# Release Notes NumberCruncher 2023 and QuickView 2023 

May 8, 2023

Please circulate to *all* NumberCruncher and QuickView users
Greetings to NumberCruncher and QuickView Customers, One and All.

Interviewer: Your resume says that you're quick in math.
So what's $19 \times 67$ ?
Candidate: 25
Interviewer: That's not even close.
Candidate: But it was quick.
Well, the release of NumberCruncher 2023 has been anything but "quick".

But here's some context for the activity around NumberCruncher during the past two years:

1. Over 1,000 changes made (both large and small).
2. Program compiled and recompiled over 460 times.
3. Over $\$ 3 \mathrm{M}$ invested in the upcoming cloud version, which has involved re-engineering 100+ modules, many of them in place since NumberCruncher's first release in 1984.

We are profoundly grateful for your loyalty and your patience in waiting for this release. We hear from countless users who love NumberCruncher, in part, for its accuracy and dependability, which is why it has built a base of some 3,500 firms with some 10,000 users. We believe that this release is one "for the ages".

## Outline of our NumberCruncher 2023.00 Release Notes:

Steve Leimberg (1943-2022)
Highlights for 2023:

1. Larry Katzenstein/Tiger Tables
2. NumberCruncher and QuickView 2022 vs. 2023
(a) New IRS Mortality Table 2010CM
(b) Software License Agreement (annual use)
(c) Federal Estate Tax Exclusion (2022 and 2023)
(d) Automatic Updates to Federal Estate Tax and Annual Gift Exclusions (New)
(e) Sunset and Clawback (2026 and later)
(f) Other Year-Specific Changes
(g) Cloud Version: "NumberCruncher Reimagined"
(h) Year-Round Tech Support
3. Help Screens
4. May 2022 Proposed Regulations (Larry Katzenstein articles and IRS submission)
5. Life Expectancy Charts (1980-2010)
6. Estate Tax Module - Summary and Extended Summary Views
7. State Estate Tax
8. NumberCruncher Modules: Name Changes
9. NumberCruncher firms $(3,500)$ throughout the United States and abroad (Tableau Map)
10. Gain Harvesting Calculator (example of "NumberCruncher Reimagined" - cloud version)
11. Anti-Clawback Eligibility (Illustration of Decision-Tree Analysis)
12. Publication 904 (2022): Estate \& Gift Tax Interrelated Calculations

We welcome all feedback! Please send to:

## NumberCruncher 203 and QuickView 2023

## May 8, 2023

## Greetings to NumberCruncher and QuickView Customers, One and All.

We have lots of news to report to you today, but first and foremost the very sad news that some of you might not have heard.

Steve Leimberg (1943 - 2022). It is with profound sadness that we report that co-founder Steve Leimberg died on Thursday, December 1, 2022, at the age of 79. Please see this tribute to Steve, originally published on December 19, 2022, as a Leimberg Information Services Newsletter. It also appears on the Leimberg home page where it has been viewed over 22,000 times. Steve was our very own "Most Interesting Man in the World".

## https://leimberg.com

In 1984, Steve (along with Bob LeClair) built the first version of NumberCruncher in VisiCalc, the very first spreadsheet ever invented. They went on to form Leimberg \& LeClair, Inc. in 1995 (now Leimberg, LeClair \& Lackner, Inc.) and built this into a robust business that currently serves some 3,500 firms with some 10,000 users. May he rest in peace.

## Highlights for 2023.

1. Strategic Alliance with Larry Katzenstein, Author of Tiger Tables. We are pleased to announce our now-formal strategic alliance with Larry Katzenstein, a 1969 graduate of Washington University in St. Louis and 1972 graduate of Harvard Law School. He practices law in St. Louis. Suffice it to say that, among all of his impressive accomplishments, Larry is widely considered the foremost authority on the topic of actuarial calculations as they relate to estate planning and has testified on actuarial valuations in the United States Tax Court.

During the past three years every single question that we have posed to him he been able to answer definitively, usually off the top of his head. To continue with the "Most Interesting Man in the World" theme (see Steve Leimberg tribute, above):

- "The IRS doesn't audit Larry. Larry audits the IRS."

Larry is the author of Tiger Tables software, an estate planning software program in widespread use since its first release back in 1989. Its users include many NumberCruncher subscribers who like the idea of (a) cross-checking their calculations and (b) running some calculations contained in Tiger Tables but not contained in NumberCruncher. Whether it be an odd calculation, or interpretation of an unusual trust document, or advice on whether or how you might take a matter to court, Larry will provide outstanding service.

Larry is also an amateur pianist and conducts the St. Louis Symphony each season. On April 12, 2023, he conducted the Shostakovich Symphony No. 1.

We are proud of this alliance.
Larry Katzenstein
Thompson Coburn LLP
One US Bank Plaza
St. Louis, MO 63101

314/552-6187

## lkatzenstein@thompsoncoburn.com

NumberCruncher-Tiger Tables Bundle. NumberCruncher users who are first-time Tiger Tables users are now eligible for a $\$ 50$ discount off the purchase of Tiger Tables ( $\$ 299$ instead of \$349 for the first user for the first year). https://leimberg.com
2. NumberCruncher 2022 vs. 2023. This is the "elephant in the room", at least for users who didn't get the memo we sent in November 2021 about changing the inflation rate from $2 \%$ to $3.1 \%$ to generate the 2022 federal estate tax exclusion of $\$ 12.06 \mathrm{M}$.

Over the past several decades, NumberCruncher users have come to expect Version yyyy. 00 to be released soon after the new year (anywhere from January to May). Today we are releasing NumberCruncher 2022 and 2023 together as "NumberCruncher 2023".

In that regard, we would like to explain the interplay among the following "moving parts" (as discussed in more detail below):
(a) New IRS Mortality Table 2010CM (released on 5/5/2022 via proposed regulations)
(b) Software License Agreement: "[y]ou are licensing the annual use of this Software"
(c) Federal Estate Tax Exclusion: 3.1\% inflation rate => \$12.06M exclusion for 2022
5.1\% inflation rate => \$12.92M exclusion for 2023
(d) Automatic Updates to Federal Estate Tax and Annual Gift Exclusions (New)
(e) Sunset and Clawback (2026 and later)
(f) Other Year-Specific Tax Changes (Income Tax, Income Shift, §199A, §6166, Pre-59 ${ }^{1 / 2}$ )
(g) Cloud Version: "NumberCruncher Reimagined"
(h) Year-Round Tech Support
(a) New IRS Mortality Table 2010CM. By law, Table 2010CM (based on the 2010 Census) should have been released by the IRS on or before $5 / 1 / 2019$. For a variety of reasons, the IRS
was not able to release this table until more than three years later via proposed regulations published on May 5, 2022.

The Proposed Regulations threw everyone a few curveballs (rounding inconsistency in two unitrust examples, and uncertainty in the transition period for using Table 2000CM vs. Table 2010CM). Final regulations are expected within the very near future.
(b) Software License Agreement. As stated in the NumberCruncher Software License Agreement (Help, License Agreement), "[y]ou are licensing the annual use of this Software".

The License Agreement goes on to state that "since many of the modules contained in it are time sensitive, it is important to renew your license annually so that you can download the latest version each year". In fact, the chart below illustrates that only five of the 64 estate planning modules are currently time sensitive (gold bars), and only one of the 51 financial planning modules (IRMMA).


