

MISSOURI-AMERICAN WATER COMPANY
ST. LOUIS, MISSOURI

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO UTILITY PLANT
AT DECEMBER 31, 2002



Gannett Fleming
Valuation and Rate Division

MISSOURI-AMERICAN WATER COMPANY

St. Louis, Missouri

DEPRECIATION STUDY

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AT DECEMBER 31, 2002

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION

Harrisburg, Pennsylvania



Gannett Fleming

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May 15, 2003

Missouri-American Water Company
535 North New Ballas Road
St. Louis, MO 63141

Attention Mr. Eric W. Thornburg, President

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the utility plant of Missouri-American Water Company, Inc. as of December 31, 2002. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual and accrued depreciation, the statistical support for the life and net salvage estimates and the detailed tabulations of annual and accrued depreciation.

We gratefully acknowledge the assistance of Missouri-American Water Company, Inc. personnel in the conduct of the study.

Respectfully submitted,

GANNETT FLEMING, INC.

JOHN J. SPANOS
Vice President
Valuation and Rate Division

JJS:krm

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PART I. INTRODUCTION

MISSOURI-AMERICAN WATER COMPANY
DEPRECIATION STUDY
CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO UTILITY PLANT
AT DECEMBER 31, 2002

PART I. INTRODUCTION

SCOPE

This report presents the results of the depreciation study prepared for the Missouri-American Water Company as applied to utility plant in service as of December 31, 2002. It relates to the concepts, methods, and basic judgments which underlie recommended annual depreciation accrual rates related to current utility plant in service.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2002; a review of Company practice and outlook as they relate to plant operation and retirement; and consideration of current practice in the water industry, including knowledge of service life and salvage estimates used for other water properties.

PLAN OF REPORT

Part I, Introduction, includes brief statements of the scope and basis of the study. Part II presents descriptions of the methods used in the service life and salvage studies and the methods and procedures used in the calculation of depreciation. Part III presents the results of the study, including summary tables, survivor curve charts and life tables resulting from the retirement rate method of analysis, tabular results of the historical

net salvage analyses, and detailed tabulations of the calculated remaining lives and annual accruals.

BASIS OF STUDY

Depreciation

For most accounts, the annual depreciation was calculated by the straight line method, using the average service life procedure and the remaining life basis. For certain General Plant accounts, the annual depreciation was based on amortization accounting. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group.

Survivor Curve Estimates

The procedure for estimating survivor curves, which define service lives and remaining lives, consisted of compiling historical service life data for the plant accounts or other depreciable groups, analyzing the historical data base through the use of accepted techniques, and forecasting the survivor characteristics for each depreciable account or group. These forecasts were based on interpretations of the historical data analyses and the probable future. The combination of the historical data and the estimated future trend yields a complete pattern of life characteristics, i.e., a survivor curve, from which the average service life and remaining service life are derived.

The historical data analyzed for life estimation purposes were compiled through 2002 from the Company's plant accounting records. Such data included plant additions,

retirements, transfers and other activity recorded by the Company for each of its plant accounts and subaccounts.

The estimates of net salvage incorporated a review of experienced costs of removal and salvage related to plant retirements, and considerations of trends exhibited by the historical data. Each component of net salvage, i.e., cost of removal and salvage was stated in dollars and as a percent of retirement for purposes of estimating average future levels of the components, as well as of net salvage.

An understanding of the function of the plant and information with respect to the reasons for past retirements and the expected causes of future retirements was obtained through field trips and discussions with operating and management personnel. The supplemental information obtained in this manner was considered in the interpretation and extrapolation of the statistical analyses.

Calculation of Depreciation

The depreciation accrual rates were calculated using the straight line method, the remaining life basis, and the equal life group depreciation procedure. The life span technique was used for major structures. In this technique, an average date of final retirement was estimated for each plant location, and the estimated survivor curves applied to each vintage were truncated at ages coinciding with the dates of final retirement.

The change to amortization accounting for certain accounts is recommended because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented on page II-29 of the report.

PART II. METHODS USED IN
THE ESTIMATION OF DEPRECIATION

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

DEPRECIATION

Depreciation, in public utility regulation, is the loss in service value not restored by current repairs or covered by insurance.

Depreciation as used in accounting is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

The calculation of annual depreciation based on the straight line method requires the estimation of average life and salvage. These subjects are discussed in the sections which follow.

SERVICE LIFE AND NET SALVAGE ESTIMATION

Average Service Life

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages. A discussion of the general concept of survivor curves is presented. Also, the Iowa type survivor curves are reviewed.

Survivor Curves

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1 a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1 the remaining life at age 30 years is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval and is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

Iowa Type Curves. The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves,

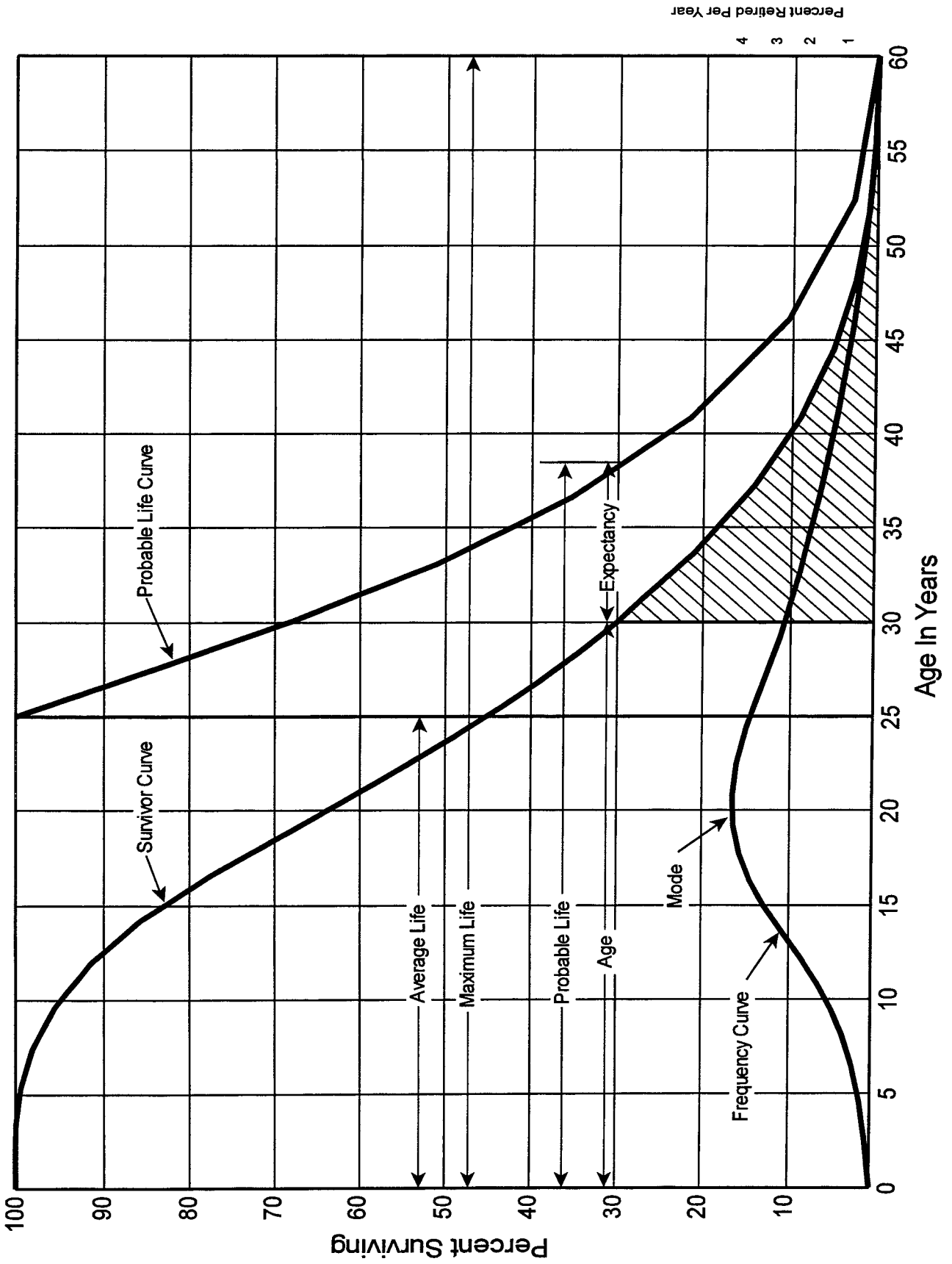


Figure 1. A Typical Survivor Curve and Derived Curves

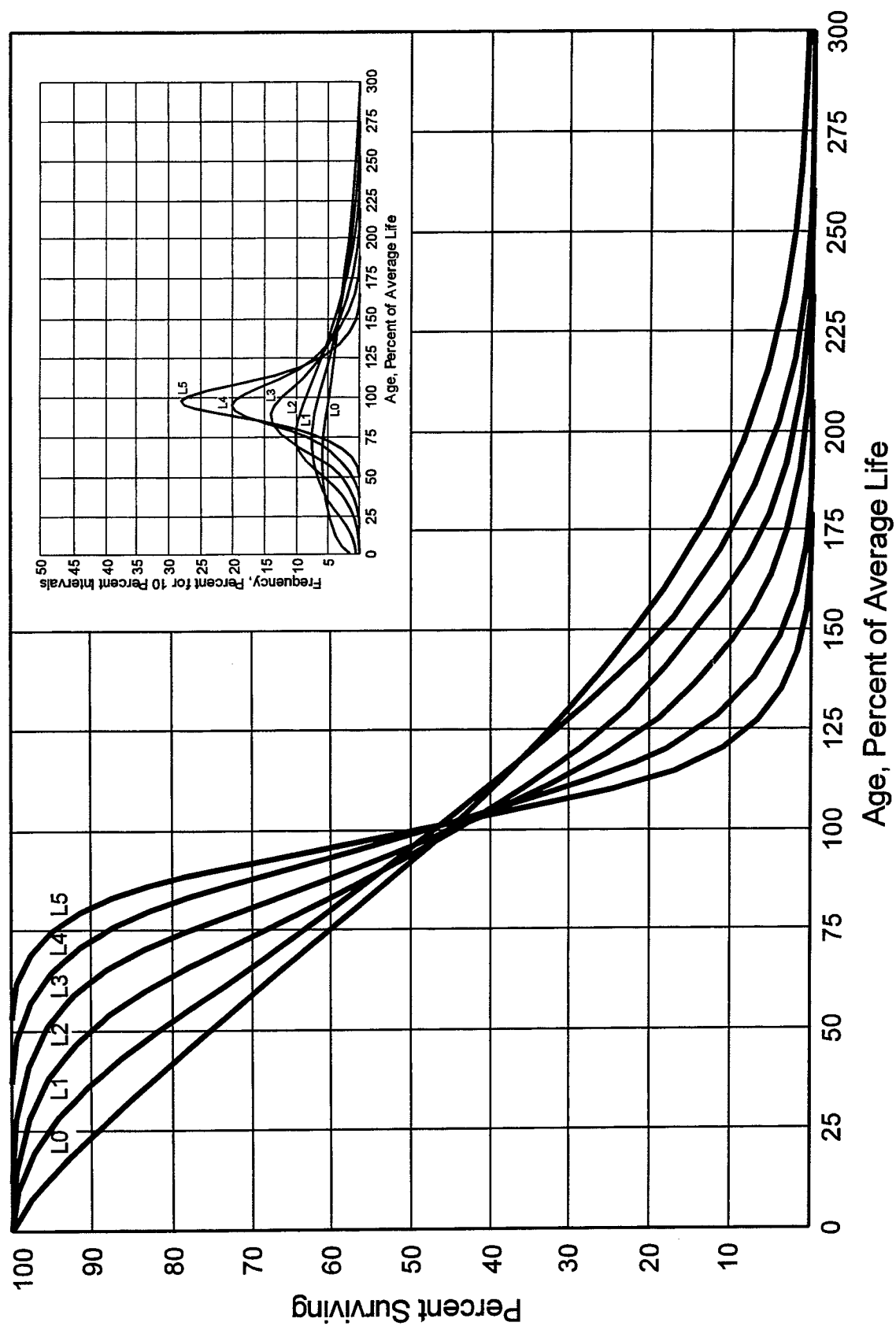


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

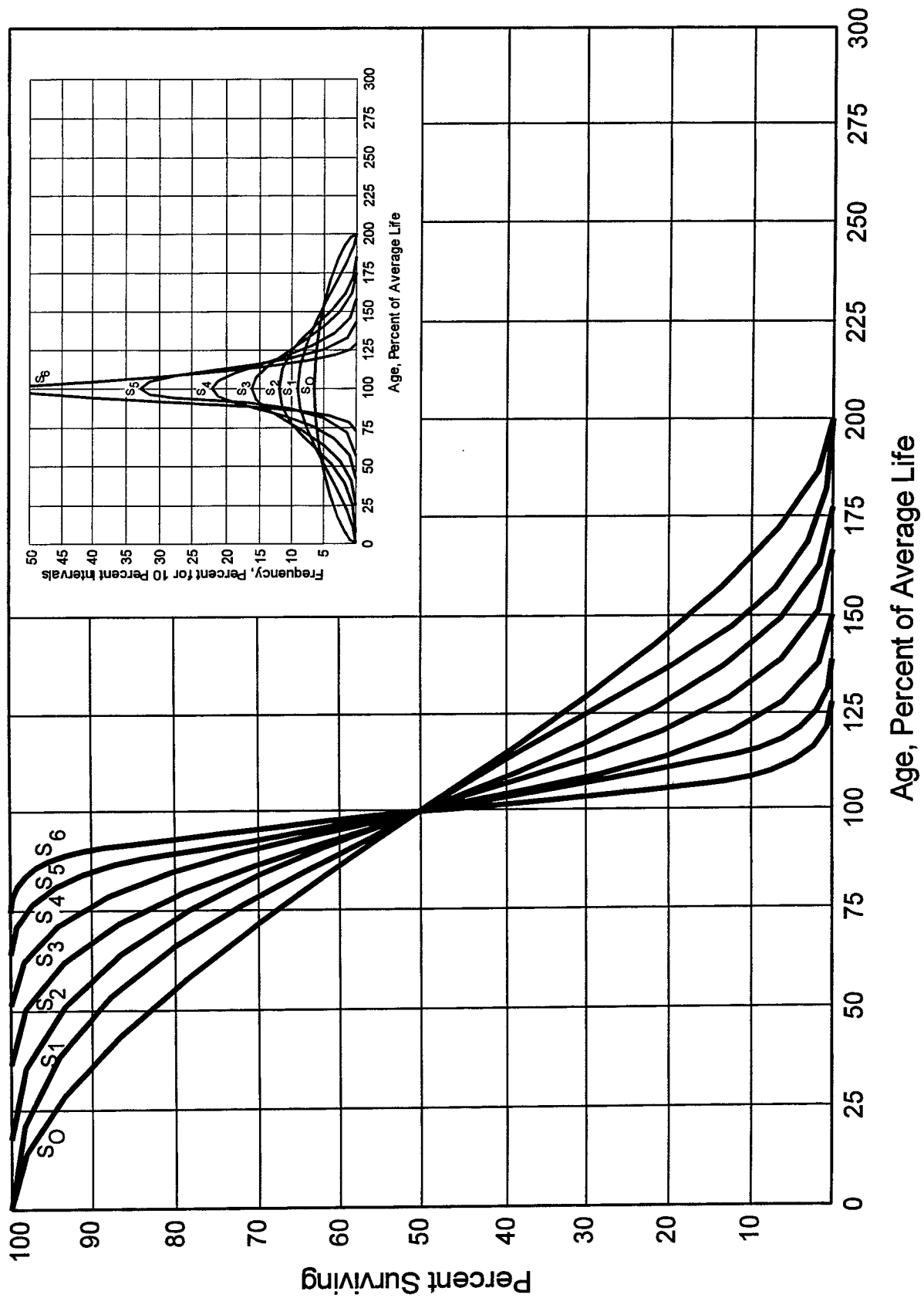


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numerical subscripts represent the relative heights of the modes of the frequency curves within each family.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.¹ These type curves have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."² In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis³ presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to

¹Winfrey, Robley. Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

²Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

³Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

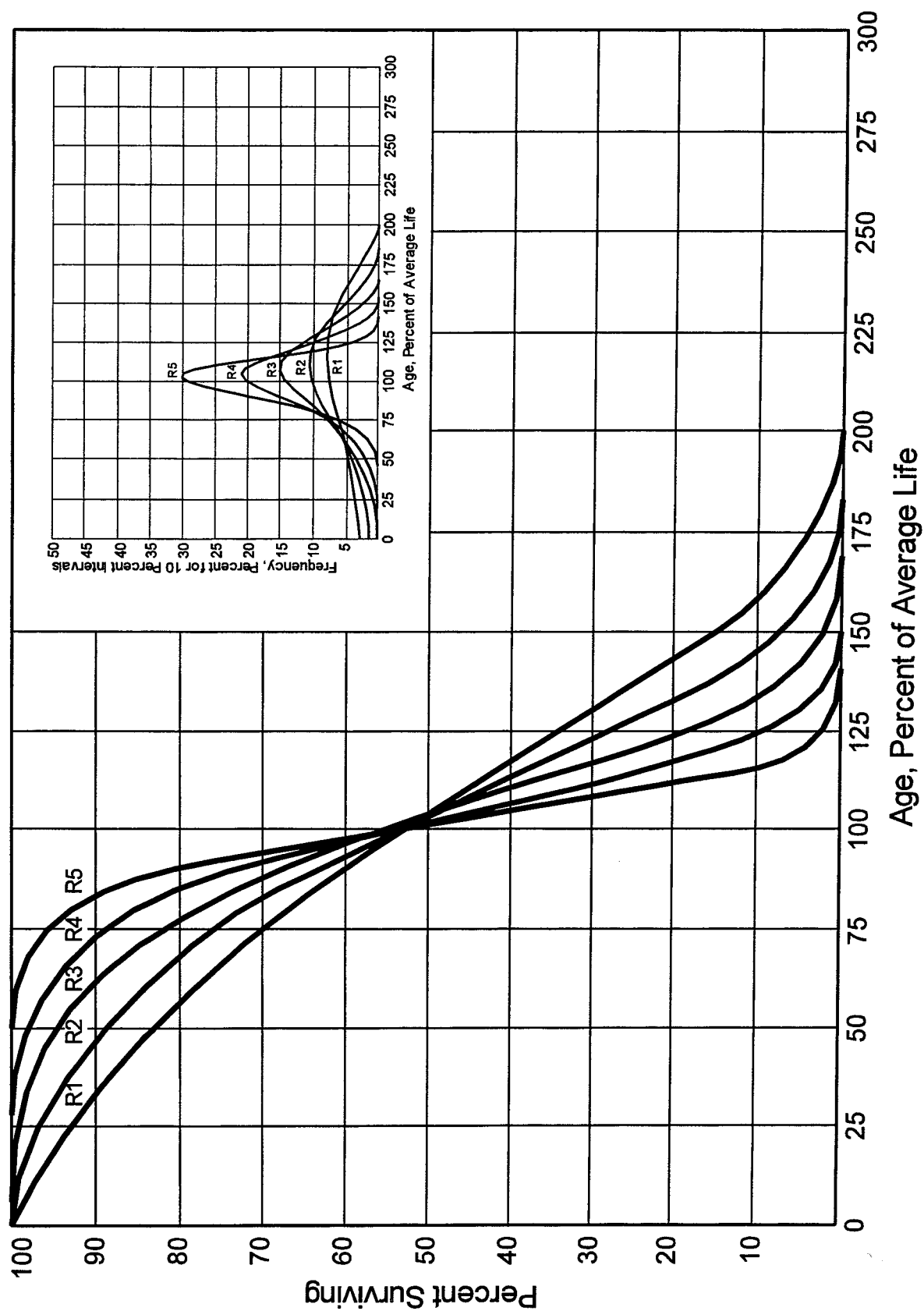


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

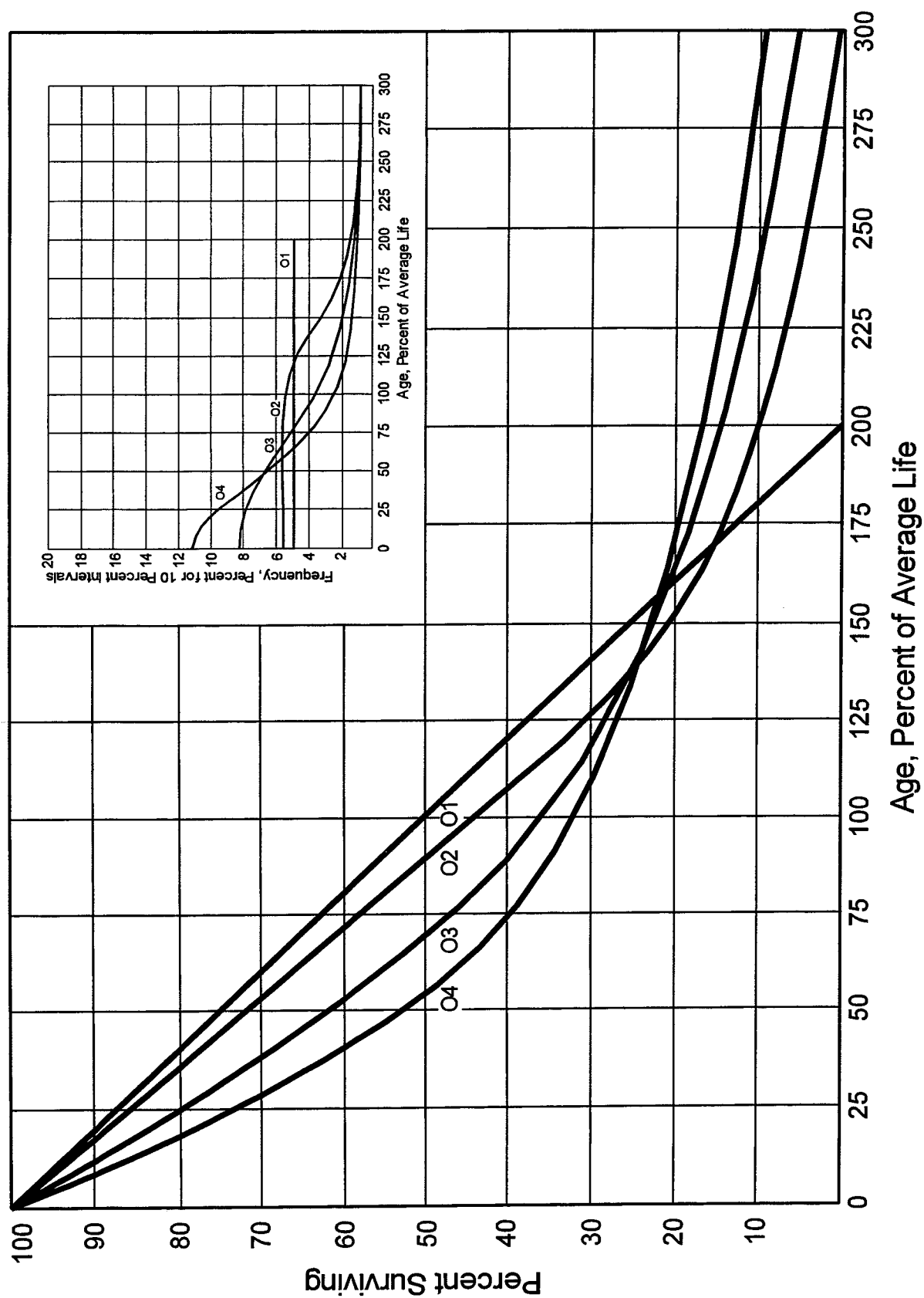


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

property groups for which aged accounting experience is available or for which aged accounting experience is developed by statistically aging unaged amounts and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements,"⁴ "Engineering Valuation and Depreciation,"⁵ and "Depreciation Systems."⁶

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginnings of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table, and illustrations of smoothing the stub survivor curve.

Schedules of Annual Transactions in Plant Records. The property group used to illustrate the retirement rate method is observed for the experience band 1993-2002 during which there were placements during the years 1988-2002. In order to illustrate the

⁴Winfrey, Robley, Supra Note 1.

⁵Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

⁶Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994

summation of the aged data by age interval, the data were compiled in the manner presented in Tables 1 and 2 on pages II-12 and II-13. In Table 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 1988 were retired in 1993. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Table 1 immediately above the stairstep line drawn on the table beginning with the 1993 retirements of 1988 installations and ending with the 2002 retirements of the 1997 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

In Table 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are

TABLE 1. RETIREMENTS FOR EACH YEAR 1993-2002
SUMMARIZED BY AGE INTERVAL

Experience Band 1993-2002		Retirements, Thousands of Dollars											Placement Band 1988-2002	
		During Year												
Year Placed		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total During Age Interval	Age Interval	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
1988	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½	
1989	11	12	13	15	16	18	20	21	22	22	19	44	12½-13½	
1990	11	12	13	14	16	17	19	21	22	22	18	64	11½-12½	
1991	8	9	10	11	11	13	14	15	16	16	17	83	10½-11½	
1992	9	10	11	12	13	14	16	17	19	19	20	93	9½-10½	
1993	4	9	10	11	12	13	14	15	16	16	20	105	8½-9½	
1994		5	11	12	13	14	15	16	18	18	20	113	7½-8½	
1995			6	12	13	15	16	17	17	19	19	124	6½-7½	
1996				6	13	15	16	17	17	19	19	131	5½-6½	
1997					7	14	16	16	17	19	20	143	4½-5½	
1998						8	18	20	22	22	23	146	3½-4½	
1999							9	20	22	22	25	150	2½-3½	
2000								11	23	23	25	151	1½-2½	
2001									11	11	24	153	½-1½	
2002	-	-	-	-	-	-	-	-	-	-	13	80	0-½	
Total	53	68	86	106	128	157	196	231	273	308	1,606			

TABLE 2. OTHER TRANSACTIONS FOR EACH YEAR 1993-2002
SUMMARIZED BY AGE INTERVAL

Experience Band 1993-2002

Placement Band 1988-2002

Acquisitions, Transfers, and Sales, Thousands of Dollars												
Year Placed (1)	During Year										Total During Age Interval (12)	Age Interval (13)
	1993 (2)	1994 (3)	1995 (4)	1996 (5)	1997 (6)	1998 (7)	1999 (8)	2000 (9)	2001 (10)	2002 (11)		
1988	-	-	-	-	-	-	60 ^a	-	-	-	-	13½-14½
1989	-	-	-	-	-	-	-	-	-	-	-	12½-13½
1990	-	-	-	-	-	-	-	-	-	-	-	11½-12½
1991	-	-	-	-	-	-	-	(5) ^b	-	-	60	10½-11½
1992	-	-	-	-	-	-	-	6 ^a	-	-	-	9½-10½
1993	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
1994	-	-	-	-	-	-	-	-	-	-	6	7½-8½
1995	-	-	-	-	-	-	-	-	-	-	-	6½-7½
1996	-	-	-	-	-	-	-	(12) ^b	-	-	-	5½-6½
1997	-	-	-	-	-	-	-	-	22 ^a	-	-	4½-5½
1998	-	-	-	-	-	-	-	(19) ^b	-	-	10	3½-4½
1999	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2000	-	-	-	-	-	-	-	-	-	(102) ^c	(121)	1½-2½
2001	-	-	-	-	-	-	-	-	-	-	-	½-1½
2002	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	=	=	=	=	=	=	60	(30)	22	(102)	(50)	

^a Transfer Affecting Exposures at Beginning of Year.

^b Transfer Affecting Exposures at End of Year.

^c Sale with Continued Use.

Parentheses denote Credit amount.

not totaled with the retirements but are used in developing the exposures at the beginning of each age interval.

Schedule of Plant Exposed to Retirement. The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Table 3 on page II-15.

The surviving plant at the beginning of each year from 1993 through 2002 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Table 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Tables 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 1998 are calculated in the following manner:

Exposures at age 0 = amount of addition	= \$750,000
Exposures at age ½ = \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½ = \$742,000 - \$18,000	= \$724,000
Exposures at age 2½ = \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½ = \$685,000 - \$22,000	= \$663,000

For the entire experience band 1993-2002, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing

TABLE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1
OF EACH YEAR 1993-2002 SUMMARIZED BY AGE INTERVAL

Experience Band 1993-2002										Placement Band 1988-2002			
Year Placed	Exposures, Thousands of Dollars										Total at Beginning of Age Interval	Age Interval	(13)
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
1988	255	245	234	222	209	195	239	216	192	167	167	13½-14½	
1989	279	268	256	243	228	212	194	174	153	131	323	12½-13½	
1990	307	296	284	271	257	241	224	205	184	162	531	11½-12½	
1991	338	330	321	311	300	289	276	262	242	226	823	10½-11½	
1992	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½	
1993	420 ^a	416	407	397	386	374	361	347	332	316	1,503	8½-9½	
1994		460 ^a	455	444	432	419	405	390	374	356	1,952	7½-8½	
1995			510 ^a	504	492	479	464	448	431	412	2,463	6½-7½	
1996				580 ^a	574	561	546	530	501	482	3,057	5½-6½	
1997					660 ^a	653	639	623	628	609	3,789	4½-5½	
1998						750 ^a	742	724	685	663	4,332	3½-4½	
1999							850 ^a	841	821	799	4,955	2½-3½	
2000								960 ^a	949	926	5,719	1½-2½	
2001									1,080 ^a	1,069	6,579	½-1½	
2002										1,220 ^a	7,490	0-½	
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780		

^a Additions during the year.

of the retirements during an age interval (Table 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

Original Life Table. The original life table, illustrated in Table 4 on page II-17, is developed from the totals shown on the schedules of retirements and exposures, Tables 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Tables 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

TABLE 4. ORIGINAL LIFE TABLE
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 1993-2002

Placement Band 1988-2002

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of <u>Interval</u>	Exposures at Beginning of <u>Age Interval</u>	Retirements During Age <u>Interval</u>	Retirement <u>Ratio</u>	Survivor <u>Ratio</u>	Percent Surviving at Beginning of <u>Age Interval</u>
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Table 3, Column 12, Plant Exposed to Retirement.

