

## Evaluating the Costs and Benefits of Delaying Social Security

When to begin Social Security retirement benefits is a challenging question that vexes many planners and clients. Is it better to begin payments early, or to delay Social Security and forfeit current payments to receive a larger income stream in the future? Although the analysis of such a question would seem relatively straightforward, the complex rules of Social Security make the evaluation more difficult, especially when evaluating the implications of living beyond the so-called "breakeven" point.

In this month's newsletter, we will explore the planning issues involved in determining when and whether it makes sense to delay beginning Social Security retirement benefits, in addition to the opportunities involved in repaying and reapplying for Social Security benefits for those who have already begun to receive payments.

### About the Author

Michael E. Kitces, MSFS, MTAX, CFP®, CLU, ChFC, RHU, REBC, CASL, CWPP™, is the Director of Research for Pinnacle Advisory Group ([www.pinnacleadvisory.com](http://www.pinnacleadvisory.com)), a private wealth management firm located in Columbia, Maryland. In addition, he is an active writer and speaker, and publishes The Kitces Report and his blog "Nerd's Eye View" through his website [www.kitces.com](http://www.kitces.com).

The Kitces Report © 2008-2009 [www.kitces.com](http://www.kitces.com)

Written and edited by Michael E. Kitces

*No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means without the prior written permission of Michael Kitces.*

### Framing the Problem

At the most basic level, the decision about whether or not to delay Social Security retirement benefits represents a very straight-forward trade-off: you can either receive cash payments now, in your pocket, to spend or invest however you choose, or you can give up those payments in exchange for receiving a higher stream of income for life at a future date.

Thus, for example, a client can choose to receive \$1,500/month starting immediately, or receive \$1,620/month for life, starting 1 year from now. If the Social Security retirement benefits are delayed, the client will receive an extra \$120/month for life, increasing with inflation. If the benefits are started today, the client will have  $\$1,500 \times 12 \text{ months} = \$18,000$  in pocket already. Thus, the question simply becomes - how long does the client need to accumulate \$120/month in extra payments, to recover the value of \$18,000 not received in the first place?

Notably, in *either* case, the client is going to get a base Social Security benefit of at least \$1,500/year, increasing for inflation, for the rest of his/her life. At the margin, the difference is the initial payments received in pocket, versus just the *extra* amount of Social Security retirement benefits received due to delaying. In this case, the trade-off is \$18,000 in pocket this year, or \$120/month (increasing with inflation) for the rest of the client's life. Or more accurately stated, \$18,000 invested and growing at a certain rate of return, or \$120/month also invested and growing at a certain rate of return (and also receiving the \$120/month in ongoing contributions); whether the money is actually saved, or is consumed, calculations taking into account the time value of money should still apply a reasonable growth rate. After all, even if Social Security payments are spent, they still represent *other* savings that were not consumed for spending instead.

Of course, this brief example fails to take into account many of the nuances in how Social Security benefits are

calculated, and the adjustments that apply when retirement benefits are delayed. Nonetheless, this form of breakeven point - how long does it take to receive an inflation-adjusting *extra* stream of \$XX/month to make up for receiving initial payment(s) in pocket of \$YY, after adjusting for the time value of money - will remain our focal point for the rest of this newsletter.

*(Publisher's Note: this issue's discussion exploring the Social Security breakeven point for delaying retirement benefits is intended to focus solely on that decision point, which applies primarily in the case of a single individual's Social Security retirement benefits. Where a married couple is concerned, additional factors apply, due to the potential impact that accelerating or delaying one spouse's initial benefits can have on both the spousal benefit and the surviving spouse's widow(er)'s benefits. Thus, the application of this framework should focus primarily on the begin-benefits-or-delay decision of a single individual.)*

---

## Technical Rules

---

To determine the impact of delaying Social Security retirement benefits on the amount of future benefits, it is first necessary to determine the client's Normal Retirement Age (NRA). It is necessary to know the client's NRA, because separate rules apply to determine how much to adjust retirement benefits up or down for beginning them before or after the client's normal retirement age. Table 1, to the upper right, shows normal retirement age under the Social Security system, which varies from age 65 to age 67, depending on the year that the individual was born.

Once the client's normal retirement age has been determined, it is possible to calculate how much Social Security benefits will be increased or decreased if the client chooses to start Social Security earlier or later than NRA. To the extent a client chooses to begin Social Security benefits before normal retirement age, those benefits are reduced. Thus, while it is true that *not* electing early benefits results in a higher retirement benefit payment, it is technically because the early benefits reduction was not applied, not because delaying from early retirement until NRA directly causes benefits to increase (this is relevant, as discussed later, when determining the marginal impact of not taking early benefits). On the other hand, if the client delays beginning Social Security until after normal retirement age, it results in a direct increase in

retirement benefits (not merely the removal of a reduction).

**Table 1. Normal Retirement Age based on Year of Birth.**

Birth Year	Normal Retirement Age
1937 and prior	65
1938	65 and 2 months
1939	65 and 4 months
1940	65 and 6 months
1941	65 and 8 months
1942	65 and 10 months
1943-54	66
1955	66 and 2 months
1956	66 and 4 months
1957	66 and 6 months
1958	66 and 8 months
1959	66 and 10 months
1960 and later	67

## Early Retirement Benefits

If an individual chooses to begin Social Security retirement benefits before normal retirement age, then those benefits are reduced by 5/9ths of 1% for each month the benefits begin early, up to a maximum of 36 months. If benefits are started more than 36 months before normal retirement age, then each additional early month beyond the first 36 causes benefits to be further reduced, but only by 5/12ths of 1% per month.

In any case, "early" Social Security retirement benefits can be started as early as age 62. However, because the early retirement election causes one reduction for the first 36 months, and another (lesser) reduction for the additional early months (if applicable), it is necessary to reference an individual's early retirement age simply to understand how much benefits are actually reduced for the earliest possible election.

Thus, for example, an individual who was born in 1935 (which would be prior to the 1937 cutoff from Table 1 above) has a normal retirement age of 65. Taking early benefits at age 62 would be 36 months early, causing a total reduction of 36 months x 5/9% per month = 20%. As a result, benefits at age 62 would be 80% of the normal retirement age benefits. On the other hand, if this individual was born in 1945, normal retirement age would be 66. In this case, early benefits at age 62 would be 48 months early, causing a reduction of 36 x 5/9%

for the first 3 years, and  $12 \times 5/12\%$  for the remaining 12 months, for a total reduction of  $36 \times 5/9\% + 12 \times 5/12\% = 25\%$ , causing Social Security benefits at age 62 to be 75% of what they would have been at normal retirement age. On the other hand, if the client was born in 1963, normal retirement age would be 67. In this scenario, early benefits at age 62 would be 60 months early, causing a total reduction of  $36 \times 5/9\% + 24 \times 5/12\% = 30\%$  in total reduction, or 70% of benefits at normal retirement age. Notably, though, in any of these scenarios, if the client simply took Social Security "one year early", the benefits would be reduced by  $12 \times 5/9\% = 6.67\%$ , and this identical reduction would apply for any client. The difference is that for the first client, 1 year early would be age 64; for the 2nd client, 1 year early would be age 65; and for the last client, 1 year early would be age 66. The reduction factors apply uniformly; what changes is the normal retirement age against which they are applied.

As a result of these formulas, the relative benefit for delaying Social Security retirement benefits from age 62 until normal retirement age (where "delaying" means not electing early benefits) will itself vary based on the age of the individual. If the client is within 36 months of normal retirement age, each year not electing early benefits avoids a 6.67% reduction in benefits ( $12 \times 5/9\%$ ); however, if the client is further from normal retirement age, not electing early benefits only avoids a 5% reduction in benefits ( $12 \times 5/12\%$ ). Consequently, as a starting point, the relative impact of not taking Social Security benefits early has a lesser impact for those beyond the 36 month window, than for those within 36 months of normal retirement age.

Beyond that, it is important to bear in mind that these factors apply to reduce an originally higher future benefit into a lower current one. Thus, to the extent that a client is currently considering whether to take early benefits or delay, the increase in benefits for delaying must be recalculated from the reduced base to the unreduced base. For example, while an individual born in 1963 would reduce benefits by 30% by taking early Social Security retirement benefits at age 62 instead of the normal retirement age of 67, for the individual who is *currently* 62, delaying benefits until age 67

and avoiding a 30% reduction actually results in a benefit increase of almost 43% relative to the age 62 benefit. This can be more easily understood by considering the actual dollar amounts involved. Assume that the client's full benefit at normal retirement age would be \$1,000/month. By electing early benefits at age 62, the benefits are reduced by 30% to \$700/month. *However*, for a 62 year old who could currently choose to take \$700/month or delay 5 years for a \$1,000/month benefit, the value of delaying is to increase a \$700 benefit by \$300/month, or a 43% increase ( $\$300 / \$700 = 43\%$ ) from the 62-year-old's perspective.