By a wide margin, the time-sensitive module that is most widely used is the estate/gift tax module (97 of 237 respondents to our June 2020 survey listed this as one of their top three). The other four modules were ranked in the top three by a much smaller number of users $(9,1$, 8 , and 2 ).
(c) Federal Estate Tax Exclusion. This is by far the one annual change that NumberCruncher users most often need early in the new year. We recognized this when we sent our prerenewal e-mail to all 3,500 firms 18 months ago (November 1, 2021). We explained that a simple change to NumberCruncher's default inflation rate for exclusion (from $2 \%$ to $3.1 \%$ ) would instantly increase the exclusion from $\$ 11.7 \mathrm{M}$ (2021) to $\$ 12.06 \mathrm{M}$ (2022). Understandably, many users never saw this e-mail because it went to accounting or IT personnel for processing and was not forwarded to end users. Therefore, during the past year, we responded to several hundred inquiries about the 2022 federal estate tax exclusion by reiterating the $3.1 \%$ inflation rate (to get $\$ 12.06 \mathrm{M}$ ) or $5.1 \%$ (to get $\$ 12.92 \mathrm{M}$ for 2023 once the IRS published that number in October 2022).
(d) Automatic Updates to Federal Estate Tax Exclusion and Annual Gift Exclusion (New). Starting with NumberCruncher 2023, you will see the 2024 exclusions as early as midSeptember 2023. This includes the Annual Gift Exclusion, which surprisingly jumped from $\$ 15 \mathrm{~K}$ (2021) to $\$ 16 \mathrm{~K}$ (2022) to $\$ 17 \mathrm{~K}$ (2023). On or about September 13 every year, the U.S. Bureau of Labor Statistics releases the "chained" Consumer Price Index (CPI) data for the month of August. The inflation adjustments for the following calendar year depend on the CPI numbers for September of the previous year through August of the current year. Based on these numbers, we can now project with a high degree of certainty what the Federal Estate Tax Exclusion and the Annual Gift Exclusion will be for the next year.

Once we update the NumberCruncher table within a day or two after that September CPI announcement, the exclusions will be immediately reflected in every user's version of NumberCruncher.

We will display a message that these exclusions are subject to confirmation by the IRS, usually in mid-October. Once these exclusions are confirmed, we will then suppress that message from NumberCruncher. This way, you will no longer need to wait for a NumberCruncher update in order to run estate or gift tax projections using these new numbers.
(e) Sunset and Clawback. With the "sunset" of the increased federal estate tax exclusion scheduled to occur on January 1, 2026, this brings the issue of "clawback" into play. Fortunately, NumberCruncher has implemented the "anti-clawback" regulation by adjusting the "Applicable Credit Amount" to account for pre-2026 gifts made in excess of the reduced exclusion that will be available in 2026 and later. See "Extended Summary View", below.
(f) Other Year-Specific Tax Changes. The annual inflation adjustments announced by the IRS (October 2021, for example) affect items that can become useful for early planning purposes starting the following January (2022) but become particularly relevant for actual calculations starting in January of the next year (2023). These include:
(1) Income Tax (Individual and Estate/Trust)
(2) Income Shift
(3) §199A/Qualified Business Income Tax Deductions
(4) §6166
(5) Pre-59 ${ }^{1 / 2}$ : New life expectancy values required $1 / 1 / 2022$. Our algorithm for life expectancies based on two lives now matches all 14,641 values In the new regs.

Of these five modules, we received a total of exactly one (1) support call in 2022, in connection with a user's need to expand the Section 6166 calculation to handle a federal estate tax of $\$ 1$ billion.
(g) Cloud Version: "NumberCruncher Reimagined". We have been working intensely on the remaining five modules of the cloud version (the most complex ones involving actuarial calculations including GRAT, CRAT, CRUT, CLAT, and CLUT). The investment now exceeds $\$ 3 \mathrm{M}$, but it will be worth every penny. It will be visual, interactive, and animated.
(h) Year-Round Tech Support. We provide tech support for NumberCruncher on a year-round basis, especially for squirrely, complex calculations that go beyond NumberCruncher itself.

Examples this past year included:
(1) an $\$ 800 \mathrm{M}$ estate with five levels of circularity (federal plus four states)
(2) additional circular calculations involving a number of the 12 states and DC that currently have an estate tax return; and
(3) a 6166 calculation that required the display of a "Net Federal Estate Tax" of over one billion dollars.
3. Help Screens. As we work our way through the various modules of NumberCruncher, we are updating the help screens. Our mission is to make the help screens as explicit as possible so that users won't need to read between the lines to figure out how a particular NumberCruncher module works. You can see this already in these modules: Estate Tax, 6166, and IRMMA (under Financial Planning, Financial Goals, bottom choice).
4. May 2022 Proposed Regulations - Article by Larry Katzenstein. See below for a very useful article on the Code Section 7520 mortality assumptions that must be used to value life estates, remainder interests, and annuities based on a life or lives.

Appendix A
See also Comments and Recommendations submitted to the IRS by Larry on behalf of ACTEC in June 2022.

## Appendix B

See also Larry's February 2023 article published by Leimberg Information Services in connection with the exact calculation now permitted for unitrusts (as an alternative to the traditional interpolation method).

## Appendix C

Transfers on/after January 1, 2021. For such transfers, the proposed regulations provide that you may use either mortality table (2000CM or 2010CM). Once final regulations are published, there will be an end date to this transition period. In addition, it is possible that the IRS will allow this transition period to start at an earlier date, possibly as far back as May 1, 2019, when the new mortality tables were originally required to be released.
5. Life Expectancy Chart (1980 - 2010). Since the first 7520 mortality table was published (Table 80CNSMT), life expectancies have grown longer.


The age at which there are still 50,000 survivors starting with 100,000 people at birth:
1980: 77.6
1990: 79.0
2000: 80.3
2010: 82.4

With longer life expectancies, note the impact on actuarial factors:
(a) Remainders: smaller
(b) Life Estates: larger (1 minus remainder factor)
(c) Annuities: larger (life estate factor / 7520 rate)

As long as you are consistent in your use of the Table 2000CM or 2010CM for a given client over time, you may use either table during this transition period. On the one hand, if there is an advantage to a larger life estate, use Table 2010CM. On the other hand, if there is an advantage to a larger remainder, use Table 2000CM.

Note that Table 2020CM will be based on the now-completed 2020 Census, and should be available on or about May 1, 2029. Based on the decrease in life expectancy in 2014-2020 (with COVID affecting only the last seven months of 2020, when the 2020 Census concluded on October 15,2020 ), we can expect little change in life expectancy from 2010 through 2020).
6. Estate Tax Module - Summary and Extended Summary Views. You will see that these views now track the 706 more closely, with line numbers down the left side. In addition:

- Sunset: Automatic for 2026 and later. The exclusion is now set to $50 \%$ of the current year's exclusion as adjusted for inflation in the intervening years.
- Anti-Clawback: Because we don’t know how the 706 will handle this in 2026 and later, we have added an explicit calculation that illustrates the adjustment necessary to prevent "clawback". We increase the available credit by $40 \%$ x (excess of pre-2026 gifts over new exclusion amount) to create a "Clawback Adjustment."
- Regulation Example \#4: When there is a DSUE available, a donor's gifts must first consume available DSUE before consuming a donor's own Basic Exclusion Amount ("BEA"). In a year when gifts exhaust the DSUE and then start to consume a donor's own BEA, the regulations require a proration of the credit between DSUE and BEA. The effect of this proration is to allocate the $\$ 54,200$ difference between the tax on the first $\$ 1 \mathrm{M}(\$ 345,800)$ and the simpler $40 \%$ on that first $\$ 1 \mathrm{M}(\$ 400,000)$. The maximum difference that this proration can possibly make in the most extreme case is approximately $\$ 26 \mathrm{~K}$.