Column 3 from Table 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 divided by Column 2.

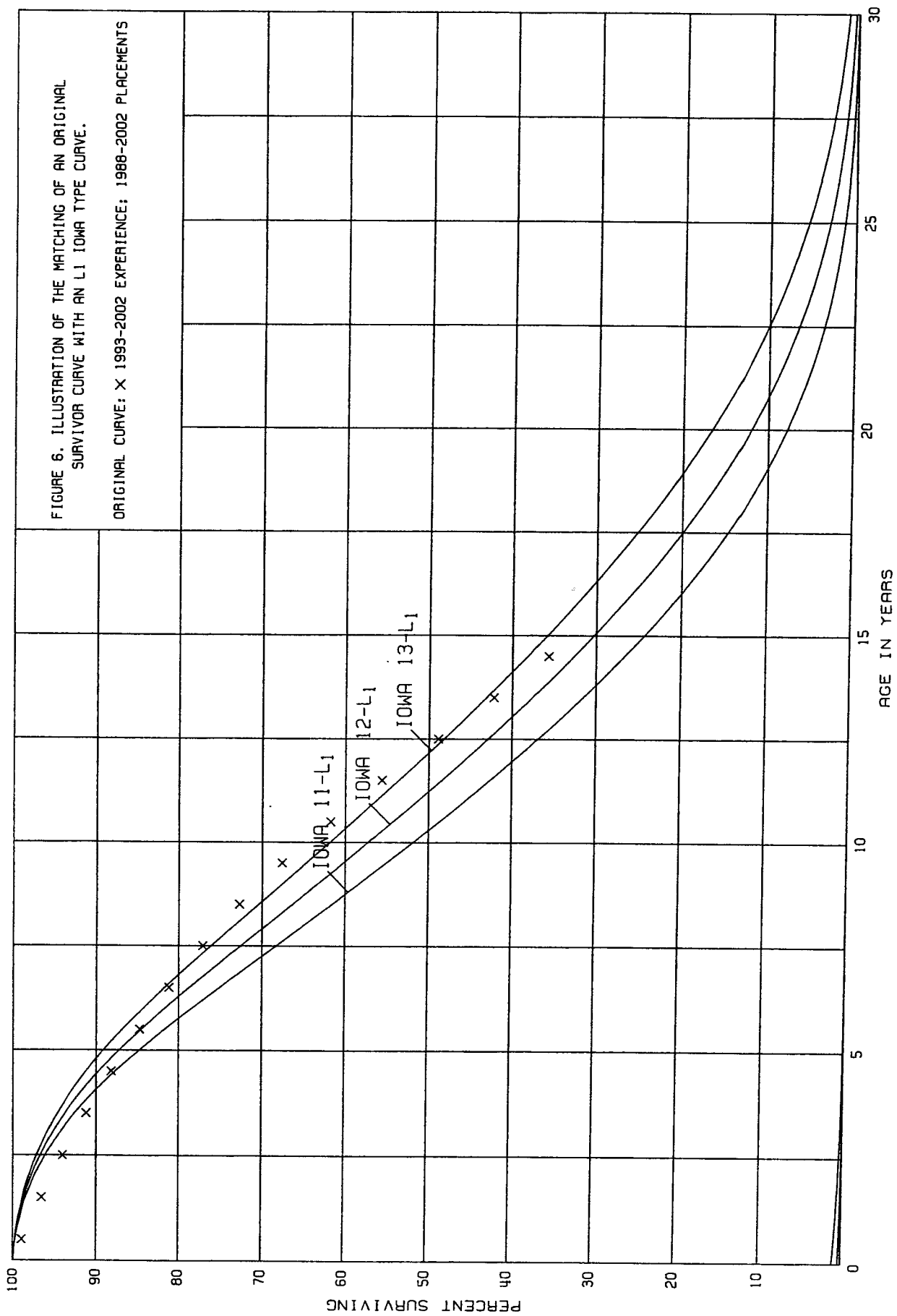
Column 5 = 1.0000 minus Column 4.

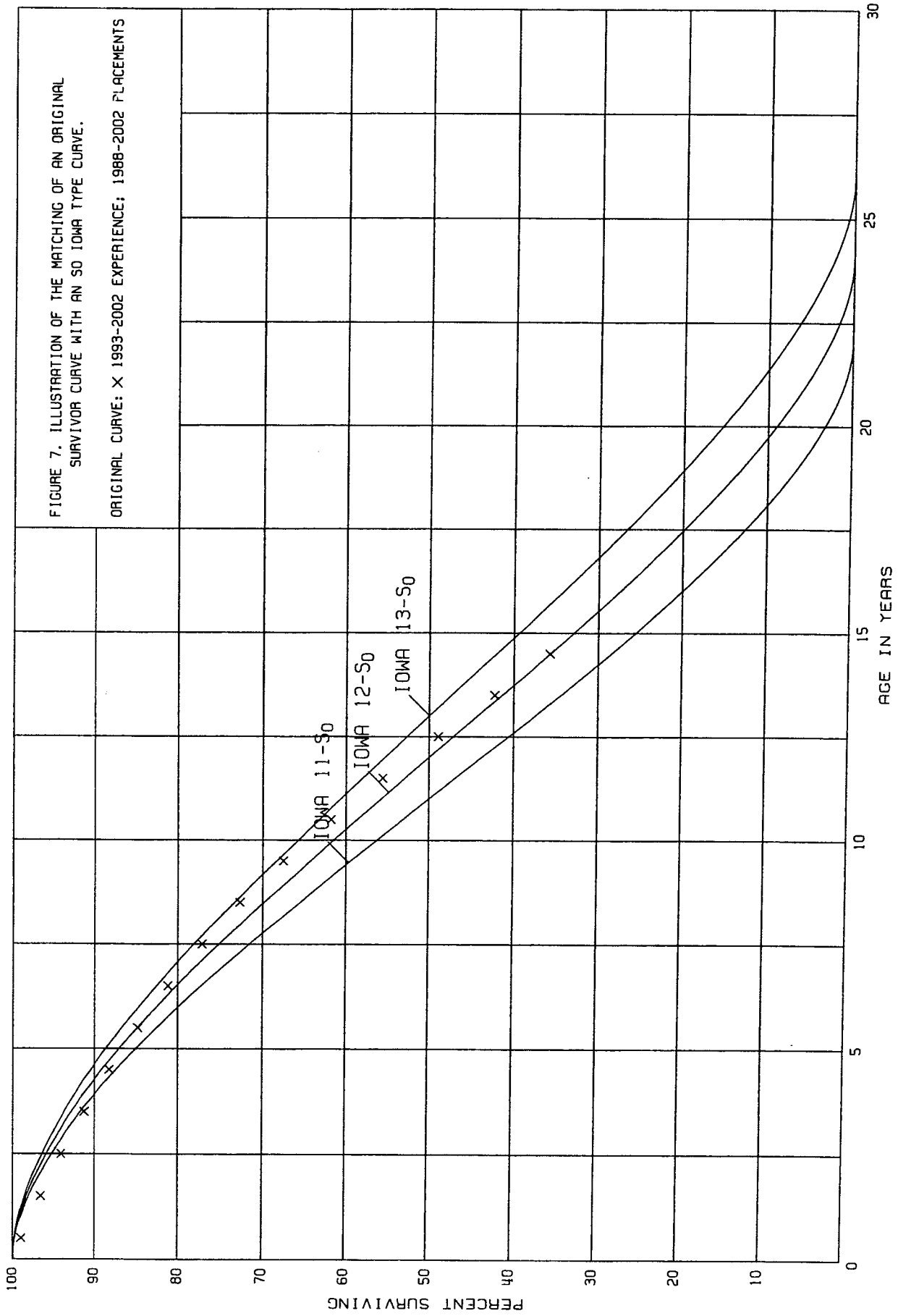
Column 6 = Column 5 multiplied by Column 6 as of the Preceding Age Interval.

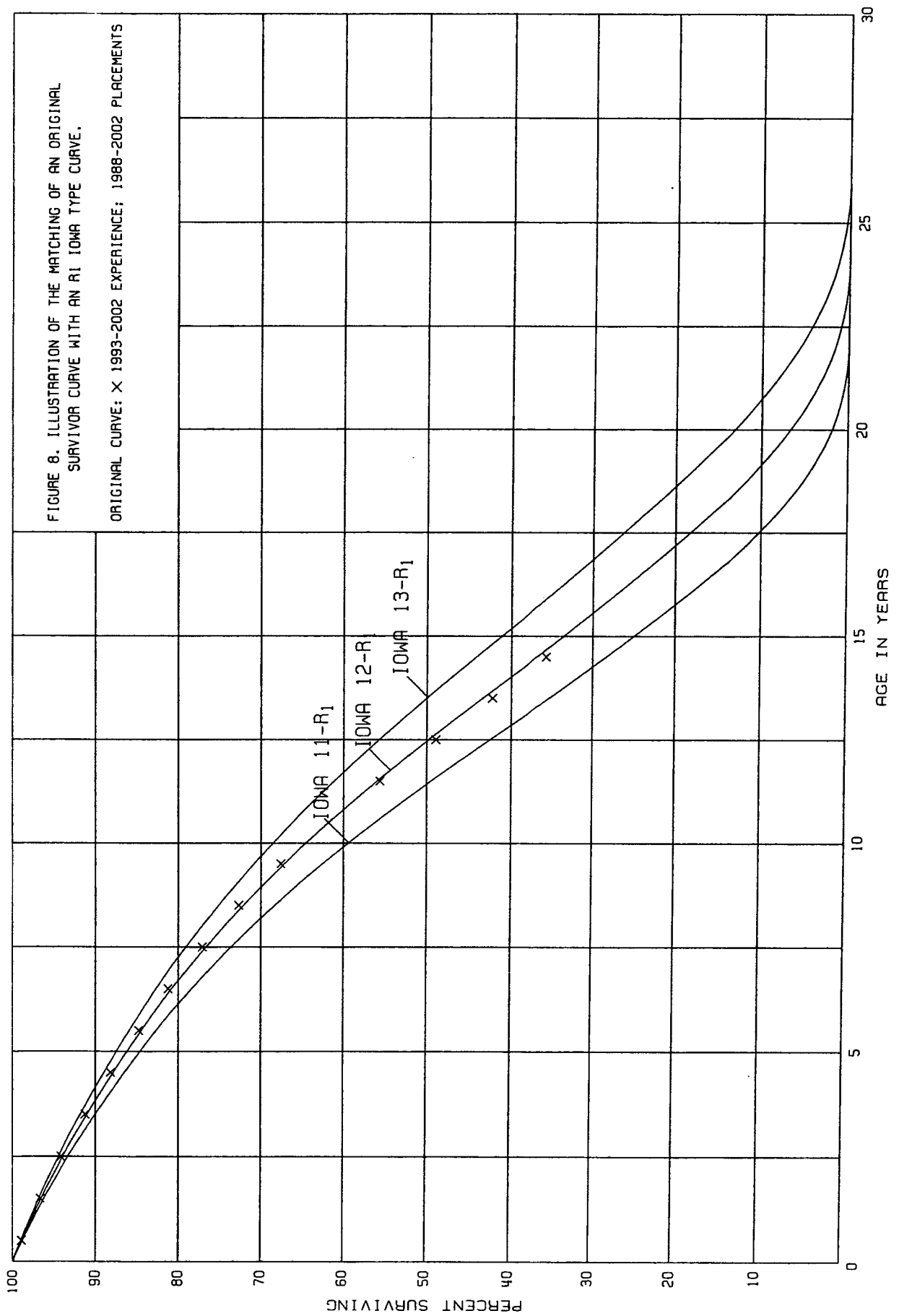
The original survivor curve is plotted from the original life table (column 6, Table 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

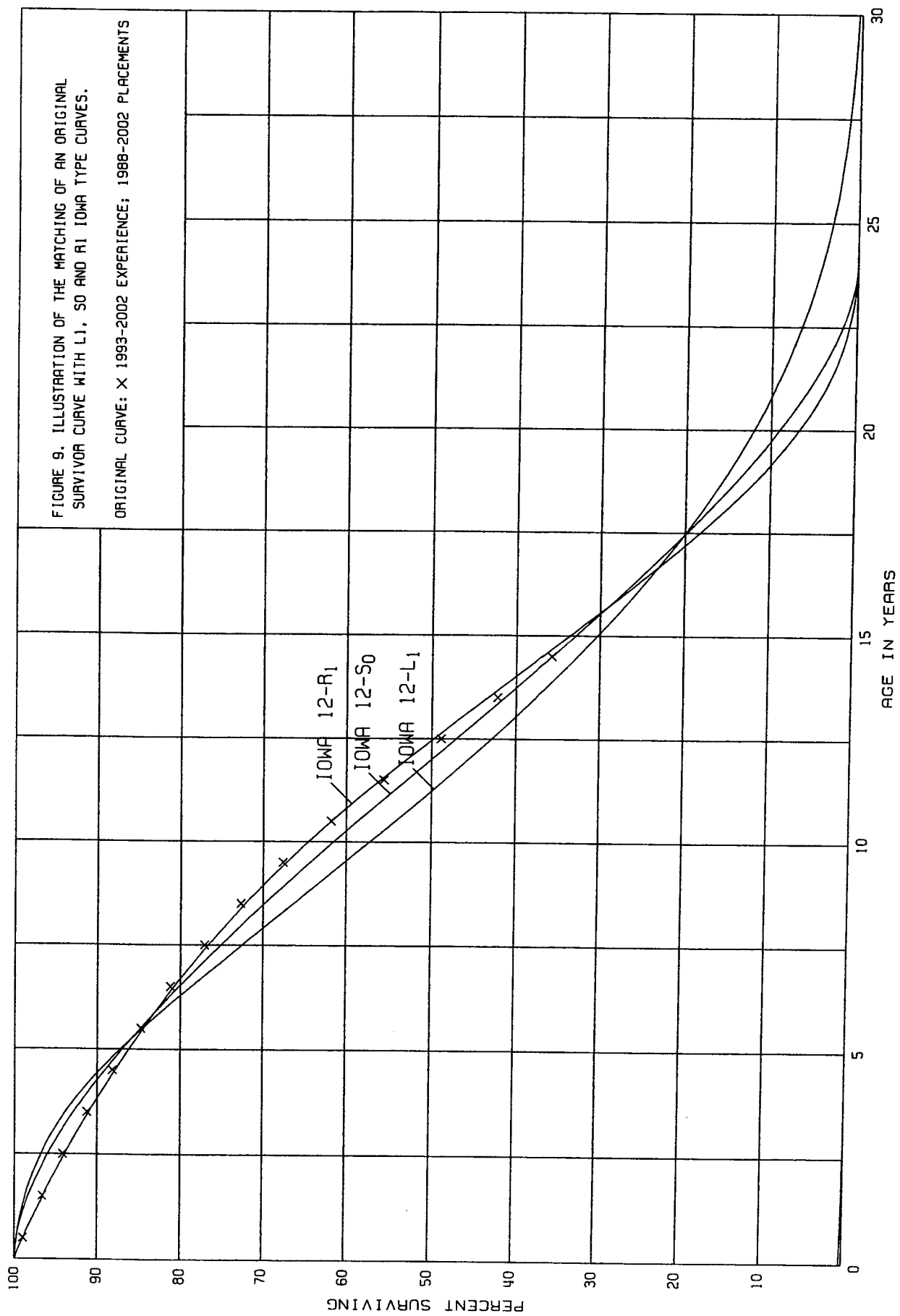
Smoothing the Original Survivor Curve. The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8 the original curve developed in Table 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6 the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7 the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8 the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0. In Figure 9 the three fittings, 12-L1, 12-S0, and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group, assuming no contrary relevant factors external to the analysis of historical data.









Service Life Considerations

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data; current company policies and outlook as determined during field reviews of the property and other conversations with management; and the survivor curve estimates from previous studies of this company and other water companies.

For most of the mass plant accounts and subaccounts, the statistical analyses resulted in good to excellent indications of significant survivor patterns. These accounts represent 74 percent of depreciable plant. Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts listed below.

<u>Account No.</u>	<u>Account Description</u>
304.40	Structures and Improvements - Other
304.61	Structures and Improvements - Office Building
307	Wells and Springs
311	Electric Pumping Equipment
320	Water Treatment Equipment
331	Mains - Transmission and Distribution
333	Services
334	Meters and Meter Installations
335	Fire Hydrants
339.50	Miscellaneous Transmission & Distribution - Other
341.10	Light Trucks
341.20	Heavy Trucks
341.30	Auto
345	Power Operated Equipment

Accounts 331, Mains - Transmission and Distribution, is used to illustrate the manner in which the study was conducted for the accounts in the preceding list. Aged plant accounting data have been compiled for the years through 2002. These data have been

coded according to account or property group, type of transaction, year in which the transaction took place, and year in which the utility plant was placed in service. The retirements, other plant transactions and plant additions were analyzed by the retirement rate method.

The survivor curve estimate for this account is the 90-R2.5 and is based on the statistical indication for the period 1956 through 2002. The 90-R2.5 is an excellent fit of the significant portion of the original survivor curve as set forth on page III-68, is consistent with management outlook for a continuation of the historical experience and is within the typical service life range of 75 to 100 years for water mains.

The life span estimates for structures and equipment in Accounts 304.30, 305.00 and 306.00 which represent 11 percent of depreciable plant were based on the type construction, attained age, observed features and conditions at the time of the field visit, and the plans of management.

Amortization accounting is proposed for certain General Plant accounts that represent numerous units of property, but a small portion of the depreciable plant in service. These accounts represent 3 percent of total utility plant. A discussion of the basis for the amortization periods is presented in the section "Calculation of Annual and Accrued Amortization".

Generally, the estimates for the remaining accounts which comprise 12 percent of the total depreciable plant in service were based on judgments which considered the nature of the plant and equipment, the previous estimate for this company and a general knowledge of service lives for similar equipment in other utility companies.

Salvage Analysis

The estimates of net salvage were based in part on historical data compiled for the years 1987 through 2002. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates are expressed as a percent of the original cost of plant retired.

Net Salvage Considerations

The estimates of salvage were based primarily on judgment which considered a number of factors. The primary factors were the analyses of historical data; a knowledge of management's plans and operating policies; and net salvage estimates from previous studies of this company and other water companies. The accounts for which the historical analyses were representative of expectations for future net salvage levels represent 88 percent of the depreciable plant balance and are presented below:

304.2 & 304.30	Structures and Improvements
304.4, 304.6,	
304.7 & 304.8	Structures and Improvements - General
306	Lake, River and Other Intakes
309	Supply Mains
311	Electric Pumping Equipment
320	Water Treatment Equipment
330	Distribution Reservoirs and Standpipes
331	Mains - Transmission and Distribution
334	Meters and Meter Installations
335	Fire Hydrants
341.1, 341.2	
& 341.3	Transportation Equipment - Vehicles
345	Power Operated Equipment

Account 335, Fire Hydrants, is used to illustrate the manner in which the study was conducted for the accounts in the preceding list. Depreciation reserve accounting data were

compiled for the years 1987 through 2002. These data include the retirements, cost of removal and gross salvage.

The net salvage estimate for this account is negative 20 percent and is based on the trends in cost of removal and salvage percents as shown in the tabulation on page III-132. Cost of removal as a percent of the original cost retired has fluctuated during the experience and most recently decreased as a percentage of plant retired. The overall and most recent five-year bands averaged 35 and 23 percent removal cost, respectively. Gross salvage has been sporadic, averaging 15 percent for the 16-year period, but trending to 8 percent in recent years. The negative 20 percent net salvage estimate is based on the overall cost of removal and gross salvage percent.

The net salvage estimate for Account 333, Services, represents a significant modification of the statistical indications based on previous studies for this and other water companies. This account represents 7 percent of depreciable plant.

For this account, the experienced removal cost during the last six years is several times the typical level for similar assets in other utilities. These amounts were discounted in developing the net salvage estimates and future entries will be reviewed in order to determine the significance of recorded cost of removal in the future.

Amortization accounting is proposed for certain General Plant accounts which represent 3 percent of depreciable property. Future gross salvage and removal cost for these accounts will be recorded as revenue and expense, respectively. Inasmuch as there will be no depreciation reserve entries related to salvage, the estimate of net salvage for accounts subject to amortization is zero percent.

Generally, the net salvage estimates for the remaining accounts, which comprise 2 percent of the total depreciable plant in service, were based on judgments which considered

the nature of the plant and equipment, reviews of available historical data, and a general knowledge of net salvage percents for similar equipment in other water companies.

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

After the survivor curve and salvage are estimated, the annual depreciation accrual rate can be calculated. In the average service life procedure, the annual accrual rate is computed by the following equation:

$$\text{Annual Accrual Rate, Percent} = \frac{(100\% - \text{Net Salvage, Percent})}{\text{Average Service Life}}.$$

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which will not be allocated to expense through future depreciation accruals, if current forecasts of life characteristics are used as a basis for straight line depreciation accounting.

The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and the estimated survivor curve. The accrued depreciation ratios are calculated as follows:

$$\text{Ratio} = \left(1 - \frac{\text{Average Remaining Life Expectancy}}{\text{Average Service Life}}\right) (1 - \text{Net Salvage, Percent}).$$

The application of these procedures is described for a single unit of property and a group of property units. Salvage is omitted from the description for ease of application.

Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10}\right) = \$400.$$

Group Depreciation Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group.

Remaining Life Annual Accruals. For the purpose of calculating remaining life accruals as of December 31, 2002, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of December 31, 2002, are set forth in the Results of Study section of the report.

Average Service Life Procedure. In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining

life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals, if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \frac{\text{Average Remaining Life}}{\text{Average Service Life}}.$$

CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for certain General Plant accounts that represent numerous units of property, but a very small portion of depreciable utility plant in service.

The accounts and their amortization periods are as follows:

<u>Account</u>	<u>Amortization Period, Years</u>
340.10 Office Furniture	20
340.20 Computer Hardware	10
340.30 Computer Software	8
340.50 Office Equipment	15
342.00 Stores Equipment	25
343.00 Tools, Shop & Garage Equipment	20
344.00 Laboratory Equipment	15
346.10 Communication Equip. - Non-Telephone	15
346.20 Communication Equip. - Telephone	10
347.00 Miscellaneous Equipment	15
348.00 Other Tangible Property	20

The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the original cost by the period of amortization for the account.

PART III. RESULTS OF STUDY

PART III. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated annual depreciation accrual rates are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the water plant in service as of December 31, 2002. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2002, is reasonable for a period of three to five years.

DESCRIPTION OF STATISTICAL SUPPORT

The service life and salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other water utility companies. The results of the statistical analyses of service life are presented in the section titled "Service Life Statistics".

The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor curve(s), when

applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

DESCRIPTION OF DEPRECIATION TABULATIONS

A summary of the results of the study, as applied to the original cost of utility plant at December 31, 2002, is presented on pages III-4 and III-5 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to utility plant.

The tables of the calculated annual depreciation accruals are presented in account sequence in the section titled "Depreciation Calculations." The tables indicate the estimated survivor curve and salvage percent for the account and set forth for each installation year the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life and the calculated annual accrual amount.

MISSOURI-AMERICAN WATER COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, NET SALVAGE, ORIGINAL COST, BOOK RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2002

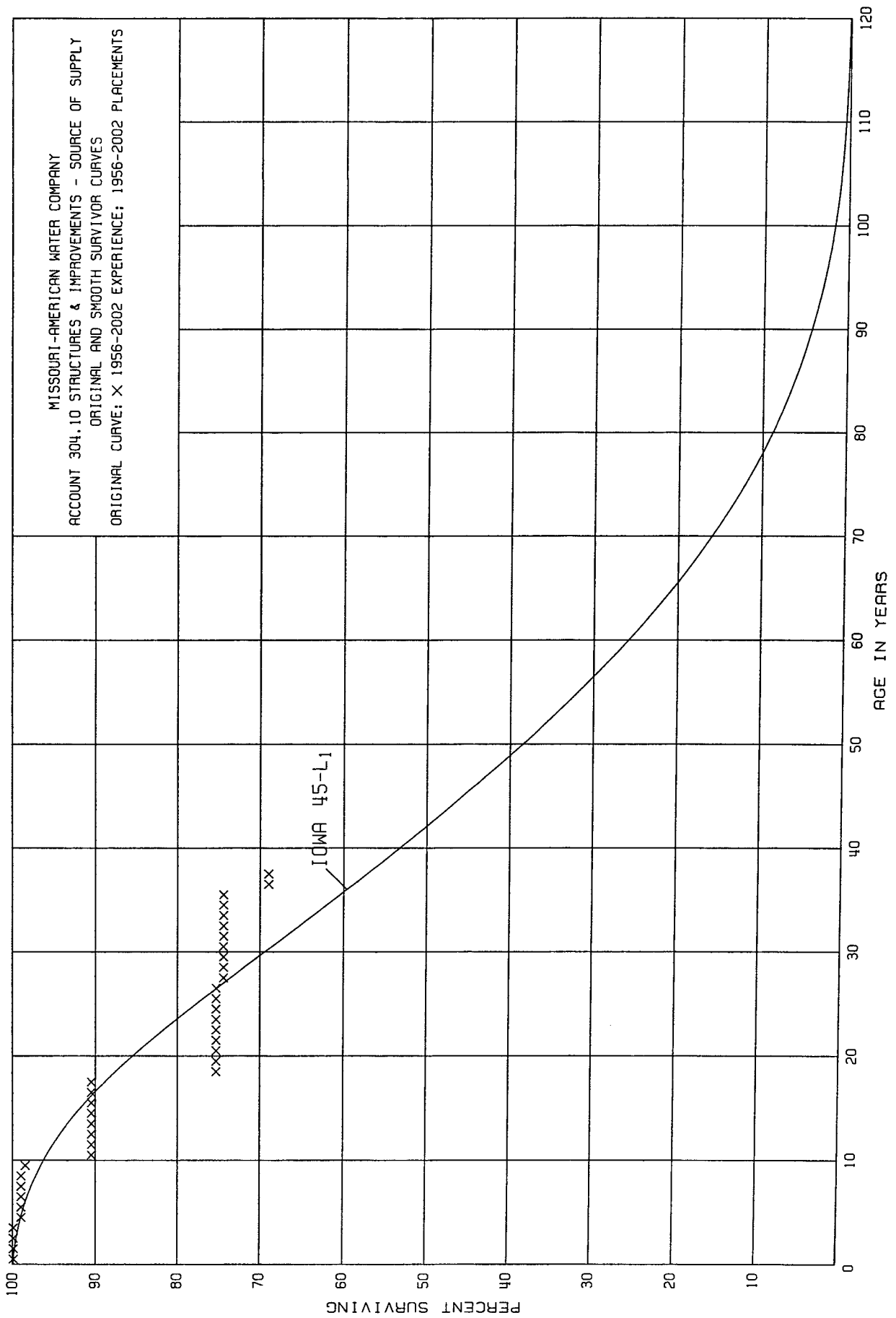
DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET SALVAGE (3)	ORIGINAL COST AT DECEMBER 31, 2002 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	ANNUAL ACCRUAL AMOUNT (7)	COMPOSITE REMAINING LIFE (8)	ANNUAL ACCRUAL RATE PERCENT (9)=(7)/(4)
STRUCTURES & IMPROVEMENTS								
304.10 SOURCE OF SUPPLY	45-L1	0	149,813.87	43,498	106,317	2,581	41.2	1.72
304.20 POWER AND PUMPING	55-R2.5	(15)	6,648,260.23	544,651	7,100,846	143,141	49.6	2.15
304.30 WATER TREATMENT	80-R1	(15)	27,855,028.25	3,110,390	28,922,894	521,428	55.5	1.87
304.40 TRANSMISSION AND DISTRIBUTION	27-S3	(5)	1,310,727.54	332,308	1,043,955	43,821	23.9	3.33
304.61 OFFICE BUILDINGS	42-L0.5	(5)	1,509,846.58	581,919	1,003,419	29,928	33.5	1.98
304.70 SHOP AND GARAGE	45-R3	(5)	254,343.52	11,685	255,375	19,603	13.0	7.71
304.80 MISCELLANEOUS	50-R2.5	(5)	1,225,058.22	105,172	1,181,137	25,548	46.2	2.09
TOTAL STRUCTURES & IMPROVEMENTS			38,953,076.21	4,729,623	39,613,943	785,850	50.4	2.02
COLLECTING AND IMPOUNDING RESERVOIRS								
305.00 COLLECTING AND IMPOUNDING RESERVOIRS	80-R2.5	0	111,065.96	79,475	31,591	2,008	15.7	1.81
306.00 LAKE, RIVER AND OTHER INTAKES	65-R1.5	(10)	58,979.57	(646,275)	711,151	56,570	12.6	95.91
307.00 WELLS AND SPRINGS	60-R1	0	3,990,825.53	480,799	3,510,027	63,520	55.3	1.59
309.00 SUPPLY MAINS	80-R2	(10)	10,936,028.16	557,191	11,472,440	152,642	75.2	1.40
POWER GENERATION EQUIPMENT								
310.10 POWER GENERATION EQUIPMENT	50-R2.5	0	323,229.99	36,092	287,138	7,169	40.1	2.22
310.20 BOILER PLANT EQUIPMENT	50-R2.5	0	347.27	0	347	27	12.9	7.77
311.00 ELECTRIC PUMPING EQUIPMENT	30-R0.5	(5)	11,359,511.80	1,912,905	10,014,584	403,020	24.8	3.55
320.00 WATER TREATMENT EQUIPMENT	30-L0.5	(10)	31,461,145.03	5,428,351	29,178,910	1,067,104	27.3	3.39
330.00 DISTRIBUTION RESERVOIRS & STANDPIPES	60-R3	(20)	8,201,531.53	2,120,793	7,721,042	177,922	43.4	2.17
331.00 MAINS - TRANSMISSION AND DISTRIBUTION	90-R2.5	(25)	97,345,674.20	17,489,952	104,192,135	1,355,290	76.9	1.39
332.00 MAINS - FIRE	90-R2.5	(25)	413,649.09	55,997	461,063	5,626	82.0	1.36
333.00 SERVICES	75-R1.5	(60)	16,560,093.46	4,082,460	22,413,686	339,284	66.1	2.05
334.00 METERS AND METER INSTALLATIONS	20-L1.5	0	12,599,193.99	3,683,266	8,915,926	712,356	12.5	5.65
335.00 FIRE HYDRANTS	67-R2.5	(20)	8,373,079.23	2,637,470	7,410,219	132,427	56.0	1.58
MISCELLANEOUS INTANGIBLE PLANT - OTHER								
339.10 MISCELLANEOUS INTANGIBLE PLANT - OTHER	25-SQ	0	2,294.00	306,586	(304,292)	0	-	-
339.40 MISCELLANEOUS WATER TREATMENT - OTHER	30-SQ	0	1,375,031.68	76,444	1,298,588	44,064	29.5	3.20
339.50 MISCELLANEOUS TRANS. & DISTR. - OTHER	50-R3	0	18,610.15	6,965	11,646	626	18.6	3.36
339.60 MISCELLANEOUS INTANGIBLE PLANT - SOFTWARE	30-SQ	0	284,734.98	336,591	(51,856)	0	-	-
TOTAL ACCOUNT 339			1,680,670.81	726,586	954,086	44,690	21.3	2.66
OFFICE FURNITURE								
340.10 OFFICE FURNITURE	20-SQ	0	673,338.97	549,755	123,586	7,160	17.3	1.06
340.20 COMPUTER HARDWARE	10-SQ	0	1,136,679.41	421,915	714,765	148,226	4.8	13.04
340.30 COMPUTER SOFTWARE	8-SQ	0	1,268,714.40	414,248	854,466	217,450	3.9	17.14
340.50 OTHER EQUIPMENT	15-SQ	0	236,171.07	25,597	210,573	21,467	9.8	9.09
TOTAL ACCOUNT 340			3,314,903.85	1,411,515	1,903,390	394,303	4.8	11.89

