcoholism." [3]

So, 63% of all members received some type of counseling during their attendance at A.A. and 86% of those, or 54% of all members, said that it played an important part in their recovery. Thus there are two treatment processes occurring simultaneously: A.A.'s 12 Step program and independent treatment/counseling of a medical/psychological/spiritual nature which is not provided by A.A. But, which treatment effectively contributes to the members' recovery from alcoholism and to what degree? Any measurement of the effectiveness of A.A. should take into account the number of treatment types occurring simultaneously and the individual contribution of each treatment type to recovery.

3. The Placebo Effect

How many of the very small percentage of those who achieve significant sobriety in A.A. would have been able to achieve the same length of sobriety without A.A and its 12 Step program but in a similar environment to A.A? If there were a placebo control program consisting of an abstinence based, peer led, non 12 Step, social support network, which met several times per week for coffee and conversation what might its effectiveness be? Let's call this placebo program *"Coffee and Conversation"*: it has no specific program structure, no literature to buy, no steps, no sponsors, no prayers, no religious concepts, no membership fees, no dogma, no theology and no objective but to exist as a social support network for those trying to achieve or maintain abstinence from alcohol. For A.A. to claim any true level of effectiveness from its 12 Step program then it would have to provide a level of effectiveness that is in excess of that obtained by a placebo control group for there to be any net benefit from participation in A.A.

4. Underestimation of the total number of A.A. newcomers per year

The calculation of the annual number of newcomers to A.A. in this report is based on the first year membership distributions contained in the internal A.A. COTS report. According to that internal report the membership drop out rate from month three to month four is 10%, from month two to month three it is 23.1% and from month one to month two is 31.6%. It is a logical assumption from this data that the drop out rate in the first few weeks of A.A. attendance is appreciable, i.e., many of the newcomers who go to A.A. may drop out after just one, two or several meetings and may not be accurately represented in a survey of the membership. What also needs to be taken into consideration is that newcomers to A.A., in their first few weeks of attendance, may not attend meetings as frequently as those who are more established in A.A. who have an average frequency of attendance of 2.4 meetings per week according to the 2007 A.A. membership survey. However, without having any data available regarding newcomers within their first month of A.A. attendance it is difficult to estimate by how much these factors might affect the underestimation of the annual total of newcomers to A.A. Any underestimation of the annual total number of newcomers to A.A. will result in a calculated effectiveness that is higher than the actual effectiveness.

Of course this could be made much easier if A.A. would release the raw data from its membership surveys to the public, something which A.A. refuses to do.

Conclusion

- The purpose of conducting the A.A. membership surveys is, according to A.A., to provide objective and reliable information about the A.A. membership in order to properly inform the general public and medical professionals. However, regarding the distribution of the length of sobriety achieved by its members or the effectiveness of its 12 Step program, A.A. has failed to properly inform both the public and medical professionals.

  Over the forty years between 1968 and 2007 A.A. has conducted fourteen anonymous surveys of its membership and has collected approximately 140,000 individual survey forms in the process. A.A. is in possession of a huge amount of raw data regarding the length of sobriety achieved by its members and the effectiveness of its 12 Step program. However, A.A. refuses to allow the raw data from the surveys to be viewed or accessed by the public. In fact, A.A. has never shared any of the raw data from the 140,000 surveys it possesses with either its own members or any entity outside of A.A. and it cannot give any plausible or acceptable explanation as to why it will not share this vital information. It should be remembered that membership survey forms are anonymous and do not contain any information that could be used to personally identify any member.

  In contradiction to A.A.'s steadfast refusal to share, post or publish the raw data from its membership surveys A.A.'s own literature has the following to say:

  "We have a saying that A.A. is prepared to give away all the knowledge and all the experience it has — all excepting the A.A. name itself." [11]

  This is one of the many obvious inconsistencies between A.A. literature and the behavior of A.A.

  A.A.'s behavior shows that instead of wanting to properly inform the public and medical professionals about A.A. it appears not to want the true extent of member drop out in A.A. or the lack of effectiveness of its 12 Step program to be widely known or understood. Rather than provide a full and complete analysis based on the raw data from its membership surveys A.A. has instead chosen to attempt to conceal its failure and ineffectiveness behind the few broad and vague statistics that it provides in its membership survey pamphlets.

  In spite of not having access to the raw data from the membership surveys it can be seen from the results in this report there is much that can be learned about A.A. from data that is already publicly available about the A.A. membership. Figures 6 and 9 and Table 12 in this report show that even a simple analysis of the available A.A. data reveals the extent of the failure of A.A. and its 12 Step program to provide any meaningful level of long term sobriety for alcoholics.