Furthermore, the example requires a proration of the credit equivalent of the exclusion. It's tricky working back and forth between exclusion and credit and is more than most people can handle.

We have concluded that Example \#4 represents something of a "rabbit hole", for which there might be no reasonable mathematical solution in other than the simplest scenarios.

Accordingly, NumberCruncher's clawback calculation works on the basis of a flat 40\% rate times a clawback exclusion adjustment rather than a proration of the credit. We will urge Treasury to modify the regulation by disregarding the proration before sunset occurs in 2026.

- Visual Illustration of Clawback Adjustment Calculations (100+ charts).

Appendix D

## 7. State Estate Tax.

Currently there are 12 states plus DC that have their own estate tax returns:

CT, DC, HI, IL, MA, MD, ME, MN, NY, OR, RI, VT, WA

Trick: In the "State" field, press the Up/Dn arrows to navigate from state to state.
We have gone through all 13 of these estate tax returns to ensure that NumberCruncher:
(a) mimics the flow of each return
(b) accurately reflects how they handle the following:

State-only QTIP: CT, IL, MA, MD, ME, MN, OR, RI, WA
State exclusion tied to federal exclusion: CT (starting in 2023)

Note: because CT also has a gift tax (the only state in the country), an interesting state "clawback" issue arises. Will CT punish an estate where gifts were made in 2021-25 when the state exclusion exceeded what will likely be the exclusion in 2026 (about \$7M). Without an "anti-clawback" adjustment, a CT estate will pay an estate tax on gifts that were protected by the CT exclusion when made ( $\$ 12.92 \mathrm{M}^{+}$) but not protected by the lower CT exclusion in 2026 and later (about $\$ 7 \mathrm{M}$ ). CT is apparently aware of the issue.

Portability of DSUE: HI, MD
Out-of-State Property:
Disregard: MA, NY
Pro-Rate: All others

Rounding (for pro-ration of tax based on property in-state/out-of-state)
None: IL, WA
6: $\quad$ MA (for non-residents with property in MA), ME, OR
5: MN
4: All others

Inclusion of Prior Gifts in Calculation:
$\geq 2005$ : CT (but with credit for gift tax paid on all gifts from 2005 through the year before death)
1 year: ME
2 years: VT
3 years: MN, NY

Reduce Taxable by State Exclusion (before applying tax table): HI, MD, MN, VT, WA
Reduce State Exclusion by Adjusted Taxable: HI

## 8. NumberCruncher Modules: Name Changes

Below are the modules whose names were changed to make them more intuitive:

Old Name
Inter
Exclusion
Estate Tax
Corp. Tax
Receipts
Discount
Deferred
Future
Compound
Deposit

New Name
Interrelated
Gift Exclusion
EstGift Tax
CorpEstTrst
PV Annuity
PV LumpSum
Deferred Comp
FV Annuity
FV LumpSum
Deposit Grow
9. NumberCruncher Firms $(3,500)$ Throughout the United States and Abroad


## 9. Gain Harvesting Calculator

Special thanks to Attorney Grant M. Keebler for his key contributions to this calculator.
https://gainharvest.numbercruncher.io



Federal Estate Tax<br>Anti-Clawback Eligibility<br>(NumberCruncher 2023)



## Decision Tree Analysis: Clawback NO

Federal Estate Tax<br>Anti-Clawback Eligibility<br>(NumberCruncher 2023)



# Federal Estate Tax <br> DSUE <br> (NumberCruncher 2023) 



## 11. Publication 904 (2022)

# 登 <br> Estate \& Gift Tax Interrelated IRS Computations 

## Introduction

This publication explains and illustrates both the Trial and Substitution method and the Algebraic method that can be used to compute the Internal Revenue Code (IRC) 2055 charitable deduction or the IRC 2056 marital deduction when an interrelated computation is necessary for Federal estate tax purposes. The publication also explains how to compute the Federal gift tax using the Trial and Substitution method and the Algebraic method when a net gift is involved.

For estate tax purposes, an interrelated computation is required if both (1) a deduction is allowed for property passing to a qualified charity (a charitable deduction) and/or to the surviving spouse (a marital deduction), and (2) the property passing to the qualified charity or to the surviving spouse is burdened with payment of Federal estate tax, Federal generation-skipping transfer tax, penalties, state transfer taxes, or certain allowable administrative expenses.

For gift tax purposes, an interrelated computation is required if the person receiving the gift agrees to pay the gift tax on the gifted property. Because the donee pays the gift tax, the amount the donee receives is reduced by the payment of the gift tax and because the payment of the tax reduces the gift, the tax due on the gift is also reduced. This is called a "net gift."

Part I has the tax tables, Part II explains the computation methods, Part III includes examples for computing the estate tax, and Part IV includes examples for computing the gift tax.

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Using our short-cut method for calculating net gift tax, we are able to reduce Publication 904's calculation for all six examples combined from 2,556 lines to 65 lines. See below.

IRS Publication 904
Estate and Gift Tax
Interrelated Computations
10-2022

* Net Gift Tax Factor


## Examples \#1-2

| Taxable | $49,985,000.00$ |
| :--- | ---: |
| Standard Gift Tax | $15,362,000.00$ |
| Net Gift Tax | $10,972,857.14$ |

Total Lines

Examples \#3-4
$\begin{array}{lr}\text { Taxable } & 49,985,000.00 \\ \text { Standard Gift Tax } & 15,362,000.00 \\ \\ \text { Combined } & \\ \text { Net Gift Tax } & 21,945,714.28\end{array}$

Total Lines
$=1 /(1+r)=1 / 1.4=0.714285714$

## Lines of Calculation

| Pub 904 | Shortcut |  |
| :---: | :---: | ---: |
| 5 | 5 | $49,985,000.00$ |
|  |  |  |
| 9 | 9 | $15,362,000.00$ |
| 336 | 1 | 0.714285714 |$*$

## Lines of Calculation

Pub 904
5
9

1,089

5

9
1
1
1
1

49,985,000.00

15,362,000.00
0.714285714 * 10,972,857.14
$21,945,714.28$

1,103
18

IRS Publication 904
Estate and Gift Tax
Interrelated Computations
10-2022

* Net Gift Tax Factor


## Examples \#5-6

$\begin{array}{lr}\text { Taxable (Donor) } & 49,985,000.00 \\ \text { Standard Gift Tax } & 15,362,000.00\end{array}$

| Taxable (Donor) | $69,985,000.00$ |
| :--- | ---: |
| Standard Gift Tax | $19,922,000.00$ |