MISSOURI-AMERICAN WATER COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, NET SALVAGE, ORIGINAL COST, BOOK RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2002

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET SALVAGE (3)	ORIGINAL COST AT DECEMBER 31, 2002 (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	ANNUAL ACCRUAL AMOUNT (7)	COMPOSITE REMAINING LIFE (8)	ANNUAL ACCRUAL RATE PERCENT (9)=(7)/(4)
TRANSPORTATION EQUIPMENT								
341.10 LIGHT TRUCKS	7.5-L2	25	1,145,553.58	552,327	306,837	51,243	6.0	4.47
341.20 HEAVY TRUCKS	10-S2.5	25	96,394.79	(1,008)	73,304	25,417	2.9	26.37
341.30 AUTOS	5.5-L1.5	25	315,463.22	56,209	180,387	56,315	3.2	17.85
341.40 OTHER	15-S4	0	64,599.06	313,428	(248,829)	0	-	-
TOTAL ACCOUNT 341			1,622,010.65	920,956	311,699	132,975	2.3	8.20
342.00 STORES EQUIPMENT	25-SQ	0	207,997.27	30,512	177,486	8,469	21.0	4.07
343.00 TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	0	1,135,336.89	360,125	775,209	66,812	11.6	5.88
344.00 LABORATORY EQUIPMENT	15-SQ	0	540,063.99	49,015	491,047	54,125	9.1	10.02
345.00 POWER OPERATED EQUIPMENT	16-L2	20	525,709.41	173,925	246,643	22,998	10.7	4.37
346.10 COMMUNICATION EQUIPMENT - NON-TELEPHONE	15-SQ	0	281,387.12	144,295	137,090	14,625	9.4	5.20
346.20 COMMUNICATION EQUIPMENT - TELEPHONE	10-SQ	0	74,461.39	93,062	(18,602)	0	-	-
347.00 MISCELLANEOUS EQUIPMENT	15-SQ	0	348,146.61	68,356	279,791	28,215	9.9	8.10
348.00 OTHER TANGIBLE PROPERTY	20-SQ	0	885,577.82	68,189	817,388	197,643	4.1	22.32
TOTAL DEPRECIABLE PLANT			251,303,696.83	46,694,635	252,009,429	6,225,670		
NONDEPRECIABLE PLANT								
301.00 ORGANIZATION			509,797.88					
302.00 FRANCHISES AND CONSENTS			39,650.89					
303.20 LAND AND LAND RIGHTS - SOURCE OF SUPPLY			1,372,144.50					
303.30 LAND AND LAND RIGHTS - PUMPING			81,483.30					
303.40 LAND AND LAND RIGHTS - WATER TREATMENT			33,419.10					
303.50 LAND AND LAND RIGHTS - TRANSMISSION & DISTRIBUTION			395,380.09					
303.60 LAND AND LAND RIGHTS - ADMINISTRATIVE			201,703.43					
TOTAL NONDEPRECIABLE PLANT			2,633,579.19					
TOTAL UTILITY PLANT			253,937,276.02					

* LIFE SPAN PROCEDURE IS USED. SURVIVOR CURVE SHOWN IS INTERIM CURVE.



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.10 STRUCTURES & IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	162,670		0.0000	1.0000	100.00
0.5	103,779		0.0000	1.0000	100.00
1.5	92,051		0.0000	1.0000	100.00
2.5	80,724		0.0000	1.0000	100.00
3.5	80,724	839	0.0104	0.9896	100.00
4.5	79,885		0.0000	1.0000	98.96
5.5	79,885		0.0000	1.0000	98.96
6.5	79,885		0.0000	1.0000	98.96
7.5	79,885		0.0000	1.0000	98.96
8.5	68,672	353	0.0051	0.9949	98.96
9.5	68,319	5,547	0.0812	0.9188	98.46
10.5	62,772		0.0000	1.0000	90.47
11.5	54,815	11	0.0002	0.9998	90.47
12.5	47,347		0.0000	1.0000	90.45
13.5	31,011		0.0000	1.0000	90.45
14.5	31,011		0.0000	1.0000	90.45
15.5	31,011		0.0000	1.0000	90.45
16.5	31,011		0.0000	1.0000	90.45
17.5	31,011	5,198	0.1676	0.8324	90.45
18.5	13,079		0.0000	1.0000	75.29
19.5	12,226		0.0000	1.0000	75.29
20.5	12,226		0.0000	1.0000	75.29
21.5	12,226		0.0000	1.0000	75.29
22.5	12,226		0.0000	1.0000	75.29
23.5	12,226		0.0000	1.0000	75.29
24.5	12,226		0.0000	1.0000	75.29
25.5	12,226		0.0000	1.0000	75.29
26.5	12,226	150	0.0123	0.9877	75.29
27.5	12,076		0.0000	1.0000	74.36
28.5	12,076		0.0000	1.0000	74.36
29.5	12,076		0.0000	1.0000	74.36
30.5	12,076		0.0000	1.0000	74.36
31.5	12,076		0.0000	1.0000	74.36
32.5	12,076		0.0000	1.0000	74.36
33.5	12,076		0.0000	1.0000	74.36
34.5	10,581		0.0000	1.0000	74.36
35.5	10,581	758	0.0716	0.9284	74.36
36.5	9,822		0.0000	1.0000	69.04
37.5	9,822		0.0000	1.0000	69.04
38.5	9,822		0.0000	1.0000	69.04

MISSOURI-AMERICAN WATER COMPANY

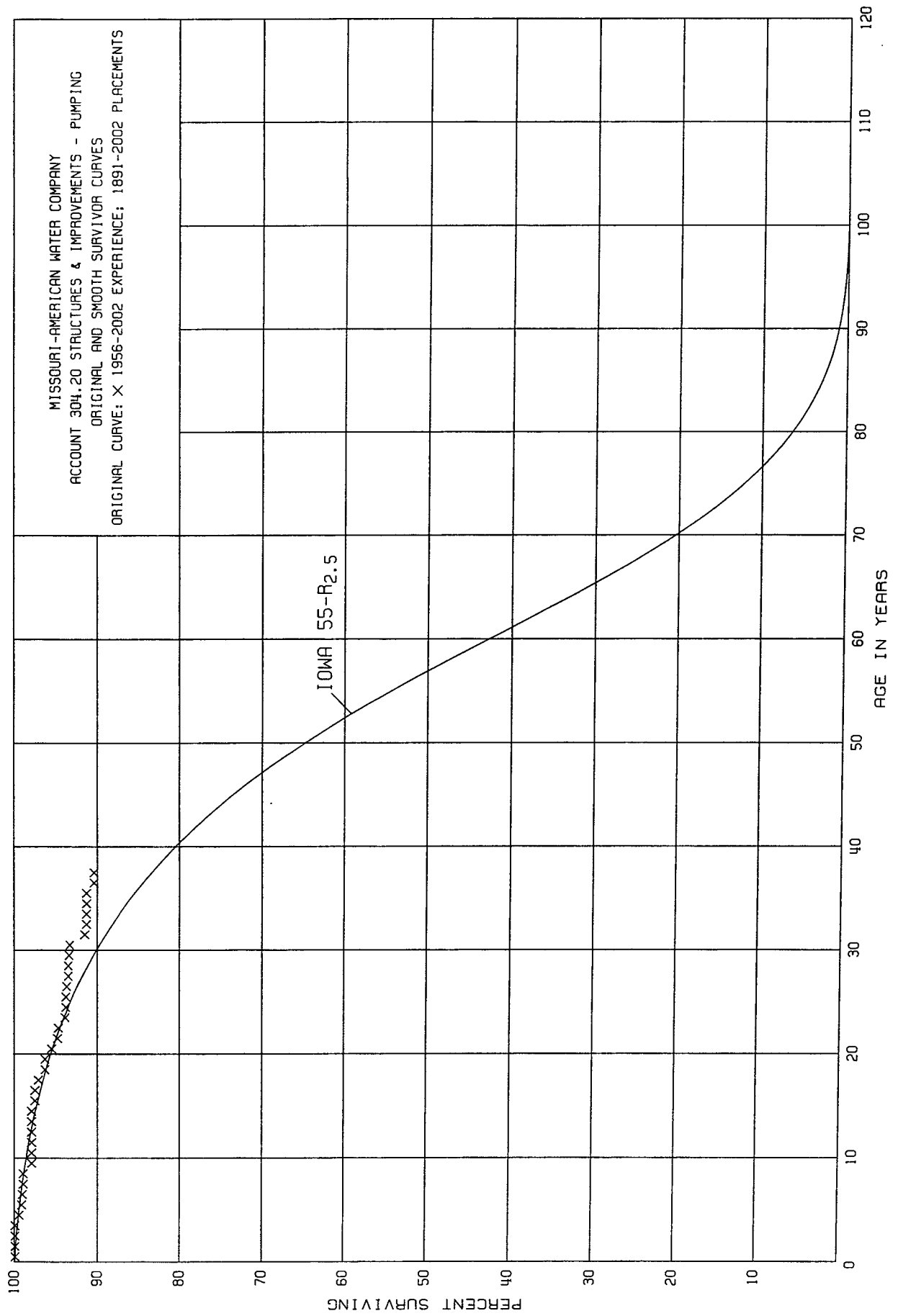
ACCOUNT 304.10 STRUCTURES & IMPROVEMENTS - SOURCE OF SUPPLY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,822		0.0000	1.0000	69.04
40.5	9,822		0.0000	1.0000	69.04
41.5	9,822		0.0000	1.0000	69.04
42.5	9,822		0.0000	1.0000	69.04
43.5	4,923		0.0000	1.0000	69.04
44.5	4,923		0.0000	1.0000	69.04
45.5	4,923		0.0000	1.0000	69.04
46.5					69.04



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.20 STRUCTURES & IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1891-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,250,387	394	0.0001	0.9999	100.00
0.5	7,089,829	3,431	0.0005	0.9995	99.99
1.5	6,899,615	400	0.0001	0.9999	99.94
2.5	2,389,348	325	0.0001	0.9999	99.93
3.5	2,376,057	11,363	0.0048	0.9952	99.92
4.5	2,342,123	7,814	0.0033	0.9967	99.44
5.5	1,258,886	1,295	0.0010	0.9990	99.11
6.5	1,073,810	1,324	0.0012	0.9988	99.01
7.5	1,064,930		0.0000	1.0000	98.89
8.5	1,057,227	10,420	0.0099	0.9901	98.89
9.5	980,865	145	0.0001	0.9999	97.91
10.5	957,475	129	0.0001	0.9999	97.90
11.5	913,575		0.0000	1.0000	97.89
12.5	874,448		0.0000	1.0000	97.89
13.5	788,134		0.0000	1.0000	97.89
14.5	778,012	3,194	0.0041	0.9959	97.89
15.5	772,460		0.0000	1.0000	97.49
16.5	684,038	2,535	0.0037	0.9963	97.49
17.5	667,269	5,881	0.0088	0.9912	97.13
18.5	593,606	118	0.0002	0.9998	96.28
19.5	590,536	4,872	0.0083	0.9917	96.26
20.5	492,824	3,330	0.0068	0.9932	95.46
21.5	483,985	689	0.0014	0.9986	94.81
22.5	403,310	3,520	0.0087	0.9913	94.68
23.5	368,116	305	0.0008	0.9992	93.86
24.5	342,484	106	0.0003	0.9997	93.78
25.5	342,378	200	0.0006	0.9994	93.75
26.5	339,100	857	0.0025	0.9975	93.69
27.5	319,370		0.0000	1.0000	93.46
28.5	318,867	312	0.0010	0.9990	93.46
29.5	247,653	241	0.0010	0.9990	93.37
30.5	282,869	5,253	0.0186	0.9814	93.28
31.5	277,542	607	0.0022	0.9978	91.54
32.5	270,049		0.0000	1.0000	91.34
33.5	239,435	96	0.0004	0.9996	91.34
34.5	239,339	70	0.0003	0.9997	91.30
35.5	239,269	2,282	0.0095	0.9905	91.27
36.5	228,170	85	0.0004	0.9996	90.40
37.5	226,180	298	0.0013	0.9987	90.36
38.5	139,163		0.0000	1.0000	90.24

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.20 STRUCTURES & IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1891-2002

EXPERIENCE BAND 1956-2002

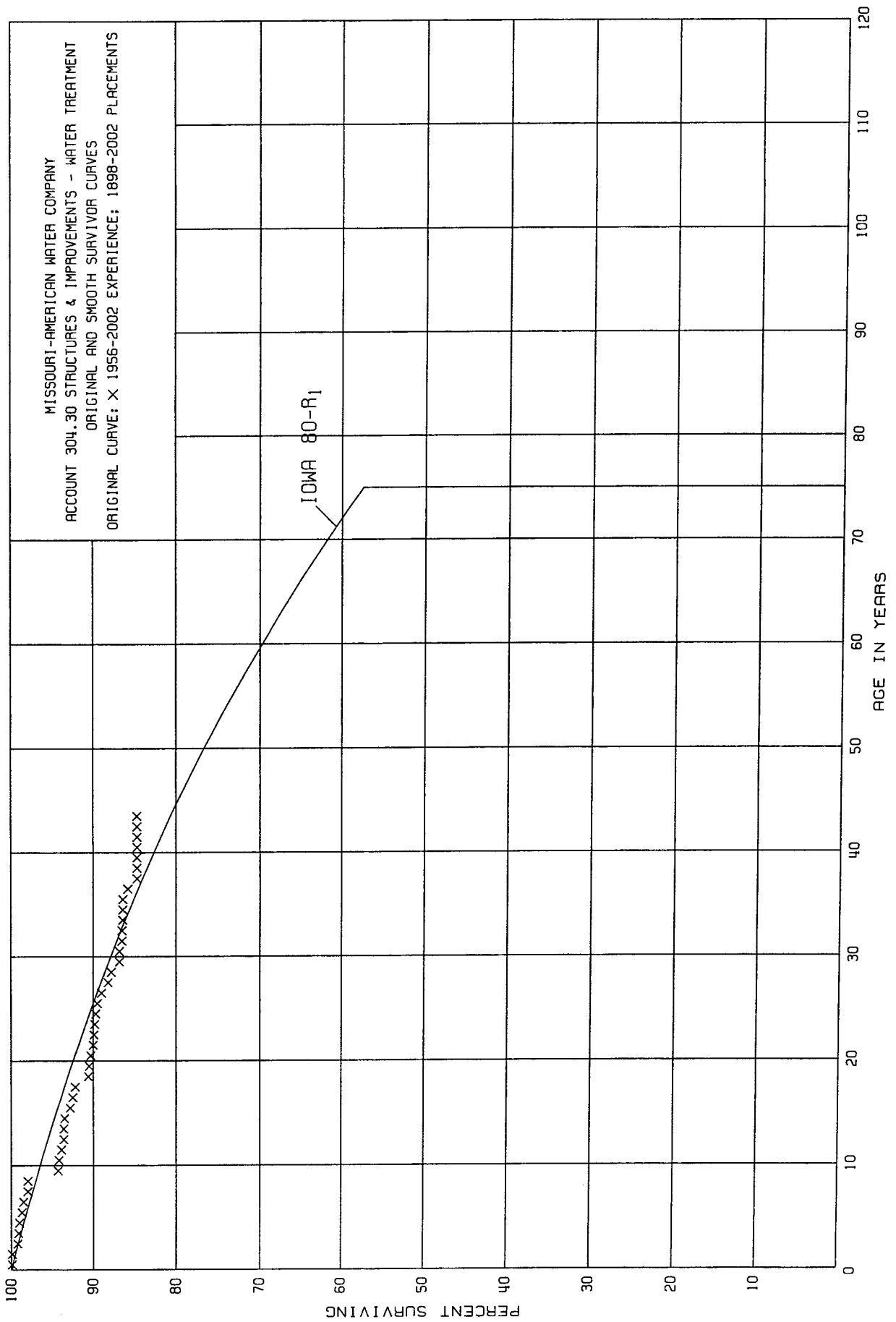
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	119,353		0.0000	1.0000	90.24
40.5	117,758	400	0.0034	0.9966	90.24
41.5	116,059	418	0.0036	0.9964	89.93
42.5	113,018		0.0000	1.0000	89.61
43.5	113,018		0.0000	1.0000	89.61
44.5	110,749		0.0000	1.0000	89.61
45.5	116,995		0.0000	1.0000	89.61
46.5	72,969		0.0000	1.0000	89.61
47.5	67,371		0.0000	1.0000	89.61
48.5	68,962		0.0000	1.0000	89.61
49.5	68,962	693	0.0100	0.9900	89.61
50.5	68,269		0.0000	1.0000	88.71
51.5	66,129		0.0000	1.0000	88.71
52.5	58,347		0.0000	1.0000	88.71
53.5	57,720		0.0000	1.0000	88.71
54.5	57,485		0.0000	1.0000	88.71
55.5	63,823		0.0000	1.0000	88.71
56.5	63,799	217	0.0034	0.9966	88.71
57.5	67,539		0.0000	1.0000	88.41
58.5	67,516		0.0000	1.0000	88.41
59.5	67,516		0.0000	1.0000	88.41
60.5	67,516		0.0000	1.0000	88.41
61.5	67,436		0.0000	1.0000	88.41
62.5	67,425		0.0000	1.0000	88.41
63.5	72,283		0.0000	1.0000	88.41
64.5	78,688		0.0000	1.0000	88.41
65.5	78,688		0.0000	1.0000	88.41
66.5	78,688		0.0000	1.0000	88.41
67.5	78,688		0.0000	1.0000	88.41
68.5	78,634		0.0000	1.0000	88.41
69.5	78,634		0.0000	1.0000	88.41
70.5	78,634		0.0000	1.0000	88.41
71.5	78,634		0.0000	1.0000	88.41
72.5	78,634		0.0000	1.0000	88.41
73.5	78,634	298	0.0038	0.9962	88.41
74.5	78,336		0.0000	1.0000	88.07
75.5	42,699		0.0000	1.0000	88.07
76.5	42,622	5,100	0.1197	0.8803	88.07
77.5	37,522		0.0000	1.0000	77.53
78.5	37,522		0.0000	1.0000	77.53

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.20 STRUCTURES & IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1891-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	37,522		0.0000	1.0000	77.53
80.5	37,522		0.0000	1.0000	77.53
81.5	37,522		0.0000	1.0000	77.53
82.5	37,522		0.0000	1.0000	77.53
83.5	37,522	302	0.0080	0.9920	77.53
84.5	37,220		0.0000	1.0000	76.91
85.5	37,220	76	0.0020	0.9980	76.91
86.5	37,143		0.0000	1.0000	76.76
87.5	37,143		0.0000	1.0000	76.76
88.5	37,143		0.0000	1.0000	76.76
89.5	37,143		0.0000	1.0000	76.76
90.5	37,143		0.0000	1.0000	76.76
91.5	37,023	232	0.0063	0.9937	76.76
92.5	23,320		0.0000	1.0000	76.28
93.5	22,703		0.0000	1.0000	76.28
94.5	22,703		0.0000	1.0000	76.28
95.5	22,703		0.0000	1.0000	76.28
96.5	22,703		0.0000	1.0000	76.28
97.5	22,703		0.0000	1.0000	76.28
98.5	22,703		0.0000	1.0000	76.28
99.5	22,703		0.0000	1.0000	76.28
100.5	22,703		0.0000	1.0000	76.28
101.5	22,703		0.0000	1.0000	76.28
102.5	14,880		0.0000	1.0000	76.28
103.5	14,880		0.0000	1.0000	76.28
104.5	11,128		0.0000	1.0000	76.28
105.5	11,128		0.0000	1.0000	76.28
106.5	11,128		0.0000	1.0000	76.28
107.5	11,128		0.0000	1.0000	76.28
108.5	11,128		0.0000	1.0000	76.28
109.5	4,626		0.0000	1.0000	76.28
110.5					76.28



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1898-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	28,515,944		0.0000	1.0000	100.00
0.5	28,288,620	68	0.0000	1.0000	100.00
1.5	27,786,321	212,979	0.0077	0.9923	100.00
2.5	1,754,427	2,185	0.0012	0.9988	99.23
3.5	1,745,977	2,380	0.0014	0.9986	99.11
4.5	1,432,917	4,631	0.0032	0.9968	98.97
5.5	1,387,917	2,788	0.0020	0.9980	98.65
6.5	1,383,364	6,219	0.0045	0.9955	98.45
7.5	1,346,526	608	0.0005	0.9995	98.01
8.5	1,320,878	49,735	0.0377	0.9623	97.96
9.5	1,079,353	877	0.0008	0.9992	94.27
10.5	1,050,206	2,892	0.0028	0.9972	94.19
11.5	1,013,834	3,756	0.0037	0.9963	93.93
12.5	997,029		0.0000	1.0000	93.58
13.5	915,705	538	0.0006	0.9994	93.58
14.5	901,265	7,364	0.0082	0.9918	93.52
15.5	891,638	2,624	0.0029	0.9971	92.75
16.5	888,255	2,385	0.0027	0.9973	92.48
17.5	672,536	11,655	0.0173	0.9827	92.23
18.5	638,040	1,232	0.0019	0.9981	90.63
19.5	630,660	1,041	0.0017	0.9983	90.46
20.5	617,951	1,946	0.0031	0.9969	90.31
21.5	614,288	622	0.0010	0.9990	90.03
22.5	610,314	767	0.0013	0.9987	89.94
23.5	594,821	803	0.0013	0.9987	89.82
24.5	591,824	1,351	0.0023	0.9977	89.70
25.5	590,004	2,948	0.0050	0.9950	89.49
26.5	587,056	5,601	0.0095	0.9905	89.04
27.5	575,003	2,695	0.0047	0.9953	88.19
28.5	542,523	6,343	0.0117	0.9883	87.78
29.5	535,793		0.0000	1.0000	86.75
30.5	568,376	1,712	0.0030	0.9970	86.75
31.5	388,222		0.0000	1.0000	86.49
32.5	386,847	236	0.0006	0.9994	86.49
33.5	386,611	75	0.0002	0.9998	86.44
34.5	385,533		0.0000	1.0000	86.42
35.5	384,646	2,659	0.0069	0.9931	86.42
36.5	381,987	4,851	0.0127	0.9873	85.82
37.5	377,007		0.0000	1.0000	84.73
38.5	377,007	120	0.0003	0.9997	84.73

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1898-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	376,490		0.0000	1.0000	84.70
40.5	368,813		0.0000	1.0000	84.70
41.5	368,720		0.0000	1.0000	84.70
42.5	271,445		0.0000	1.0000	84.70
43.5	153,188		0.0000	1.0000	84.70
44.5	128,826		0.0000	1.0000	84.70
45.5	127,581		0.0000	1.0000	84.70
46.5	38,513		0.0000	1.0000	84.70
47.5	38,513		0.0000	1.0000	84.70
48.5	38,513		0.0000	1.0000	84.70
49.5	38,513		0.0000	1.0000	84.70
50.5	37,391		0.0000	1.0000	84.70
51.5	37,041		0.0000	1.0000	84.70
52.5	37,041		0.0000	1.0000	84.70
53.5	38,897		0.0000	1.0000	84.70
54.5	38,897		0.0000	1.0000	84.70
55.5	38,897		0.0000	1.0000	84.70
56.5	38,797		0.0000	1.0000	84.70
57.5	41,665		0.0000	1.0000	84.70
58.5	41,665		0.0000	1.0000	84.70
59.5	41,665		0.0000	1.0000	84.70
60.5	41,611		0.0000	1.0000	84.70
61.5	41,611	734	0.0176	0.9824	84.70
62.5	40,877		0.0000	1.0000	83.21
63.5	40,877	66	0.0016	0.9984	83.21
64.5	40,810		0.0000	1.0000	83.08
65.5	40,810	50	0.0012	0.9988	83.08
66.5	40,760		0.0000	1.0000	82.98
67.5	40,760		0.0000	1.0000	82.98
68.5	40,760		0.0000	1.0000	82.98
69.5	40,760		0.0000	1.0000	82.98
70.5	40,760		0.0000	1.0000	82.98
71.5	40,760		0.0000	1.0000	82.98
72.5	40,760		0.0000	1.0000	82.98
73.5	40,760	341	0.0084	0.9916	82.98
74.5	40,419		0.0000	1.0000	82.28
75.5	8,687		0.0000	1.0000	82.28
76.5	8,687		0.0000	1.0000	82.28
77.5	8,687		0.0000	1.0000	82.28
78.5	8,687		0.0000	1.0000	82.28

