Exhibit No.:_____
Issue: Depreciation; Continuing Plant Inventory Record
Witness: John J. Spanos
Sponsoring Party: Ameren Missouri
File No.: ER-2022-0337

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2022-0337

SURREBUTTAL TESTIMONY OF

JOHN J. SPANOS

ON BEHALF OF

AMEREN MISSOURI

Camp Hill, Pennsylvania

March 13, 2023

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I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

Q. ARE YOU THE SAME JOHN J. SPANOS WHO PREFILED DIRECT AND REBUTTAL TESTIMONY IN THIS MATTER?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address the rebuttal testimony filed by Missouri Public Service Commission Staff ("Staff") witness Cedric E. Cunigan related to depreciation. I also address witness Cunigan's discussion of the Company's Continuing Plant Inventory Record ("CPR").

Q. WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?

A. The primary subjects of my testimony are the depreciation components recommended by witness Cunigan for some accounts and his recommendations related to the continuing property record methodology of the Company. Specifically, I will address Staff's position related to a few account service lives; the proper depreciation rate for Account 370.00, Meters; and a reasonable accounting approach for recording retirement ages.

Q. ARE YOU PROVIDING ANY SCHEDULES WITH YOUR SURREBUTTAL TESTIMONY?

A. Yes, I am providing Schedule JJS-S1 as part of my surrebuttal testimony.

II. STAFF'S SERVICE LIFE ESTIMATE DIFFERENCES

Q. WHAT DOES STAFF RECOMMEND RELATED TO LIFE CHARACTERISTICS?

A. On Page 2 of Cunigan's rebuttal, Staff recommends different service lives for four plant accounts from what was proposed by the Company. However, Staff's other life differences based on workpapers relate to the service life for Account 356.00, Overhead Conductor and Devices, and the depreciation rate for Account 370.00, Meters, that has been calculated without all the important life components.

Q. HAS STAFF CONTINUED TO MAKE ADJUSTMENTS TO THE COMPANY'S PROPOSED SERVICE LIVES BASED ON AN INAPPROPRIATE STATISTICAL ANALYSIS?

A. Staff has proposed service life estimates for 6 plant accounts, which either change the average service life, the survivor curve type or neglect to incorporate the future life characteristics of the assets. Table 1 below compares the estimates that were proposed by the Company based on my Depreciation Study to the estimates proposed by witness Cunigan. Please note that in Mr. Cunigan's rebuttal he does not address Account 356.00 or the truncation of Account 370.00.

Table 1. Comparison of Survivor Curves between the Company and Staff

ACCOUNT	COMPANY PROPOSED Life/Survivor Curve	STAFF PROPOSED Life/Survivor Curve
316.00, Miscellaneous Power Plant Equipment	40-L0.5	40-L0
346.00, Miscellaneous Power Plan Equipment	28-S1	27-L2
356.00, Overhead Conductors and Devices	65-R3	75-R3
364.00, Poles and Fixtures	54-S1.5	58-L2.5
370.00, Meters	28-S0.5*	28-S0.5
373.00, Street Lighting and Signal Systems	38-S0	40-O1

*Represents truncation of all meters by 2024

Q. HAS STAFF WITNESS CUNIGAN PROVIDED A REASON FOR HIS RECOMMENDED CURVE?

A. Yes. Mr. Cunigan simply states that, "Staff believes that the curve choices chosen by Staff provide a better visual fit for the data."

Q. DO YOU AGREE WITH STAFF'S STATEMENT REGARDING THE POSITION?

A. No. First and foremost, as I discussed extensively in my rebuttal testimony, the determination of life characteristics by account must include various key factors that are more than just a visual better match. This is expressed in my rebuttal through the discussion of authoritative text recommendations as the most appropriate methodology of life estimation. Second, as shown with the Schedule JJS-S1, the curves proposed by me for the Company show a better visual fit for each account depending on which portion of the survivor curve is considered to be the most indicative of future life characteristics. Therefore, a full understanding of all the factors including the nature of the assets and Company plans are necessary in order to

determine what the best curve should be for an account. The curve fitting process and the flaws in Staff's estimates have been discussed in my rebuttal testimony.