$=1 /(1+r)=1 / 1.4=0.714285714$

## Lines of Calculation

Pub 904 Shortcut
5

9

12

10

| 10 | $19,922,000.00$ |
| ---: | ---: |
| 1 | 0.714285714 |
| 1 | $14,230,000.00 \quad$ B |

Combined
Net Gift Tax
$25,202,857.14$

Total Lines

1,103
1
25,202,857.14 A + B

## Examples \#1-6

# IRS Releases Proposed New Mortality Tables 

Lawrence P. Katzenstein<br>St. Louis, MO

At long last, the Internal Revenue Service has released proposed regulations updating the Code section 7520 mortality assumptions which must be used to value life estates, remainder interests, or annuities based on a life of lives. The Service has also made the new tables available on the IRS website in spreadsheet format: www.irs.gov/retirement-plans/actuarial-tables. Long gone are the thick telephone directory-sized volumes of actuarial tables the Service used to publish in the pre-Internet days. (Come to think about it, the thick telephone directories are themselves just about gone.) I still have my 1989 IRS factors book:


Note that these mortality assumptions are totally different-and unrelated to-the mortality assumptions used in the qualified plan area or under section 72. Note also that valuation of interests for a term of years not involving mortality are likewise unaffected by the new tables.

## Background

Section 7520, which was enacted effective May 1, 1989, requires the Internal Revenue Service to issue actuarial tables used to value life estates, remainder interests, or annuities based on a life of lives for income, gift and estate tax purposes. The statute mandates use of (1) floating interest rates which change monthly and (2) mortality assumptions updated no less frequently that every ten years using the most recently available mortality data. Like clockwork, the tables were updated effective May 1, 1999 and May 1, 2009, and everyone fully expected the tables to be updated and effective by May 1, 2019. That did not happen. The reason it did not happen is that the Internal Revenue Service since the enactment of section 7520 has used the decennial table produced by the National Center for Health Statistics at the Centers for Disease Control and Prevention based on the most recent census. The IRS could not move forward in 2019 because the CDC had not yet issued the decennial table based on the 2010 census. The CDC finally released the data on August 7, 2020 and now, almost two years later, the proposed regulations have been issued.

The new decennial table is a distillation of the entire U.S. population, on a unisex basis, derived from the 2010 census, of the number of persons living at each age from 0 to 110 . That single Lx table is the basis of every actuarial calculation that we estate planners generally use. It is used for only one thing - to calculate the probability of surviving from one age to another age - but that is what underlies every actuarial calculation involving a life or lives.

## The New Tables

Here is how the current Lx table compares to the new one:

| Age | Lx old table | Lx new table | Gain | 30 | 97750 | 97989.90 | 239.90 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 31 | 97652 | 97887.47 | 235.47 |
| 0 | 100000 | 100000.00 | 0.00 | 32 | 97549 | 97781.58 | 232.58 |
| 1 | 99305 | 99382.28 | 77.28 | 33 | 97441 | 97672.13 | 231.13 |
| 2 | 99255 | 99341.16 | 86.16 | 34 | 97324 | 97559.20 | 235.20 |
| 3 | 99222 | 99313.80 | 91.80 | 35 | 97199 | 97442.53 | 243.53 |
| 4 | 99197 | 99292.72 | 95.72 | 36 | 97065 | 97321.14 | 256.14 |
| 5 | 99176 | 99276.45 | 100.45 | 37 | 96921 | 97193.66 | 272.66 |
| 6 | 99158 | 99261.55 | 103.55 | 38 | 96767 | 97058.84 | 291.84 |
| 7 | 99140 | 99248.33 | 108.33 | 39 | 96600 | 96915.25 | 315.25 |
| 8 | 99124 | 99236.50 | 112.50 | 40 | 96419 | 96761.20 | 342.20 |
| 9 | 99110 | 99226.09 | 116.09 | 41 | 96223 | 96595.51 | 372.51 |
| 10 | 99097 | 99217.03 | 120.03 | 42 | 96010 | 96416.30 | 406.30 |
| 11 | 99085 | 99208.80 | 123.80 | 43 | 95782 | 96220.61 | 438.61 |
| 12 | 99073 | 99199.98 | 126.98 | 44 | 95535 | 96005.41 | 470.41 |
| 13 | 99057 | 99188.21 | 131.21 | 45 | 95268 | 95768.60 | 500.60 |
| 14 | 99033 | 99170.64 | 137.64 | 46 | 94981 | 95509.98 | 528.98 |
| 15 | 98998 | 99145.34 | 147.34 | 47 | 94670 | 95229.06 | 559.06 |
| 16 | 98950 | 99111.91 | 161.91 | 48 | 94335 | 94923.45 | 588.45 |
| 17 | 98891 | 99070.69 | 179.69 | 49 | 93975 | 94589.88 | 614.88 |
| 18 | 98822 | 99021.50 | 199.50 | 50 | 93591 | 94225.50 | 634.50 |
| 19 | 98745 | 98964.16 | 219.16 | 51 | 93180 | 93828.33 | 648.33 |
| 20 | 98664 | 98898.61 | 234.61 | 52 | 92741 | 93398.01 | 657.01 |
| 21 | 98577 | 98824.20 | 247.20 | 53 | 92270 | 92934.52 | 664.52 |
| 22 | 98485 | 98741.32 | 256.32 | 54 | 91762 | 92438.08 | 676.08 |
| 23 | 98390 | 98652.16 | 262.16 | 55 | 91211 | 91907.95 | 696.95 |
| 24 | 98295 | 98559.87 | 264.87 | 56 | 90607 | 91342.02 | 735.02 |
| 25 | 98202 | 98466.80 | 264.80 | 57 | 89947 | 90737.24 | 790.24 |
| 26 | 98111 | 98373.71 | 262.71 | 58 | 89225 | 90090.97 | 865.97 |
| 27 | 98022 | 98280.09 | 258.09 | 59 | 88441 | 89401.06 | 960.06 |
| 28 | 97934 | 98185.51 | 251.51 | 60 | 87595 | 88665.95 | $1,070.95$ |
| 29 | 97844 | 98089.05 | 245.05 | 61 | 86681 | 87883.66 | $1,202.66$ |