MISSOURI-AMERICAN WATER COMPANY

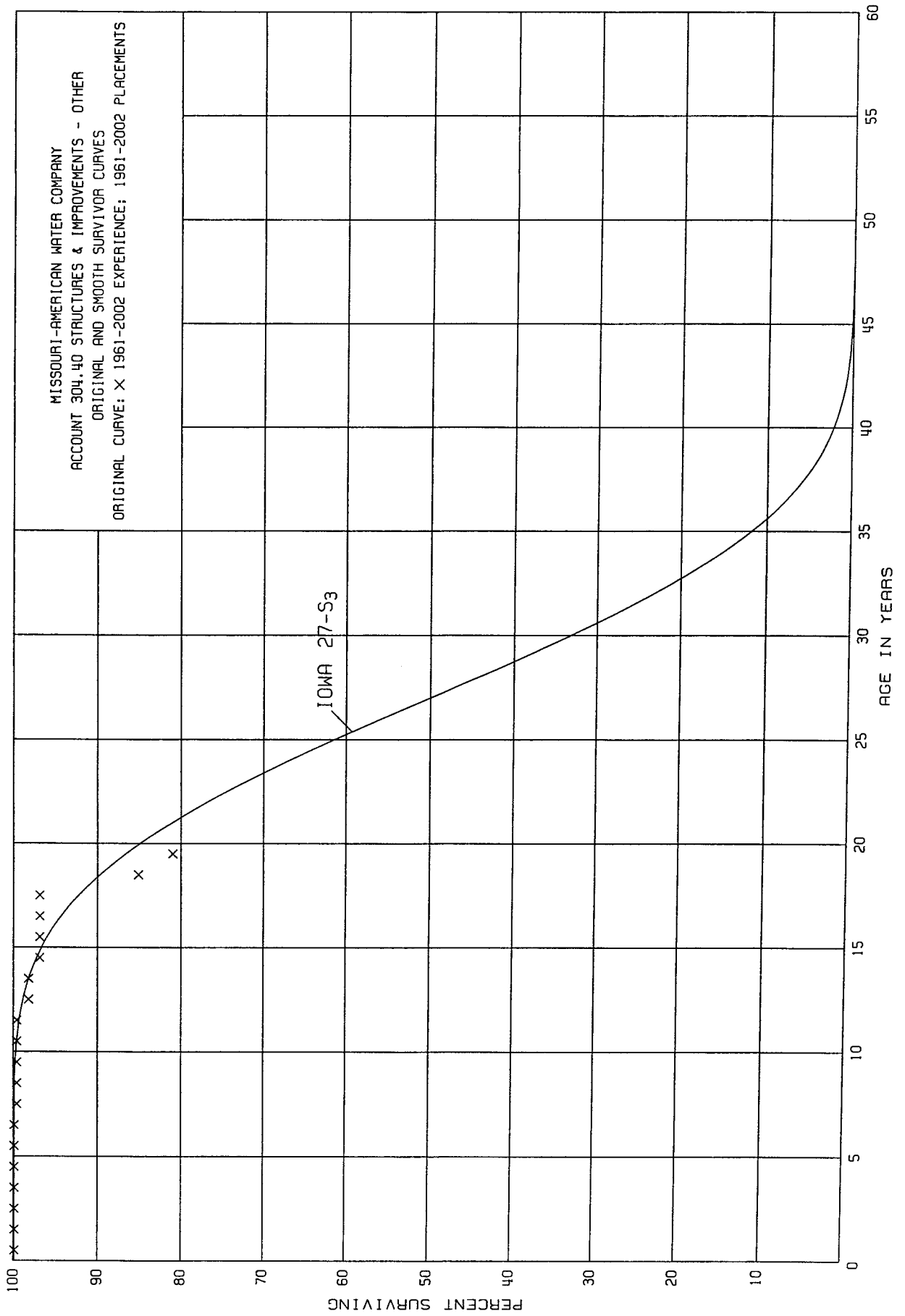
ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1898-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	8,687		0.0000	1.0000	82.28
80.5	8,687		0.0000	1.0000	82.28
81.5	8,687		0.0000	1.0000	82.28
82.5	8,687		0.0000	1.0000	82.28
83.5	8,687		0.0000	1.0000	82.28
84.5	8,687		0.0000	1.0000	82.28
85.5	8,687		0.0000	1.0000	82.28
86.5	8,602		0.0000	1.0000	82.28
87.5	8,602	184	0.0214	0.9786	82.28
88.5	4,638		0.0000	1.0000	80.52
89.5	4,638	342	0.0737	0.9263	80.52
90.5	4,296	395	0.0919	0.9081	74.59
91.5	3,901		0.0000	1.0000	67.74
92.5	3,901		0.0000	1.0000	67.74
93.5	3,901		0.0000	1.0000	67.74
94.5	3,901		0.0000	1.0000	67.74
95.5	3,901		0.0000	1.0000	67.74
96.5	3,901		0.0000	1.0000	67.74
97.5	3,901		0.0000	1.0000	67.74
98.5	3,901		0.0000	1.0000	67.74
99.5	3,901		0.0000	1.0000	67.74
100.5	2,045		0.0000	1.0000	67.74
101.5	2,045		0.0000	1.0000	67.74
102.5					67.74



MISSOURI-AMERICAN WATER COMPANY

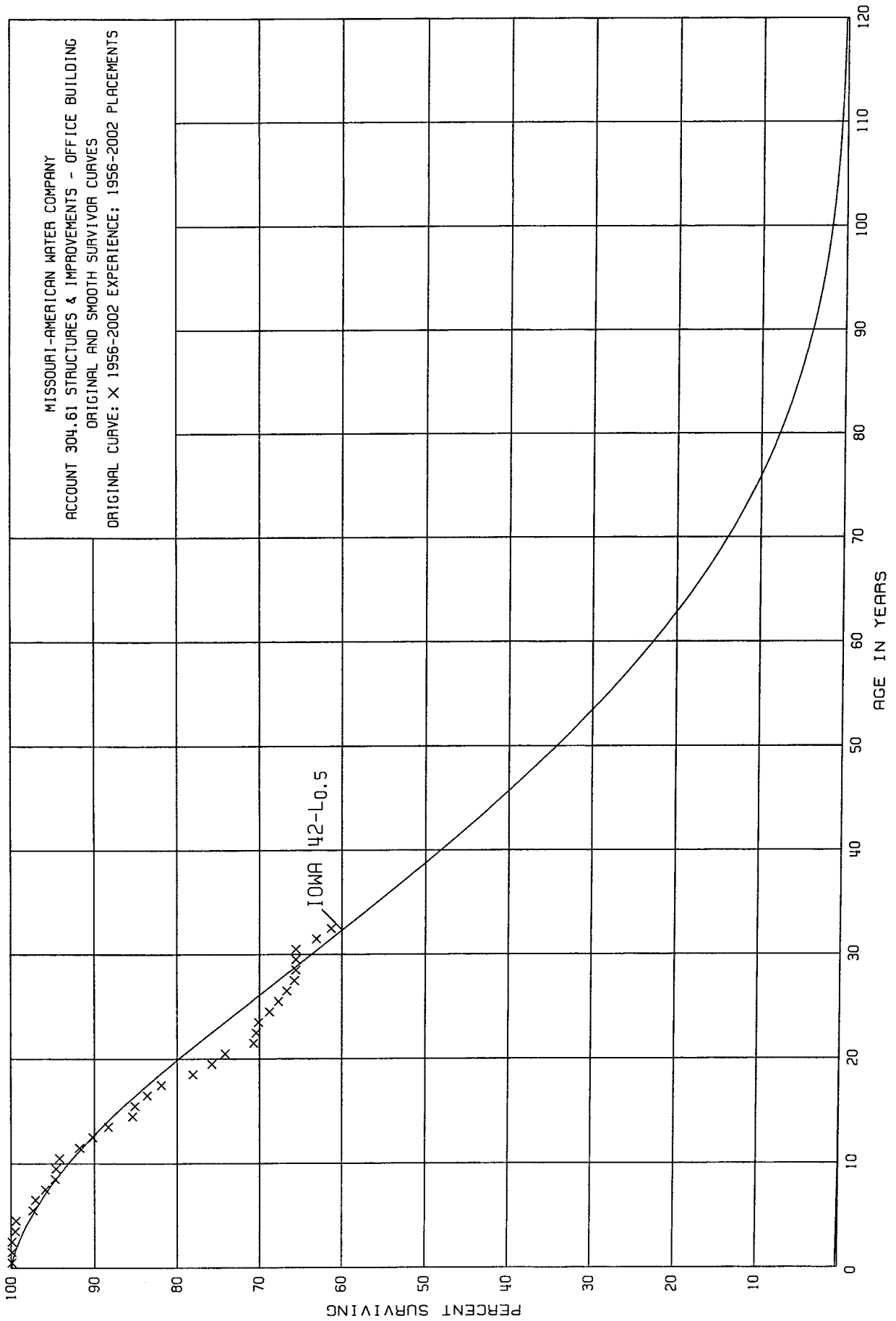
ACCOUNT 304.40 STRUCTURES & IMPROVEMENTS - OTHER

ORIGINAL LIFE TABLE

PLACEMENT BAND 1961-2002

EXPERIENCE BAND 1961-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,317,529		0.0000	1.0000	100.00
0.5	483,618		0.0000	1.0000	100.00
1.5	473,859		0.0000	1.0000	100.00
2.5	473,859		0.0000	1.0000	100.00
3.5	473,859		0.0000	1.0000	100.00
4.5	431,932		0.0000	1.0000	100.00
5.5	431,932		0.0000	1.0000	100.00
6.5	431,932	1,691	0.0039	0.9961	100.00
7.5	430,069		0.0000	1.0000	99.61
8.5	430,069		0.0000	1.0000	99.61
9.5	402,587		0.0000	1.0000	99.61
10.5	389,500		0.0000	1.0000	99.61
11.5	67,052	988	0.0147	0.9853	99.61
12.5	45,082		0.0000	1.0000	98.15
13.5	45,082	591	0.0131	0.9869	98.15
14.5	43,565		0.0000	1.0000	96.86
15.5	43,565		0.0000	1.0000	96.86
16.5	6,112		0.0000	1.0000	96.86
17.5	6,112	745	0.1219	0.8781	96.86
18.5	5,366	257	0.0479	0.9521	85.05
19.5	2,529		0.0000	1.0000	80.98
20.5	2,529		0.0000	1.0000	80.98
21.5	2,529		0.0000	1.0000	80.98
22.5	2,529		0.0000	1.0000	80.98
23.5	2,529		0.0000	1.0000	80.98
24.5	2,529	2,529	1.0000	0.0000	80.98
25.5					0.00



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.61 STRUCTURES & IMPROVEMENTS - OFFICE BUILDING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,728,150		0.0000	1.0000	100.00
0.5	1,722,997		0.0000	1.0000	100.00
1.5	1,684,049	497	0.0003	0.9997	100.00
2.5	1,670,684	7,808	0.0047	0.9953	99.97
3.5	1,662,877	955	0.0006	0.9994	99.50
4.5	1,655,398	34,022	0.0206	0.9794	99.44
5.5	1,587,596	5,105	0.0032	0.9968	97.39
6.5	1,536,637	18,009	0.0117	0.9883	97.08
7.5	1,492,821	19,916	0.0133	0.9867	95.94
8.5	1,397,162	1,662	0.0012	0.9988	94.66
9.5	1,364,264	4,444	0.0033	0.9967	94.55
10.5	1,355,997	35,047	0.0258	0.9742	94.24
11.5	1,311,560	22,369	0.0171	0.9829	91.81
12.5	272,539	5,732	0.0210	0.9790	90.24
13.5	266,807	8,886	0.0333	0.9667	88.34
14.5	252,134	882	0.0035	0.9965	85.40
15.5	251,253	4,316	0.0172	0.9828	85.10
16.5	183,223	3,767	0.0206	0.9794	83.64
17.5	172,584	7,952	0.0461	0.9539	81.92
18.5	164,217	4,939	0.0301	0.9699	78.14
19.5	156,293	3,335	0.0213	0.9787	75.79
20.5	152,957	7,183	0.0470	0.9530	74.18
21.5	145,774	546	0.0037	0.9963	70.69
22.5	144,707	750	0.0052	0.9948	70.43
23.5	135,609	2,516	0.0186	0.9814	70.06
24.5	133,093	1,994	0.0150	0.9850	68.76
25.5	131,099	2,002	0.0153	0.9847	67.73
26.5	129,097	1,660	0.0129	0.9871	66.69
27.5	127,009	443	0.0035	0.9965	65.83
28.5	126,566		0.0000	1.0000	65.60
29.5	125,777		0.0000	1.0000	65.60
30.5	125,777	4,733	0.0376	0.9624	65.60
31.5	126,246	3,594	0.0285	0.9715	63.13
32.5	122,652		0.0000	1.0000	61.33
33.5	122,652	8,378	0.0683	0.9317	61.33
34.5	114,274		0.0000	1.0000	57.14
35.5	114,274	61	0.0005	0.9995	57.14
36.5	114,213		0.0000	1.0000	57.11
37.5	113,925		0.0000	1.0000	57.11
38.5	113,765		0.0000	1.0000	57.11

MISSOURI-AMERICAN WATER COMPANY

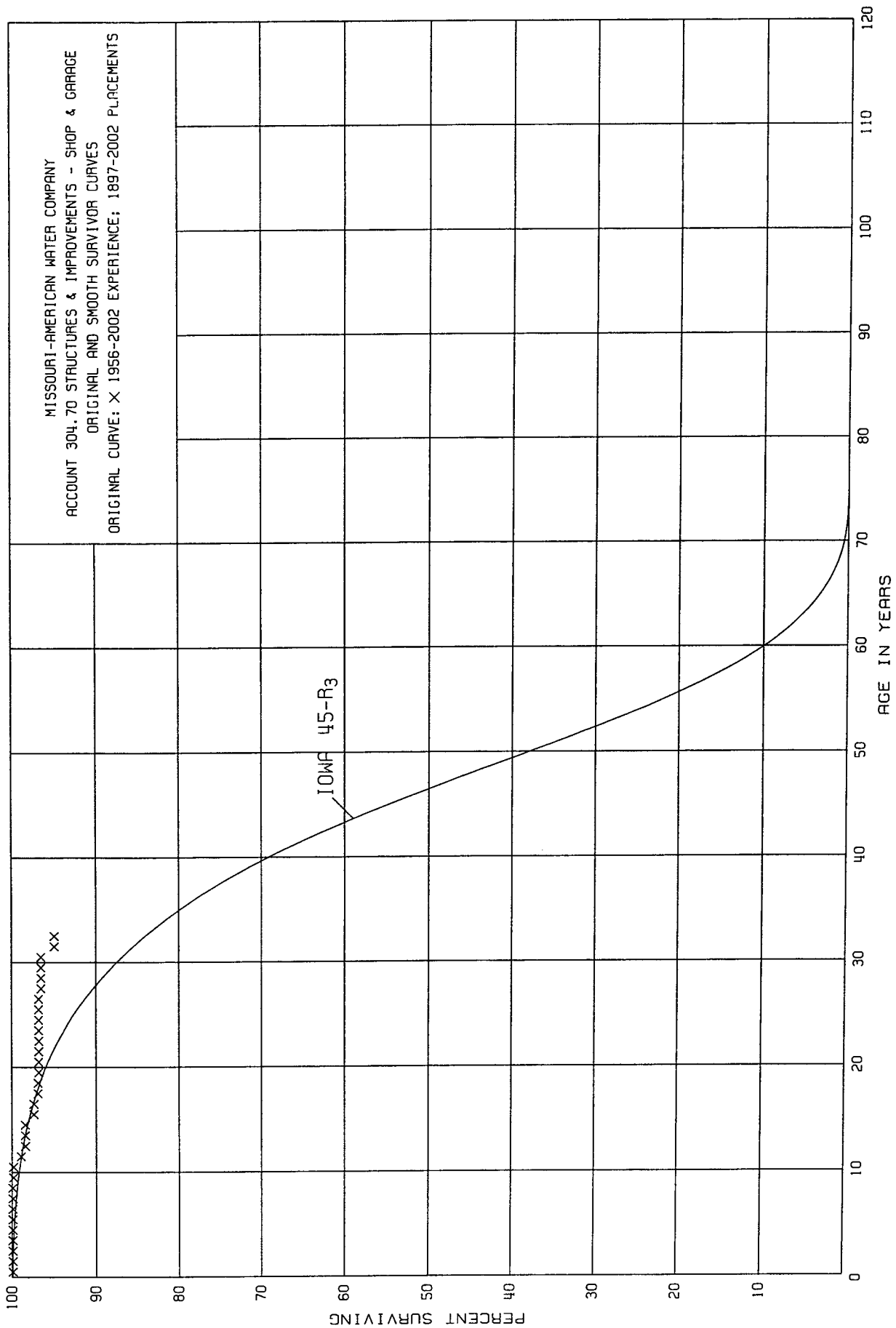
ACCOUNT 304.61 STRUCTURES & IMPROVEMENTS - OFFICE BUILDING

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	60,821		0.0000	1.0000	57.11
40.5	26,796		0.0000	1.0000	57.11
41.5	26,796		0.0000	1.0000	57.11
42.5	1,946		0.0000	1.0000	57.11
43.5	1,946		0.0000	1.0000	57.11
44.5	1,946		0.0000	1.0000	57.11
45.5	1,946		0.0000	1.0000	57.11
46.5					57.11



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.70 STRUCTURES & IMPROVEMENTS - SHOP & GARAGE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1897-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	216,336		0.0000	1.0000	100.00
0.5	178,100		0.0000	1.0000	100.00
1.5	179,542		0.0000	1.0000	100.00
2.5	151,887		0.0000	1.0000	100.00
3.5	151,887		0.0000	1.0000	100.00
4.5	149,331		0.0000	1.0000	100.00
5.5	148,781	164	0.0011	0.9989	100.00
6.5	126,431		0.0000	1.0000	99.89
7.5	126,431		0.0000	1.0000	99.89
8.5	126,431	112	0.0009	0.9991	99.89
9.5	125,975		0.0000	1.0000	99.80
10.5	125,024	1,188	0.0095	0.9905	99.80
11.5	121,183	564	0.0047	0.9953	98.85
12.5	120,619		0.0000	1.0000	98.39
13.5	120,619		0.0000	1.0000	98.39
14.5	121,494	1,290	0.0106	0.9894	98.39
15.5	120,157		0.0000	1.0000	97.35
16.5	140,179	693	0.0049	0.9951	97.35
17.5	139,141		0.0000	1.0000	96.87
18.5	133,364	34	0.0003	0.9997	96.87
19.5	132,294		0.0000	1.0000	96.84
20.5	132,294		0.0000	1.0000	96.84
21.5	132,173		0.0000	1.0000	96.84
22.5	132,173		0.0000	1.0000	96.84
23.5	132,173		0.0000	1.0000	96.84
24.5	132,173		0.0000	1.0000	96.84
25.5	132,173		0.0000	1.0000	96.84
26.5	132,173	456	0.0035	0.9965	96.84
27.5	131,717		0.0000	1.0000	96.50
28.5	131,717		0.0000	1.0000	96.50
29.5	128,798		0.0000	1.0000	96.50
30.5	139,753	2,396	0.0171	0.9829	96.50
31.5	137,357		0.0000	1.0000	94.85
32.5	137,357		0.0000	1.0000	94.85
33.5	71,772		0.0000	1.0000	94.85
34.5	71,772		0.0000	1.0000	94.85
35.5	68,226		0.0000	1.0000	94.85
36.5	68,226		0.0000	1.0000	94.85
37.5	68,226		0.0000	1.0000	94.85
38.5	62,048		0.0000	1.0000	94.85

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.70 STRUCTURES & IMPROVEMENTS - SHOP & GARAGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	49,384		0.0000	1.0000	94.85
40.5	45,436		0.0000	1.0000	94.85
41.5	45,436		0.0000	1.0000	94.85
42.5	45,436		0.0000	1.0000	94.85
43.5	43,973		0.0000	1.0000	94.85
44.5	43,973	979	0.0223	0.9777	94.85
45.5	42,995		0.0000	1.0000	92.73
46.5	41,426		0.0000	1.0000	92.73
47.5	41,426		0.0000	1.0000	92.73
48.5	39,985		0.0000	1.0000	92.73
49.5	39,985		0.0000	1.0000	92.73
50.5	39,985		0.0000	1.0000	92.73
51.5	39,985	284	0.0071	0.9929	92.73
52.5	39,332		0.0000	1.0000	92.07
53.5	37,881		0.0000	1.0000	92.07
54.5	37,881		0.0000	1.0000	92.07
55.5	37,881		0.0000	1.0000	92.07
56.5	37,881	609	0.0161	0.9839	92.07
57.5	37,250		0.0000	1.0000	90.59
58.5	41,945		0.0000	1.0000	90.59
59.5	41,945		0.0000	1.0000	90.59
60.5	41,945	323	0.0077	0.9923	90.59
61.5	41,602		0.0000	1.0000	89.89
62.5	41,400		0.0000	1.0000	89.89
63.5	17,909		0.0000	1.0000	89.89
64.5	17,909		0.0000	1.0000	89.89
65.5	17,909		0.0000	1.0000	89.89
66.5	17,909		0.0000	1.0000	89.89
67.5	17,909		0.0000	1.0000	89.89
68.5	17,909		0.0000	1.0000	89.89
69.5	17,909		0.0000	1.0000	89.89
70.5	17,909		0.0000	1.0000	89.89
71.5	17,909		0.0000	1.0000	89.89
72.5	17,909		0.0000	1.0000	89.89
73.5	17,909		0.0000	1.0000	89.89
74.5	17,909		0.0000	1.0000	89.89
75.5	17,909		0.0000	1.0000	89.89
76.5	16,650		0.0000	1.0000	89.89
77.5	4,695		0.0000	1.0000	89.89
78.5	4,695		0.0000	1.0000	89.89

MISSOURI-AMERICAN WATER COMPANY

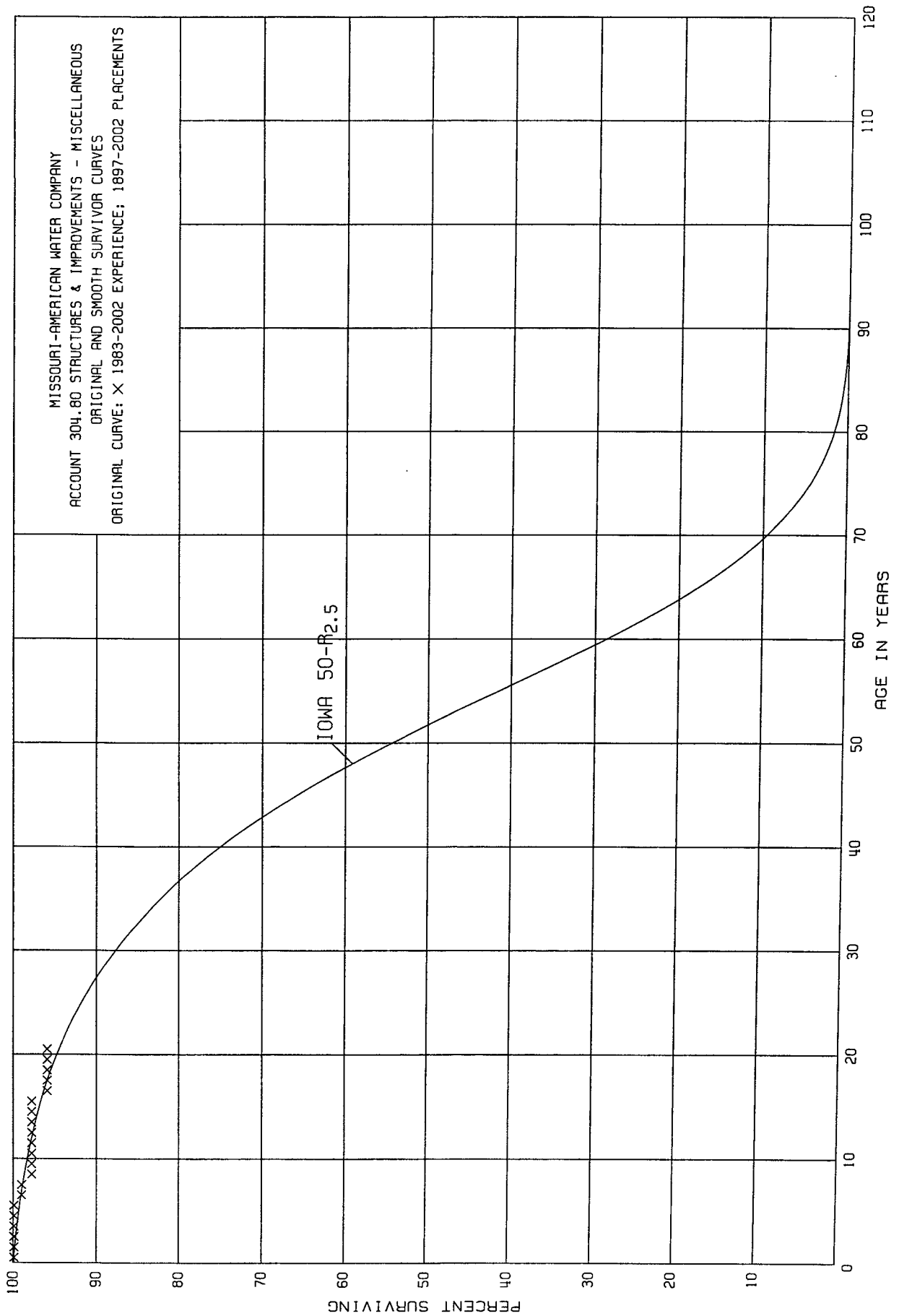
ACCOUNT 304.70 STRUCTURES & IMPROVEMENTS - SHOP & GARAGE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	4,695		0.0000	1.0000	89.89
80.5	4,695		0.0000	1.0000	89.89
81.5	4,695		0.0000	1.0000	89.89
82.5	4,695		0.0000	1.0000	89.89
83.5	4,695		0.0000	1.0000	89.89
84.5	4,695		0.0000	1.0000	89.89
85.5	4,695		0.0000	1.0000	89.89
86.5	4,695		0.0000	1.0000	89.89
87.5	4,695		0.0000	1.0000	89.89
88.5	4,695		0.0000	1.0000	89.89
89.5	4,695		0.0000	1.0000	89.89
90.5	4,695		0.0000	1.0000	89.89
91.5	4,695		0.0000	1.0000	89.89
92.5	4,695		0.0000	1.0000	89.89
93.5	4,695		0.0000	1.0000	89.89
94.5	4,695		0.0000	1.0000	89.89
95.5	4,695		0.0000	1.0000	89.89
96.5	4,695		0.0000	1.0000	89.89
97.5	4,695		0.0000	1.0000	89.89
98.5	4,695		0.0000	1.0000	89.89
99.5	4,695		0.0000	1.0000	89.89
100.5	4,695		0.0000	1.0000	89.89
101.5	4,695		0.0000	1.0000	89.89
102.5	4,695		0.0000	1.0000	89.89
103.5	4,695		0.0000	1.0000	89.89
104.5	4,695		0.0000	1.0000	89.89
105.5					89.89



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.80 STRUCTURES & IMPROVEMENTS - MISCELLANEOUS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1897-2002

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,161,165		0.0000	1.0000	100.00
0.5	1,192,803		0.0000	1.0000	100.00
1.5	1,179,561		0.0000	1.0000	100.00
2.5	55,473		0.0000	1.0000	100.00
3.5	55,473		0.0000	1.0000	100.00
4.5	55,579		0.0000	1.0000	100.00
5.5	53,823	565	0.0105	0.9895	100.00
6.5	53,258		0.0000	1.0000	98.95
7.5	48,971	565	0.0115	0.9885	98.95
8.5	48,406		0.0000	1.0000	97.81
9.5	48,406		0.0000	1.0000	97.81
10.5	39,629		0.0000	1.0000	97.81
11.5	39,081		0.0000	1.0000	97.81
12.5	39,081		0.0000	1.0000	97.81
13.5	39,081		0.0000	1.0000	97.81
14.5	39,081		0.0000	1.0000	97.81
15.5	39,081	754	0.0193	0.9807	97.81
16.5	38,842		0.0000	1.0000	95.92
17.5	37,842		0.0000	1.0000	95.92
18.5	38,348		0.0000	1.0000	95.92
19.5	38,950		0.0000	1.0000	95.92
20.5	1,921		0.0000	1.0000	95.92
21.5	1,895		0.0000	1.0000	95.92
22.5	7,033		0.0000	1.0000	95.92
23.5	12,817		0.0000	1.0000	95.92
24.5	12,711		0.0000	1.0000	95.92
25.5	12,711		0.0000	1.0000	95.92
26.5	12,711		0.0000	1.0000	95.92
27.5	12,711		0.0000	1.0000	95.92
28.5	12,711		0.0000	1.0000	95.92
29.5	12,722		0.0000	1.0000	95.92
30.5	17,393		0.0000	1.0000	95.92
31.5	20,931		0.0000	1.0000	95.92
32.5	21,047		0.0000	1.0000	95.92
33.5	21,047		0.0000	1.0000	95.92
34.5	21,047		0.0000	1.0000	95.92
35.5	21,244		0.0000	1.0000	95.92
36.5	20,783		0.0000	1.0000	95.92
37.5	20,783		0.0000	1.0000	95.92
38.5	21,363		0.0000	1.0000	95.92

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 304.80 STRUCTURES & IMPROVEMENTS - MISCELLANEOUS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2002

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	36,016		0.0000	1.0000	95.92
40.5	36,016		0.0000	1.0000	95.92
41.5	36,044		0.0000	1.0000	95.92
42.5	30,945		0.0000	1.0000	95.92
43.5	25,201		0.0000	1.0000	95.92
44.5	26,290		0.0000	1.0000	95.92
45.5	26,290		0.0000	1.0000	95.92
46.5	26,827		0.0000	1.0000	95.92
47.5	26,827		0.0000	1.0000	95.92
48.5	22,235		0.0000	1.0000	95.92
49.5	18,686		0.0000	1.0000	95.92
50.5	18,606		0.0000	1.0000	95.92
51.5	18,700		0.0000	1.0000	95.92
52.5	18,622		0.0000	1.0000	95.92
53.5	18,974		0.0000	1.0000	95.92
54.5	19,079		0.0000	1.0000	95.92
55.5	20,447		0.0000	1.0000	95.92
56.5	20,619		0.0000	1.0000	95.92
57.5	32,318		0.0000	1.0000	95.92
58.5	31,738		0.0000	1.0000	95.92
59.5	16,484	28	0.0017	0.9983	95.92
60.5	16,416		0.0000	1.0000	95.76
61.5	16,376		0.0000	1.0000	95.76
62.5	16,376		0.0000	1.0000	95.76
63.5	16,376		0.0000	1.0000	95.76
64.5	15,287		0.0000	1.0000	95.76
65.5	15,287		0.0000	1.0000	95.76
66.5	14,750		0.0000	1.0000	95.76
67.5	14,750		0.0000	1.0000	95.76
68.5	14,750		0.0000	1.0000	95.76
69.5	14,871		0.0000	1.0000	95.76
70.5	18,506	38	0.0021	0.9979	95.76
71.5	18,375		0.0000	1.0000	95.56
72.5	18,397	250	0.0136	0.9864	95.56
73.5	17,795		0.0000	1.0000	94.26
74.5	17,690	237	0.0134	0.9866	94.26
75.5	5,480		0.0000	1.0000	93.00
76.5	4,818		0.0000	1.0000	93.00
77.5	4,818		0.0000	1.0000	93.00
78.5	4,818		0.0000	1.0000	93.00

