Bill Laskin - Mon, 6/20/2011 - 00:00

We are asked regularly by clients for help estimating the value of a known bequest intention that will occur at some unknown time in the future, when the donor dies. There are two common approaches to making this determination, the life expectancy approach and the mortality approach.

The Life Expectancy Approach

One approach to computing the value of a future bequest intention is to determine a life expectancy for the donor based on the donor's current age and assume that the bequest will come to the charity that many years later. It then becomes a straightforward present value calculation to determine the value today of receiving the amount of the bequest intention at the end of the donor's life expectancy. The equation looks like this

$PV_B = B \times 1/(1+i)^y$

Where:

PV_B = present value of bequest

B = bequest amount

i = annual interest rate

y = years in life expectancy

For example, imagine Mrs. Lopez, age 72, informs you that she has included in her will a bequest of $50,000 to your charity. Using Planned Giving Manager's (PGM) Life Expectancy tool, you determine that her life expectancy is 17.1 years based on the Annuity 2000 mortality table. Switching to PGM's Present Value tool, you then determine that the present value of Mrs. Lopez's bequest is $25,568 when you discount the bequest at 4% interest annually for the 17.1 years your organization will have to wait until it receives the $50,000.

$\$25{,}568 = \$50{,}000 \times 1/(1+.04)^{17.1}$

The Mortality Approach

There is another approach to computing this value that we think is superior. Rather than computing a life expectancy for the donor(s) and assuming the bequest will be distributed that many years hence, this method uses a mortality table to determine the likelihood that the bequest will be distributed in any particular year beyond the year of valuation. This way, the calculation weights the value of receiving the bequest in a given year by the likelihood that the bequest will actually occur in that year. This approach provides a much better estimate of the present value of the bequest than assuming the bequest will be distributed in a specific year.

This is exactly the methodology employed by PGM's Present Value of Future Bequest tool. The equation looks like this

$$PV_B = (B \times P_1 \times 1/(1+i)^1) + (B \times P_2 \times 1/(1+i)^2) + (B \times P_3 \times 1/(1+i)^3) + \ldots + (B \times P_z \times 1/(1+i)^z)$$

Where:

PV_B = present value of bequest

B = bequest amount

P_x = probability the donor will live x number of years (determined using a mortality table)

i = annual interest rate

z = years from donor's current age to last age in mortality table

The calculation may be performed using your choice of interest rate and mortality table. As in the Life Expectancy tool, the mortality tables are arranged in the menu in order of conservativeness with the most conservative table, Annuity 2000, at the top. As a point of reference, the American Council on Gift Annuities (ACGA) uses the Annuity 2000 table in its computations of suggested maximum gift annuity rates (the ACGA applies additional conservatism to its mortality assumptions by making all annuitants female and one year younger than they actually are). The more conservative the table, the smaller the computed present value will be.

Follow the steps below to compute the value of a future bequest using the Present Value of Future Bequest tool:

1. Choose Tools in the PGM Menu Bar, then choose Present Value of Future Bequest.

2. Enter all of the information for your calculation.

3. When you have entered a value for every item, click Calculate. The calculator will display the answer in the Present value of bequest field at the bottom of the window.

4. You can redo the calculation as many times as you wish by entering new values and then clicking Calculate.

When you use this tool to compute the value of Mrs. Lopez's $50,000 bequest intention, and choose the Annuity 2000 mortality table and a 4% interest rate, you get $26,760. If you were to take the ACGA's lead and reduce Mrs. Lopez's age by one year to 71 for purposes of this calculation, you would get $25,990 instead.

Choosing an Interest Rate

The annual interest rate at which you choose to discount the bequest will have an important influence on your results. If you were to use a 3% annual interest rate in valuing Mrs. Lopez's gift rather than 4%, for example, the present value of her bequest intention would increase nearly one-fifth to $30,162 using the life expectancy method. It would increase about one-sixth to $30,247 using the mortality method. Either way, you should have carefully considered reasons for choosing the particular annual interest rate you use for discounting the value of future bequests. Consult with your treasurer's office or finance office for advice on the rate to choose. They undoubtedly grapple with how to value future cash flows in the course of their own work.

Conclusion

Estimating the value of a future bequest is an inexact pursuit. Nevertheless, done carefully, it can provide your organization with valuable information for purposes of long term planning, as well as for donor stewardship and evaluation of your fundraising program. The value you compute for a future bequest using the mortality method won't always be higher than the value determined using the life expectancy method, as in the case of Mrs. Lopez, but it will always be a different - and we think better - number.

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