| 62 | 85691 | 87051.88 | 1,360.88 | 103 | 410 | 513.72 | 103.72 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 63 | 84620 | 86167.86 | 1,547.86 | 104 | 248 | 311.88 | 63.88 |
| 64 | 83465 | 85226.77 | 1,761.77 | 105 | 144 | 183.02 | 39.02 |
| 65 | 82224 | 84221.59 | 1,997.59 | 106 | 81 | 103.80 | 22.80 |
| 66 | 80916 | 83142.34 | 2,226.34 | 107 | 43 | 56.91 | 13.91 |
| 67 | 79530 | 81978.28 | 2,448.28 | 108 | 22 | 30.17 | 8.17 |
| 68 | 78054 | 80728.83 | 2,674.83 | 109 | 11 | 15.48 | 4.48 |
| 69 | 76478 | 79387.95 | 2,909.95 | 110 | 0 | 0.00 | 0.00 |
| 70 | 74794 | 77957.53 | 3,163.53 |  |  |  |  |
| 71 | 73001 | 76429.84 | 3,428.84 |  |  |  |  |
| 72 | 71092 | 74797.63 | 3,705.63 |  |  |  |  |
| 73 | 69056 | 73049.33 | 3,993.33 |  |  |  |  |
| 74 | 66882 | 71177.55 | 4,295.55 |  |  |  |  |
| 75 | 64561 | 69174.83 | 4,613.83 |  |  |  |  |
| 76 | 62091 | 67044.59 | 4,953.59 |  |  |  |  |
| 77 | 59476 | 64773.93 | 5,297.93 |  |  |  |  |
| 78 | 56721 | 62366.05 | 5,645.05 |  |  |  |  |
| 79 | 53833 | 59795.50 | 5,962.50 |  |  |  |  |
| 80 | 50819 | 57080.84 | 6,261.84 |  |  |  |  |
| 81 | 47694 | 54213.71 | 6,519.71 |  |  |  |  |
| 82 | 44475 | 51205.27 | 6,730.27 |  |  |  |  |
| 83 | 41181 | 48059.88 | 6,878.88 |  |  |  |  |
| 84 | 37837 | 44808.51 | 6,971.51 |  |  |  |  |
| 85 | 34471 | 41399.79 | 6,928.79 |  |  |  |  |
| 86 | 31114 | 37895.25 | 6,781.25 |  |  |  |  |
| 87 | 27799 | 34313.98 | 6,514.98 |  |  |  |  |
| 88 | 24564 | 30700.82 | 6,136.82 |  |  |  |  |
| 89 | 21443 | 27106.68 | 5,663.68 |  |  |  |  |
| 90 | 18472 | 23586.75 | 5,114.75 |  |  |  |  |
| 91 | 15685 | 20198.02 | 4,513.02 |  |  |  |  |
| 92 | 13111 | 16996.17 | 3,885.17 |  |  |  |  |
| 93 | 10773 | 14032.08 | 3,259.08 |  |  |  |  |
| 94 | 8690 | 11348.23 | 2,658.23 |  |  |  |  |
| 95 | 6871 | 8975.66 | 2,104.66 |  |  |  |  |
| 96 | 5315 | 6931.56 | 1,616.56 |  |  |  |  |
| 97 | 4016 | 5218.26 | 1,202.26 |  |  |  |  |
| 98 | 2959 | 3823.64 | 864.64 |  |  |  |  |
| 99 | 2122 | 2722.99 | 600.99 |  |  |  |  |
| 100 | 1477 | 1882.11 | 405.11 |  |  |  |  |
| 101 | 997 | 1261.08 | 264.08 |  |  |  |  |
| 102 | 650 | 818.26 | 168.26 |  |  |  |  |

The mortality experience, which is already 12 years out of date, shows remarkable improvement in longevity from the previous table derived from the 2000 census. Take a look at age 84:

| Age | Old Lx table | New Lx table | Gain |
| :---: | :---: | :---: | :---: |
| 84 | 37,837 | $44,808.51$ | $6,971.51$ |

Almost 7,000 more people out of 100,000 still survive to age 84 than under the old table. The improvement in longevity at older ages is truly remarkable. For example, the probability of survival from age 60 to age 90 went from $21.008 \%$ to $26.6018 \%$ in just ten years. What these longer life expectancies mean is that interests based on life-life estates, annuity and unitrust interests for a life or lives-will be worth more and remainders worth less.

The new tables generally follow the format of the previous regulations with just a few surprises. The first surprise is that the previous $L x$ table was in whole number integers. The new Lx table uses fractional numbers expressed in decimal format. Since the tables show numbers of people living at different ages, it may seem weird at first to refer to, say, 28/100 of a person but statistics can be weird that way.

Another surprise in the new regulations is inclusion of numerous actuarial formulas. Inclusion of actuarial formulas in Internal Revenue Service regulations is rare. But now the Service has provided the actual formula underlying each of the actuarial calculations, whether unitrust, life estates and remainders, all of the various periodic payment adjustment factors, and even for the commutation tables the Service publishes for calculations that combine life and term of years. I suspect that the formulas will be of little use to the average practitioner. Just one example:

$$
\left(1+\frac{i}{2}\right) \sum_{t=0}^{n-1} v^{t+1}\left(t+1 q_{x}-{ }_{t} q_{x}\right)\left(1-\frac{1}{2 n}-\frac{t}{n}\right)
$$

With inexpensive software available such as NumberCruncher and the author's Tiger Tables, it is hard to imagine that very many practitioners will engage in a "do it yourself" project at home and that fewer still except for a few nerds like the author will find them interesting for their own sake.

## Effective Dates

Helpfully, the new mortality assumptions at the option of the taxpayer can be used for any transaction on or after January 1, 2021. Once the final regulations are published in the Federal Register, the new mortality assumptions must be used. The effective date provision is worth quoting in full:
"The regulations provide certain rules to facilitate the transition to the new actuarial tables. For gift tax purposes, if the date of a transfer is on or after January 1, 2021, and before the applicability date of the Treasury decision adopting these regulations as final regulations, the donor may choose to determine the value of the gift (and/or any applicable charitable deduction) under tables based on either Table 2000CM or Table 2010CM. Similarly, for estate tax purposes, if the decedent
dies on or after January 1, 2021, and before the applicability date of the Treasury decision adopting these regulations as final regulations, the value of any interest (and/or any applicable charitable deduction) may be determined in the discretion of the decedent's executor under tables based on either Table 2000CM or Table 2010CM, provided that the decedent's executor must use the same mortality table to value all interests in the same property. However, the section 7520 interest rate to be utilized is the appropriate rate for the month in which the valuation date occurs, subject to the following special rule for certain charitable transfers. Specifically, in accordance with this transitional rule and the rules contained in $\S \S 1.7520-2(a)(2), 20.7520-2(a)(2)$, and $25.7520-2(a)(2)$, in cases involving a charitable deduction, if the valuation date occurs on or after January 1, 2021, but before the applicability date of the Treasury decision adopting these regulations as final regulations, and the executor or donor elects under section 7520(a) to use the section 7520 interest rate for a month that is prior to January 1, 2021, then the mortality experience contained in Table 2000CM must be used. If the executor or donor uses the section 7520 interest rate for a month that is on or after January 1, 2021, but before the applicability date of the Treasury decision adopting these regulations as final regulations, then the tables based on either Table 2000CM or Table 2010CM may be used. However, if the valuation date occurs on or after the applicability date of the Treasury decision adopting these regulations as final regulations, the executor or donor must use the new mortality experience contained in Table 2010CM even if the use of a prior month's interest rate is elected under section 7520(a)."

Not surprisingly, the regulations require consistent use:
"The donor or decedent's executor must consistently use the same mortality basis with respect to each interest (income, remainder, partial, etc.) in the same property, and with respect to all transfers occurring on the valuation date. For example, gift and income tax charitable deductions with respect to the same transfer must be determined based on factors with the same mortality basis, and all assets includible in the gross estate and/or estate tax deductions claimed must be valued based on factors with the same mortality basis."

Since the new tables were mandated by law to be available by May 1, 2019 one wonders why a taxpayer shouldn't be allowed to use the new tables for any transaction on or after May 1, 2019, rather than January 1, 2021 since the statute of limitations is still open for many 2019 transactions. Is there an argument that since section 7520 mandates that the IRS change the mortality assumptions every ten years, a taxpayer must be allowed to use the new mortality assumptions for transactions on or after May 1, 2019?