In fact, because the reduction in benefits is always calculated relative to the value of full benefits at normal retirement age, while the impact of delaying is calculated based on the reduced benefits, it is also true that delaying itself because marginally less valuable the closer the client gets to normal retirement age. For instance, assume an individual who is 3 years away from normal retirement age. If early benefits are taken, the reduction factor will be 20% (which is simply 36 months  $\times$  5/9% per month). For the individual who would have otherwise received \$1,000/month, benefits will instead be reduced to \$800/month. On the other hand, if benefits are taken only 2 years early, the less-reduced benefits would be \$866.66/month.

Alternatively, if benefits are taken only 1 year early, the even-less-reduced benefits will be \$933.33/month. In essence, the client gains \$66.66 of additional benefits for each year waited, *regardless* of whether the client has already delayed by 0, 1, or 2 years. At the margin, this means that the client who is 3 years early gains  $\$66.66 / \$800 = 8.3\%$  increase in benefits, while the client who is only 2 years early gains  $\$66.66 / \$866.66 = 7.7\%$  increase in

benefits, and the client who is only 1 year early gains  $\$66.66 / \$933.33 = 7.1\%$ . Although these differences are not extremely large, they nonetheless emphasize the point that for early retirement benefits, delaying the first year has a greater impact than delaying the last year.

This phenomenon holds as well for those who have a later normal retirement age, and are delaying when already more than 36 months away from

## Out and About

- Michael will be speaking about "Understanding the Credit Crisis" at the Iowa Trust Association Regional Conference on October 9<sup>th</sup>

- Michael will be presenting on "To Roth or Not To Roth" at the FPA Anaheim National Convention on Sunday, October 11<sup>th</sup>

- Michael will also be presenting on "The Impact of Market Valuation on Safe Withdrawal Rates" at the NAPFA Advanced Planners conference on October 29<sup>th</sup>

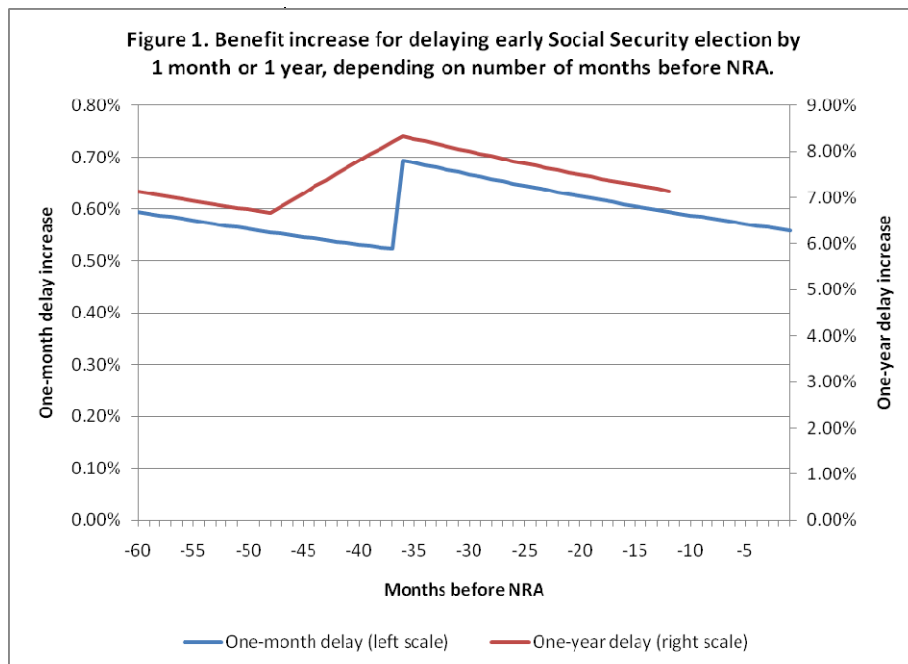
Interested in booking Michael for your own conference or live training event? Contact him directly at [speaking@kitces.com](mailto:speaking@kitces.com), or see his list of available presentations at [www.kitces.com/presentations.php](http://www.kitces.com/presentations.php).

normal retirement age (where the reduction factor is only 5/12% per month, instead of 5/9%).

In summary, Figure 1 to the right shows the marginal impact of delaying for 1 month (left scale), and of delaying for 1 year (right scale), based on the number of months away the individual is from normal retirement age (up to the maximum of 60 months, for an individual who starts at age 62 with a normal retirement age of 67). Note that there is a "bending" point around the 36 month mark, which represents the transition from the 5/9% per month factor to the 5/12% per month factor.

Figure 1 shows that for an individual who is only 1 month away from normal retirement age, the benefit of delaying by that last month is approximately 0.56% (see left scale). On the other hand, for an individual who is 12 months away from normal retirement age, the marginal increase in benefits for delaying by one month is approximately 0.60%; as discussed earlier, the further a client is away from normal retirement age, the larger the percentage increase because the base benefit has already been reduced. Thus, as the chart reveals, the single greatest monthly increase is for the client who is 36 months away from normal retirement age, and is able to take advantage of the monthly increase for delaying on a benefit base that has already been reduced by 3 years of early election adjustments. Once the client crosses the 36 month mark, it is again more beneficial to delay Social Security if the client is further away from NRA (again, the blue line is higher at 60 months than it is at only 50 months, which is higher than it is at 40 months), but the overall level of the blue line is lower, due to the fact that the client is only receiving increases of 5/12% per month instead of 5/9% per month.

The red line shows the same data, except that it evaluates the impact of delaying measuring one year at a time, instead of month by month, with results shown on the right scale (e.g., the value of delaying for a full year, from 12 months away to NRA until the client reaches NRA, is approximately 7.1%). The results do not include the impact of delaying for one



year if the client is within one year of NRA, since the benefits impact would include both avoiding the early Social Security election, and also for delaying past NRA, which is explored further below.

## Delayed Retirement Benefits

In a similar manner to the system for taking Social Security retirement benefits early, there is also an adjustment factor for delaying benefits. The delayed retirement increases continue to apply up to a maximum age of 70. As with early retirement, the adjustment is applied to your benefits at normal retirement age. Notably, because the calculation is based on normal retirement age, the total amount of the increase at a specific age (e.g., delayed benefits at age 68, or age 70) will depend on what the individual's normal retirement age was in the first place, just as it applies for early retirement benefits (e.g., if normal retirement age is 65, then taking benefits at age 70 is a 5 year delay; if normal retirement age is 67, then taking benefits at the same age 70 is only a 3 year delay).

In addition, the amount of the increase itself will depend on the year in which the client was born, as indicated in Table 2 on the next page.

The increases indicated in the chart are applied to the client's full retirement benefit at normal retirement age. Thus, the dollar amount of any increase for delaying is the same for any delay month (i.e., the delayed benefit increases do not compound). The younger the client in current age (i.e., the later the birth year), the more



significant the benefits increase for delaying (due to Congress' decision to make it so for younger individuals who will retire in the future, to encourage more delayed Social Security benefits).

**Table 2. Increases in Social Security retirement benefits based on year of birth.**

Birth year	Increase per month	Increase per year
1933-1934	11/24 of 1%	5.50%
1935-1936	1/2 of 1%	6.00%
1937-1938	13/24 of 1%	6.50%
1939-1940	7/12 of 1%	7.00%
1941-1942	5/8 of 1%	7.50%
1943 or later	2/3 of 1%	8.00%