Q. WHAT IS THE MAIN ISSUE WITH THE SURVIVOR CURVE ESTIMATES PROPOSED BY STAFF?

A. Based on Staff's testimony, the survivor curves for the accounts listed in the table above are selected solely on visual determination. However, some of the accounts the comparison between my estimate and Staff's estimate are very close and emphasis on more than a visual fit is necessary. This is particularly evident when comparing estimates for Accounts 316.00 and 346.00 where the overall life cycle is more a factor than just the visual fit. Additionally, for Accounts 364.00 and 373.00, the visual fitting cannot solely determine the most appropriate survivor curve because a majority of the most significant portion of the curve is visually better when comparing my curve to the one Staff recommends. Finally, for Account 356.00 which is not mentioned in Mr. Cunigan's rebuttal, the understanding of the type of assets in the account and the other key factors for life estimation of overhead conductors and devices make it clear that a 75 year average and 120 maximum life is not reasonable.

Q. DO ANY DEPRECIATION AUTHORITIES SUPPORT THAT THE ESTIMATION OF SERVICE LIVES SHOULD BE MORE THAN AN OBJECTIVE METHOD AND THAT THE CURVE SHOULD MATCH THE UTILIZATION OF THE ASSETS?

A. Yes. For example, NARUC makes clear that factors other than the statistical analysis must be considered. Chapter XIII of *Public Utility Depreciation Practices*, entitled "Actuarial Life Analysis" discusses and emphasizes the subjective nature of the

process of estimating service lives. NARUC starts this chapter by explaining that the analysis of historical data is only one part of the process of estimating service lives:

> Actuarial analysis objectively measures how the company has retired its investment. The analyst must then judge whether this historical view depicts the future life of the property in service. The analyst takes into consideration various factors, such as changes in technology, services provided, or capital budgets.[1]

NARUC makes clear that the process of estimating service lives must go beyond any objective measurement of the past. In describing the determination of a survivor curve estimate (referred to as the "projection life" in this passage), NARUC states:

> The projection life is a projection, or forecast, of the future of the property. Historical indications may be useful in estimating a projection life curve. Certainly the observations based on the property's history are a starting point. Trends in life or retirement dispersion can often be expected to continue. Likewise, unless there is some reason to expect otherwise, stability in life or retirement dispersion can be expected to continue, at least in the near term.
>
> Depreciation analysts should avoid becoming ensnared in the mechanics of the historical life study and relying solely on mathematical solutions. The reason for making an historical life analysis is to develop a sufficient understanding of history in order to evaluate whether it is a reasonable predictor of the future. The importance of being aware of circumstances having direct bearing on the reason for making an historical life analysis cannot be understated. These circumstances, when factored into the analysis, determine the application and limitations of an historical life analysis.[2]

Thus, NARUC strongly advises against the approach apparently used by Staff. NARUC further elaborates on the need for a subjective component to forecasting service lives:

> A depreciation study is commonly described as having three periods of analysis: the past, present, and future. The past and present can usually

1 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 111.

2 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 126. Emphasis added.

be analyzed with great accuracy using many currently available analytical tools. The future still must be predicted and must largely include some subjective analysis. *Informed judgment* is a term used to define the subjective portion of the depreciation study process. It is based on a combination of general experience, knowledge of the properties and a physical inspection, information gathered throughout the industry, and other factors which assist the analyst in making a knowledgeable estimate.