Implications of New Mortality Assumptions and Effective Date

When would a taxpayer want to use the new mortality assumptions? The new mortality assumptions should be elected any time increased longevity improves the tax result in a specific transaction. Obviously, for some transactions use of the new tables is not undesirable. The remainder value of a charitable remainder trust for a life or lives is lower under the new tables, so a taxpayer thinking about creating a charitable remainder trust for a life or lives should get it done now before the new tables are effective. If I were a planned giving officer, I would be reminding my donors of that!

## Example

Donor age 70 is considering contributing $\$ 200,000$ to a $5 \%$ charitable remainder unitrust, payable quarterly.

Deduction under current tables: $\$ 104,956$
Deduction under new tables: \$99,250
The same is true for the gift to charity of a remainder interest in a residence following a legal life estate. Getting it done now is especially critical if the longer life assumptions underlying the new tables mean that a charitable remainder trust may flunk the $10 \%$ remainder test of section $664(\mathrm{~d})(1)(\mathrm{D})$ or $664(\mathrm{~d})(2)(\mathrm{D})$ or, in the case of a charitable remainder annuity trust, the $5 \%$ exhaustion test of Rev. Rul. 77-374. (Rising interest rates will, however, gradually make both tests easier to pass.) One more point regarding not CRATs, but charitable gift annuities: although the new mortality assumptions affect the value of the remainder, the taxation of the annuity payments is determined under a different set of mortality assumptions-those under section 72and those have not changed,

Although creation of new CRATs and CRUTs is better done now, the life income beneficiary of an existing charitable remainder trust considering contributing the remaining life interest to charity can do it now and elect to use the longer life expectancies under the new tables or wait and do it when the new tables are finally effective. The same is true for a charitable lead trust based on a life or lives-the new mortality assumptions would be beneficial there. If I am valuing an interest in a trust for previously taxed property credit purposes, the new mortality assumptions would be beneficial-the value of the life interest would be enhanced. But, again, I must be consistent with respect to all transfers occurring on the valuation date. Remember that when a charitable deduction is involved for income, gift or estate tax purposes, the interest rate for the month of transaction or one of the two prior months may be elected. So as noted above, in cases involving a charitable deduction, if the valuation date occurs after the effective date of the new regulations, the new tables must be used even if the use of a prior month's interest rate is elected.

The implications for charitable gift annuities (CGAs) are a little more complicated. As with a CRAT, the charitable deduction for a donor creating a CGA is higher under the present tables: the retained annuity is worth less than it will be under the new tables. On the other hand, the amount of each annuity payment which is taxable is more under the current mortality table. A
donor who itemizes deductions may want to do the CGA now before the new tables are effective. But the donor more concerned about how much of each annuity payment is taxed-such as a donor who doesn't itemize-can either create the CGA now and elect to value the annuity under the new tables or wait until they are effective when the donor will be required to use the new tables anyway. A donor who doesn't itemize deductions who created a CGA on 2021 might want to go back and amend the return. Does the charity need to issue an amended 1099-R? The charity will have to be on board with the amended return and make sure future 1099-Rs are consistent with the amended return. If the CGA was large enough, will charities notify the donor of this opportunity for a larger exclusion?

What about common estate planning techniques? The retained interest in a grantor retained annuity trust (GRAT) is typically a term interest, so for most GRATs the new mortality assumptions are irrelevant. QPRTs are better done now, because the retained reversion-the right to get the residence back if the grantor dies during the term-is worth more under the old tables. This reversion is one of the two interests typically retained in a QPRT and there is more chance the donor will die during the term under the old tables. On the other hand, the retained income interest for the shorter of life or term is worth more under the new tables, but the smaller retained reversion seems to swamp that effect in the few spot checks I have run. But do the numbers and remember that a QPRT done now may also be better because interest rates are still relatively low. There is no two-month interest rate lookback for non-charitable transactions. Finally both private annuities and self-cancelling installment notes (SCINs) are better under the new tables. The annuity in a private annuity will be smaller and the interest or principal premium for a SCIN will be reduced.

## Unitrust Adjusted Payout Rates

One oddity which I hope will be clarified in the final regulations is in connection with the adjusted payout rate for charitable remainder unitrusts or charitable lead unitrusts. If a unitrust is payable more frequently than annually, or if there is any gap between the valuation date and payment date, an adjusted payout rate must be used. Suppose, for example, a charitable remainder unitrust, paying $5 \%$ quarterly at the end of each quarter, established in a month when the Section 7520 rate is $4 \%$. The $5 \%$ rate must be multiplied by the Table F adjustment factor of .975844 which produces an adjusted payout rate of 4.879 . The regulations provide that the adjusted payout rate to be used is determined by interpolating between the two published factors on either side of 4.879, namely 4.8 and 5.0. This is illustrated in the proposed regulations in two places. The first illustration is in the calculation of the remainder interest in a unitrust for one life. In the example, the adjusted payout rate is carried out to four places: 4.8834. The examples in the prior regulations only use three places and commercial software has been rounding to three places in the calculations ever since. However, in the example in the proposed regulations illustrating calculation of a remainder in a unitrust for the shorter of a life or term of years using commutation tables, the adjusted payout rate is only carried out three places. Which one does the Service expect taxpayers to use? Software vendors like to produce results which match IRS examples and methods, and in a rare case whether an adjusted payout rate is rounded to three or four decimal places might even determine whether the ten percent remainder test for CRUTs
is satisfied, so guidance here would be useful. Rounding to either three or four places is fine but they should be consistent.

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Respectfully submitted,


Robert W. Goldman
President of ACTEC
ACTEC President 2022-2023

## RE: Comments and Recommendations Regarding Proposed Regulations Published in IRS REG-122770-18

The American College of Trust and Estate Counsel ("ACTEC") is pleased to submit its comments regarding IRS Proposed Rules on Use of Actuarial Tables in Valuing Annuities, Interests for Life or a Term of Years, and Remainder or Reversionary Interests, published in the Federal Register on May 5, 2022 ("Proposed Regulations"). The Proposed Regulations make amendments to the income tax regulations, estate tax regulations, and gift tax regulations through revisions to certain tables, based on mortality data from the 2010 census, used for determining the valuation of interests in property under section 7520 of the Code.

ACTEC is a nonprofit association of lawyers and law professors. Its more than 2,400 members are called "Fellows" and practice throughout the United States, Canada and other foreign countries with extensive experience in the preparation of wills and trusts, estate planning, and administration of trusts and estates of decedents, minors and incompetents. Fellows of ACTEC are elected to membership by their peers on the basis of professional reputation and ability in the fields of trusts and estates and on the basis of having made substantial contributions to those fields through lecturing, writing, teaching, and bar association activities. Fellows of ACTEC have extensive experience in providing advice to taxpayers on matters of transfer tax planning. ACTEC offers technical comments about the law and its effective administration but does not take positions on matters of policy or

ACTEC's comments and recommendations regarding the Proposed Regulations are set forth in the attached memorandum. If you or your staff would like to discuss the contents of this memorandum with the ACTEC Fellows who created it, please contact Larry Katzenstein (314-552-6187, lkatzenstein@thompsoncoburn.com), who led the relevant task force of the Estate and Gift Tax Committee, or Deborah McKinnon, ACTEC Executive Director (202-684-8460, domckinnon@actec.org).