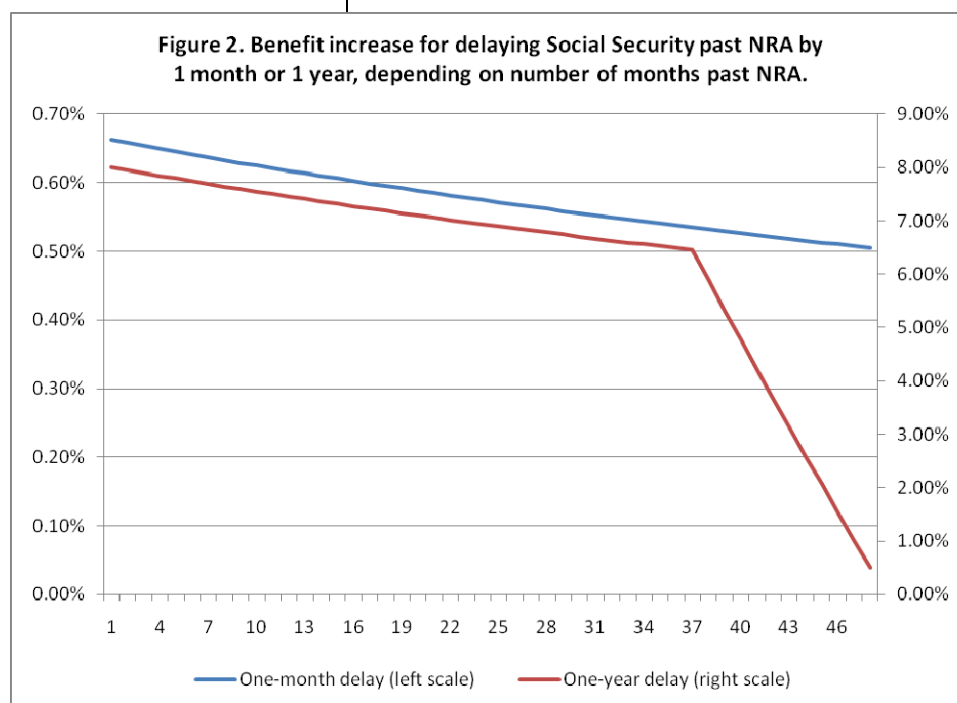
Given that it is now 2009, any client who is considering a delay in Social Security retirement benefits will generally only focus on the last few sections - since a client born in 1933 turned 70 in 2003, and ostensibly would have started Social Security at that time (or earlier) since benefits no longer increase anyway. In theory, only a client born in 1940 or later would thus still be focused on the impact of delaying retirement benefits, since only those individuals are still age 70 or younger where delaying retirement benefits continues to increase the benefit amount. Furthermore, to the extent that most planning is prospective, most client situations - where the client has not yet reached normal retirement age in the first place - will simply focus on the last line of the chart, which will apply for all clients who are currently younger than age 66 (i.e., born in 1943 or later).

For clients who are just reaching normal retirement age this year and evaluating the delay decision - i.e., born in 1943, with a normal retirement age of 66, and

therefore reaching normal retirement age this year in 2009 - the benefits increase for delaying is 2/3% for each month delayed. Delaying a full 12 months results in a total increase for the year of  $2/3\% \times 12 = 8\%$ . If the client delays the maximum - to age 70 - benefits will be increased for 48 months, up to a maximum increase of 32%.

As mentioned earlier - and similar to early retirement benefits - the increase/decrease factor is applied to the benefits base at normal retirement age, and consequently the increases are cumulative but do not compound. In fact, because the increase amount is the same regardless of how high benefits continue to accrue, the relative value of continuing to delay diminishes the longer the client chooses to delay, in a similar manner to the delays for early retirement benefits.

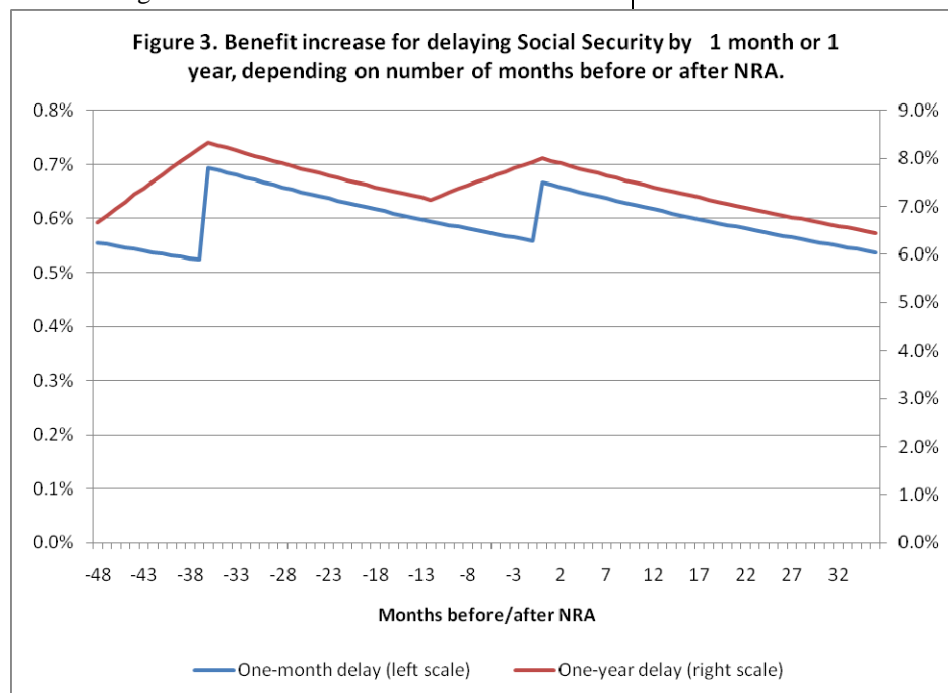
In summary, Figure 2 below shows the marginal impact of delaying for 1 month (left scale), and of delaying for 1 year (right scale), for a client who was born in 1943 or later, based on the number of months away the individual is from normal retirement age (up to the maximum of 48 months, for an individual who delays until age 70 with a normal retirement age of 66).



Similar to the impact of delaying early Social Security benefits, the impact of delaying Social Security past normal retirement age becomes less valuable the more months that are delayed. Nonetheless, due to the larger percentage adjustment for delaying Social Security past normal retirement age than for electing early benefits,

the overall impact for each month of delay is still more significant (starting at 0.66% increase per month for the first month past NRA, rather than only 0.56% per month for the last month preceding NRA). At the far right, the value of delaying Social Security benefits for 1 year diminishes significantly for the retiree who will be delaying past age 70, since there is no further increase in retirement benefits for delaying past that point.

Putting together the impact of both early retirement adjustments and delayed retirement, Figure 3 below shows the impact of delaying for one month and for one year for an individual who was born in 1943 (with normal retirement age of 67), based on the number of months before, or after, the individual's normal retirement age.



## What About Inflation Adjustments?

The analysis thus far has been about how retirement benefits are increased due to delaying the onset of Social Security (either by delaying past normal retirement age, or by not taking electing early benefits). However, none of this accounts for the reality that Social Security retirement benefits also increase over time due to inflation.

A retiree's benefits are based on the individual's Primary Insurance Amount (PIA), which in turn is calculated as a percentage of the worker's Average Indexed Monthly Earnings (AIME) (thus, in essence, the calculation of Social Security's PIA is a

percentage-of-income replacement formula, and is based on the worker's 35 highest inflation-adjusted earnings years). The PIA formula is intended to provide a higher percentage of income replacement for lower income workers than higher income workers.

Consequently, the PIA is calculated as 90% of the first \$744 of AIME, plus 32% of the excess of AIME above \$744 up to \$4,483, plus 15% of the excess of AIME above \$4,483 (up to the Social Security wage base as a cap). The dollar amounts of \$744 and \$4,483 are known as "bend points", since the percentages for the amount of the client's AIME that increases PIA changes (or "bends") at those points. The bend points are indexed for inflation.

In addition, the PIA itself - which represents the full retirement benefit the client will be eligible for at

normal retirement age - receives cost-of-living (i.e., inflation) adjustments each year, thereby providing cost-of-living adjustments for those receiving current retirement benefits.

From the perspective of accelerating or delaying retirement benefits, though, there is no direct impact of inflation adjustments on the value of accelerating or delaying. Because both the AIME and bend points are adjusted for inflation, along with the PIA itself, the client's final retirement benefit remains the same after inflation adjustments

(before application of the early- or late-election adjustments).

For example, assume a client, born in 1943, has a PIA of \$1,500 and is at normal retirement age, but is considering delaying one year. As discussed earlier, delaying for one year at this client's age will increase retirement benefits by 8%, from \$1,500 to \$1,620/month. In addition, assuming a 3% inflation rate, the client's retirement benefit will further increase due to cost-of-living adjustments, to \$1,669. However, had the client not delayed benefits by 1 year, the original \$1,500 benefit would also have increased by 3% for cost-of-living, to \$1,545. Thus, after accounting for inflation adjustments, the client's benefits next year will really be

either \$1,545 (current year benefit adjusted for inflation), or \$1,669 (increased benefit for delaying 1 year, subsequently adjusted for inflation). Nonetheless, the relative benefit is still exact the same - for delaying one year, the client's benefit is increased by 8%, and in fact \$1,669 is exactly 8% higher than \$1,545.

Thus, although benefits do increase over time for inflation, the inflation adjustments will apply in the same manner regardless of the decision whether or not to delay retirement benefits. Although delaying one year increases benefits by 8% for a 1-year delay, *and* for inflation, the inflation adjustment would apply for the current retiree as well, and net the result is that after inflation adjustments the client still ends out with a benefit that is exactly 8% higher. On the other hand, as discussed later, the fact that the extra 8% higher benefit amount also enjoys a cost-of-living adjustment in future years (per the example above, inflation adjustments not just on the first \$1,500, but on the last \$120 of extra benefits due to delayed retirement) does impact the ultimate evaluation of a breakeven point for the decision to delay.