The use of informed judgment can be a major factor in forecasting. A logical process of examining and prioritizing the usefulness of information must be employed, since there are many sources of data that must be considered and weighed by importance. For example, the following forces of retirement need to be considered: Do the past and current service life dispersions represent the future? Will scrap prices rise or fall? What will be the impact of future technological obsolescence? Will the company be in existence in the future? The analyst must rank the factors and decide the relative weight to apply to each. The final estimate might not resemble any one of the specific factors; however, the result would be a decision based upon a combination of the components.[3]

Q. HAVE YOU INCORPORATED THE VARIOUS FACTORS DISCUSSED BY NARUC INTO YOUR ESTIMATES?

A. Yes, as discussed in my direct and rebuttal testimony.

Q. HAVE STAFF'S UPDATED REBUTTAL RESULTS REFLECTED THE APPROPRIATE RECOVERY PATTERN FOR METERS?

A. No. As discussed in rebuttal, Staff did not reflect all the appropriate components of the life characteristics for the account. Therefore, Staff's depreciation rate is inadequate. The proper rate should be 23.80 instead of Staff's proposed depreciation rate of 4.39. This is a change in expense of $16,399,501 from Staff's position. The life estimation for Account 370.00, Meters, proposed by Staff does not reflect the proper recovery pattern consistent with the life characteristics. Both my life estimate

3 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 128. Emphasis added.

and Staff's represent the same 28-S0.5 curve, however, Staff neglected to reflect the truncation date of year end 2024. The assets in Account 370.00 represent the older meter technology which is planned to be replaced by end of year 2024. Therefore, the complete life characteristics for this account should include not only the survivor curve but must recognize that by the end of 2024, all these meters will be retired because they will have been replaced.

Q. WHAT DO YOU RECOMMEND RELATED TO THE SERVICE LIFE ESTIMATES THAT SHOULD BE USED FOR DEPRECIATION RATES?

A. Based on all the key components of life estimation, the recommended service life estimates made by the Company and filed as part of the depreciation study should be utilized in in developing depreciation rates. The service life estimates proposed by the Company considered a number of factors including statistical analyses of data, current Company policies and outlook as determined during conversations with management.