# Lawrence Katzenstein: Proposed Section 7520 Regulations Permit Use of Exact Method in Calculating Interests in Charitable Remainder Unitrusts and Pooled Income Funds 

(February 2023)
"In May 2022 the IRS finally issued proposed section 7520 regulations, and for the first time offered a new 'exact method' for determining remainder values in unitrusts and pooled income funds. Because the exact method always gives a lower remainder value than the interpolated method, anyone creating a charitable remainder unitrust will essentially always want to use the interpolated method to maximum the charitable deduction. And if the donor later decides to give away the remaining unitrust interest to charity, the donor will be stuck with the same method because the proposed regulations provide that if a particular method is selected, exact or interpolated, the taxpayer must be consistent in use of that method for all purposes."

Larry Katzenstein provides members with commentary that reviews the proposed 7520 Regulations that allow for the use of an "exact method" in calculating interests in charitable remainder unitrusts and pooled income funds.

Lawrence P. Katzenstein is a nationally known authority on estate planning and charitable giving. He practices in St. Louis, Missouri in Thompson Coburn LLP's private client services area and is a frequent speaker around the country to professional groups. He received his undergraduate degree from Washington University in St. Louis and earned his law degree at Harvard. He appears annually on American Law Institute estate planning programs and has spoken at many other national tax institutes, including the Notre Dame Tax Institute, the University of Miami Heckerling Estate Planning Institute and the Southern Federal Tax Institute. Larry has served as an adjunct professor at the Washington University School of Law where he has taught both estate and gift taxation and fiduciary income taxation. A former chair of the American Bar Association Tax Section Fiduciary Income Tax Committee, he is also a fellow of the American College of Trust and Estate Counsel and a member of its Charitable Planning and Fiduciary Income Tax Committees, and has served as a member of the advisory board of the New York University

National Center on Philanthropy and the Law. He also serves as a board member of the American Council on Gift Annuities and as a member of its rates committee. He is listed in The Best Lawyers in America® in the field of Trusts and Estates. Larry has been named several times as the St. Louis Non-Profit/Charities Lawyer of the Year and Estates Lawyer of the Year by Best Lawyers® and is nationally ranked in Chambers USA for Wealth Management. Larry is the co-author of the Bloomberg Tax Management Portfolio Charitable Remainder Trusts, Charitable Gift Annuities, and Pooled Income Funds and the creator of Tiger Tables actuarial software, which is widely used by tax lawyers and accountants nationwide.

Here is his commentary:

## COMMENT:

In May 2022 the IRS finally issued proposed section 7520 regulations, and for the first time offered a new exact method for determining remainder values in unitrusts and pooled income funds. First, some background.

The Internal Revenue Service has long published actuarial tables with factors based on ranges of interest rates. We all use them to calculate actuarial values. For term interests, and for life interests and remainders, all you need to do is look at the published table. For example, to determine life estate factors for a January 2023 transaction, the interest rate that must be used is $4.6 \%$ and tables published by the IRS will give income, remainder and annuity values at that interest rate.

The IRS publishes Section 7520 tables with interest rates rounded to the nearest $2 / 10$ ths of 1 percent: $4.6 \%, 4.8 \%, 5.0 \%$ etc. Why not the more accurate nearest $1 / 10$ of $1 \%$ ? The short answer is to save trees. When section 7520 was enacted, use of computers by tax lawyers and accountants was in its infancy and so the tables were published in telephone directory sized books. If the tables had provided factors at interest rates rounded to the nearest $1 / 10$ of 1 percent- $4.5 \%, 4.6 \%, 4.7 \%$, etc.-the printed books would have been twice as big. They may even have required several telephone directory sized books. Those books are not even published by the IRS any more. They are all available on the IRS web site instead at Actuarial Tables I Internal Revenue Service (irs.gov).

But unitrust valuations can be a little more complicated. Actuarial values for unitrusts payable annually with no gap between valuation date and payment dates are not dependent on interest rates. The formula in that case is simply $(1-p)^{n}$ where $p=$ payout rate and $n=$ number of years of term.

Unitrust remainder factors are also published in $2 / 10$ of 1 percent increments. If I create a $5 \%$ unitrust, payable annually on the first day of each year, which is also the valuation date, I calculate the remainder by using the published factor for a $5 \%$ payout unitrust. But if payments are made more frequently than annually, or if there is any gap between valuation date and payment date, an interest-dependent Table F adjustment must be made to the payout rate.

For example, suppose I create a 5\% payout charitable remainder unitrust when the section 7520 rate is $5.2 \%$. Assume further that the trust provides (as is typical) that the valuation date is the first day of each year and payments are made quarterly on the last day of each quarter. In that case, I can't just consult the 5\% table because I must apply the table F adjustment factor that takes into account current interest rates. At a 5.2\% 7520 rate, the table F adjustment factor for a unitrust payable quarterly on the last day of each quarter where the valuation date is the first day of each year is .968911. . 968911 times the payout rate of $5.0 \%$, gives an adjusted payout rate of $4.845 \%$ and, of course, the published tables won't tell us the factor for a remainder in a unitrust paying a $4.845 \%$ unitrust amount: there are published unitrust factors only for $4.8 \%$ and $5 \%$ and $4.845 \%$ lies somewhere between those two.

So in a case where an adjusted payout rate must be used, the published (i.e., printed) tables have always provided that the unitrust remainder factor is determined by interpolating between the two published factors on either side. The regulations give an example of how to do this:

> Example. A, who is 44 years and 11 months old, transfers $\$ 100,000$ to a charitable remainder unitrust on January 1 st. The trust instrument requires that the trust pay to A semiannually (on June 30 and December 31 ) 8 percent of the fair market value of the trust assets as of January 1 st during A's life. The section 7520 rate for January is 6.6 percent. Under Table F(6.6)
in paragraph (e)(6) of this section, the appropriate adjustment factor is .953317 for semiannual payments payable at the end of the semiannual period. The adjusted payout rate is $7.627 \%$ ( $8 \% \times .953317$ ). Based on the remainder factors in Table $U(1)$ in this section, the present value of the remainder interest is $\$ 11,075.00$, computed as follows:

Factor at 7.6 percent at age 45 . 11141
Factor at 7.8 percent at age 45.10653
Difference . 00488
Interpolation adjustment:
$7.627 \%-7.6 \% / 0.2 \%=x / .00488$
$x=.00066$
Factor at 7.6 percent at age 45.11141
Less: Interpolation adjustment . 00066
Interpolated Factor .11075
Present value of remainder interest:
$(\$ 100,000 \times .11075) \quad \$ 11,075.00$
However, the interpolated value is only an inexact approximation. Calculating an exact rather than an interpolated factor is easily done now because all of these values are typically calculated on computers with software. I suspect not too many people consult the IRS published tables these days. So there is no reason to require the use of the less exact interpolation method now that an exact method is easily calculated with software, and that is exactly what the IRS proposed regulations provide:

If the adjusted payout rate is an amount that is between adjusted payout rates for which factors are provided in the appropriate table, an exact method of obtaining the applicable factors (such as through software using the actual adjusted payout rate and the actuarial formula in this paragraph (e)(5)) or a linear interpolation must be used, provided whichever method used is applied consistently.