MISSOURI-AMERICAN WATER COMPANY

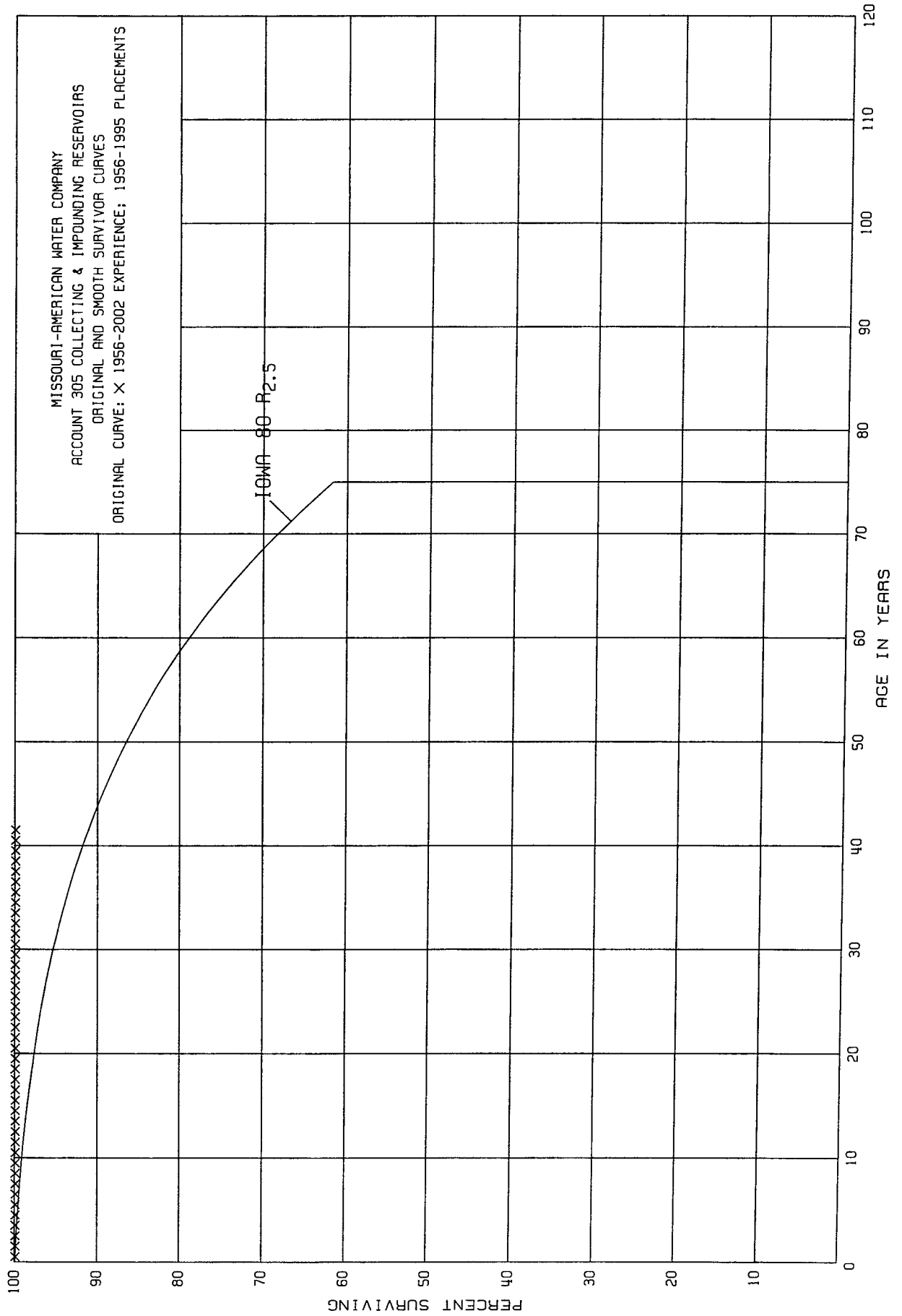
ACCOUNT 304.80 STRUCTURES & IMPROVEMENTS - MISCELLANEOUS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1897-2002

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	4,818		0.0000	1.0000	93.00
80.5	5,045		0.0000	1.0000	93.00
81.5	5,045		0.0000	1.0000	93.00
82.5	5,045		0.0000	1.0000	93.00
83.5	5,045		0.0000	1.0000	93.00
84.5	5,045		0.0000	1.0000	93.00
85.5	5,826		0.0000	1.0000	93.00
86.5	5,826		0.0000	1.0000	93.00
87.5	5,826	24	0.0041	0.9959	93.00
88.5	4,349		0.0000	1.0000	92.62
89.5	4,252		0.0000	1.0000	92.62
90.5	2,320		0.0000	1.0000	92.62
91.5	2,320		0.0000	1.0000	92.62
92.5	2,298		0.0000	1.0000	92.62
93.5	2,298		0.0000	1.0000	92.62
94.5	2,298		0.0000	1.0000	92.62
95.5	1,008		0.0000	1.0000	92.62
96.5	1,008		0.0000	1.0000	92.62
97.5	1,008		0.0000	1.0000	92.62
98.5	1,008	66	0.0655	0.9345	92.62
99.5	942		0.0000	1.0000	86.55
100.5	782		0.0000	1.0000	86.55
101.5	782		0.0000	1.0000	86.55
102.5	782		0.0000	1.0000	86.55
103.5					86.55



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 305 COLLECTING & IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-1995

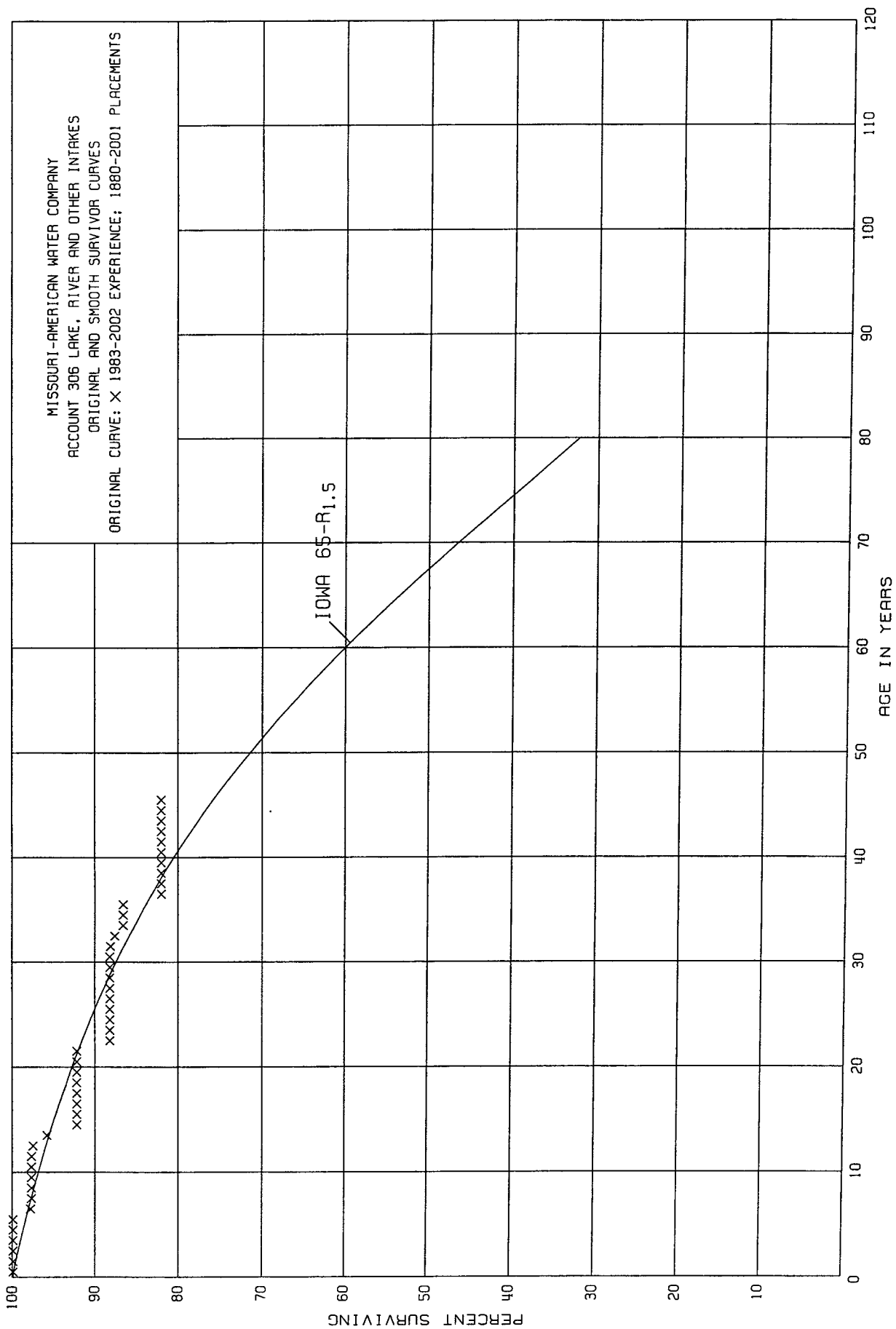
EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	111,066		0.0000	1.0000	100.00
0.5	111,066		0.0000	1.0000	100.00
1.5	111,066		0.0000	1.0000	100.00
2.5	111,066		0.0000	1.0000	100.00
3.5	111,066		0.0000	1.0000	100.00
4.5	111,066		0.0000	1.0000	100.00
5.5	111,066		0.0000	1.0000	100.00
6.5	111,066		0.0000	1.0000	100.00
7.5	110,400		0.0000	1.0000	100.00
8.5	110,400		0.0000	1.0000	100.00
9.5	110,400		0.0000	1.0000	100.00
10.5	110,400		0.0000	1.0000	100.00
11.5	110,400		0.0000	1.0000	100.00
12.5	110,400		0.0000	1.0000	100.00
13.5	110,400		0.0000	1.0000	100.00
14.5	110,400		0.0000	1.0000	100.00
15.5	110,400		0.0000	1.0000	100.00
16.5	110,400		0.0000	1.0000	100.00
17.5	110,400		0.0000	1.0000	100.00
18.5	110,400		0.0000	1.0000	100.00
19.5	110,400		0.0000	1.0000	100.00
20.5	110,400		0.0000	1.0000	100.00
21.5	110,400		0.0000	1.0000	100.00
22.5	110,400		0.0000	1.0000	100.00
23.5	110,400		0.0000	1.0000	100.00
24.5	110,400		0.0000	1.0000	100.00
25.5	110,400		0.0000	1.0000	100.00
26.5	107,967		0.0000	1.0000	100.00
27.5	107,967		0.0000	1.0000	100.00
28.5	107,967		0.0000	1.0000	100.00
29.5	80,487		0.0000	1.0000	100.00
30.5	80,487		0.0000	1.0000	100.00
31.5	80,487		0.0000	1.0000	100.00
32.5	80,487		0.0000	1.0000	100.00
33.5	80,487		0.0000	1.0000	100.00
34.5	80,487		0.0000	1.0000	100.00
35.5	80,487		0.0000	1.0000	100.00
36.5	80,487		0.0000	1.0000	100.00
37.5	80,487		0.0000	1.0000	100.00
38.5	80,487		0.0000	1.0000	100.00

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 305 COLLECTING & IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-1995			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	80,487		0.0000	1.0000	100.00
40.5	80,487		0.0000	1.0000	100.00
41.5	21,092		0.0000	1.0000	100.00
42.5	21,092		0.0000	1.0000	100.00
43.5	21,092		0.0000	1.0000	100.00
44.5	21,092		0.0000	1.0000	100.00
45.5	20,331		0.0000	1.0000	100.00
46.5					100.00



MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES
ORIGINAL LIFE TABLE

PLACEMENT BAND 1880-2001			EXPERIENCE BAND 1983-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	988,661		0.0000	1.0000	100.00
0.5	988,661		0.0000	1.0000	100.00
1.5	982,335		0.0000	1.0000	100.00
2.5	973,871		0.0000	1.0000	100.00
3.5	973,871	752	0.0008	0.9992	100.00
4.5	973,119		0.0000	1.0000	99.92
5.5	1,000,508	21,193	0.0212	0.9788	99.92
6.5	979,315	553	0.0006	0.9994	97.80
7.5	973,692		0.0000	1.0000	97.74
8.5	971,808		0.0000	1.0000	97.74
9.5	971,808		0.0000	1.0000	97.74
10.5	208,686		0.0000	1.0000	97.74
11.5	185,157	473	0.0026	0.9974	97.74
12.5	184,684	3,268	0.0177	0.9823	97.49
13.5	181,417	6,790	0.0374	0.9626	95.76
14.5	151,652		0.0000	1.0000	92.18
15.5	159,102		0.0000	1.0000	92.18
16.5	68,695		0.0000	1.0000	92.18
17.5	68,695		0.0000	1.0000	92.18
18.5	68,695		0.0000	1.0000	92.18
19.5	68,695		0.0000	1.0000	92.18
20.5	68,695		0.0000	1.0000	92.18
21.5	74,727	3,240	0.0434	0.9566	92.18
22.5	71,487		0.0000	1.0000	88.18
23.5	28,695		0.0000	1.0000	88.18
24.5	28,695		0.0000	1.0000	88.18
25.5	69,772		0.0000	1.0000	88.18
26.5	80,057		0.0000	1.0000	88.18
27.5	80,057		0.0000	1.0000	88.18
28.5	151,201		0.0000	1.0000	88.18
29.5	144,240		0.0000	1.0000	88.18
30.5	144,240	147	0.0010	0.9990	88.18
31.5	145,520	784	0.0054	0.9946	88.09
32.5	144,735	1,617	0.0112	0.9888	87.61
33.5	134,668		0.0000	1.0000	86.63
34.5	136,945		0.0000	1.0000	86.63
35.5	136,945	7,268	0.0531	0.9469	86.63
36.5	129,678	100	0.0008	0.9992	82.03
37.5	129,578		0.0000	1.0000	81.96
38.5	129,578		0.0000	1.0000	81.96

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2001

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	125,534		0.0000	1.0000	81.96
40.5	125,534		0.0000	1.0000	81.96
41.5	119,527		0.0000	1.0000	81.96
42.5	119,610		0.0000	1.0000	81.96
43.5	119,610		0.0000	1.0000	81.96
44.5	110,943		0.0000	1.0000	81.96
45.5	69,965		0.0000	1.0000	81.96
46.5	6,088		0.0000	1.0000	81.96
47.5	5,942		0.0000	1.0000	81.96
48.5	5,942	166	0.0279	0.9721	81.96
49.5	4,349		0.0000	1.0000	79.67
50.5	4,349		0.0000	1.0000	79.67
51.5	4,349		0.0000	1.0000	79.67
52.5	2,071		0.0000	1.0000	79.67
53.5	4,226		0.0000	1.0000	79.67
54.5	4,226		0.0000	1.0000	79.67
55.5	4,226		0.0000	1.0000	79.67
56.5	4,306		0.0000	1.0000	79.67
57.5	35,187		0.0000	1.0000	79.67
58.5	35,187	3,755	0.1067	0.8933	79.67
59.5	29,443		0.0000	1.0000	71.17
60.5	29,443		0.0000	1.0000	71.17
61.5	29,443		0.0000	1.0000	71.17
62.5	29,361		0.0000	1.0000	71.17
63.5	29,361		0.0000	1.0000	71.17
64.5	29,361		0.0000	1.0000	71.17
65.5	29,361		0.0000	1.0000	71.17
66.5	31,070		0.0000	1.0000	71.17
67.5	31,070		0.0000	1.0000	71.17
68.5	31,070		0.0000	1.0000	71.17
69.5	31,070		0.0000	1.0000	71.17
70.5	32,864		0.0000	1.0000	71.17
71.5	30,708		0.0000	1.0000	71.17
72.5	30,708		0.0000	1.0000	71.17
73.5	31,313		0.0000	1.0000	71.17
74.5	31,336		0.0000	1.0000	71.17
75.5	4,479		0.0000	1.0000	71.17
76.5	14,240		0.0000	1.0000	71.17
77.5	14,240		0.0000	1.0000	71.17
78.5	14,240		0.0000	1.0000	71.17
79.5	30,090		0.0000	1.0000	71.17

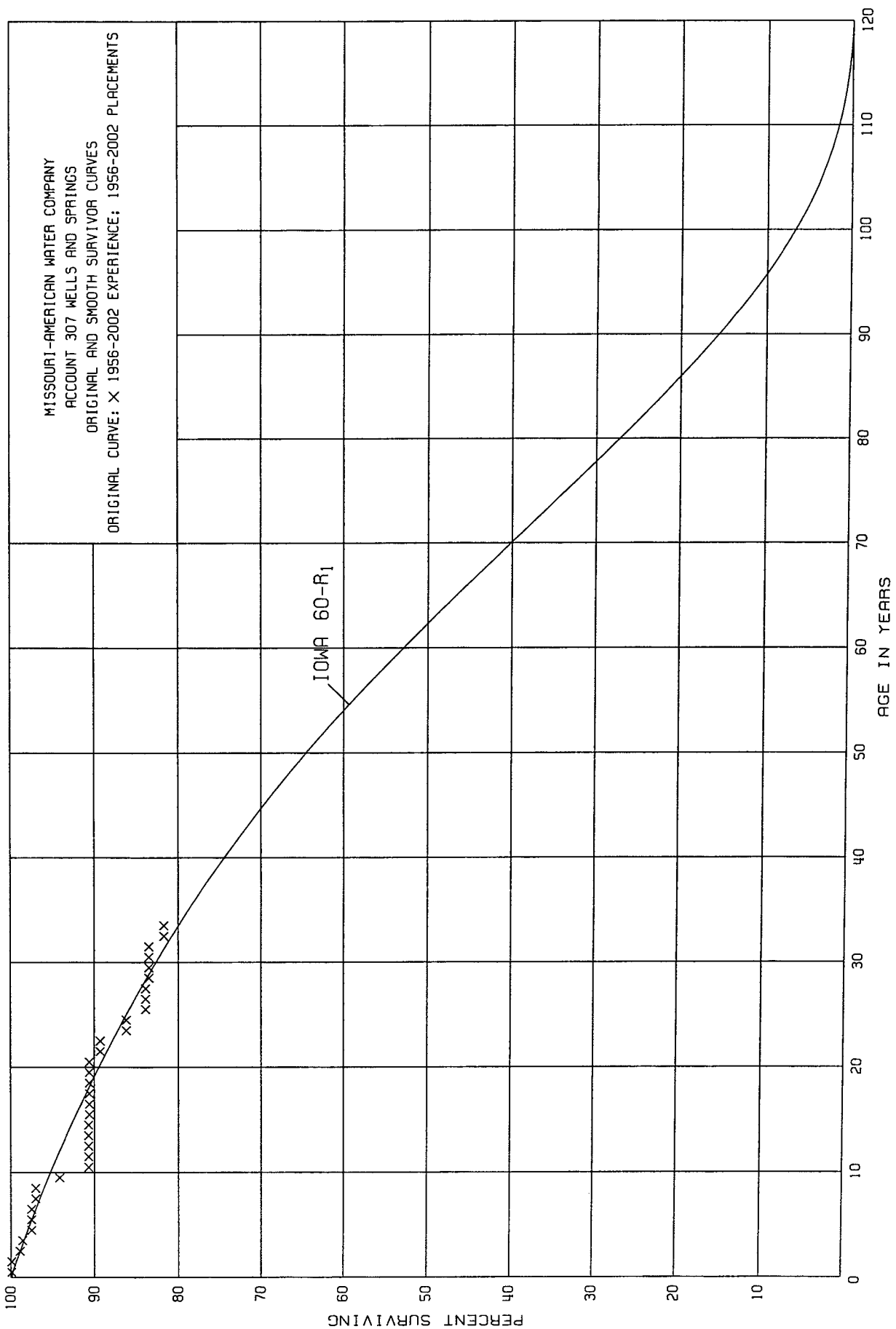
MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2001

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
80.5	52,119		0.0000	1.0000	71.17
81.5	64,411		0.0000	1.0000	71.17
82.5	66,017		0.0000	1.0000	71.17
83.5	67,445		0.0000	1.0000	71.17
84.5	72,782		0.0000	1.0000	71.17
85.5	84,387		0.0000	1.0000	71.17
86.5	93,314		0.0000	1.0000	71.17
87.5	93,314	992	0.0106	0.9894	71.17
88.5	97,359		0.0000	1.0000	70.42
89.5	97,359		0.0000	1.0000	70.42
90.5	99,636	399	0.0040	0.9960	70.42
91.5	99,010	983	0.0099	0.9901	70.14
92.5	97,925		0.0000	1.0000	69.45
93.5	97,444		0.0000	1.0000	69.45
94.5	87,683		0.0000	1.0000	69.45
95.5	87,683		0.0000	1.0000	69.45
96.5	87,683		0.0000	1.0000	69.45
97.5	73,982		0.0000	1.0000	69.45
98.5	57,128		0.0000	1.0000	69.45
99.5	44,837		0.0000	1.0000	69.45
100.5	39,750		0.0000	1.0000	69.45
101.5	38,322		0.0000	1.0000	69.45
102.5	50,509		0.0000	1.0000	69.45
103.5	38,904		0.0000	1.0000	69.45
104.5	28,267		0.0000	1.0000	69.45
105.5	28,267		0.0000	1.0000	69.45
106.5	21,467		0.0000	1.0000	69.45
107.5	21,467		0.0000	1.0000	69.45
108.5	21,451		0.0000	1.0000	69.45
109.5	21,285	709	0.0333	0.9667	69.45
110.5	18,286		0.0000	1.0000	67.14
111.5	18,286		0.0000	1.0000	67.14
112.5	18,286		0.0000	1.0000	67.14
113.5	18,286		0.0000	1.0000	67.14
114.5	18,286		0.0000	1.0000	67.14
115.5	16,137		0.0000	1.0000	67.14
116.5	14,937		0.0000	1.0000	67.14
117.5	14,937		0.0000	1.0000	67.14
118.5	14,937		0.0000	1.0000	67.14
119.5	14,937		0.0000	1.0000	67.14
120.5					67.14



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,193,604		0.0000	1.0000	100.00
0.5	3,447,143		0.0000	1.0000	100.00
1.5	3,338,146	36,139	0.0108	0.9892	100.00
2.5	2,300,355	7,874	0.0034	0.9966	98.92
3.5	1,837,053	20,000	0.0109	0.9891	98.58
4.5	1,449,136	75	0.0001	0.9999	97.51
5.5	1,225,877		0.0000	1.0000	97.50
6.5	1,225,877	5,750	0.0047	0.9953	97.50
7.5	1,168,551		0.0000	1.0000	97.04
8.5	1,168,551	35,296	0.0302	0.9698	97.04
9.5	1,063,290	38,961	0.0366	0.9634	94.11
10.5	1,021,626		0.0000	1.0000	90.67
11.5	1,012,064		0.0000	1.0000	90.67
12.5	945,920		0.0000	1.0000	90.67
13.5	588,303		0.0000	1.0000	90.67
14.5	587,752	336	0.0006	0.9994	90.67
15.5	587,417		0.0000	1.0000	90.62
16.5	587,417		0.0000	1.0000	90.62
17.5	587,052		0.0000	1.0000	90.62
18.5	354,050		0.0000	1.0000	90.62
19.5	350,985		0.0000	1.0000	90.62
20.5	277,554	4,186	0.0151	0.9849	90.62
21.5	273,368		0.0000	1.0000	89.25
22.5	224,151	7,741	0.0345	0.9655	89.25
23.5	216,410		0.0000	1.0000	86.17
24.5	216,410	5,745	0.0265	0.9735	86.17
25.5	202,872	103	0.0005	0.9995	83.89
26.5	176,594		0.0000	1.0000	83.85
27.5	176,594	795	0.0045	0.9955	83.85
28.5	175,799		0.0000	1.0000	83.47
29.5	175,799		0.0000	1.0000	83.47
30.5	175,698		0.0000	1.0000	83.47
31.5	175,698	3,795	0.0216	0.9784	83.47
32.5	171,903		0.0000	1.0000	81.67
33.5	171,903		0.0000	1.0000	81.67
34.5	146,682		0.0000	1.0000	81.67
35.5	146,682		0.0000	1.0000	81.67
36.5	146,642		0.0000	1.0000	81.67
37.5	146,642		0.0000	1.0000	81.67
38.5	146,642		0.0000	1.0000	81.67

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 307 WELLS AND SPRINGS

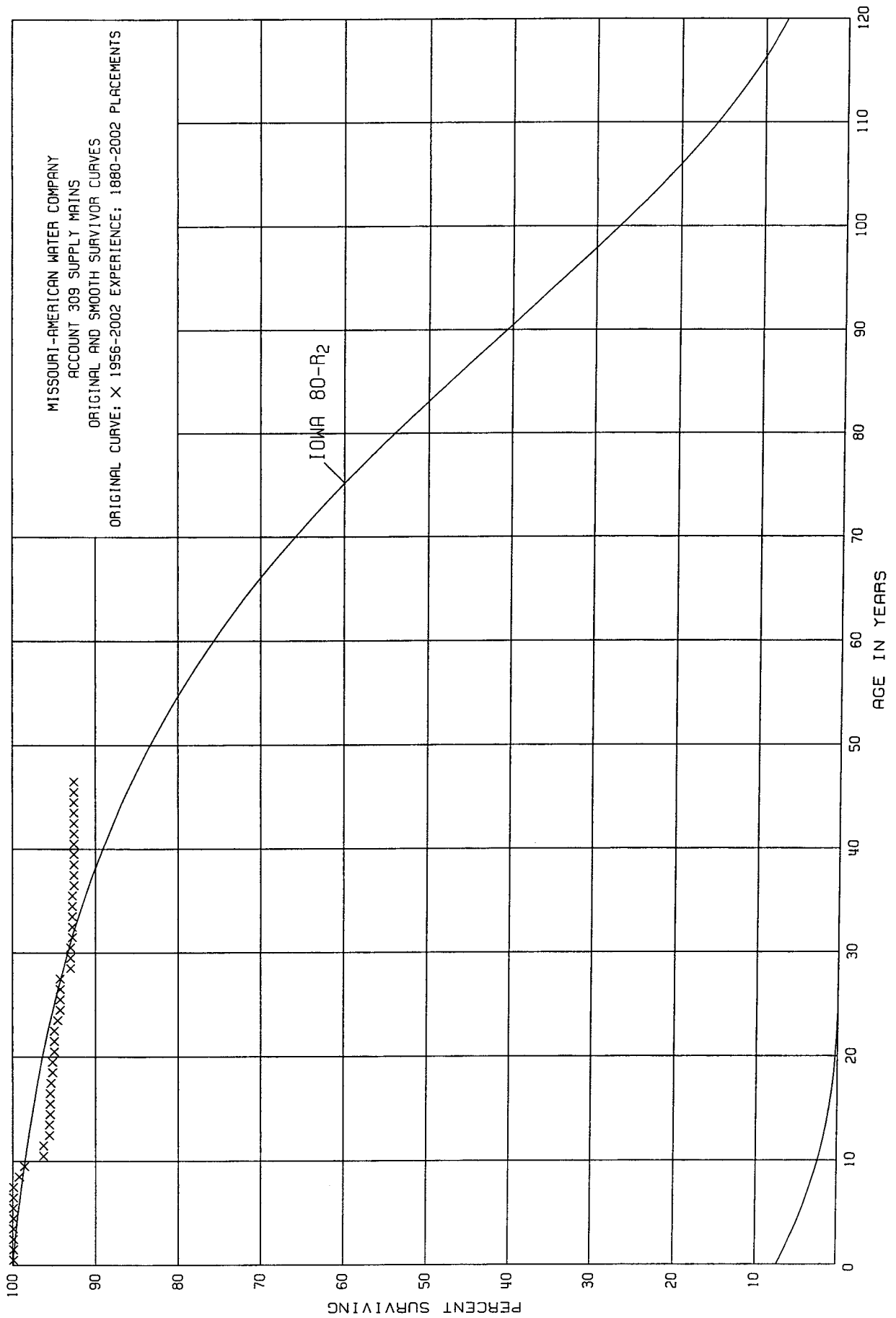
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	127,497		0.0000	1.0000	81.67
40.5	111,689		0.0000	1.0000	81.67
41.5	111,367		0.0000	1.0000	81.67
42.5	107,382		0.0000	1.0000	81.67
43.5	63,018		0.0000	1.0000	81.67
44.5	63,018		0.0000	1.0000	81.67
45.5	63,018		0.0000	1.0000	81.67
46.5					81.67