## Delayed Benefits and Continuing to Work

The discussion up to this point has focused primarily on those who would be delaying retirement benefits simply because they choose to do so, and ostensibly because they have other assets or income sources available to fund retirement cash flow needs until Social Security benefits begin. On the other hand, a separate set of considerations must be taken into account for the client who actually intends to continue working while delaying retirement benefits.

First of all, the client who continues working and is considering whether to begin or delay retirement benefits must contend with the so-called Earnings Test for Social Security benefits. Under the Earnings Test, Social Security benefits are reduced by \$1 for every \$2 of earnings that the worker has in excess of \$14,160 per year (in 2009; this threshold amount is indexed for inflation). If the current year is the year that the worker will reach normal retirement age, the Earnings Test relaxes slightly and instead reduces benefits by \$1 for every \$3 of earnings in excess of a higher

threshold, \$37,680 (in 2009; again, this amount is indexed for inflation). In addition, for the worker who is in the year he/she will reach normal retirement age, only earnings that are received in the month(s) *before* reaching normal retirement age are counted towards the test and the higher \$37,680 threshold. Once an individual reaches normal retirement age, the Earnings Test no longer applies at all, and the worker can receive benefits unreduced by the Earnings Test, even if benefits are being received while still working. Thus, the Earnings Test is only relevant to those who are considering an onset of Social Security retirement benefits before normal retirement age.

As a result of the Earnings Test, virtually any worker who anticipates earning more than the \$14,160 threshold (for years before the year in which the individual reaches normal retirement age) should delay benefits, until earnings drop below the threshold or cease completely or until normal retirement age is reached. Otherwise, if excess income is earned while early benefits apply, the client can lose out twice, as retirement benefits will be permanently reduced due to the early retirement election, *and* those early retirement payments themselves will be reduced further or forfeited completely if there are excess earnings above the Earnings Test threshold.

Second, it is important to note that an individual who continues to work continues to average in additional years of earnings for the purposes of calculating his/her AIME. To the extent that the worker includes earnings that increase the highest 35 years of inflation-adjusted earnings, the worker's PIA itself may be increased due to ongoing employment income. This recalculation of AIME (and the potential inclusion of higher earnings) will occur any year the worker has new employment income, whether it is while Social Security retirement benefits are being delayed, or even if benefits are being received while working (and regardless of the age of the worker).

However, it is notable that relative to the impact of the Earnings Test - the possible forfeiture of all Social Security benefits for the year - the value of continued

employment earnings to achieve higher Social Security benefits will be fairly minimal, given that the client will only be averaging in 1 year of earnings to a 35-year average. The actual earnings that the client receives in direct compensation will be far more valuable than the

[The Kitces Report](http://www.kitces.com) © 2008-2009 [www.kitces.com](http://www.kitces.com)

Written and edited by Michael E. Kitces

*No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means without the prior written permission of Michael Kitces.*

slight increase in Social Security benefits. Nonetheless, to the extent the client is willing to continue working (and either delay retirement benefits until normal retirement age, or work after normal retirement age when the Earnings Test no longer applies), benefits may potentially be increased.

These two factors - the Earnings Test, and the potential recalculation of AIME for higher earnings - need to be taken into account for those individuals who are considering not only a delay in Social Security retirement benefits, but who also are continuing to work in the meantime. The Earnings Test, in particular, will have a significant effect on those who anticipate working before normal retirement age; simply put, if earnings are anticipated to exceed the Earnings Test threshold, the client should delay Social Security retirement benefits at least until normal retirement age, since some or all of the benefits would be forfeited anyways. If benefits aren't going to be received either way (due to excess earnings), the client will be better off to at least delay benefits and receive a higher amount when those benefits do ultimately begin.

---

## Developing the Breakeven Framework

---

As mentioned earlier, the basic framework for evaluating whether it is beneficial to delay the onset of Social Security retirement benefits is relatively straightforward - the client gives up current payments that can be received immediately for consumption or investment, in exchange for a higher monthly payment in the future that, given enough time, can overcome the lump sum value of initial payments not taken. By this approach, we can determine a breakeven point in time - the number of months or years it is necessary to accumulate each "extra" amount of the Social Security retirement benefits (the increase in the payment due to delaying benefits) to overcome the initial early payments not taken.

For example, if the client has the opportunity to receive \$1,500 per month today, or \$1,620/month by delaying a year, how long will it take to recover the \$1,500/month x 12 months = \$18,000 of payments not received in the first year, by taking home an extra \$120/month for all the months and years thereafter? However, it is not quite as simple as saying  $\$18,000 / \$120 = 150$  months until the breakeven point where the extra payments recover the first year of benefits not received. First of all, such a simple analysis ignores the time value of money. Whether the \$18,000

is saved and invested, or is consumed (but thereby allows other dollars to not be spent and remain saved/invested), the entire amount will have the opportunity to grow over time. Thus, after the second year, the \$18,000 will have grown to \$19,080 (assuming an 6% return), while the client who delayed is only earning growth on \$1,440 worth of payments for the year - and since the payments were monthly, not all of them will even enjoy growth for the full year! Eventually, there will be enough \$120/month payments to overcome the setback of not having all \$18,000 invested up front, but it takes much longer. In other words, once the time value of money is accounted for, the breakeven points extends much further.

On the other hand, this simplified approach also ignores the impact of Social Security's cost of living adjustments. For the client who elects early benefits, the \$18,000 will be received in pocket in year 1. For the client who delays by a year, though, he/she will not only receive an extra \$120/month for life, but that \$120/month itself will also receive cost-of-living adjustments over time. Thus, for example, the \$120/month of excess payments will increase to \$139/month after 5 years, \$161/month after 10 years, and \$187/month after 15 years (assuming a 3% inflation rate). This rising series of payments helps to accelerate the breakeven point.

Beyond these two factors - the time value of money with an appropriate discount rate, and the inflation adjustments for the increased benefits due to delaying Social Security - it is also important to note that the payment increase for delaying itself will depend on the client's specific circumstances. This is because, as discussed earlier, the percentage increase in monthly Social Security retirement benefits for delaying depends on the client's age and the number of months before or after normal retirement age, and the year of birth of the client.

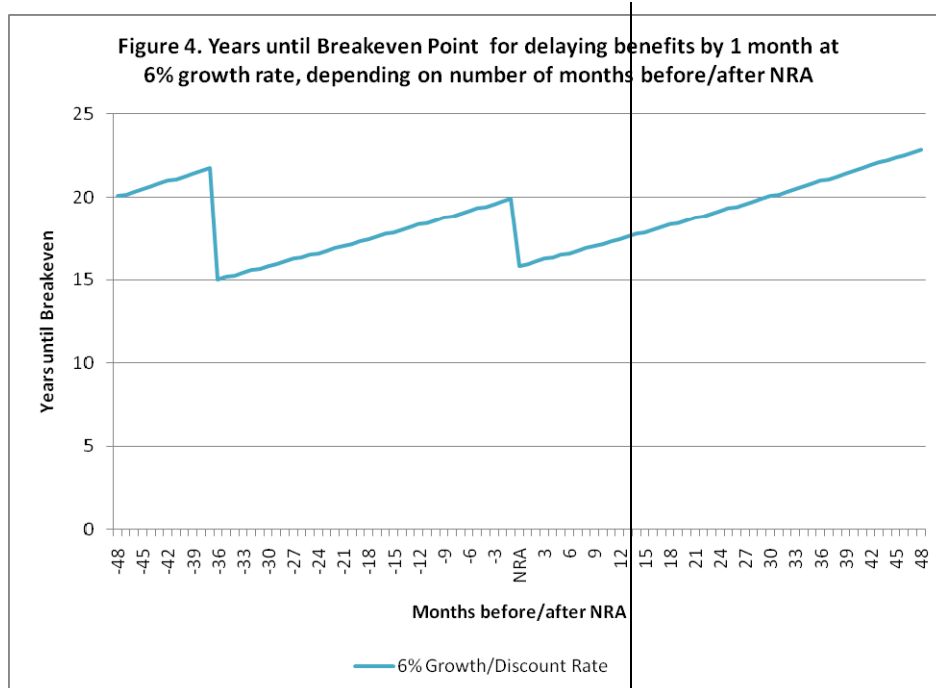
---

## Finding the Breakeven Point

---

As Figure 4 (top of next page) indicates, the number of years to break even for delaying Social Security benefits is heavily dependent on the number of months before or after the client's normal retirement age, because of the varying percentage benefit increases that apply. Figure 4 shows the impact for a client born in 1943, who would have a normal retirement age of 66 (and thereby would be reaching NRA in 2009), assuming a 6% growth/discount rate for the available Social Security benefits received.