III. CONTINUING PLANT INVENTORY RECORD PROCESS

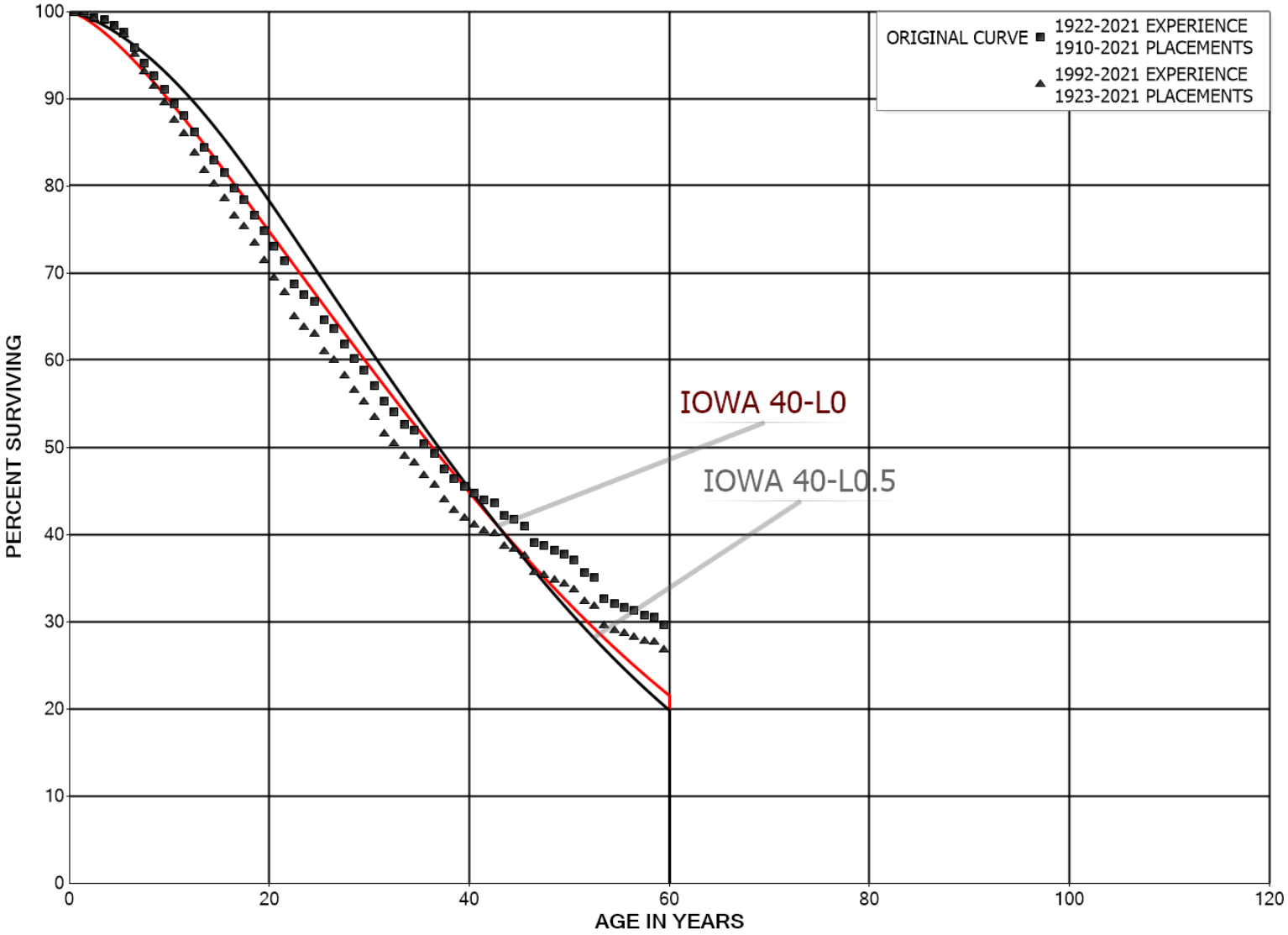
Q. STAFF EXPRESSES CONCERNS OVER THE COMPANY'S PRACTICE OF AGING RETIREMENTS. DO YOU SHARE THE SAME CONCERNS?

A. No. The amount of effort required to conduct physical inventories and specifically identify every asset being retired for mass property is impracticable, extremely burdensome, and does not render value or significantly improved accuracy relative to the mass property retirement methodology the Company uses today, which is widely accepted in the industry as a best practice. Extensive work would require hiring numerous staff for both property accounting and field personnel and would delay