PART III. RESULTS OF STUDY



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,728,177	846	0.0001	0.9999	100.00
0.5	10,780,422		0.0000	1.0000	99.99
1.5	10,840,176	134	0.0000	1.0000	99.99
2.5	995,458		0.0000	1.0000	99.99
3.5	1,083,854		0.0000	1.0000	99.99
4.5	1,012,995	840	0.0008	0.9992	99.99
5.5	981,099		0.0000	1.0000	99.91
6.5	981,099	222	0.0002	0.9998	99.91
7.5	987,373	6,439	0.0065	0.9935	99.89
8.5	1,003,820	7,013	0.0070	0.9930	99.24
9.5	928,684	20,972	0.0226	0.9774	98.55
10.5	906,848		0.0000	1.0000	96.32
11.5	887,754	6,769	0.0076	0.9924	96.32
12.5	868,075		0.0000	1.0000	95.59
13.5	868,075	983	0.0011	0.9989	95.59
14.5	859,985	271	0.0003	0.9997	95.48
15.5	859,939		0.0000	1.0000	95.45
16.5	859,939	120	0.0001	0.9999	95.45
17.5	857,793	1,976	0.0023	0.9977	95.44
18.5	754,164		0.0000	1.0000	95.22
19.5	751,563	2,135	0.0028	0.9972	95.22
20.5	678,732		0.0000	1.0000	94.95
21.5	676,667		0.0000	1.0000	94.95
22.5	642,404	2,147	0.0033	0.9967	94.95
23.5	640,257	2,166	0.0034	0.9966	94.64
24.5	638,091	316	0.0005	0.9995	94.32
25.5	632,195	125	0.0002	0.9998	94.27
26.5	625,771		0.0000	1.0000	94.25
27.5	625,771	8,624	0.0138	0.9862	94.25
28.5	616,988		0.0000	1.0000	92.95
29.5	616,053		0.0000	1.0000	92.95
30.5	615,792	862	0.0014	0.9986	92.95
31.5	600,154		0.0000	1.0000	92.82
32.5	600,154	296	0.0005	0.9995	92.82
33.5	598,970		0.0000	1.0000	92.77
34.5	562,136		0.0000	1.0000	92.77
35.5	549,911	1,115	0.0020	0.9980	92.77
36.5	548,796		0.0000	1.0000	92.58
37.5	548,796		0.0000	1.0000	92.58
38.5	548,796		0.0000	1.0000	92.58

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	532,412		0.0000	1.0000	92.58
40.5	585,378		0.0000	1.0000	92.58
41.5	584,093		0.0000	1.0000	92.58
42.5	579,552		0.0000	1.0000	92.58
43.5	482,276		0.0000	1.0000	92.58
44.5	482,306		0.0000	1.0000	92.58
45.5	478,285		0.0000	1.0000	92.58
46.5	424,923		0.0000	1.0000	92.58
47.5	245,277		0.0000	1.0000	92.58
48.5	156,088		0.0000	1.0000	92.58
49.5	156,088		0.0000	1.0000	92.58
50.5	180,553		0.0000	1.0000	92.58
51.5	180,553		0.0000	1.0000	92.58
52.5	174,057		0.0000	1.0000	92.58
53.5	174,057		0.0000	1.0000	92.58
54.5	203,844		0.0000	1.0000	92.58
55.5	173,679		0.0000	1.0000	92.58
56.5	173,679		0.0000	1.0000	92.58
57.5	143,072		0.0000	1.0000	92.58
58.5	143,142		0.0000	1.0000	92.58
59.5	143,142		0.0000	1.0000	92.58
60.5	173,249		0.0000	1.0000	92.58
61.5	173,249		0.0000	1.0000	92.58
62.5	173,196		0.0000	1.0000	92.58
63.5	173,196		0.0000	1.0000	92.58
64.5	180,357		0.0000	1.0000	92.58
65.5	180,357		0.0000	1.0000	92.58
66.5	180,357		0.0000	1.0000	92.58
67.5	180,357		0.0000	1.0000	92.58
68.5	180,357		0.0000	1.0000	92.58
69.5	180,357		0.0000	1.0000	92.58
70.5	184,268		0.0000	1.0000	92.58
71.5	184,268		0.0000	1.0000	92.58
72.5	183,593		0.0000	1.0000	92.58
73.5	183,593	59	0.0003	0.9997	92.58
74.5	183,668		0.0000	1.0000	92.55
75.5	218,116		0.0000	1.0000	92.55
76.5	218,116		0.0000	1.0000	92.55
77.5	218,116		0.0000	1.0000	92.55
78.5	218,116		0.0000	1.0000	92.55

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	218,116	43	0.0000	1.0000	92.55
80.5	218,116		0.0000	1.0000	92.55
81.5	218,116		0.0000	1.0000	92.55
82.5	218,116		0.0000	1.0000	92.55
83.5	218,116		0.0000	1.0000	92.55
84.5	218,116		0.0002	0.9998	92.55
85.5	159,852		0.0000	1.0000	92.53
86.5	159,852		0.0000	1.0000	92.53
87.5	159,852		0.0000	1.0000	92.53
88.5	159,852		0.0000	1.0000	92.53
89.5	159,822		0.0000	1.0000	92.53
90.5	140,772		0.0000	1.0000	92.53
91.5	140,772		0.0000	1.0000	92.53
92.5	140,629		0.0000	1.0000	92.53
93.5	140,629		0.0000	1.0000	92.53
94.5	140,629		0.0000	1.0000	92.53
95.5	106,528		0.0000	1.0000	92.53
96.5	106,528		0.0000	1.0000	92.53
97.5	106,528		0.0000	1.0000	92.53
98.5	106,528		0.0000	1.0000	92.53
99.5	106,528		0.0000	1.0000	92.53
100.5	105,799		0.0000	1.0000	92.53
101.5	76,056		0.0000	1.0000	92.53
102.5	76,056		0.0000	1.0000	92.53
103.5	76,056		0.0000	1.0000	92.53
104.5	76,056		0.0000	1.0000	92.53
105.5	45,655		0.0000	1.0000	92.53
106.5	45,655		0.0000	1.0000	92.53
107.5	45,655		0.0000	1.0000	92.53
108.5	45,655		0.0000	1.0000	92.53
109.5	45,362		0.0000	1.0000	92.53
110.5	45,362		0.0000	1.0000	92.53
111.5	38,493		0.0000	1.0000	92.53
112.5	38,493		0.0000	1.0000	92.53
113.5	38,493		0.0000	1.0000	92.53
114.5	38,493		0.0000	1.0000	92.53
115.5	34,583		0.0000	1.0000	92.53
116.5	34,583		0.0000	1.0000	92.53
117.5	34,583		0.0000	1.0000	92.53
118.5	34,583		0.0000	1.0000	92.53

MISSOURI-AMERICAN WATER COMPANY

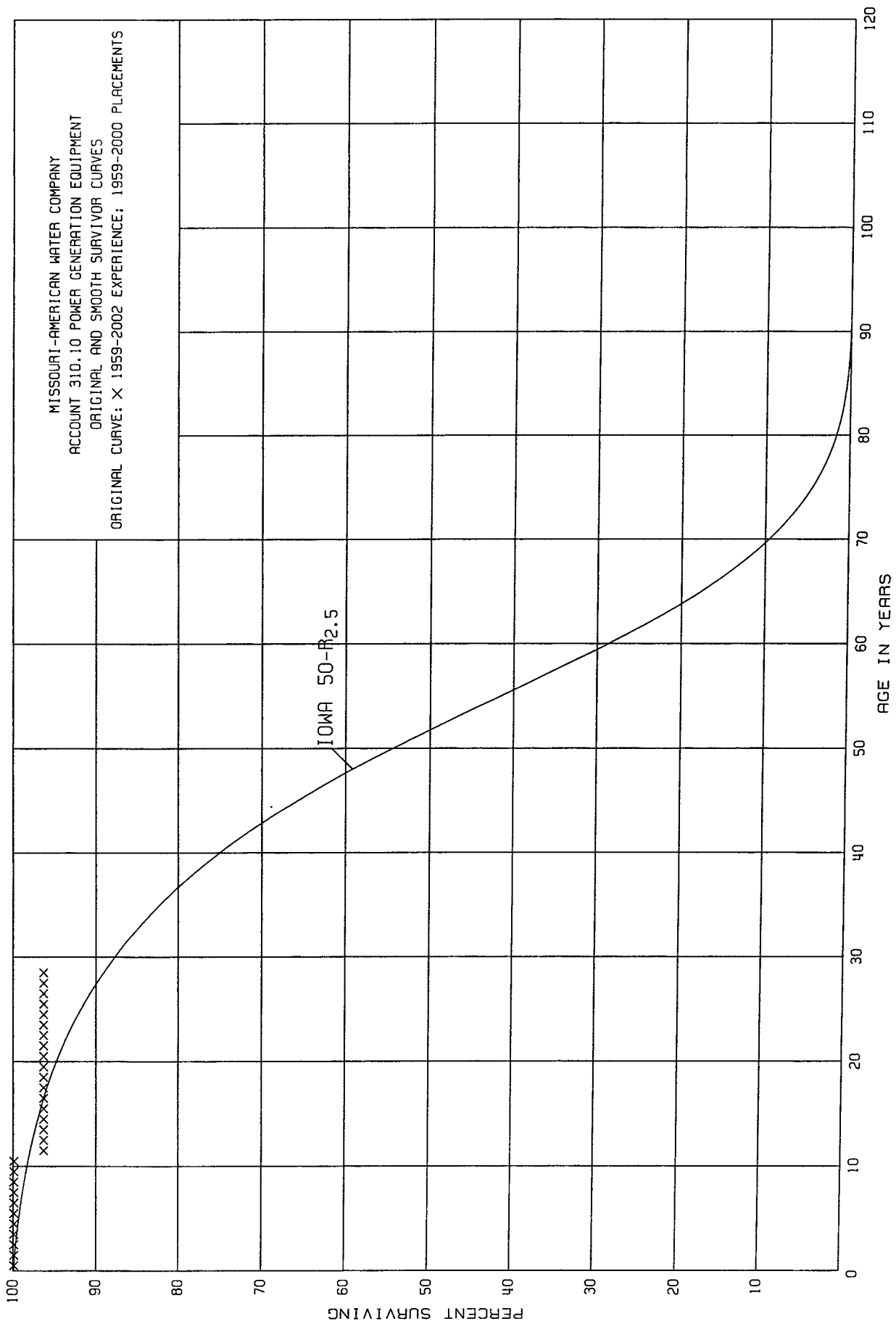
ACCOUNT 309 SUPPLY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	34,583		0.0000	1.0000	92.53
120.5	5,215		0.0000	1.0000	92.53
121.5	5,081		0.0000	1.0000	92.53
122.5					92.53



MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 310.10 POWER GENERATION EQUIPMENT

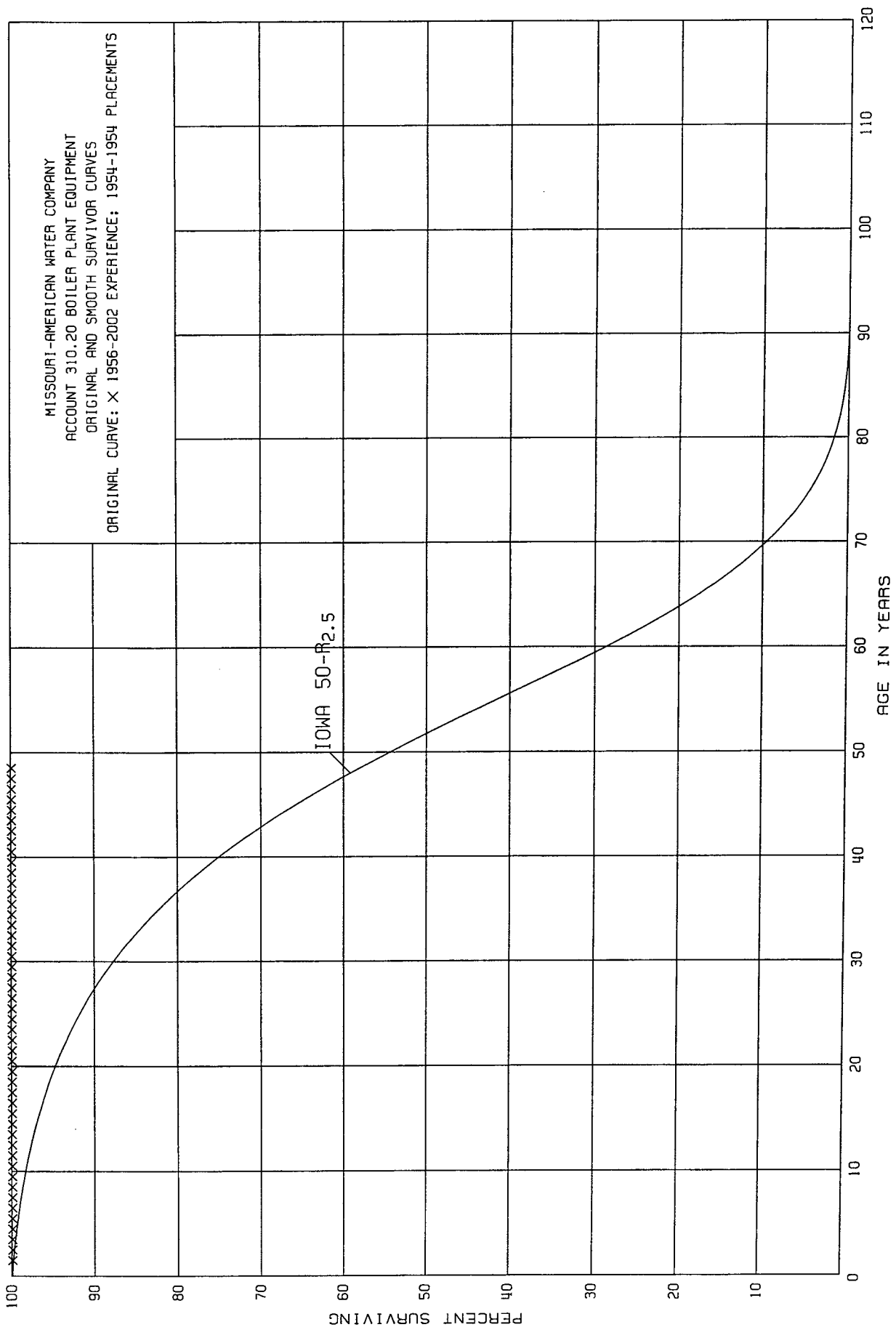
ORIGINAL LIFE TABLE

PLACEMENT BAND 1959-2000			EXPERIENCE BAND 1959-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	324,838		0.0000	1.0000	100.00
0.5	324,838		0.0000	1.0000	100.00
1.5	324,838		0.0000	1.0000	100.00
2.5	318,954		0.0000	1.0000	100.00
3.5	319,854		0.0000	1.0000	100.00
4.5	319,911		0.0000	1.0000	100.00
5.5	69,899		0.0000	1.0000	100.00
6.5	69,899		0.0000	1.0000	100.00
7.5	69,899		0.0000	1.0000	100.00
8.5	69,899		0.0000	1.0000	100.00
9.5	69,899		0.0000	1.0000	100.00
10.5	69,899	2,565	0.0367	0.9633	100.00
11.5	67,334		0.0000	1.0000	96.33
12.5	67,334		0.0000	1.0000	96.33
13.5	67,334		0.0000	1.0000	96.33
14.5	67,334		0.0000	1.0000	96.33
15.5	59,834		0.0000	1.0000	96.33
16.5	59,834		0.0000	1.0000	96.33
17.5	58,934		0.0000	1.0000	96.33
18.5	36,623		0.0000	1.0000	96.33
19.5	36,623		0.0000	1.0000	96.33
20.5	36,623		0.0000	1.0000	96.33
21.5	36,623		0.0000	1.0000	96.33
22.5	30,610		0.0000	1.0000	96.33
23.5	30,610		0.0000	1.0000	96.33
24.5	30,610		0.0000	1.0000	96.33
25.5	30,610		0.0000	1.0000	96.33
26.5	30,610		0.0000	1.0000	96.33
27.5	30,610		0.0000	1.0000	96.33
28.5	30,610		0.0000	1.0000	96.33
29.5	14,829		0.0000	1.0000	96.33
30.5	14,829		0.0000	1.0000	96.33
31.5	14,829		0.0000	1.0000	96.33
32.5	14,829		0.0000	1.0000	96.33
33.5	14,829		0.0000	1.0000	96.33
34.5	14,829		0.0000	1.0000	96.33
35.5	14,829		0.0000	1.0000	96.33
36.5	14,829		0.0000	1.0000	96.33
37.5	14,829		0.0000	1.0000	96.33
38.5	14,829		0.0000	1.0000	96.33

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 310.10 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1959-2000			EXPERIENCE BAND 1959-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	14,829		0.0000	1.0000	96.33
40.5	14,829		0.0000	1.0000	96.33
41.5	14,829		0.0000	1.0000	96.33
42.5	14,829		0.0000	1.0000	96.33
43.5					96.33



MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 310.20 BOILER PLANT EQUIPMENT

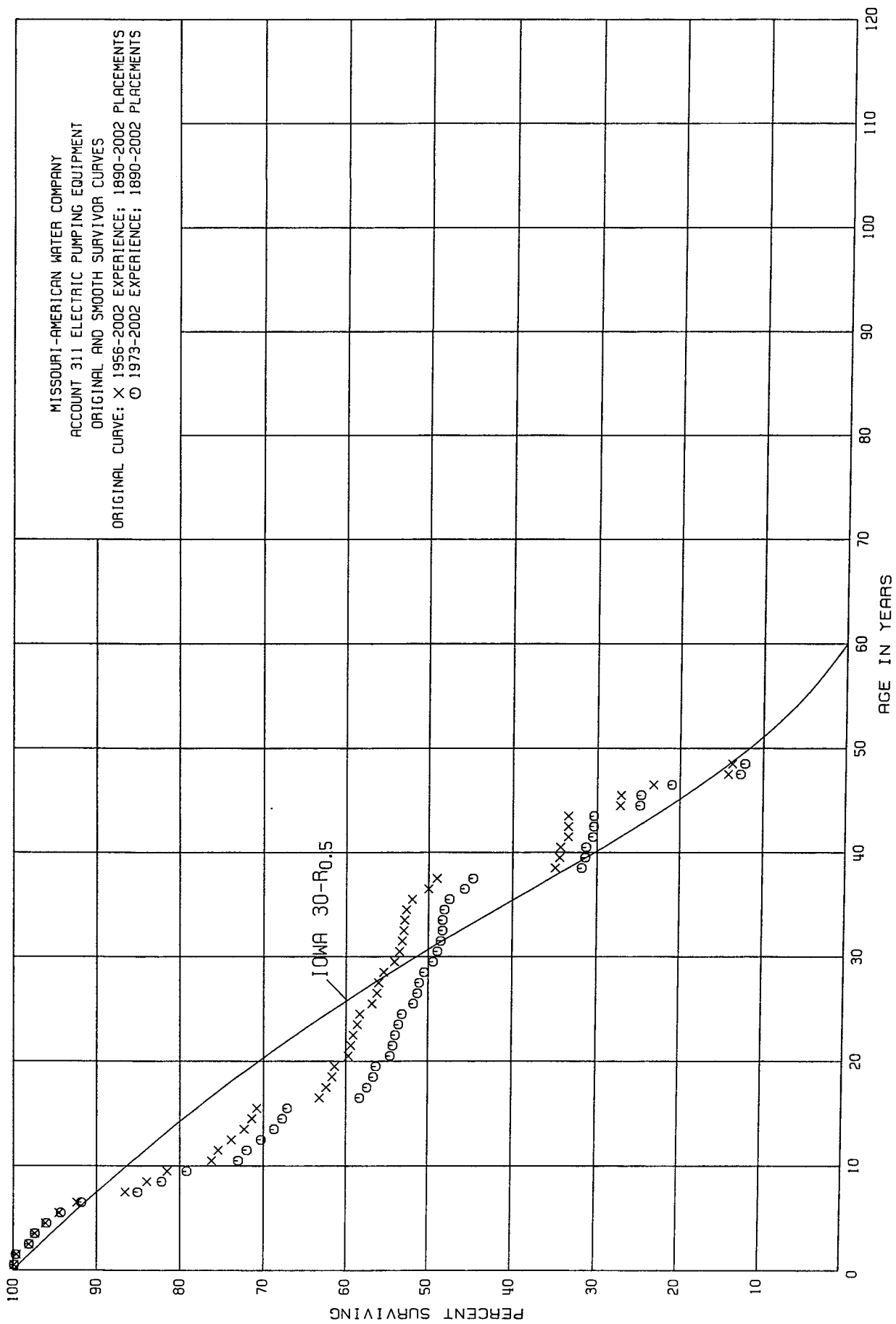
ORIGINAL LIFE TABLE

PLACEMENT BAND 1954-1954			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0					
0.5					
1.5	347		0.0000	1.0000	100.00
2.5	347		0.0000	1.0000	100.00
3.5	347		0.0000	1.0000	100.00
4.5	347		0.0000	1.0000	100.00
5.5	347		0.0000	1.0000	100.00
6.5	347		0.0000	1.0000	100.00
7.5	347		0.0000	1.0000	100.00
8.5	347		0.0000	1.0000	100.00
9.5	347		0.0000	1.0000	100.00
10.5	347		0.0000	1.0000	100.00
11.5	347		0.0000	1.0000	100.00
12.5	347		0.0000	1.0000	100.00
13.5	347		0.0000	1.0000	100.00
14.5	347		0.0000	1.0000	100.00
15.5	347		0.0000	1.0000	100.00
16.5	347		0.0000	1.0000	100.00
17.5	347		0.0000	1.0000	100.00
18.5	347		0.0000	1.0000	100.00
19.5	347		0.0000	1.0000	100.00
20.5	347		0.0000	1.0000	100.00
21.5	347		0.0000	1.0000	100.00
22.5	347		0.0000	1.0000	100.00
23.5	347		0.0000	1.0000	100.00
24.5	347		0.0000	1.0000	100.00
25.5	347		0.0000	1.0000	100.00
26.5	347		0.0000	1.0000	100.00
27.5	347		0.0000	1.0000	100.00
28.5	347		0.0000	1.0000	100.00
29.5	347		0.0000	1.0000	100.00
30.5	347		0.0000	1.0000	100.00
31.5	347		0.0000	1.0000	100.00
32.5	347		0.0000	1.0000	100.00
33.5	347		0.0000	1.0000	100.00
34.5	347		0.0000	1.0000	100.00
35.5	347		0.0000	1.0000	100.00
36.5	347		0.0000	1.0000	100.00
37.5	347		0.0000	1.0000	100.00
38.5	347		0.0000	1.0000	100.00

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 310.20 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1954-1954			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	347		0.0000	1.0000	100.00
40.5	347		0.0000	1.0000	100.00
41.5	347		0.0000	1.0000	100.00
42.5	347		0.0000	1.0000	100.00
43.5	347		0.0000	1.0000	100.00
44.5	347		0.0000	1.0000	100.00
45.5	347		0.0000	1.0000	100.00
46.5	347		0.0000	1.0000	100.00
47.5	347		0.0000	1.0000	100.00
48.5					100.00



MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 311 ELECTRIC PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1890-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	14,217,932	16,849	0.0012	0.9988	100.00
0.5	14,142,723	37,746	0.0027	0.9973	99.88
1.5	14,013,157	220,500	0.0157	0.9843	99.61
2.5	9,424,896	63,659	0.0068	0.9932	98.05
3.5	9,264,068	124,884	0.0135	0.9865	97.38
4.5	8,672,877	139,688	0.0161	0.9839	96.07
5.5	6,640,842	156,668	0.0236	0.9764	94.52
6.5	6,233,939	387,921	0.0622	0.9378	92.29
7.5	5,551,091	165,004	0.0297	0.9703	86.55
8.5	5,201,213	155,147	0.0298	0.9702	83.98
9.5	4,898,454	317,568	0.0648	0.9352	81.48
10.5	4,332,480	47,955	0.0111	0.9889	76.20
11.5	3,794,583	77,950	0.0205	0.9795	75.35
12.5	3,607,302	71,759	0.0199	0.9801	73.81
13.5	3,343,583	41,799	0.0125	0.9875	72.34
14.5	3,147,696	27,440	0.0087	0.9913	71.44
15.5	3,106,736	335,655	0.1080	0.8920	70.82
16.5	2,599,126	33,421	0.0129	0.9871	63.17
17.5	2,525,448	28,819	0.0114	0.9886	62.36
18.5	2,040,456	9,997	0.0049	0.9951	61.65
19.5	1,988,727	54,575	0.0274	0.9726	61.35
20.5	1,554,647	7,990	0.0051	0.9949	59.67
21.5	1,536,378	7,711	0.0050	0.9950	59.37
22.5	1,377,063	9,915	0.0072	0.9928	59.07
23.5	1,271,165	7,239	0.0057	0.9943	58.64
24.5	1,212,168	32,065	0.0265	0.9735	58.31
25.5	1,170,000	11,412	0.0098	0.9902	56.76
26.5	1,150,522	4,265	0.0037	0.9963	56.20
27.5	1,125,607	12,683	0.0113	0.9887	55.99
28.5	1,102,961	24,366	0.0221	0.9779	55.36
29.5	932,166	10,755	0.0115	0.9885	54.14
30.5	892,389	6,197	0.0069	0.9931	53.52
31.5	913,047	3,156	0.0035	0.9965	53.15
32.5	908,015	467	0.0005	0.9995	52.96
33.5	848,270	3,776	0.0045	0.9955	52.93
34.5	838,387	10,976	0.0131	0.9869	52.69
35.5	825,423	31,319	0.0379	0.9621	52.00
36.5	784,331	16,820	0.0214	0.9786	50.03
37.5	767,511	220,683	0.2875	0.7125	48.96
38.5	546,828	7,130	0.0130	0.9870	34.88

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 311 ELECTRIC PUMPING EQUIPMENT
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	533,017	1,743	0.0033	0.9967	34.43
40.5	522,528	13,409	0.0257	0.9743	34.32
41.5	507,207	81	0.0002	0.9998	33.44
42.5	494,532		0.0000	1.0000	33.43
43.5	488,230	90,414	0.1852	0.8148	33.43
44.5	396,523	1,925	0.0049	0.9951	27.24
45.5	397,596	57,662	0.1450	0.8550	27.11
46.5	241,625	93,141	0.3855	0.6145	23.18
47.5	115,849	4,285	0.0370	0.9630	14.24
48.5	104,419	5,940	0.0569	0.9431	13.71
49.5	91,765	4,849	0.0528	0.9472	12.93
50.5	86,040		0.0000	1.0000	12.25
51.5	83,995		0.0000	1.0000	12.25
52.5	25,555		0.0000	1.0000	12.25
53.5	25,076		0.0000	1.0000	12.25
54.5	8,839		0.0000	1.0000	12.25
55.5	8,839		0.0000	1.0000	12.25
56.5	8,766		0.0000	1.0000	12.25
57.5	8,766		0.0000	1.0000	12.25
58.5	9,865		0.0000	1.0000	12.25
59.5	9,865		0.0000	1.0000	12.25
60.5	9,865		0.0000	1.0000	12.25
61.5	9,855		0.0000	1.0000	12.25
62.5	9,855	74	0.0075	0.9925	12.25
63.5	9,780		0.0000	1.0000	12.16
64.5	9,780		0.0000	1.0000	12.16
65.5	11,406		0.0000	1.0000	12.16
66.5	11,406		0.0000	1.0000	12.16
67.5	11,406	171	0.0150	0.9850	12.16
68.5	11,235		0.0000	1.0000	11.98
69.5	11,235		0.0000	1.0000	11.98
70.5	11,235		0.0000	1.0000	11.98
71.5	11,235		0.0000	1.0000	11.98
72.5	11,235		0.0000	1.0000	11.98
73.5	11,235		0.0000	1.0000	11.98
74.5	11,235	3,035	0.2701	0.7299	11.98
75.5	8,200		0.0000	1.0000	8.74
76.5	8,200		0.0000	1.0000	8.74
77.5	8,200		0.0000	1.0000	8.74
78.5	8,200		0.0000	1.0000	8.74

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 311 ELECTRIC PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	8,163		0.0000	1.0000	8.74
80.5	8,163		0.0000	1.0000	8.74
81.5	8,163		0.0000	1.0000	8.74
82.5	8,163		0.0000	1.0000	8.74
83.5	8,163		0.0000	1.0000	8.74
84.5	8,163		0.0000	1.0000	8.74
85.5	8,163		0.0000	1.0000	8.74
86.5	8,163		0.0000	1.0000	8.74
87.5	8,163		0.0000	1.0000	8.74
88.5	8,163		0.0000	1.0000	8.74
89.5	8,163		0.0000	1.0000	8.74
90.5	8,163		0.0000	1.0000	8.74
91.5	8,163		0.0000	1.0000	8.74
92.5	5,165		0.0000	1.0000	8.74
93.5	5,051		0.0000	1.0000	8.74
94.5	5,051		0.0000	1.0000	8.74
95.5	5,051		0.0000	1.0000	8.74
96.5	5,051		0.0000	1.0000	8.74
97.5	5,051		0.0000	1.0000	8.74
98.5	5,051		0.0000	1.0000	8.74
99.5	5,051		0.0000	1.0000	8.74
100.5	5,051		0.0000	1.0000	8.74
101.5	2,725		0.0000	1.0000	8.74
102.5	2,725	1,099	0.4033	0.5967	8.74
103.5	1,626		0.0000	1.0000	5.22
104.5	1,626		0.0000	1.0000	5.22
105.5	1,626		0.0000	1.0000	5.22
106.5	1,626		0.0000	1.0000	5.22
107.5	1,626		0.0000	1.0000	5.22
108.5	1,626		0.0000	1.0000	5.22
109.5	1,626	1,626	1.0000	0.0000	5.22
110.5					0.00