- An A.A. internal report titled *"Comments on A.A.'s Triennial Surveys"* [4] (COTS) generated by employees of the General Service Office (GSO) of A.A. in New York in 1989 shows that from 1977 to 1989 the drop out rate of A.A. members was 50% in the first three months of A.A. attendance and 74% by the twelfth month of attendance. The report states that:

  "…approximately 50% of those coming to A.A. leave within three months…This is undoubtedly one the most significant observations of the survey.", page 2

  "After the first year, survey results show that attrition continues, but at a much slower rate.", page 11

  "..it does appear that this result and its implied challenge to A.A. should be widely understood in the Fellowship.", page 11

When asked about the COTS report A.A. has confirmed that even though the report was generated by A.A.'s GSO employees it insists that the COTS report is not an official A.A. document. The COTS report shows that A.A. was aware of the massive failure rate in A.A. from as early as 1989 and that A.A.'s GSO employees recommended that the results of the report should be shared with all A.A. members and one would assume the public as well. However, the COTS report or the findings contained in the report have never been published by A.A. and A.A. has failed to use this report to make its members, the public or the medical profession aware of the true extent of the failure and ineffectiveness of A.A.

- Using the results from the COTS report, the total A.A. membership numbers, and the results from the A.A. membership surveys the effectiveness of A.A. in 2007 has been calculated as shown in the table below:

Years of sobriety completed in 2007	A.A. Effectiveness
1	15.34%
5	4.68%
10	3.30%
15	2.59%
20	3.07%

A mere 2 - 5% of people who went to A.A. seeking recovery from alcoholism in years prior to 2007 went on to achieve long term sobriety as A.A. members. When other factors such as relapse, the contribution of simultaneous external treatment, etc., are taken into account the actual effectiveness of A.A. could be even lower than 2 - 5%.

When asked about the effectiveness of A.A. and its 12 Step program A.A.'s GSO responded with the following:

 "We often get the question of 'how effective A.A. is' at this office, and we simply do not have a statistical answer to that question … Some refer to the service piece, "Estimates of A.A. Groups & Members" [http://www.aa.org/subpage.cfm?page=74] and others like to refer to the Big Book: "Rarely have we seen a person fail who has thoroughly followed our path… [8]"

A.A.'s response to a simple question regarding its effectiveness is to claim no have no statistical answer while at the same time it has in it possession the COTS report which proves that A.A. fails for 74% of attendees within their first twelve months of attendance. A.A. also has the data from 140,000 survey forms that could easily be used to calculate the effectiveness of its 12 Step program and yet A.A. will not use the available data for that purpose nor will it release the data to the public. At the same time that A.A. denies having a statistical answer to the question of *"how effective A.A. is",* it implies, with its quote from A.A's Big Book, that failure is rare in A.A. This can only be described as grossly misleading.

- Some may suggest that continued membership in A.A. is not the only measure of the effectiveness of A.A. and its 12 Step program of recovery, i.e., many who attend A.A., if only briefly, and then discontinue attending A.A. meetings may maintain their sobriety outside of A.A. However, the following quotes from A.A. literature reveal that A.A.'s opinion is that the maintenance of sobriety is highly unlikely without involvement in A.A. and attendance at A.A. meetings.

The A.A. pamphlet *"Frequently Asked Questions About A.A."* [12] has the following to say regarding attendance at A.A. meetings:

"So the A.A. [member] *who wants to do everything possible to insure sobriety today will probably keep going to meetings."*

"Many [A.A. members] *know from experience that if they do not come to meetings, they may get drunk…"*

"Nearly all alcoholics, at one time or another, have tried to stay sober on their own. For most, the experience has not been particularly enjoyable – or successful."

"Nearly all A.A.s who have been through this experience [slip/relapse] say that slips can be traced to specific causes…they stayed away from A.A. meetings… "

These quotes from A.A. literature clearly imply that without attendance at A.A. meetings an alcoholic is highly unlikely to be able to maintain their sobriety.

The following commonly heard A.A. slogan: *"It's either A.A. or it's jails, institutions and death.",* goes further by predicting that not only will an alcoholic not be able to stay sober without A.A. but that the alcoholic is destined to end up in a jail, a mental institution or dead without A.A. That's quite a severe prognosis for not attending A.A. meetings.

Finally, a quote from the A.A. book *"Twelve Steps and Twelve Traditions"* strongly warns A.A. members that any attempt at sobriety outside of A.A. will result in death:

"Unless each A.A. member follows to the best of his ability our suggested Twelve Steps to recovery, he almost certainly signs his own death warrant." [13]

A.A. seems utterly convinced that any alcoholic who attempts sobriety without A.A. and without attendance at A.A. meetings is destined to end up drinking, in jail, in a mental institution or dead.

Alcoholics who achieve and/or maintain their sobriety outside of A.A., and without attending A.A. meetings (and the overwhelming majority do), are doing so in spite of what A.A. literature states. Therefore those alcoholics who maintain their sobriety outside of A.A. could hardly be seen to be proof of the effectiveness of A.A. In fact they are more proof that A.A. theory and A.A. literature is completely incorrect in this regard.

In the following parts of this report these subjects will be covered:

- How A.A. overstates the *"average sobriety"* in A.A. by more than a factor of two
- A statistically realistic calculation of the *"average sobriety"* in A.A.
- Age distribution and median age in A.A.
- The effect on A.A. of its aging membership
- Meeting frequency and duration of membership
- Per capita A.A. membership in different countries

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