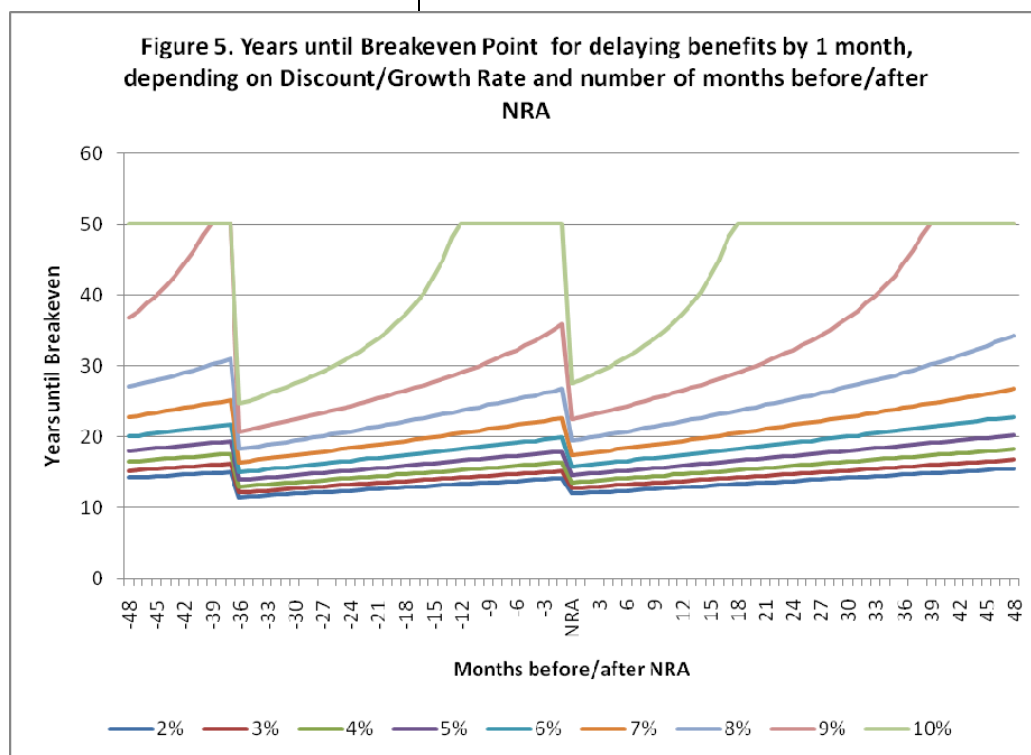




The results indicate that the breakeven point varies from as low as 15 years, to as high as approximately 23 years, for delaying benefits by 1 month, depending on when the benefits are delayed and which benefits increase formula will apply (more than 36 months before NRA, 0 to 36 months before NRA, or delaying after NRA). In addition, it's important to note that the breakeven point is measured from *that* month when benefits are first received, going forward. Thus, for example, the early retiree at

age 62 (who would be 48 months before NRA) has a breakeven of 20 years - which means it will take until age 82 to receive enough slightly-higher monthly payments starting at 62 years, 1 month, to recover the value of the first month's payment at age 62 years and 0 months that wasn't received by delaying. For the age 63 retiree (who would be 36 months before NRA), the breakeven point drops to 15 years, and thus the retiree would only need to live and receive benefits until age 78 to reach the breakeven point (15 years after age 63). On the other hand, for the 68 year old retiree, the breakeven point

is approximately 19 years, which means the retiree must live until age 87 to recover enough higher payments to over the first month's payment not received by delaying benefits.



### **SIDENOTE: Choosing A Discount Rate**

In order to compare payments in pocket today (e.g., \$18,000) to a higher monthly payment in the future (e.g., an extra \$120/month, adjusting for inflation), it is necessary to adjust for the time value of money - or in other words, to discount the \$120/month future payments to the extent that receiving a stream of income in the future is less valuable than having \$18,000 outright in pocket today available to consume or invest. Alternatively, a discount rate can also be viewed as the growth rate that would apply to having \$18,000 available to invest today, to compare it to the future value of \$120/month growing at its own investment rate into the future.

Of course, all of this still leads to the natural question - what is a reasonable discount rate to use in the first place? Unfortunately, there is no singular "right" answer, since the appropriate discount rate really depends on the investment behavior of the client, and the relative value to them of having money available today instead of the future.

All that being said, it seems generally reasonable to use a conservative but growth-oriented investment return, likely a rate that is comparable to the overall return anticipated for the client's aggregate portfolio (or perhaps slightly more conservative). This applies for the simple reason that if the client does not elect to receive Social Security early, expenses that could have been paid using Social Security income must instead be paid out from the portfolio or some other source while the client waits for higher future payments. Thus, almost literally, the client's portfolio growth rate can be used as a discount rate because it really *does* represent the return the client would be receiving on those funds had they been available.

Some planners advocate using an extremely low fixed-income-level rate of return as the discount rate for this type of analysis, pointing to the fact that the Social Security payments themselves are guaranteed streams of income, as is their periodic increase over time due to inflation (and equating a guaranteed income stream to a very low discount rate). However, this approach focuses inappropriately on the Social Security guaranteed stream of income as an investment itself. After all, the point is to compare \$18,000 of cash, in pocket, today, available for investment/consumption, to the value of a stream of payment of payments that will also become available for investment/consumption, but that cannot be received until the future; not the underlying guaranteed stream of income that was going to be received either way.

On the other hand, it is important to note that there are some differences in the two pools of money, including the fact that the inflation-adjustment portion of the \$120/month payments *is* a guaranteed increase, while the \$18,000 of cash is not; to help "risk-adjust" this feature, the planner might perhaps use a growth/discount rate that is 1% to 2% lower than the rest of the portfolio (although assigning a specific "value" of X% to this feature is somewhat arbitrarily determined). Nonetheless, over a period of time, the client will accumulate growth on \$18,000, or growth on a separate account that is slowly accumulating \$120/month deposits. Either way, both pools of money (one static, the other receiving ongoing "deposits") will be invested in some manner and grow over time (or be consumed to substitute for other assets that will remain invested), and thus should receive reasonable discount rates comparable to the client's overall investment portfolio (since that's what must be liquidated to pay expenses if Social Security isn't available). Ostensibly, for most clients, this will likely result in a discount rate in the range of 4% to 8%, or potentially slightly higher for very aggressive clients.

As it turns out, though, the length of the breakeven period is not only affected by the number of months before or after normal retirement age. It is even *more* affected by the growth rate applied to the Social Security benefits as they are accumulated. Figure 5, below, shows the same breakeven assumptions from Figure 4, except a range of growth rates from 2% to 10% are shown (including the 6% from the prior figure). As the chart reveals, at lower growth rates, the breakeven period varies from only approximately 11 years to 15 years. It is less sensitive to the number of years before or after normal retirement age, and the

overall breakeven point is much shorter, simply because the early benefits received in pocket do not grow as much at a lower rate (thereby making it easier for periodic higher benefit to recover the foregone initial payment). On the other hand, as the rate of return increases, the breakeven point both becomes more variable, and overall becomes significantly longer. At an 8% growth rate, the breakeven period is as "low" as 18 years, with several points as high as 25 to 30+ years. At a 10% growth rate, the breakeven point is only 25 years in the best case scenario, and is often 50+ years (in point of fact, the breakeven points are beyond 50

years in many cases at a 10% growth rate, and in some situations at a 9% growth rate, but the analysis was limited to a maximum of only 50 years of breakeven - after all, if you can't break even by age 112, it's probably not worth trying anymore!).