proper recording of entries that adversely would affect rate base, and would cause increased costs related to the incremental personnel that would ultimately be reflected in the form of higher customer rates.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.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1910-2021 PLACEMENTS
1992-2021 EXPERIENCE
1923-2021 PLACEMENTS
IOWA 40-L0
IOWA 40-L0.5
PERCENT SURVIVING
AGE IN YEARS
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80
70
60
50
40
30
20
10
0
0
20
40
60
80
100
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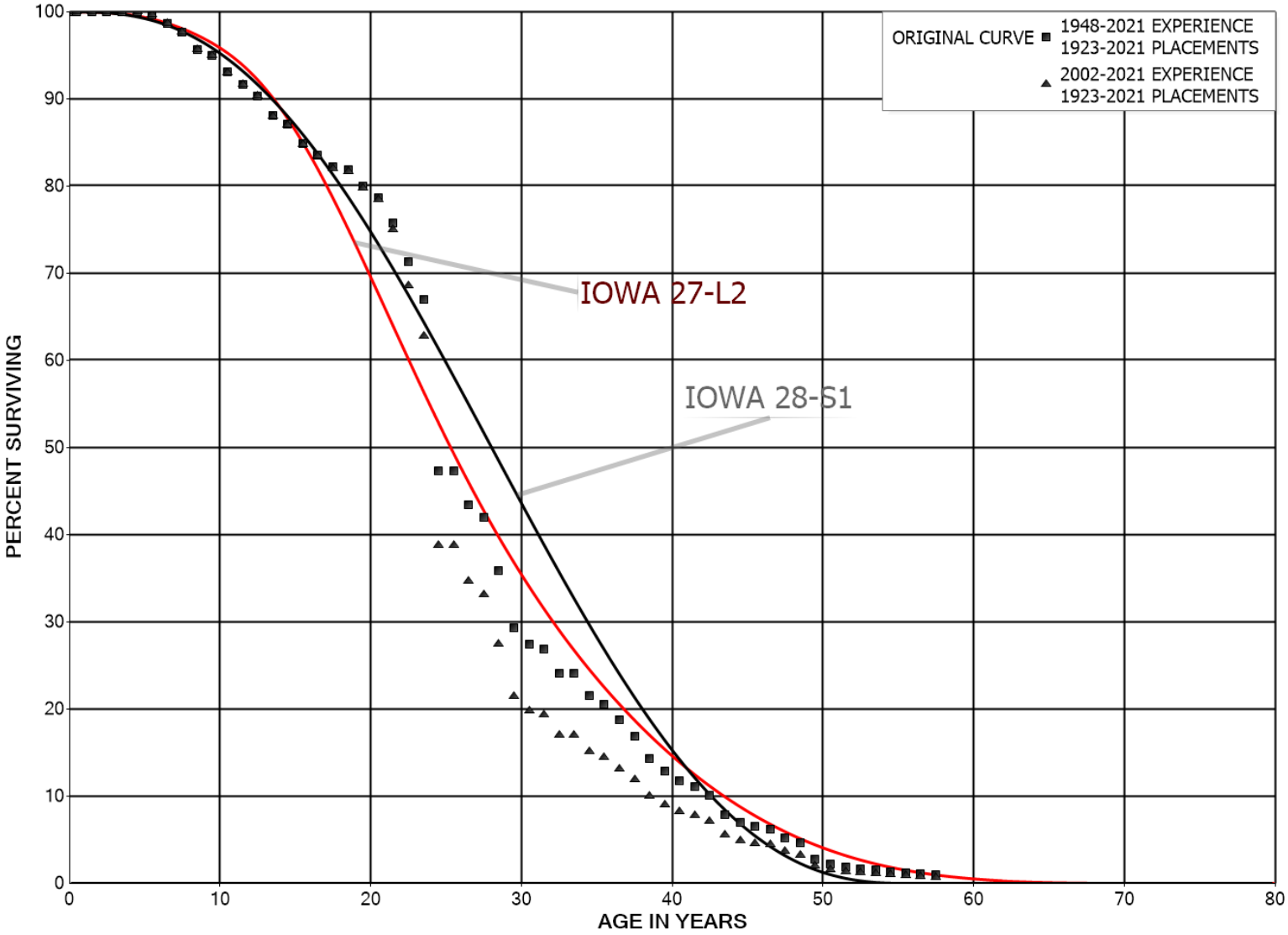
ORIGINAL CURVE
1948-2021 EXPERIENCE
1923-2021 PLACEMENTS
2002-2021 EXPERIENCE
1923-2021 PLACEMENTS
IOWA 27-L2
IOWA 28-S1
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
10
0
0
10
20
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40
50
60
70
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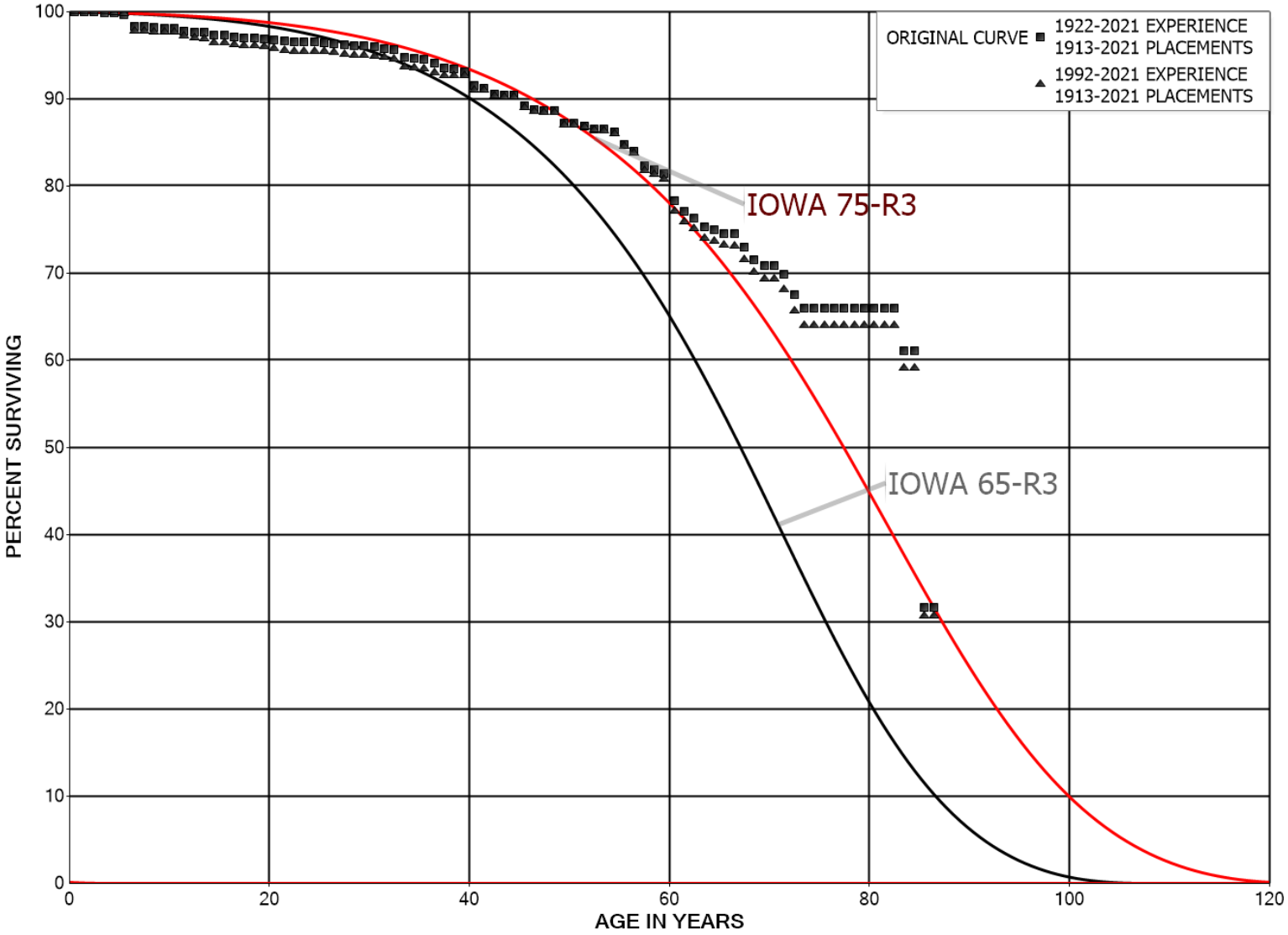