The proposed regulations even helpfully provide the formula for an exact calculation of a one-life unitrust remainder although any formula which includes both a sigma sign and an infinity sign is likely to deter most of our colleagues:

$$
\left(1+\frac{i}{2}\right) \sum_{t=0}^{\infty} v^{t+1}\left(t+1 q_{x}-q_{x}\right)
$$

Where:
$r$ = the adjusted payout rate;
$v=1-r$
$i=r /(1-r)$
${ }_{t} q_{x}=1-\frac{\mathrm{l}_{\mathrm{x}+\mathrm{t}}}{\mathrm{l}_{\mathrm{x}}}$
$x=$ the age of the measuring life (determined as age at nearest birthday)
$l_{x}=$ the number associated with age $x$ as set forth in the prescribed mortality table, representing the number of persons alive at age $x$.

How much difference does use of the exact method make? Here are some examples at various ages of the remainder factor for a $5 \%$ life unitrust, payable quarterly, assuming a 7520 rate of $4.8 \%$. The adjusted payout rate in each case is $4.856 \%$.

| Age | Interpolated | Exact |
| :--- | :--- | :--- |
| 65 | 0.42604 | 0.42598 |
| 66 | 0.44028 | 0.44022 |
| 67 | 0.45474 | 0.45470 |
| 68 | 0.46948 | 0.46943 |
| 69 | 0.48445 | 0.48440 |
| 70 | 0.49969 | 0.49965 |

As you can see, use of the exact method makes a little difference, but not a lot. But did you notice something else? The exact method always gives a lower remainder value than the interpolated method. So anyone creating a charitable remainder unitrust will essentially always want to continue to use the interpolated method to maximum the charitable deduction. And if the donor later decides to give away the remaining unitrust interest to charity, the donor will be stuck with the same method because the proposed
regulations provide that if a particular method is selected-exact or interpolated-the taxpayer must be consistent in use of that method for all purposes. So probably only in the fairly rare case of an individual creating a charitable lead unitrust will the taxpayer ever elect the exact method. Why does the interpolated method always result in a higher remainder value?

Look at this chart showing the published unitrust remainder factors for a 65 year old with rising payout rates:

| 5.6 | 0.37904 | 1148 |
| :--- | :--- | :--- |
| 5.8 | 0.36756 | 1102 |
| 6.0 | 0.35654 | 1060 |
| 6.2 | 0.34594 | 1019 |
| 6.4 | 0.33575 |  |

The last column shows how many digits there are between the remainder factor at one payout rate and the remainder factor at the next higher payout rate.

As you can see from this chart, as the payout rate goes up, the distance between each gradation grows smaller. The numbers do not change uniformly between each additional increase in payout rate. So when you interpolate at a particular payout rate you get some of the benefit of higher remainder values for the lower payout rates. The same will be true for calculation of remainders in pooled income funds where interpolation or the exact method may also be used. In those cases, the actual fund rate of return is used, rather than an interest rate.

But given how few people will actually use the new exact method, one must wonder why bother after all these years? I say this somewhat red-faced because when proposed regulations to section 7520 were first issued in 1992, I suggested in comments that the IRS allow use of the exact method. The IRS rejected that suggestion, saying:

A commentator [namely me] suggested that, with respect to the interpolation method for valuing transfers to pooled income funds and charitable remainder unitrusts, a taxpayer be permitted to elect a more exact method of computing the appropriate interest rate. The method prescribed in the
proposed regulations has been in use for many years and is prescribed by the Internal Revenue Service in Publication 1457, "Actuarial Values, Alpha Volume," (8-89) and Internal Revenue Service Publication 1458, "Actuarial Values, Beta Volume," (889). The IRS and Treasury believe that any change from the method prescribed in these publications, which are in current use, would create undue confusion for taxpayers.
Consequently, the commentator's suggested change is not being adopted at this time.

I guess the IRS thinks practitioners are smarter now and less likely to get confused as they have obviously now reconsidered!

## HOPE THIS HELPS YOU HELP OTHERS MAKE A POSITIVE DIFFERENCE!

## Larry Katzenstien

## CITE AS:

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## Appendix D

## Clawback Credit: Exclusion Equivalent (2026 and Later)

What follows are 100+ charts with colored columns or "buckets" that are meant to illustrate the interaction among the following moving parts. The buckets are colored according to their role in the "clawback adjustment" calculations.

The best way to view these charts is to set your Adobe zoom to about $92 \%$, or whatever level lets you see each chart from top to bottom on one screen. Then use the up and down arrows at the top of the screen, or your Up/Dn or PgUp/PgDn arrows on your keyboard. This will give you the effect of an early Disney movie as you move up and down the mathematical progressions.

Gifts: These are the taxable gifts made by the donor-decedent starting in 1977. They are the portion of gifts that exceed the annual gift exclusion per donee per year (currently $\$ 17 \mathrm{~K}$ for a donor, or $\$ 34 \mathrm{~K}$ for a husband and wife who split gifts). Furthermore, these are only the gifts that consume a donor-decedent's Basic Exclusion Amount ("BEA"). Any gifts that exceed the BEA still available in the year of the gifts do not factor into the clawback adjustment calculations. They instead generate gift tax that is normally paid at the time of such excess gifts.

BEA: Basic Exclusion Amount. The exclusion version of the donor-decedent's "unified credit" applicable to both gift tax (starting with gifts made in 1977 and later) and estate tax.

DSUE: Deceased Spouse's Unused Exclusion Amount. This is the portion of a predeceased spouse's own BEA not used on that spouse's filed 706 and therefore "ported" to the surviving spouse.

Pre: Gifts made by the donor-decedent (2 ${ }^{\text {nd }}$ estate) before the death of the spouse (1st estate). The timing of these gifts matters because they consume the donor-decedent's BEA, not a predeceased spouse's DSUE. That DSUE does not exist yet, and is therefore not available until after the death of the spouse.

Post : These are gifts made after the death of the spouse ( $1^{\text {st }}$ estate). These gifts must first consume DSUE, not the donor-decedent's own BEA, until the DSUE is exhausted. Once the DSUE is exhausted, then further gifts continue to consume the donor-decedent's remaining BEA.

Clawback Sweet Spot: The "increased BEA period" is defined in the final clawback regulations as years 2018-2025. In simplest terms, if we assume that the peak exclusion in 2018-2025 is $\$ 14 \mathrm{M}$, and that the exclusion will sunset to $\$ 7 \mathrm{M}$ in 2026 , then the potential clawback sweet spot lives in the range between $\$ 7 \mathrm{M}$ and $\$ 14 \mathrm{M}$. Gifts that consume BEA in this sweet spot are eligible for a credit on a post-2025 706 that is, in effect, equal to $40 \%$ of this consumed BEA.

Excess Gifts: These are gifts that exceed the BEA still available in the year when the gifts were made. They generate gift tax that is normally paid at the time that the corresponding gift tax is paid. See Chart \#36 for an illustration of this scenario.











Clawback Credit: Exclusion Equivalent (2026 and Later)


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Clawback Credit: Exclusion Equivalent (2026 and Later)

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Clawback Credit: Exclusion Equivalent (2026 and Later)


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Clawback Credit: Exclusion Equivalent (2026 and Later)






























































Clawback Credit: Exclusion Equivalent (2026 and Later)

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*simplified