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 311 ELECTRIC PUMPING EQUIPMENT
ORIGINAL LIFE TABLE

PLACEMENT BAND 1890-2002

EXPERIENCE BAND 1973-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,374,308	450	0.0000	1.0000	100.00
0.5	13,352,590	35,482	0.0027	0.9973	100.00
1.5	13,141,019	214,297	0.0163	0.9837	99.73
2.5	8,465,304	61,809	0.0073	0.9927	98.10
3.5	8,378,103	119,699	0.0143	0.9857	97.38
4.5	7,820,964	138,768	0.0177	0.9823	95.99
5.5	5,699,695	152,935	0.0268	0.9732	94.29
6.5	5,327,575	386,350	0.0725	0.9275	91.76
7.5	4,584,830	159,122	0.0347	0.9653	85.11
8.5	4,251,482	151,055	0.0355	0.9645	82.16
9.5	4,016,517	317,568	0.0791	0.9209	79.24
10.5	3,683,434	47,346	0.0129	0.9871	72.97
11.5	3,183,053	76,168	0.0239	0.9761	72.03
12.5	3,030,700	69,333	0.0229	0.9771	70.31
13.5	2,782,844	41,799	0.0150	0.9850	68.70
14.5	2,588,978	23,127	0.0089	0.9911	67.67
15.5	2,552,330	335,655	0.1315	0.8685	67.07
16.5	2,193,313	33,421	0.0152	0.9848	58.25
17.5	2,154,196	28,819	0.0134	0.9866	57.36
18.5	1,755,950	9,997	0.0057	0.9943	56.59
19.5	1,813,311	54,575	0.0301	0.9699	56.27
20.5	1,381,091	7,990	0.0058	0.9942	54.58
21.5	1,364,868	7,711	0.0056	0.9944	54.26
22.5	1,309,359	9,915	0.0076	0.9924	53.96
23.5	1,207,069	7,239	0.0060	0.9940	53.55
24.5	1,211,839	32,065	0.0265	0.9735	53.23
25.5	1,169,670	11,412	0.0098	0.9902	51.82
26.5	1,150,266	4,265	0.0037	0.9963	51.31
27.5	1,125,351	12,683	0.0113	0.9887	51.12
28.5	1,102,705	24,366	0.0221	0.9779	50.54
29.5	931,910	10,755	0.0115	0.9885	49.42
30.5	889,099	6,197	0.0070	0.9930	48.85
31.5	909,767	3,156	0.0035	0.9965	48.51
32.5	904,697	467	0.0005	0.9995	48.34
33.5	844,953	3,776	0.0045	0.9955	48.32
34.5	835,069	10,976	0.0131	0.9869	48.10
35.5	822,180	31,319	0.0381	0.9619	47.47
36.5	781,088	16,820	0.0215	0.9785	45.66
37.5	764,268	220,683	0.2888	0.7112	44.68
38.5	543,585	7,130	0.0131	0.9869	31.78

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 311 ELECTRIC PUMPING EQUIPMENT

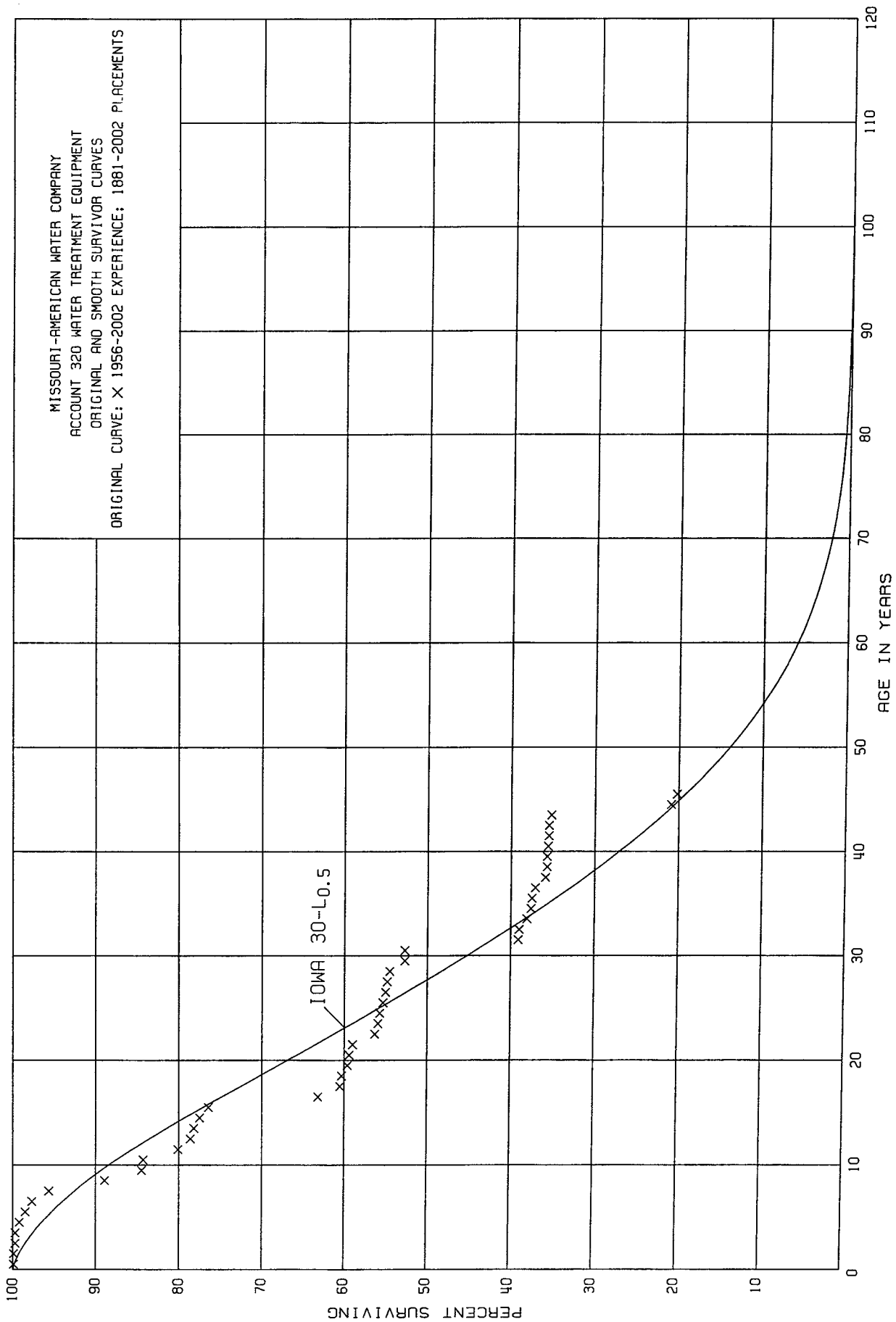
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2002			EXPERIENCE BAND 1973-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	529,774	1,743	0.0033	0.9967	31.36
40.5	519,456	13,409	0.0258	0.9742	31.26
41.5	504,136	81	0.0002	0.9998	30.45
42.5	491,460		0.0000	1.0000	30.44
43.5	485,158	90,414	0.1864	0.8136	30.44
44.5	393,452	1,925	0.0049	0.9951	24.77
45.5	391,527	57,662	0.1473	0.8527	24.65
46.5	235,442	93,141	0.3956	0.6044	21.02
47.5	112,700	4,285	0.0380	0.9620	12.70
48.5	101,271	5,940	0.0587	0.9413	12.22
49.5	88,653	4,849	0.0547	0.9453	11.50
50.5	82,928		0.0000	1.0000	10.87
51.5	80,883		0.0000	1.0000	10.87
52.5	22,443		0.0000	1.0000	10.87
53.5	21,964		0.0000	1.0000	10.87
54.5	3,401		0.0000	1.0000	10.87
55.5	3,401		0.0000	1.0000	10.87
56.5	3,328		0.0000	1.0000	10.87
57.5	3,328		0.0000	1.0000	10.87
58.5	3,328		0.0000	1.0000	10.87
59.5	3,328		0.0000	1.0000	10.87
60.5	3,328		0.0000	1.0000	10.87
61.5	3,317		0.0000	1.0000	10.87
62.5	6,315	74	0.0117	0.9883	10.87
63.5	6,355		0.0000	1.0000	10.74
64.5	6,355		0.0000	1.0000	10.74
65.5	6,355		0.0000	1.0000	10.74
66.5	6,355		0.0000	1.0000	10.74
67.5	6,355	171	0.0269	0.9731	10.74
68.5	6,183		0.0000	1.0000	10.45
69.5	6,183		0.0000	1.0000	10.45
70.5	6,183		0.0000	1.0000	10.45
71.5	8,510		0.0000	1.0000	10.45
72.5	8,510		0.0000	1.0000	10.45
73.5	8,510		0.0000	1.0000	10.45
74.5	8,510	3,035	0.3566	0.6434	10.45
75.5	6,574		0.0000	1.0000	6.72
76.5	6,574		0.0000	1.0000	6.72
77.5	6,574		0.0000	1.0000	6.72
78.5	6,574		0.0000	1.0000	6.72

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 311 ELECTRIC PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2002			EXPERIENCE BAND 1973-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	6,537		0.0000	1.0000	6.72
80.5	6,537		0.0000	1.0000	6.72
81.5	6,537		0.0000	1.0000	6.72
82.5	8,163		0.0000	1.0000	6.72
83.5	8,163		0.0000	1.0000	6.72
84.5	8,163		0.0000	1.0000	6.72
85.5	8,163		0.0000	1.0000	6.72
86.5	8,163		0.0000	1.0000	6.72
87.5	8,163		0.0000	1.0000	6.72
88.5	8,163		0.0000	1.0000	6.72
89.5	8,163		0.0000	1.0000	6.72
90.5	8,163		0.0000	1.0000	6.72
91.5	8,163		0.0000	1.0000	6.72
92.5	5,165		0.0000	1.0000	6.72
93.5	5,051		0.0000	1.0000	6.72
94.5	5,051		0.0000	1.0000	6.72
95.5	5,051		0.0000	1.0000	6.72
96.5	5,051		0.0000	1.0000	6.72
97.5	5,051		0.0000	1.0000	6.72
98.5	5,051		0.0000	1.0000	6.72
99.5	5,051		0.0000	1.0000	6.72
100.5	5,051		0.0000	1.0000	6.72
101.5	2,725		0.0000	1.0000	6.72
102.5	2,725	1,099	0.4033	0.5967	6.72
103.5	1,626		0.0000	1.0000	4.01
104.5	1,626		0.0000	1.0000	4.01
105.5	1,626		0.0000	1.0000	4.01
106.5	1,626		0.0000	1.0000	4.01
107.5	1,626		0.0000	1.0000	4.01
108.5	1,626		0.0000	1.0000	4.01
109.5	1,626	1,626	1.0000	0.0000	4.01
110.5					0.00



MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 320 WATER TREATMENT EQUIPMENT
ORIGINAL LIFE TABLE

PLACEMENT BAND 1881-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	35,372,607	482	0.0000	1.0000	100.00
0.5	35,082,529	1,334	0.0000	1.0000	100.00
1.5	34,632,811	93,727	0.0027	0.9973	100.00
2.5	9,464,502	6,044	0.0006	0.9994	99.73
3.5	9,297,303	45,296	0.0049	0.9951	99.67
4.5	7,720,717	49,811	0.0065	0.9935	99.18
5.5	7,118,562	58,035	0.0082	0.9918	98.54
6.5	6,778,514	139,988	0.0207	0.9793	97.73
7.5	6,458,585	459,039	0.0711	0.9289	95.71
8.5	5,772,824	288,072	0.0499	0.9501	88.91
9.5	5,305,914	11,423	0.0022	0.9978	84.47
10.5	5,289,381	264,578	0.0500	0.9500	84.28
11.5	4,419,026	81,792	0.0185	0.9815	80.07
12.5	4,274,190	23,494	0.0055	0.9945	78.59
13.5	4,232,190	33,910	0.0080	0.9920	78.16
14.5	4,187,542	59,669	0.0142	0.9858	77.53
15.5	4,040,992	698,161	0.1728	0.8272	76.43
16.5	3,340,114	144,938	0.0434	0.9566	63.22
17.5	3,096,865	10,849	0.0035	0.9965	60.48
18.5	2,918,339	31,139	0.0107	0.9893	60.27
19.5	2,876,833	12,539	0.0044	0.9956	59.63
20.5	2,856,262	16,673	0.0058	0.9942	59.37
21.5	2,838,560	132,350	0.0466	0.9534	59.03
22.5	2,701,855	17,175	0.0064	0.9936	56.28
23.5	2,679,523	12,195	0.0046	0.9954	55.92
24.5	2,659,971	16,022	0.0060	0.9940	55.66
25.5	2,381,554	15,630	0.0066	0.9934	55.33
26.5	2,365,609	5,740	0.0024	0.9976	54.96
27.5	2,353,268	13,667	0.0058	0.9942	54.83
28.5	2,337,238	79,472	0.0340	0.9660	54.51
29.5	2,251,465	180	0.0001	0.9999	52.66
30.5	2,479,866	636,787	0.2568	0.7432	52.65
31.5	1,841,743	6,406	0.0035	0.9965	39.13
32.5	1,835,337	44,269	0.0241	0.9759	38.99
33.5	1,789,803	23,280	0.0130	0.9870	38.05
34.5	1,625,960	1,028	0.0006	0.9994	37.56
35.5	1,624,931	19,198	0.0118	0.9882	37.54
36.5	1,605,447	54,038	0.0337	0.9663	37.10
37.5	1,546,531	7,491	0.0048	0.9952	35.85
38.5	1,539,040		0.0000	1.0000	35.68

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 320 WATER TREATMENT EQUIPMENT
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1881-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,554,547	5,095	0.0033	0.9967	35.68
40.5	1,549,247	1,785	0.0012	0.9988	35.56
41.5	1,547,462	853	0.0006	0.9994	35.52
42.5	1,517,088	12,464	0.0082	0.9918	35.50
43.5	782,016	318,879	0.4078	0.5922	35.21
44.5	463,138	15,518	0.0335	0.9665	20.85
45.5	447,620	3,753	0.0084	0.9916	20.15
46.5	346,914	7,327	0.0211	0.9789	19.98
47.5	387,818	459	0.0012	0.9988	19.56
48.5	387,663	64	0.0002	0.9998	19.54
49.5	387,814	3,468	0.0089	0.9911	19.54
50.5	384,500	7,737	0.0201	0.9799	19.37
51.5	376,762	44,306	0.1176	0.8824	18.98
52.5	332,457		0.0000	1.0000	16.75
53.5	335,294		0.0000	1.0000	16.75
54.5	347,429		0.0000	1.0000	16.75
55.5	347,429	2,244	0.0065	0.9935	16.75
56.5	370,370	1,094	0.0030	0.9970	16.64
57.5	370,050		0.0000	1.0000	16.59
58.5	377,566	139	0.0004	0.9996	16.59
59.5	377,427	19	0.0001	0.9999	16.58
60.5	377,408		0.0000	1.0000	16.58
61.5	377,408		0.0000	1.0000	16.58
62.5	377,408	1,346	0.0036	0.9964	16.58
63.5	376,062		0.0000	1.0000	16.52
64.5	376,062		0.0000	1.0000	16.52
65.5	367,823		0.0000	1.0000	16.52
66.5	367,737	1,252	0.0034	0.9966	16.52
67.5	366,484		0.0000	1.0000	16.46
68.5	366,382		0.0000	1.0000	16.46
69.5	366,382		0.0000	1.0000	16.46
70.5	366,382		0.0000	1.0000	16.46
71.5	366,382	77	0.0002	0.9998	16.46
72.5	366,304	77	0.0002	0.9998	16.46
73.5	366,227	203	0.0006	0.9994	16.46
74.5	366,599	227,020	0.6193	0.3807	16.45
75.5	139,579		0.0000	1.0000	6.26
76.5	139,579		0.0000	1.0000	6.26
77.5	139,579		0.0000	1.0000	6.26
78.5	139,579		0.0000	1.0000	6.26

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1881-2002

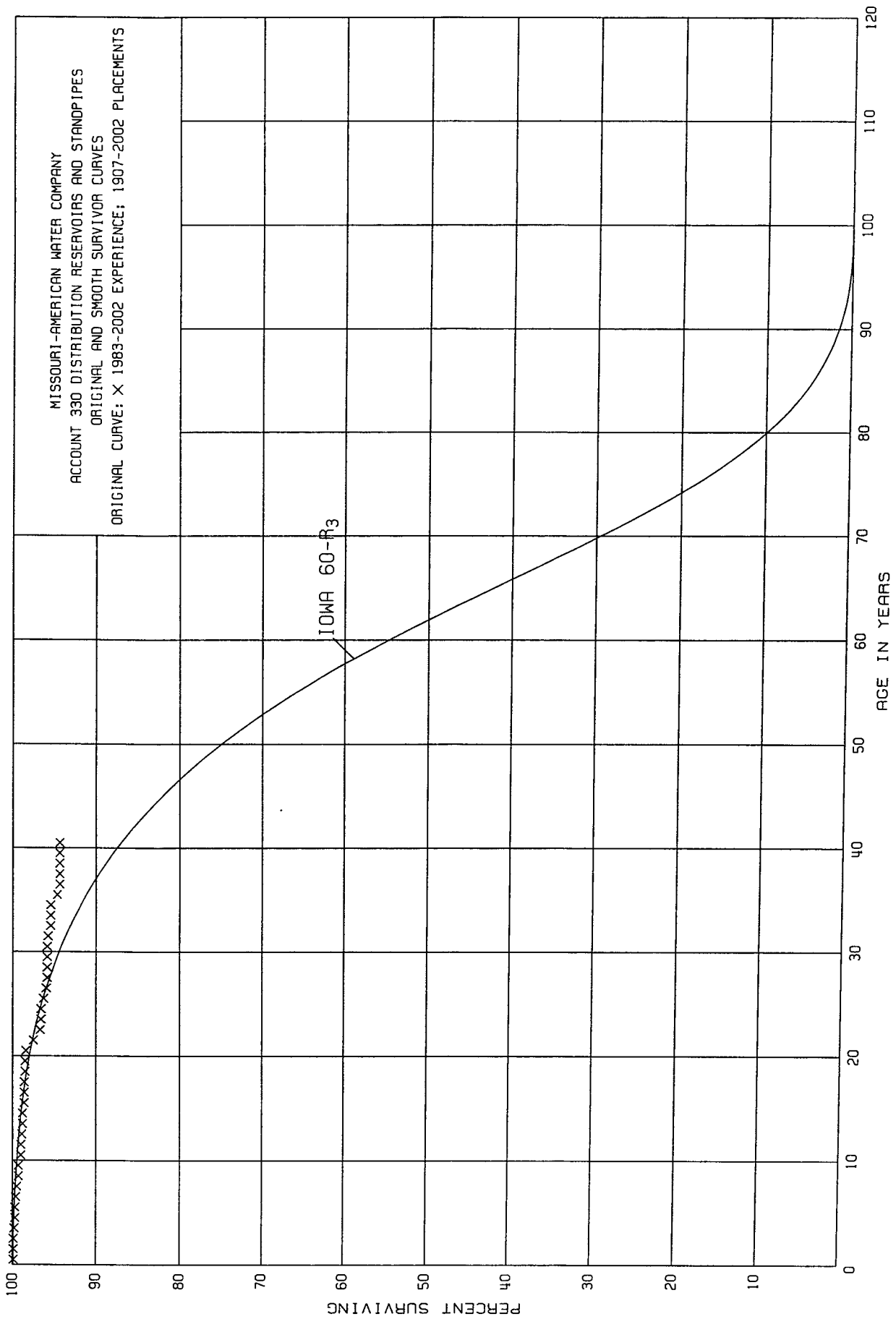
EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	139,579	1,112	0.0080	0.9920	6.26
80.5	138,467		0.0000	1.0000	6.21
81.5	138,467		0.0000	1.0000	6.21
82.5	138,467		0.0000	1.0000	6.21
83.5	138,467		0.0000	1.0000	6.21
84.5	138,467		0.0000	1.0000	6.21
85.5	138,467		0.0000	1.0000	6.21
86.5	122,961	6,769	0.0550	0.9450	6.21
87.5	116,191	27,872	0.2399	0.7601	5.87
88.5	88,319		0.0000	1.0000	4.46
89.5	88,319		0.0000	1.0000	4.46
90.5	88,319		0.0000	1.0000	4.46
91.5	88,319	48,231	0.5461	0.4539	4.46
92.5	40,089	305	0.0076	0.9924	2.02
93.5	39,784	215	0.0054	0.9946	2.00
94.5	39,570		0.0000	1.0000	1.99
95.5	39,570		0.0000	1.0000	1.99
96.5	39,570		0.0000	1.0000	1.99
97.5	39,416		0.0000	1.0000	1.99
98.5	39,416		0.0000	1.0000	1.99
99.5	39,416		0.0000	1.0000	1.99
100.5	39,416	25,185	0.6390	0.3610	1.99
101.5	2,096	774	0.3693	0.6307	0.72
102.5	1,322	747	0.5651	0.4349	0.45
103.5	575		0.0000	1.0000	0.20
104.5	575		0.0000	1.0000	0.20
105.5	575		0.0000	1.0000	0.20
106.5	575		0.0000	1.0000	0.20
107.5	575		0.0000	1.0000	0.20
108.5	575		0.0000	1.0000	0.20
109.5	575		0.0000	1.0000	0.20
110.5	575		0.0000	1.0000	0.20
111.5	575		0.0000	1.0000	0.20
112.5	575		0.0000	1.0000	0.20
113.5	575		0.0000	1.0000	0.20
114.5	575		0.0000	1.0000	0.20
115.5	575		0.0000	1.0000	0.20
116.5	575		0.0000	1.0000	0.20
117.5	575		0.0000	1.0000	0.20
118.5	575		0.0000	1.0000	0.20

MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 320 WATER TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1881-2002			EXPERIENCE BAND 1956-2002		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	575		0.0000	1.0000	0.20
120.5	575		0.0000	1.0000	0.20
121.5					0.20



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1907-2002

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,359,810		0.0000	1.0000	100.00
0.5	4,676,383		0.0000	1.0000	100.00
1.5	5,055,842	5,344	0.0011	0.9989	100.00
2.5	4,362,688	5,675	0.0013	0.9987	99.89
3.5	4,182,749	2,837	0.0007	0.9993	99.76
4.5	4,374,300		0.0000	1.0000	99.69
5.5	2,651,638	3,073	0.0012	0.9988	99.69
6.5	2,623,840	2,026	0.0008	0.9992	99.57
7.5	2,467,230	4,621	0.0019	0.9981	99.49
8.5	2,462,848		0.0000	1.0000	99.30
9.5	2,448,718	7,264	0.0030	0.9970	99.30
10.5	2,374,598	667	0.0003	0.9997	99.00
11.5	2,314,326	1,000	0.0004	0.9996	98.97
12.5	1,741,549	3,124	0.0018	0.9982	98.93
13.5	1,418,691		0.0000	1.0000	98.75
14.5	1,398,372	2,515	0.0018	0.9982	98.75
15.5	1,353,009		0.0000	1.0000	98.57
16.5	1,594,469	192	0.0001	0.9999	98.57
17.5	1,755,612	581	0.0003	0.9997	98.56
18.5	1,759,530	132	0.0001	0.9999	98.53
19.5	1,789,646	3,130	0.0017	0.9983	98.52
20.5	2,106,938	19,143	0.0091	0.9909	98.35
21.5	1,760,053	14,362	0.0082	0.9918	97.46
22.5	1,580,576	1,036	0.0007	0.9993	96.66
23.5	1,573,528		0.0000	1.0000	96.59
24.5	1,338,538	4,214	0.0031	0.9969	96.59
25.5	1,484,770	4,856	0.0033	0.9967	96.29
26.5	1,638,563	814	0.0005	0.9995	95.97
27.5	1,637,117		0.0000	1.0000	95.92
28.5	1,957,273		0.0000	1.0000	95.92
29.5	1,957,273	636	0.0003	0.9997	95.92
30.5	1,954,136	2,764	0.0014	0.9986	95.89
31.5	1,930,494	4,865	0.0025	0.9975	95.76
32.5	1,700,047	892	0.0005	0.9995	95.52
33.5	1,566,550	357	0.0002	0.9998	95.47
34.5	1,566,194	12,438	0.0079	0.9921	95.45
35.5	1,553,170	4,464	0.0029	0.9971	94.70
36.5	1,309,416	132	0.0001	0.9999	94.43
37.5	1,161,919	306	0.0003	0.9997	94.42
38.5	1,158,014		0.0000	1.0000	94.39

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2002

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,104,608		0.0000	1.0000	94.39
40.5	795,991	215	0.0003	0.9997	94.39
41.5	750,940		0.0000	1.0000	94.36
42.5	682,379	603	0.0009	0.9991	94.36
43.5	681,775		0.0000	1.0000	94.28
44.5	681,167		0.0000	1.0000	94.28
45.5	534,505	11	0.0000	1.0000	94.28
46.5	377,406	12,473	0.0330	0.9670	94.28
47.5	363,925		0.0000	1.0000	91.17
48.5	48,218		0.0000	1.0000	91.17
49.5	48,218		0.0000	1.0000	91.17
50.5	48,218		0.0000	1.0000	91.17
51.5	51,196		0.0000	1.0000	91.17
52.5	3,118		0.0000	1.0000	91.17
53.5	3,118		0.0000	1.0000	91.17
54.5	3,118		0.0000	1.0000	91.17
55.5	3,118		0.0000	1.0000	91.17
56.5	3,118		0.0000	1.0000	91.17
57.5	3,118		0.0000	1.0000	91.17
58.5	3,118		0.0000	1.0000	91.17
59.5	3,118		0.0000	1.0000	91.17
60.5	2,978		0.0000	1.0000	91.17
61.5	2,978		0.0000	1.0000	91.17
62.5	2,978		0.0000	1.0000	91.17
63.5	2,978		0.0000	1.0000	91.17
64.5	2,978		0.0000	1.0000	91.17
65.5	2,978		0.0000	1.0000	91.17
66.5	2,978		0.0000	1.0000	91.17
67.5	2,978		0.0000	1.0000	91.17
68.5	2,978		0.0000	1.0000	91.17
69.5	2,978		0.0000	1.0000	91.17
70.5	2,978		0.0000	1.0000	91.17
71.5					91.17
72.5					
73.5					
74.5					
75.5	12,103		0.0000		
76.5	12,103		0.0000		
77.5	12,103		0.0000		
78.5	12,103		0.0000		

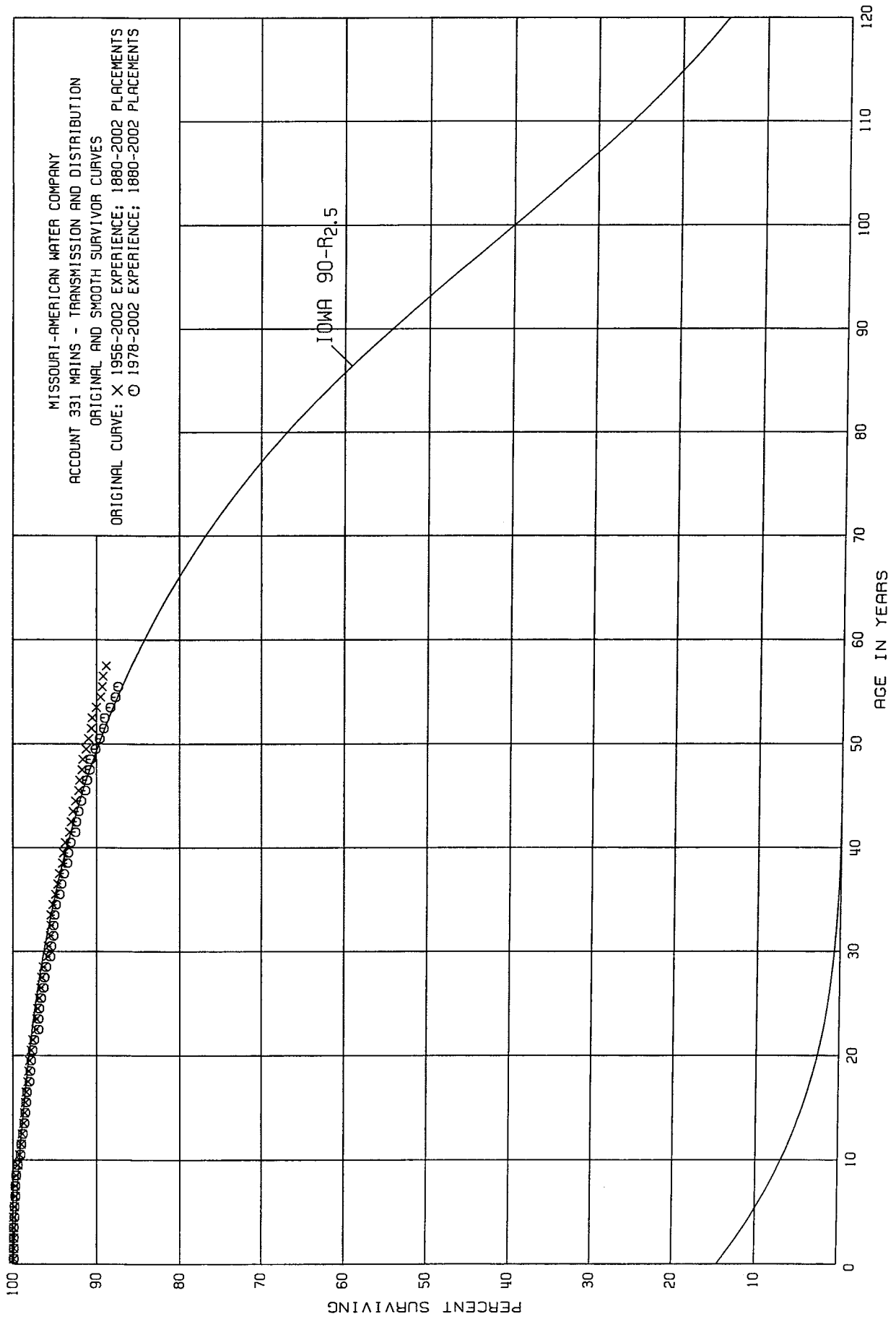
MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2002