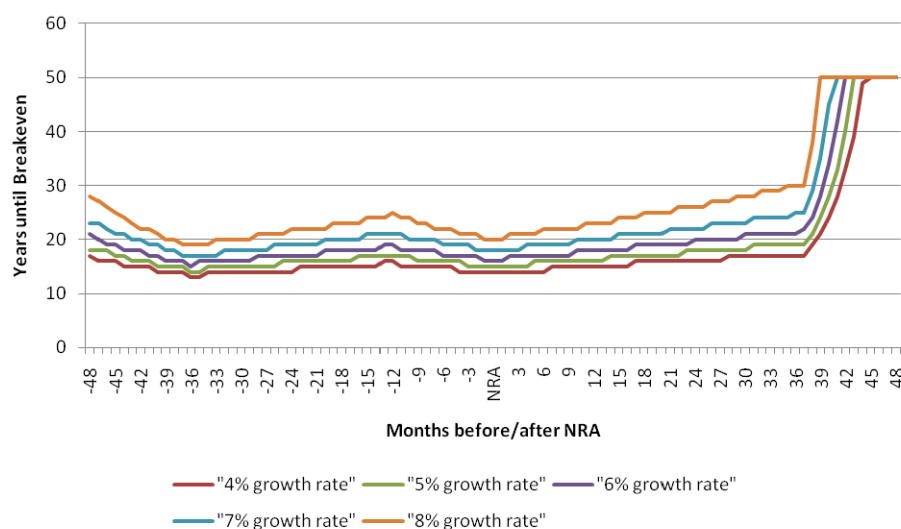
Of course, the reality is that most planners and their clients do not make the decision about whether or not to delay Social Security on a month-by-month basis, as presented in the charts above. Instead, the decision is more likely to be applied over longer

time periods, such as a year-by-year analysis that coincides with the planner's annual review process (e.g., an item on the agenda for the annual review might be "should you start Social Security retirement benefits now, or wait another year?"). Thus, Figure 6 to the upper right shows the preceding data again for growth rates ranging from 4% to 8%, evaluating the impact of delaying benefits by 12 months at a time.

In reality, the breakeven points shown in Figure 6 are not materially different than those shown in Figures 4 and 5 - they are simply presented in 12-month chunks instead of 1-month units. As a result, the sharp shifts at 36 months before NRA, and crossing over from before NRA to after NRA, are far less visible. Nonetheless, at a 6% growth rate, the breakeven point still varies from a low of 15 years to a high of approximately 25 years, before ramping upwards sharply as the retiree nears age 70 (for the simple reason that if you're less than 12 months from age 70, delaying for an entire year will include delaying for several months that are past age 70 with no benefits increases, which severely detrimental and undesirable; don't delay past the actual month the client turns age 70!).

It is also notable that all of the results above assume a 3% inflation rate as the cost-of-living adjustment to each Social Security payment (including the adjustment to the "excess" amount of the payment that is received by choosing to delay). However, inflation itself is still an uncertain variable in the analysis, and long-term inflation may deviate from the 3%

**Figure 6. Years until Breakeven Point for delaying benefits by 1 year depending on Discount/Growth Rate and number of months before/after NRA**



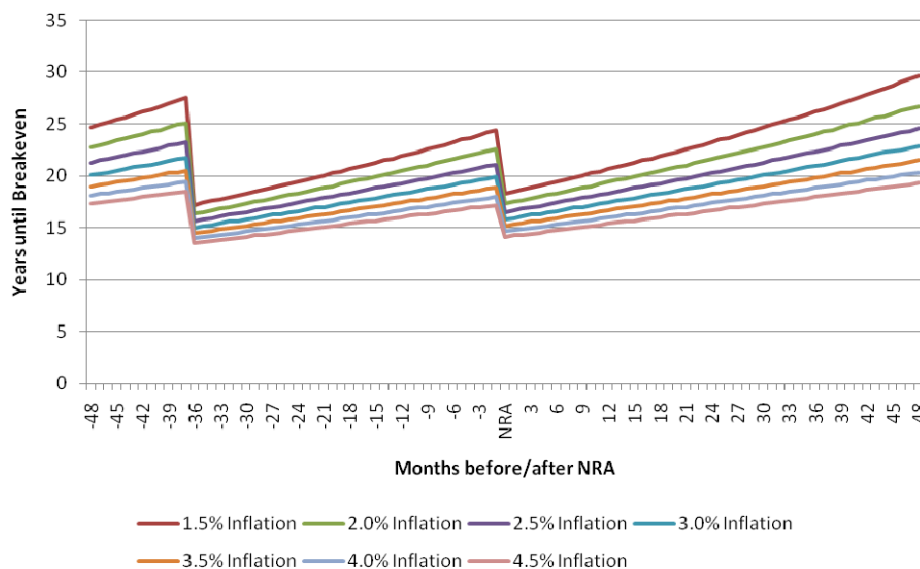
projection included here. Accordingly, Figure 7 (top of next page) shows the breakeven point assuming a 6% growth rate, with an inflation rate that varies in 0.5% increments from 1.5% to 4.5%. In this case, the results show that the impact of varying inflation is actually almost exactly the same as a change in the growth rate. In other words, getting inflation that is 1% than expected higher (which increases Social Security excess payments more rapidly) reduces the breakeven point by virtually the same exact amount as earning a 1% lower growth rate (which reduces the breakeven period by growing the initial payments more slowly). Similarly, if inflation is 1% lower than expected (which grows payments more slowly and extends the breakeven point), the impact is almost the same as receiving a 1% higher growth rate (which grows initial payments received more rapidly and makes it more difficult for monthly excess payments to catch up).

Thus, in the end, we find that overall the breakeven point is sensitive to both the long-term level of inflation, and also the growth rate earned on the investment accounts, and that the sensitivity is at a roughly comparable level (i.e. the impact of being off by 1% is about the same in their respective directions).

## Breakeven Summary

In most cases, the analysis of delaying Social Security and breakeven points ends here - once the breakeven point is determined to be a certain number of years, the planner can analyze the client's situation, decide how

**Figure 7. Years until Breakeven Point for delaying benefits by 1 month, depending on the inflation rate and number of months before/after NRA (6% growth rate)**



feasible it is for the client to live to/past the breakeven point, and make a decision.

However, concluding the analysis at this point excludes one very important additional aspect - the financial consequences when the client *does* outlive the breakeven point.

## Outliving the Breakeven Point

At first glance, most people simply assume that the breakeven point is a simple linear crossover point - in other words, that the benefit for outliving the breakeven point by 1-2 years is good, to the same extent that dying 1-2 years short is bad. However, a deeper analysis reveals that this is not the case.

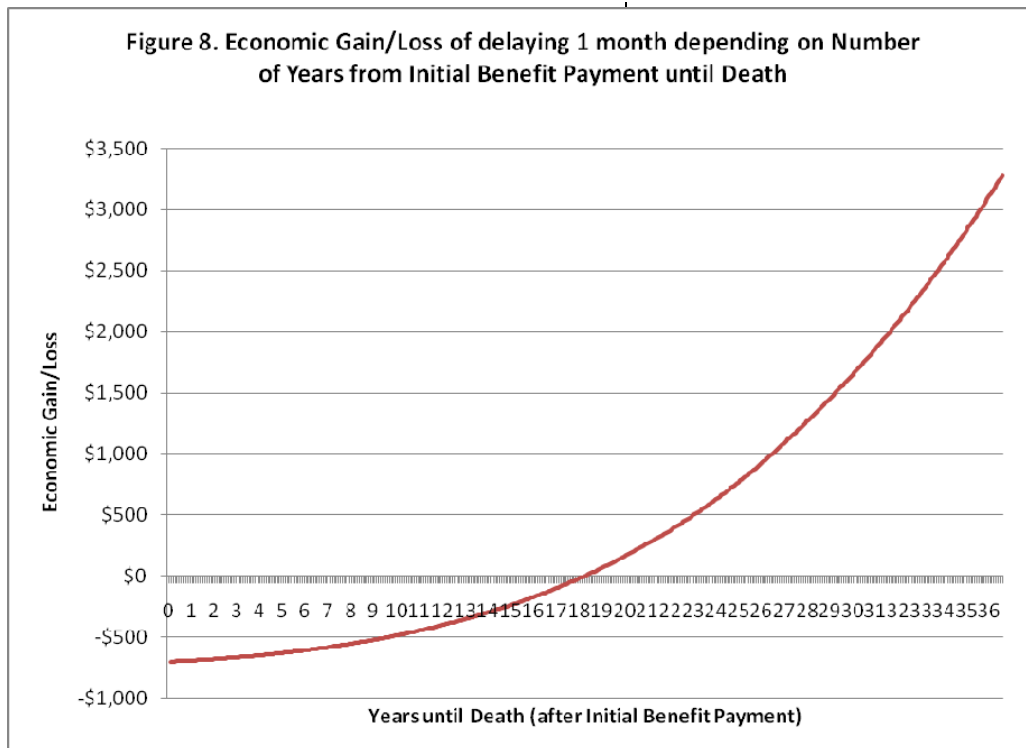
The reason is that for the client who chooses to delay, and therefore needs a period of years (up to the breakeven point) to recover the foregone initial payments with a series of slightly higher payments over time, the excess Social Security payments themselves *continue to increase* over time. Simply put, because the payments in the first year after the breakeven point are higher than the last year before the breakeven point (because of the ongoing cost-of-living adjustments), the benefit of living one year beyond the breakeven point is more beneficial than the loss of dying one year before it.

breakeven point, the client will lose a future value of \$80.95 if he/she dies exactly 1 year before reaching the breakeven point (having recovered the economic value of only \$619.05 of the \$700 initial payment). On the other hand, if the client lives 12 months past the breakeven point, the future value in the client's favor for outliving the breakeven point is \$88.21. The client is ahead for living 1 year beyond the breakeven point (by \$88.21), more than the client would be behind for dying 1 year short (at only \$80.95 lost).