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1913-2021 PLACEMENTS
1992-2021 EXPERIENCE
1913-2021 PLACEMENTS
IOWA 75-R3
IOWA 65-R3
PERCENT SURVIVING
AGE IN YEARS
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40
30
20
10
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40
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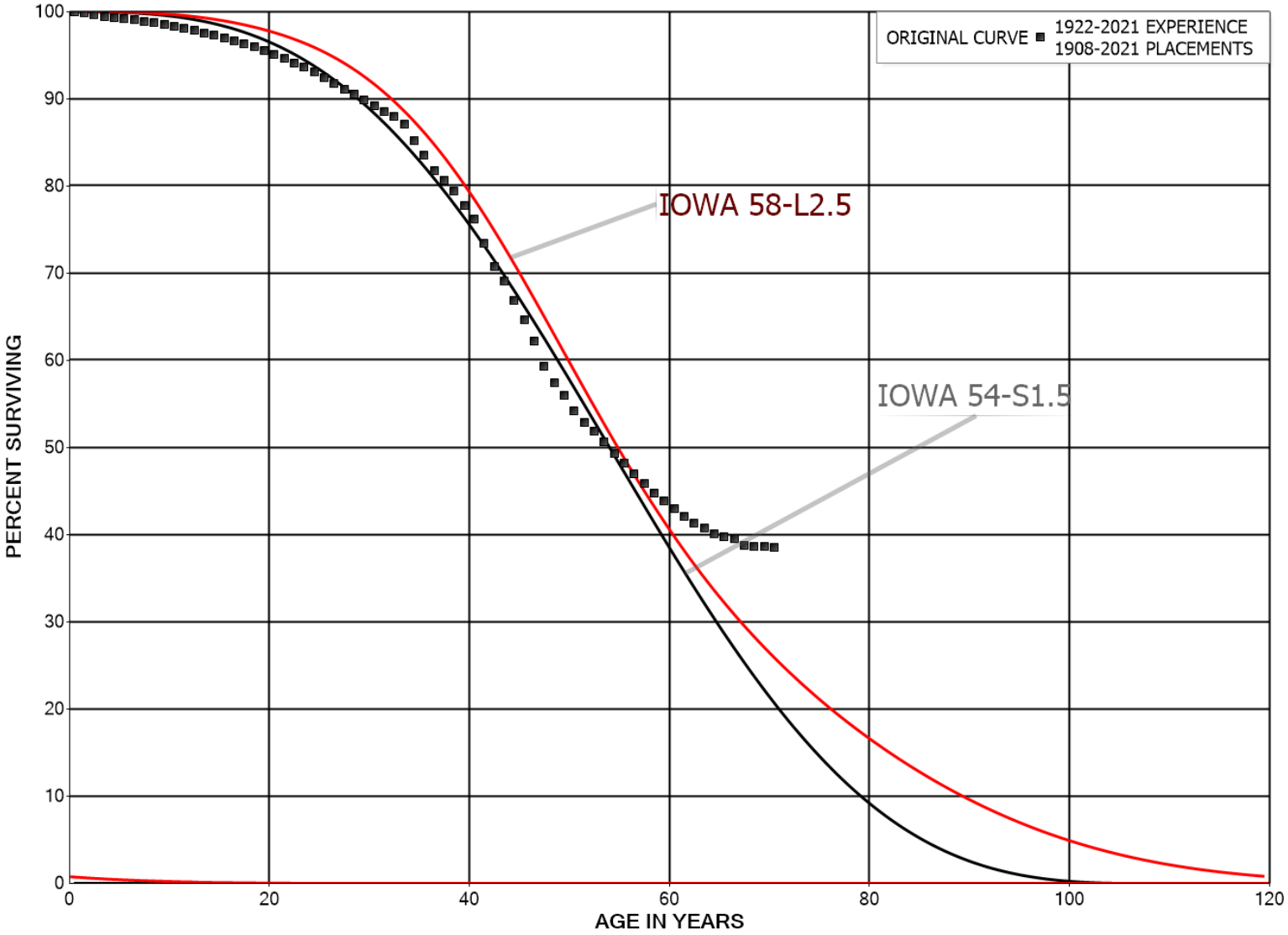
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1908-2021 PLACEMENTS