EXPERIENCE BAND 1983-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,103		0.0000		
80.5	12,103		0.0000		
81.5	12,103		0.0000		
82.5	12,103		0.0000		
83.5	12,103		0.0000		
84.5	12,103		0.0000		
85.5	12,103		0.0000		
86.5	12,103		0.0000		
87.5	12,103		0.0000		
88.5	12,103		0.0000		
89.5	12,103		0.0000		
90.5	12,103		0.0000		
91.5	12,103		0.0000		
92.5	12,103		0.0000		
93.5	12,103		0.0000		
94.5	12,103		0.0000		
95.5					



MISSOURI-AMERICAN WATER COMPANY
ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	95,118,969	2,882	0.0000	1.0000	100.00
0.5	86,696,939	35,420	0.0004	0.9996	100.00
1.5	84,664,638	20,680	0.0002	0.9998	99.96
2.5	72,401,620	42,931	0.0006	0.9994	99.94
3.5	69,352,760	16,713	0.0002	0.9998	99.88
4.5	66,926,520	55,555	0.0008	0.9992	99.86
5.5	55,034,422	29,635	0.0005	0.9995	99.78
6.5	51,606,852	27,725	0.0005	0.9995	99.73
7.5	49,610,976	62,393	0.0013	0.9987	99.68
8.5	46,620,522	72,446	0.0016	0.9984	99.55
9.5	44,347,455	103,878	0.0023	0.9977	99.39
10.5	41,772,823	52,795	0.0013	0.9987	99.16
11.5	39,506,362	70,225	0.0018	0.9982	99.03
12.5	37,312,501	58,301	0.0016	0.9984	98.85
13.5	35,115,116	34,133	0.0010	0.9990	98.69
14.5	31,980,657	36,259	0.0011	0.9989	98.59
15.5	30,208,225	20,564	0.0007	0.9993	98.48
16.5	25,916,853	62,682	0.0024	0.9976	98.41
17.5	24,959,719	27,172	0.0011	0.9989	98.17
18.5	23,916,301	26,122	0.0011	0.9989	98.06
19.5	23,088,549	46,995	0.0020	0.9980	97.95
20.5	22,459,494	36,998	0.0016	0.9984	97.75
21.5	22,075,780	99,151	0.0045	0.9955	97.59
22.5	21,186,101	5,893	0.0003	0.9997	97.15
23.5	20,088,438	15,268	0.0008	0.9992	97.12
24.5	18,654,121	44,595	0.0024	0.9976	97.04
25.5	17,592,496	35,726	0.0020	0.9980	96.81
26.5	16,766,671	28,408	0.0017	0.9983	96.62
27.5	16,052,279	32,470	0.0020	0.9980	96.46
28.5	14,101,036	67,066	0.0048	0.9952	96.27
29.5	13,409,560	14,011	0.0010	0.9990	95.81
30.5	12,594,124	25,893	0.0021	0.9979	95.71
31.5	11,980,548	9,559	0.0008	0.9992	95.51
32.5	11,427,128	7,461	0.0007	0.9993	95.43
33.5	10,346,796	15,659	0.0015	0.9985	95.36
34.5	9,775,768	38,367	0.0039	0.9961	95.22
35.5	9,287,674	21,825	0.0023	0.9977	94.85
36.5	8,740,218	19,854	0.0023	0.9977	94.63
37.5	7,996,750	31,013	0.0039	0.9961	94.41
38.5	7,350,801	10,525	0.0014	0.9986	94.04

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,604,722	18,139	0.0027	0.9973	93.91
40.5	6,136,048	32,006	0.0052	0.9948	93.66
41.5	5,773,185	9,348	0.0016	0.9984	93.17
42.5	5,575,864	12,425	0.0022	0.9978	93.02
43.5	4,675,334	14,102	0.0030	0.9970	92.82
44.5	4,466,182	22,078	0.0049	0.9951	92.54
45.5	4,170,889	5,526	0.0013	0.9987	92.09
46.5	3,086,149	8,270	0.0027	0.9973	91.97
47.5	2,791,913	2,754	0.0010	0.9990	91.72
48.5	2,346,805	10,275	0.0044	0.9956	91.63
49.5	2,260,319	7,933	0.0035	0.9965	91.23
50.5	2,195,326	7,796	0.0036	0.9964	90.91
51.5	2,119,383	1,968	0.0009	0.9991	90.58
52.5	2,044,363	10,569	0.0052	0.9948	90.50
53.5	1,815,324	10,864	0.0060	0.9940	90.03
54.5	1,732,211	3,479	0.0020	0.9980	89.49
55.5	1,570,835	2,206	0.0014	0.9986	89.31
56.5	1,490,328	6,248	0.0042	0.9958	89.18
57.5	1,514,933	3,570	0.0024	0.9976	88.81
58.5	1,504,939	596	0.0004	0.9996	88.60
59.5	1,473,528	372	0.0003	0.9997	88.56
60.5	1,481,023	2,335	0.0016	0.9984	88.53
61.5	1,493,973	1,882	0.0013	0.9987	88.39
62.5	1,494,372	2,336	0.0016	0.9984	88.28
63.5	1,475,736	445	0.0003	0.9997	88.14
64.5	1,443,210	791	0.0005	0.9995	88.11
65.5	1,458,999	2,124	0.0015	0.9985	88.07
66.5	1,413,247	54	0.0000	1.0000	87.94
67.5	1,406,129	2,007	0.0014	0.9986	87.94
68.5	1,380,615	2,358	0.0017	0.9983	87.82
69.5	1,378,909	1,042	0.0008	0.9992	87.67
70.5	1,375,690	325	0.0002	0.9998	87.60
71.5	1,325,476	506	0.0004	0.9996	87.58
72.5	1,288,821	1,014	0.0008	0.9992	87.54
73.5	1,269,041	852	0.0007	0.9993	87.47
74.5	1,317,878	345	0.0003	0.9997	87.41
75.5	1,347,505	2,159	0.0016	0.9984	87.38
76.5	1,268,588	1,400	0.0011	0.9989	87.24
77.5	1,240,951	414	0.0003	0.9997	87.14
78.5	1,106,568	2,816	0.0025	0.9975	87.11

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,080,667	1,261	0.0012	0.9988	86.89
80.5	1,065,792	769	0.0007	0.9993	86.79
81.5	1,061,935	271	0.0003	0.9997	86.73
82.5	1,054,147	247	0.0002	0.9998	86.70
83.5	1,048,099	374	0.0004	0.9996	86.68
84.5	1,045,559	285	0.0003	0.9997	86.65
85.5	1,038,351	158	0.0002	0.9998	86.62
86.5	1,013,508	2,167	0.0021	0.9979	86.60
87.5	951,883	1,031	0.0011	0.9989	86.42
88.5	941,648	853	0.0009	0.9991	86.32
89.5	902,080	671	0.0007	0.9993	86.24
90.5	839,405	835	0.0010	0.9990	86.18
91.5	750,486	942	0.0013	0.9987	86.09
92.5	720,456	4,379	0.0061	0.9939	85.98
93.5	701,055	495	0.0007	0.9993	85.46
94.5	686,607	1,040	0.0015	0.9985	85.40
95.5	660,337	267	0.0004	0.9996	85.27
96.5	618,363	1,019	0.0016	0.9984	85.24
97.5	600,642	393	0.0007	0.9993	85.10
98.5	578,279	482	0.0008	0.9992	85.04
99.5	558,456	99	0.0002	0.9998	84.97
100.5	542,124	322	0.0006	0.9994	84.95
101.5	503,506	318	0.0006	0.9994	84.90
102.5	438,127	1,428	0.0033	0.9967	84.85
103.5	394,263	73	0.0002	0.9998	84.57
104.5	363,036	42	0.0001	0.9999	84.55
105.5	359,817	90	0.0003	0.9997	84.54
106.5	358,404	19	0.0001	0.9999	84.51
107.5	339,691	196	0.0006	0.9994	84.50
108.5	305,674	980	0.0032	0.9968	84.45
109.5	278,898	74	0.0003	0.9997	84.18
110.5	273,104	24	0.0001	0.9999	84.15
111.5	252,962	4,288	0.0170	0.9830	84.14
112.5	223,876	2,634	0.0118	0.9882	82.71
113.5	198,155		0.0000	1.0000	81.73
114.5	180,716	614	0.0034	0.9966	81.73
115.5	176,001	427	0.0024	0.9976	81.45
116.5	174,735	1,074	0.0061	0.9939	81.25
117.5	173,262	87	0.0005	0.9995	80.75
118.5	170,745		0.0000	1.0000	80.71

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	170,745	35	0.0002	0.9998	80.71
120.5	167,071		0.0000	1.0000	80.69
121.5	94,620	21	0.0002	0.9998	80.69
122.5					80.67

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1978-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	78,435,948	2,565	0.0000	1.0000	100.00
0.5	70,786,277	35,420	0.0005	0.9995	100.00
1.5	69,113,025	17,127	0.0002	0.9998	99.95
2.5	57,448,636	40,851	0.0007	0.9993	99.93
3.5	56,369,719	10,914	0.0002	0.9998	99.86
4.5	54,597,225	50,915	0.0009	0.9991	99.84
5.5	43,468,817	24,829	0.0006	0.9994	99.75
6.5	40,545,149	12,154	0.0003	0.9997	99.69
7.5	39,028,528	35,553	0.0009	0.9991	99.66
8.5	36,964,368	66,449	0.0018	0.9982	99.57
9.5	35,106,038	91,447	0.0026	0.9974	99.39
10.5	33,008,100	44,644	0.0014	0.9986	99.13
11.5	31,286,670	68,510	0.0022	0.9978	98.99
12.5	29,834,019	57,453	0.0019	0.9981	98.77
13.5	28,261,593	28,818	0.0010	0.9990	98.58
14.5	25,910,841	27,293	0.0011	0.9989	98.48
15.5	24,715,447	20,006	0.0008	0.9992	98.37
16.5	20,761,649	57,106	0.0028	0.9972	98.29
17.5	19,997,524	23,399	0.0012	0.9988	98.01
18.5	19,956,270	23,816	0.0012	0.9988	97.89
19.5	19,349,935	43,913	0.0023	0.9977	97.77
20.5	19,007,787	29,154	0.0015	0.9985	97.55
21.5	19,751,313	99,119	0.0050	0.9950	97.40
22.5	19,163,576	5,893	0.0003	0.9997	96.91
23.5	18,540,966	15,268	0.0008	0.9992	96.88
24.5	17,183,899	44,346	0.0026	0.9974	96.80
25.5	16,169,108	35,726	0.0022	0.9978	96.55
26.5	15,417,559	28,408	0.0018	0.9982	96.34
27.5	14,786,804	32,470	0.0022	0.9978	96.17
28.5	13,012,401	67,066	0.0052	0.9948	95.96
29.5	12,365,990	13,962	0.0011	0.9989	95.46
30.5	11,758,546	25,893	0.0022	0.9978	95.35
31.5	11,179,508	9,559	0.0009	0.9991	95.14
32.5	10,611,194	7,461	0.0007	0.9993	95.05
33.5	9,526,945	15,605	0.0016	0.9984	94.98
34.5	8,989,019	38,341	0.0043	0.9957	94.83
35.5	8,507,918	21,825	0.0026	0.9974	94.42
36.5	7,976,675	19,854	0.0025	0.9975	94.17
37.5	7,253,011	31,013	0.0043	0.9957	93.93
38.5	6,627,998	10,525	0.0016	0.9984	93.53

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1978-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	5,911,199	18,099	0.0031	0.9969	93.38
40.5	5,392,491	32,006	0.0059	0.9941	93.09
41.5	5,090,109	9,348	0.0018	0.9982	92.54
42.5	4,879,367	12,425	0.0025	0.9975	92.37
43.5	3,947,097	14,102	0.0036	0.9964	92.14
44.5	3,649,332	21,863	0.0060	0.9940	91.81
45.5	3,326,673	5,378	0.0016	0.9984	91.26
46.5	2,282,223	8,270	0.0036	0.9964	91.11
47.5	2,012,322	2,705	0.0013	0.9987	90.78
48.5	1,563,297	10,275	0.0066	0.9934	90.66
49.5	1,462,386	7,617	0.0052	0.9948	90.06
50.5	1,447,054	7,796	0.0054	0.9946	89.59
51.5	1,426,581	1,312	0.0009	0.9991	89.11
52.5	1,359,837	10,569	0.0078	0.9922	89.03
53.5	1,248,899	9,551	0.0076	0.9924	88.34
54.5	1,155,801	3,300	0.0029	0.9971	87.67
55.5	942,562	1,657	0.0018	0.9982	87.42
56.5	820,126	4,842	0.0059	0.9941	87.26
57.5	815,647	3,570	0.0044	0.9956	86.75
58.5	808,260	505	0.0006	0.9994	86.37
59.5	777,927	372	0.0005	0.9995	86.32
60.5	773,404	2,335	0.0030	0.9970	86.28
61.5	776,255	1,882	0.0024	0.9976	86.02
62.5	810,422	2,336	0.0029	0.9971	85.81
63.5	795,319	445	0.0006	0.9994	85.56
64.5	781,453	758	0.0010	0.9990	85.51
65.5	836,303	2,088	0.0025	0.9975	85.42
66.5	856,532	54	0.0001	0.9999	85.21
67.5	862,156	2,007	0.0023	0.9977	85.20
68.5	849,814	361	0.0004	0.9996	85.00
69.5	863,433	1,042	0.0012	0.9988	84.97
70.5	886,582	325	0.0004	0.9996	84.87
71.5	872,939	506	0.0006	0.9994	84.84
72.5	853,032	1,014	0.0012	0.9988	84.79
73.5	852,347	852	0.0010	0.9990	84.69
74.5	843,702	345	0.0004	0.9996	84.61
75.5	794,303	2,159	0.0027	0.9973	84.58
76.5	754,408	1,400	0.0019	0.9981	84.35
77.5	792,443	414	0.0005	0.9995	84.19
78.5	703,626	2,816	0.0040	0.9960	84.15

MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1978-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	714,212	1,261	0.0018	0.9982	83.81
80.5	702,627	769	0.0011	0.9989	83.66
81.5	700,139	271	0.0004	0.9996	83.57
82.5	711,704	247	0.0003	0.9997	83.54
83.5	740,995	374	0.0005	0.9995	83.51
84.5	764,903	285	0.0004	0.9996	83.47
85.5	763,816	158	0.0002	0.9998	83.44
86.5	759,252	2,167	0.0029	0.9971	83.42
87.5	722,425	1,031	0.0014	0.9986	83.18
88.5	735,469	853	0.0012	0.9988	83.06
89.5	713,341	671	0.0009	0.9991	82.96
90.5	654,767	835	0.0013	0.9987	82.89
91.5	566,686	942	0.0017	0.9983	82.78
92.5	537,055	4,379	0.0082	0.9918	82.64
93.5	524,373	495	0.0009	0.9991	81.96
94.5	509,925	1,040	0.0020	0.9980	81.89
95.5	487,294	267	0.0005	0.9995	81.73
96.5	523,039	1,019	0.0019	0.9981	81.69
97.5	600,642	393	0.0007	0.9993	81.53
98.5	578,279	482	0.0008	0.9992	81.47
99.5	558,456	99	0.0002	0.9998	81.40
100.5	542,124	322	0.0006	0.9994	81.38
101.5	503,506	318	0.0006	0.9994	81.33
102.5	438,127	1,428	0.0033	0.9967	81.28
103.5	394,263	73	0.0002	0.9998	81.01
104.5	363,036	42	0.0001	0.9999	80.99
105.5	359,817	90	0.0003	0.9997	80.98
106.5	358,404	19	0.0001	0.9999	80.96
107.5	339,691	196	0.0006	0.9994	80.95
108.5	305,674	980	0.0032	0.9968	80.90
109.5	278,898	74	0.0003	0.9997	80.64
110.5	273,104	24	0.0001	0.9999	80.62
111.5	252,962	4,288	0.0170	0.9830	80.61
112.5	223,876	2,634	0.0118	0.9882	79.24
113.5	198,155		0.0000	1.0000	78.30
114.5	180,716	614	0.0034	0.9966	78.30
115.5	176,001	427	0.0024	0.9976	78.03
116.5	174,735	1,074	0.0061	0.9939	77.84
117.5	173,262	87	0.0005	0.9995	77.37
118.5	170,745		0.0000	1.0000	77.33

MISSOURI-AMERICAN WATER COMPANY

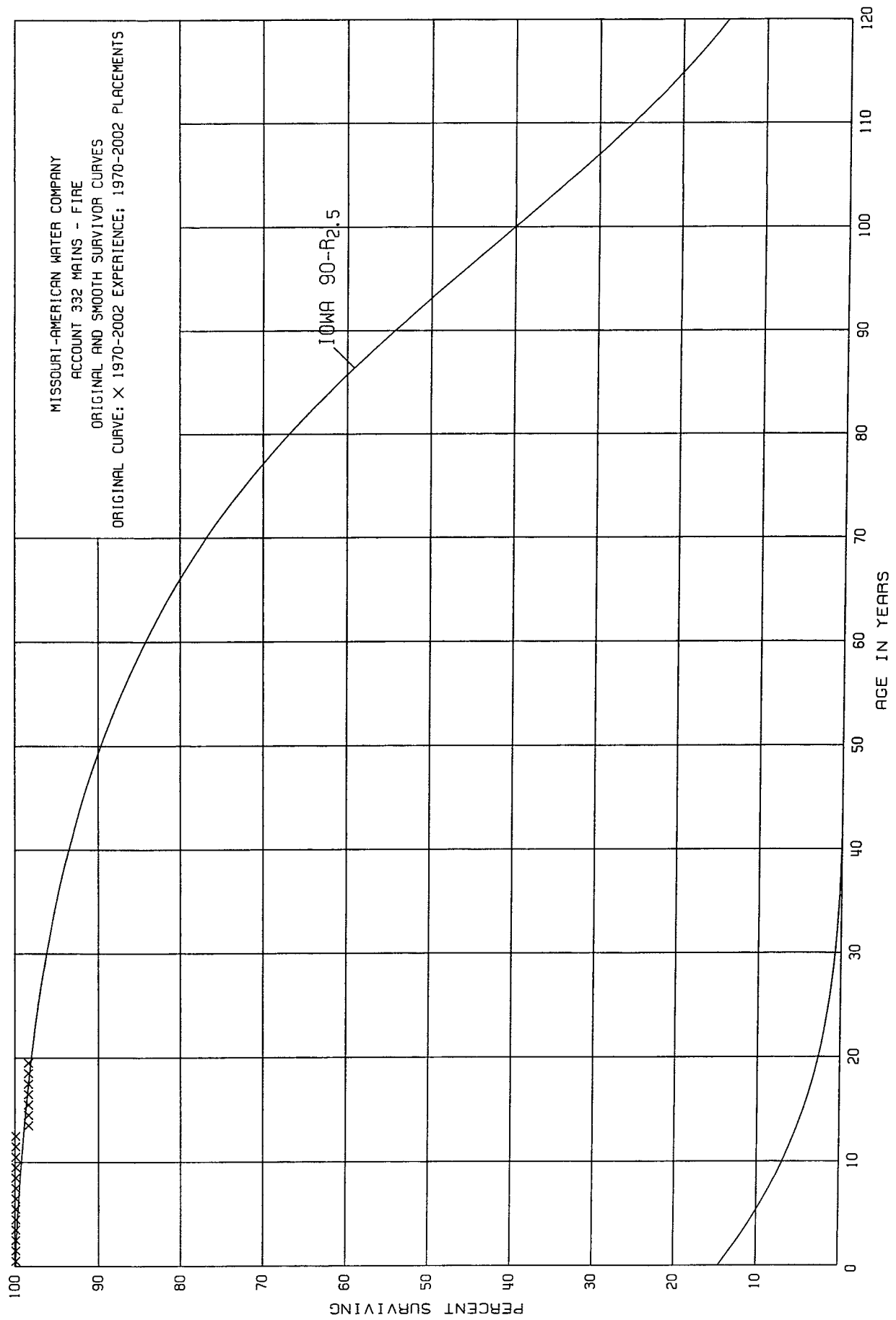
ACCOUNT 331 MAINS - TRANSMISSION AND DISTRIBUTION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1880-2002

EXPERIENCE BAND 1978-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	170,745	35	0.0002	0.9998	77.33
120.5	167,071		0.0000	1.0000	77.31
121.5	94,620	21	0.0002	0.9998	77.31
122.5					77.29



MISSOURI-AMERICAN WATER COMPANY

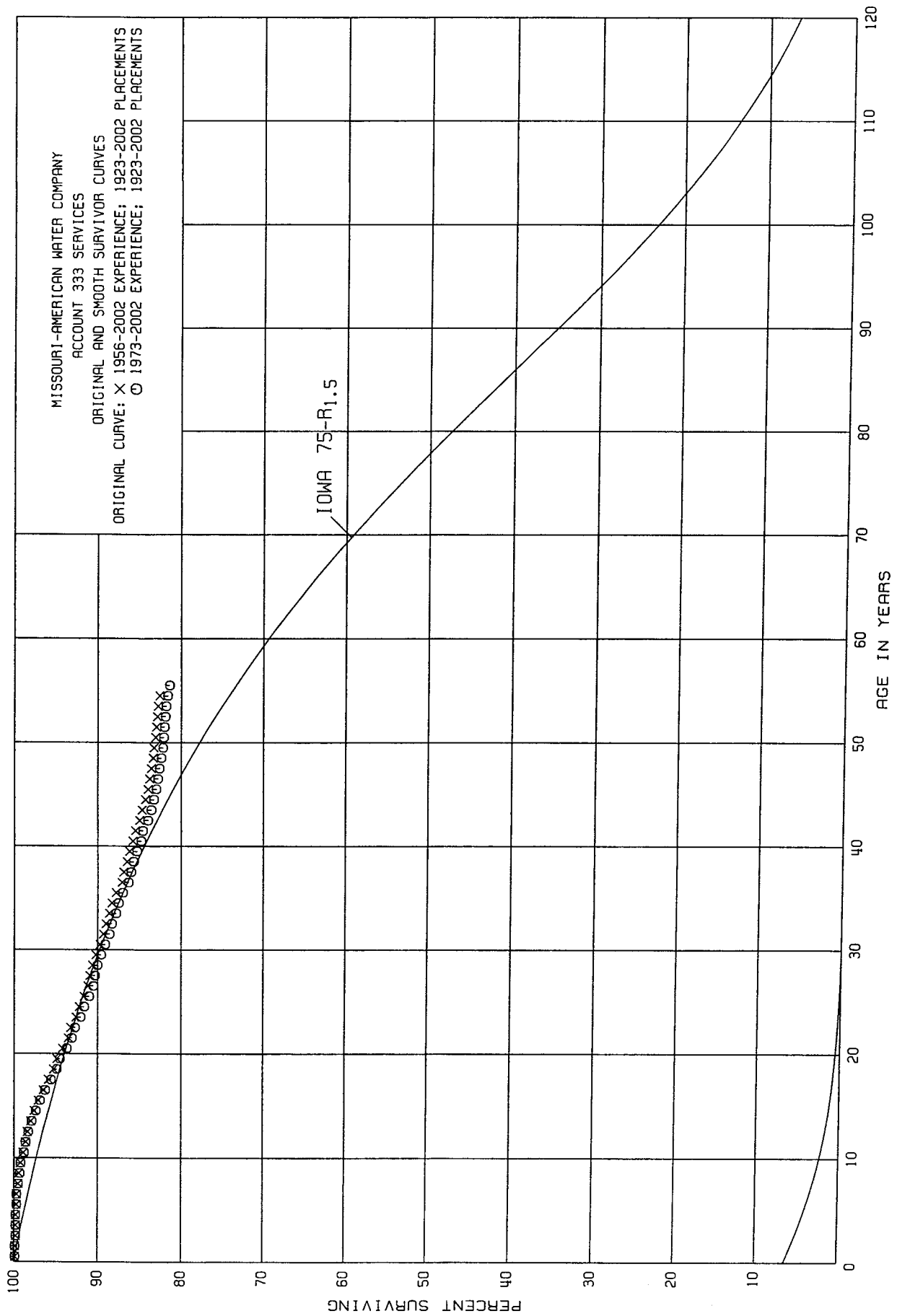
ACCOUNT 332 MAINS - FIRE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2002

EXPERIENCE BAND 1970-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	415,358		0.0000	1.0000	100.00
0.5	402,566		0.0000	1.0000	100.00
1.5	369,832		0.0000	1.0000	100.00
2.5	314,189		0.0000	1.0000	100.00
3.5	295,414		0.0000	1.0000	100.00
4.5	278,505		0.0000	1.0000	100.00
5.5	232,249		0.0000	1.0000	100.00
6.5	223,270		0.0000	1.0000	100.00
7.5	194,676		0.0000	1.0000	100.00
8.5	173,127		0.0000	1.0000	100.00
9.5	152,630		0.0000	1.0000	100.00
10.5	142,880		0.0000	1.0000	100.00
11.5	114,833		0.0000	1.0000	100.00
12.5	104,679	1,709	0.0163	0.9837	100.00
13.5	94,767		0.0000	1.0000	98.37
14.5	84,227		0.0000	1.0000	98.37
15.5	68,844		0.0000	1.0000	98.37
16.5	53,972		0.0000	1.0000	98.37
17.5	42,970		0.0000	1.0000	98.37
18.5	24,464		0.0000	1.0000	98.37
19.5	24,464		0.0000	1.0000	98.37
20.5	22,424		0.0000	1.0000	98.37
21.5	21,164		0.0000	1.0000	98.37
22.5	3,067		0.0000	1.0000	98.37
23.5	2,049		0.0000	1.0000	98.37
24.5	1,342		0.0000	1.0000	98.37
25.5	1,342		0.0000	1.0000	98.37
26.5	1,342		0.0000	1.0000	98.37
27.5	1,342		0.0000	1.0000	98.37
28.5	1,342		0.0000	1.0000	98.37
29.5	1,342		0.0000	1.0000	98.37
30.5	685		0.0000	1.0000	98.37
31.5	662		0.0000	1.0000	98.37
32.5					98.37



MISSOURI-AMERICAN WATER COMPANY

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1923-2002

EXPERIENCE BAND 1956-2002

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	16,633,351	3,820	0.0002	0.9998	100.00
0.5	15,534,438	13,276	0.0009	0.9991	99.98
1.5	14,431,194	11,192	0.0008	0.9992	99.89
2.5	13,323,337	3,162	0.0002	0.9998	99.81
3.5	12,372,194	4,312	0.0003	0.9997	99.79
4.5	11,424,953	6,962	0.0006	0.9994	99.76
5.5	10,503,603	5,355	0.0005	0.9995	99.70
6.5	9,519,425	10,294	0.0011	0.9989	99.65
7.5	8,862,845	16,917	0.0019	0.9981	99.54
8.5	7,987,216	13,991	0.0018	0.9982	99.35
9.5	7,139,311	23,171	0.0032	0.9968	99.17
10.5	6,493,798	15,035	0.0023	0.9977	98.85
11.5	5,968,105	16,402	0.0027	0.9973	98.62
12.5	5,535,036	18,856	0.0034	0.9966	98.35
13.5	5,024,175	21,987	0.0044	0.9956	98.02
14.5	4,598,381	23,947	0.0052	0.9948	97.59
15.5	4,172,886	24,542	0.0059	0.9941	97.08
16.5	3,700,211	24,488	0.0066	0.9934	96.51
17.5	3,362,400	21,339	0.0063	0.9937	95.87
18.5	3,142,241	13,746	0.0044	0.9956	95.27
19.5	2,947,429	21,769	0.0074	0.9926	94.85
20.5	2,810,805	18,261	0.0065	0.9935	94.15
21.5	2,681,797	10,591	0.0039	0.9961	93.54
22.5	2,519,084	17,115	0.0068	0.9932	93.18
23.5	2,311,895	9,946	0.0043	0.9957	92.55
24.5	2,156,252	13,433	0.0062	0.9938	92.15
25.5	2,020,400	10,254	0.0051	0.9949	91.58
26.5	1,891,707	5,524	0.0029	0.9971	91.11
27.5	1,797,026	5,291	0.0029	0.9971	90.85
28.5	1,701,001	6,736	0.0040	0.9960	90.59
29.5	1,586,648	8,656	0.0055	0.9945	90.23
30.5	1,465,457	6,946	0.0047	0.9953	89.73
31.5	1,360,894	4,967	0.0036	0.9964	89.31
32.5	1,267,109	5,921	0.0047	0.9953	88.99
33.5	1,184,812	4,202	0.0035	0.9965	88.57
34.5	1,119,726	6,379	0.0057	0.9943	88.26
35.5	1,040,045	7,708	0.0074	0.9926	87.76
36.5	960,333	2,437	0.0025	0.9975	87.11
37.5	893,859	3,730	0.0042	0.9958	86.89
38.5	799,083	3,057	0.0038	0.9962	86.53