Of course, relative to a client's net worth, a mere cumulative difference of \$80-\$88 of lifetime economic value seems rather modest. However, Figure 8 (top of next page) shows what happens to the client over the entire time span from dying 18 years early (i.e., waiting one month and then dying immediately), to living 18 years beyond the breakeven point. Compounded over a multi-decade period, the results become much more dramatic. The client who delays a \$700 Social Security payment onset by one month (forfeiting \$700 in pocket to receive higher payments for life) takes approximately 18 years to recover the value of that \$700 (the point at which the red line crosses the \$0 gained/lost level). *However*, it only takes 6 more years for the client to gain another \$700 of economic value (effectively doubling their original investment), due to the cumulative compounding impact of successively higher excess Social Security payments due to decades of cost-of-living inflation adjustments. In turn, the next \$700 of economic value is created in just over 4 years, and the pace simply accelerates further from there.

For example, let's look at the scenario where a 62-year-old with a PIA of \$1,000/month and a normal retirement age of 67 chooses to delay Social Security by 1 month, thereby increasing benefits from \$700 (after maximum reduction) to \$704.17/month. In this case, it takes the client just over 18 years to recover receiving one \$700 payment now, versus an extra \$4.17/month (increasing with inflation over time), assuming a 6% growth rate. If we fast forward to the final 12 months before reaching the





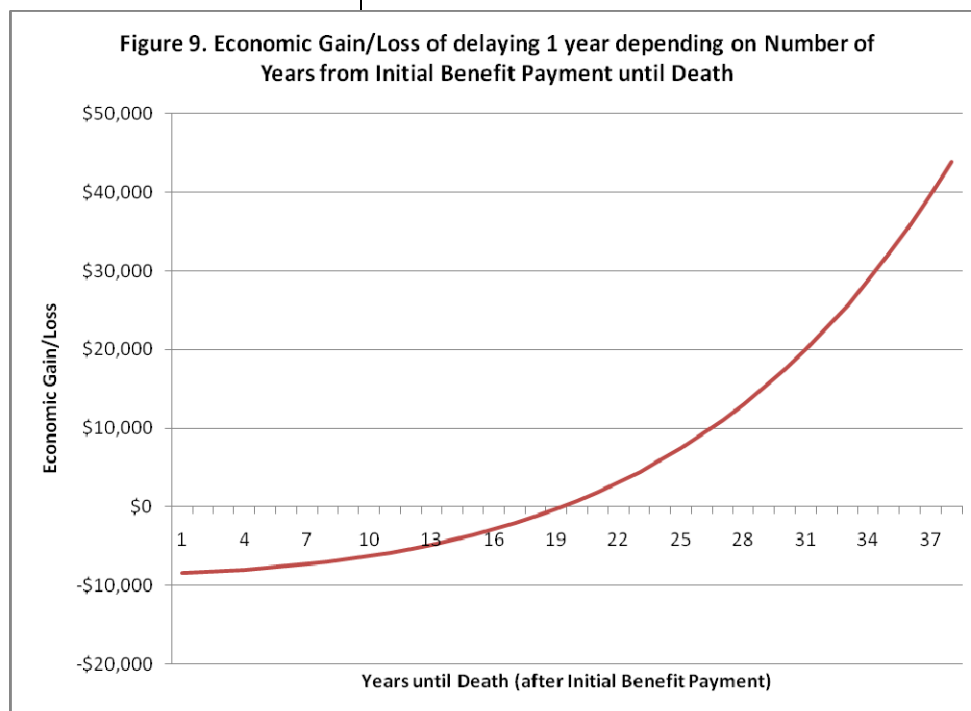
benefits, and again it takes about 18-19 years to break even. However, if the client does in fact outlive life expectancy - recovering the \$8,400 loss - then client makes another \$8,400 of economic value in just over 6 more years, and outliving life expectancy by 18 years creates nearly \$40,000 of economic value, at a "risk" of losing only \$8,400 if the client dies 18 years early. (Note: Figure 8 above, and 9 below, show

Consequently, the client who delays Social Security payments by one month and immediately passes away (18 years short of the breakeven point) loses \$700, while the client who delays Social Security and lives 18 years beyond the breakeven point enjoys a cumulative compounded additional wealth of over \$3,000!

the *relative* amount of wealth gained/lost by delaying and passing away. Consequently, the breakeven point is where \$0 is gained or lost - which means the full \$700 of original foregone payments have been recovered. Any point above the \$0 line on the chart represents economic value gained, *over and above* the recovery of

Of course, that's \$3,000 of economic value created from just a single month's Social Security payment. Figure 9, to the right, shows the effect when the client delays age 62 early retirement benefits by an entire year.

As Figure 9 shows, when a full year delay is evaluated, the financial implications can be much more significant. In this case, the client faces a loss of \$8,400 by delaying one year of Social Security



the initial \$700 payment.)

Furthermore, as mentioned earlier, one of the driving forces in bringing down the breakeven rate - and also in increasing the value of Social Security retirement benefits beyond the breakeven point - is the inflation rate. To the extent that the inflation rate is higher than anticipated, it is generally "bad" for most client assets and investments. However, because Social Security benefits are indexed for cost of living, unexpected inflation actually proves to be positive for the decision to delay benefits (or more accurately, is "less negative", since the benefits are only increasing further to the extent it is necessary to keep up with inflation, but nonetheless this will result in less purchasing power erosion than for most other types of assets). Accordingly, Figure 10 below shows the economic value gained or lost through the decision to delay 1 year and assuming a 6% growth rate, but for varying levels of inflation.

As Figure 10 reveals, the decision to delay Social Security becomes a significant effective inflation hedge in later years. For the client who lives the 18-19 years until breakeven, and another 18-19 years beyond, not only does the client recover the foregone \$8,400 of initial benefits, but even at low inflation rates accumulates almost \$30,000 of additional wealth at 2% inflation. If inflation turned out to be 4%, the cumulative value created is approximately *doubled*, to

over \$60,000 of additional wealth. And it only required placing \$8,400 of benefits "at risk" for an early death.

Of course, the probability of living another 18-19 years beyond the breakeven point for a 62 year old is quite small - it would mean the client lives until he/she is almost 100 years old. Nonetheless, it is that exact scenario - living significantly beyond life expectancy, especially with higher-than-anticipated inflation - that can be most destructive to a client's portfolio. From that perspective, delaying Social Security may become more desirable, not only because it creates significant wealth when the client enjoys extended longevity beyond the breakeven point (and beyond life expectancy), but because that significant wealth is created at the exact time when the client would likely need it most.

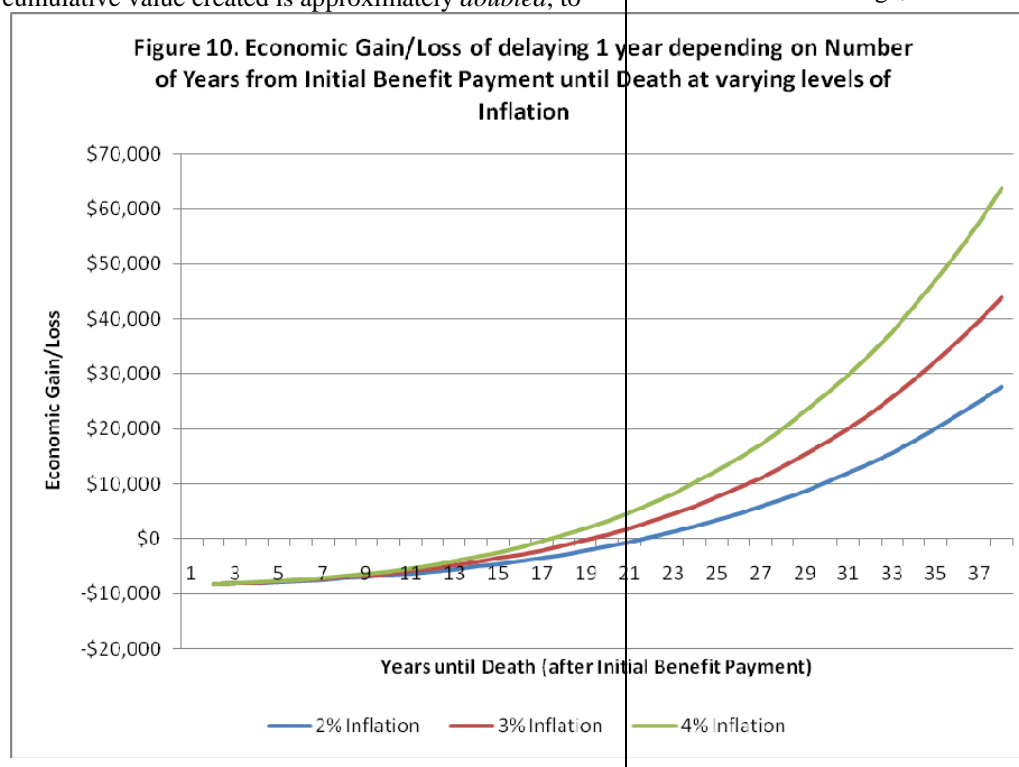
---

## Bringing It All Together

---

Given all of this analysis, the ultimately question becomes "how do you apply the framework presented to a particular client situation," given all of the factors involved.