IOWA 58-L2.5
IOWA 54-S1.5
PERCENT SURVIVING
AGE IN YEARS
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30
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80
100
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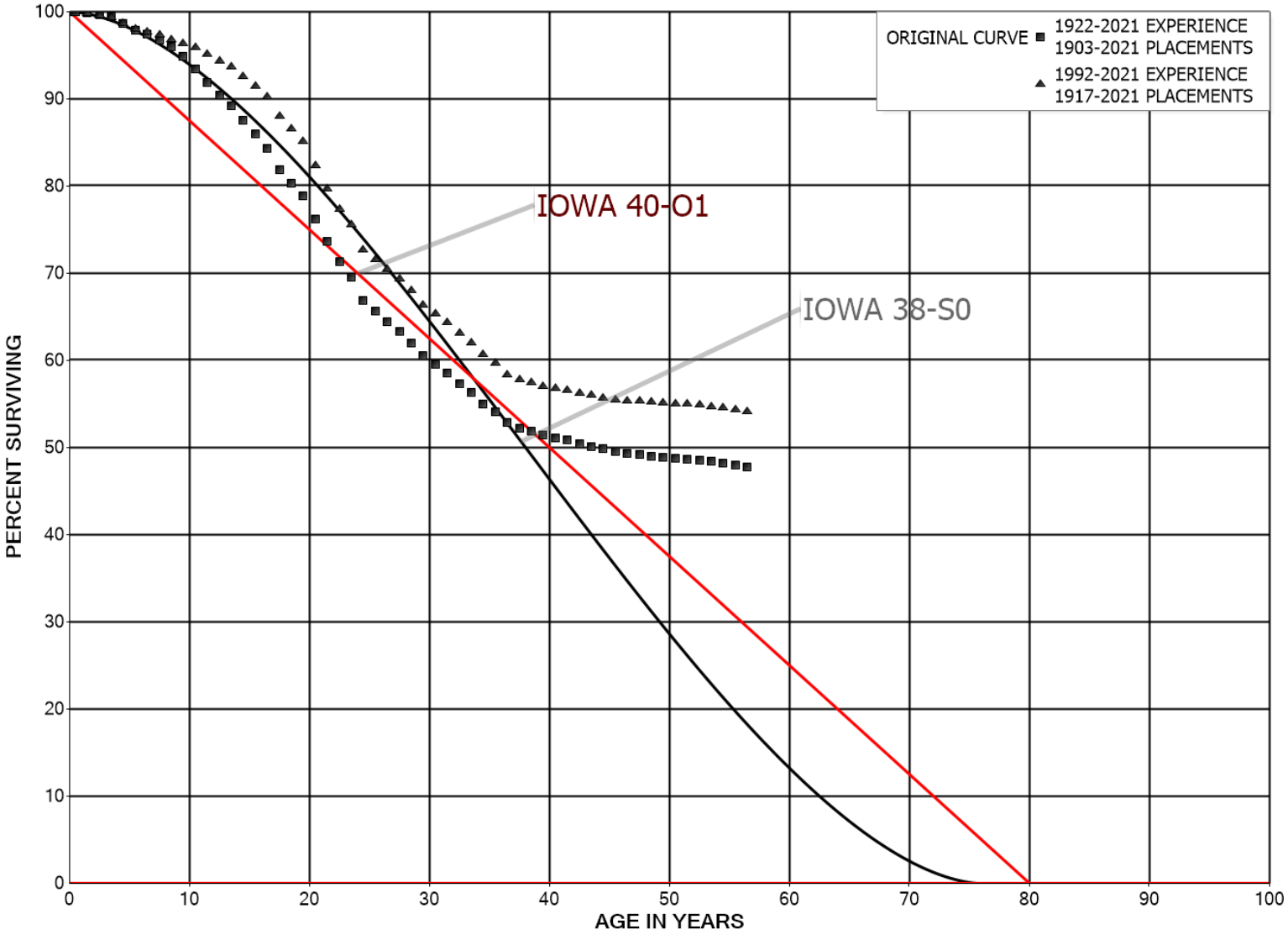
ORIGINAL CURVE
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1903-2021 PLACEMENTS
1992-2021 EXPERIENCE
1917-2021 PLACEMENTS
IOWA 40-O1
IOWA 38-S0
PERCENT SURVIVING
AGE IN YEARS
0
10
20
30
40
50
60
70
80
90
100