The first step simply requires gathering the necessary facts, most significantly the client's age and year of birth, so that the planner can determine the client's normal retirement age, and also the factor for adjusting



benefits if the client delays beyond normal retirement age (since those factors vary depending on the year of birth). Notably, it is actually *not* necessary, per se, to find out the amount of Social Security benefits that the client will be eligible for at normal retirement age (their PIA), to determine a breakeven point; since all Social Security benefit adjustments are based a percentage change, the breakeven points

are the same regardless of whether the client has a \$1,000/month benefit, or a \$1,500/month, or any other benefit amount. Nonetheless, it will still be helpful to know the amount of the client's prospective Social Security benefits, especially if the planner ultimately intends to convert a breakeven point in years into an estimate of the actual economic value of the benefits (e.g., the material presented in Figures 8, 9, and 10, since they are based on actual dollar amounts).

The second step is to determine whether the client will still be working, especially if he/she has not yet reached normal retirement age. As discussed earlier, because of the Social Security Earnings Test, it will virtually always be adverse to start Social Security benefits early, if the client will be receiving any earned income in excess of the Earnings Test threshold. Secondly, if the client is still working, it will also be necessary to update projections of Social Security retirement benefits themselves, to the extent that the additional earnings increase the client's AIME and their corresponding PIA.

The third step, although not directly addressed yet in this analysis, is to evaluate the client's health and prospective life expectancy. After all, the truly most significant factor in the entire process of evaluating a client's decision to delay Social Security is whether the client is likely to live long enough to receive value from highly monthly benefits. The shorter the client's life expectancy, due to any number of health, genetic, or other relevant factors, the less prospective value to delaying Social Security. If the client is truly not expected to live long enough to reach the breakeven point - or is so unhealthy that he/she may only live a few more years - it will virtually always make sense to begin benefits as soon as possible, and get as many payments as possible. (Note: See next page for a brief discussion of the additional factors that may be relevant, especially if the client is not single and a potential surviving spouse is involved.)

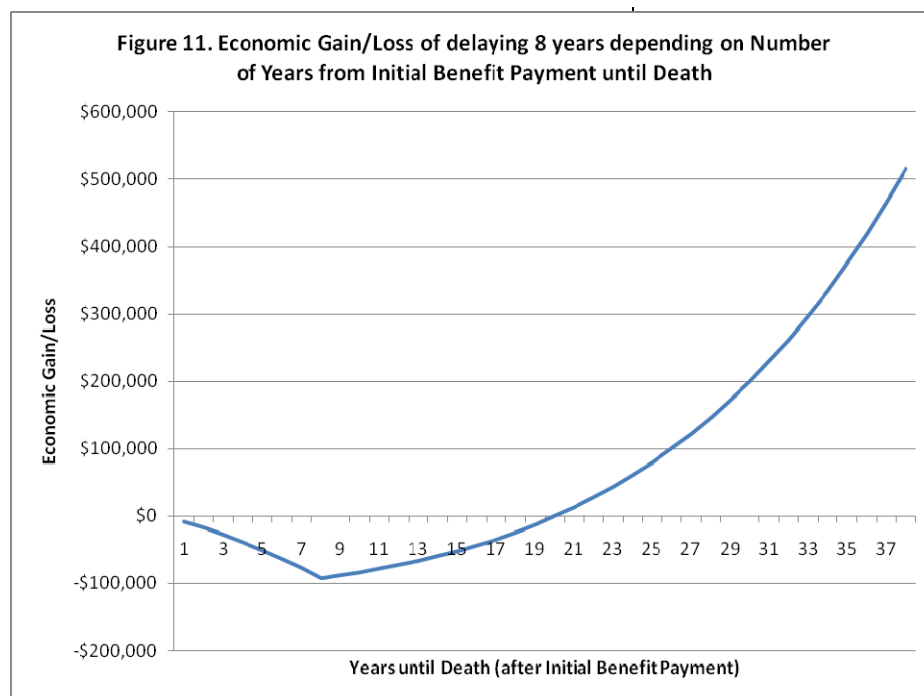
To the extent that the age and benefit details have been determined, and the client will not "automatically" defer benefits because of ongoing employment income before normal retirement age, nor "automatically" begin benefits early due to a significantly shortened life expectancy, the more challenging fourth step begins - to evaluate the prospective tradeoffs between electing benefits early, or delaying benefits with the risk of not living to the breakeven period and the opportunity for wealth creation by living beyond it. First and foremost, this will involve picking a reasonable conservative growth rate as a basis for comparison, as well as an

assumption for inflation. Beyond that, it will involve an evaluation of the client's specific circumstances, including cash flow needs, investment risks, and longevity. Hopefully, the charts in this newsletter will serve as a helpful frame of reference for the likely breakeven points and the potential trade-offs the client faces.

Notably, according to the actuarial tables, a 62-year old male has a life expectancy of approximately 19 years; for a female, the life expectancy is over 22 years. Thus, as long as the client's growth rate is 6% or less, the "average" client with no other adjustments to life expectancy would be anticipated to live at least a few years beyond the breakeven point for a 62-year-old considering early benefits, and thus make it somewhat desirable to delay in the "average" case. For a retiree who actually lives all the way to age 66, the life expectancy is still 16 years for a male, and over 19 years for a female, still leaving the prospective breakeven point as a relatively feasible goal. On the other hand, for a 69 year old considering whether to delay for the last year before age 70, the male life expectancy is only 14 years, while the female life expectancy is only 17 years. As shown earlier in Figure 3, these life expectancies are shorter than the breakeven point for all but the most conservative of growth rates at this age.

Accordingly, while it may be desirable to defer Social Security in the early years, it becomes increasingly risky to continue to defer as the years pass, both because life expectancy itself shortens as the years go by, and also because the client accumulates an increasing amount of funds at risk (the cumulative amount of potentially several years of benefits not received) without yet starting the process of recovering the amount at risk through higher payments.

For instance, Figure 11 (top of next page) shows the wealth at risk and the breakeven point for a 62-year-old who chooses to wait 8 years to begin benefits at age 70. As Figure 11 shows, the compounded amount of risk for deferring a long time can be significant. A death at age 70 would result in an economic loss of nearly \$100,000 worth of foregone benefits and associated growth, and for the client who defers until age 70, the client still needs to live another 12 years to ultimately reach the breakeven point (around age 82). On the other hand, the benefits of longevity when deferring so long are highly significant; for the client who lives to until age 100, over \$500,000 of additional wealth is created, for the risk of having forfeited as much as \$100,000 after the first 8 years. At an 8% growth rate, the breakeven would have extended to 23 years - the client would have to live until age 85 - but could still potentially create more than



financial hardship if insufficient other sources of income or cash flow are available. For a client with a significant amount of accumulated assets, this should not prove to be problematic; however, for clients where Social Security (perhaps along with a pension) is a significant source of retirement income, and there are limited other assets available, earlier Social Security benefits may be considered to help maintain the liquidity of other limited investment accounts.

---

## A Few Caveats

---

\$400,000 of economic value by living to age 100, earned very rapidly in the final years through the compounding impact of growth and ever-increasing benefits after several decades.

In addition, it is very notable that the value created by delaying Social Security turns out to be a highly effective hedge for other risks. To the extent that ultimately, one of the most significant risks to the client's retirement plan is unexpected longevity - i.e., the client lives longer than anticipated and has to fund additional years of retirement - the decision to delay Social Security provides tremendous additional value, at the exact time that it is needed. In addition, to the extent that inflation turns out to be unexpectedly high, delaying Social Security benefits also turns out to be an effective inflation hedge, because the value of delaying increases in higher inflation environments (because of the larger cost-of-living adjustments to the extra benefits received due to delaying). Alternatively, to the extent that the decision to delay is also more beneficial when growth rates are low, the decision to delay also turns out to be an indirect hedge to poor returns in the portfolio (i.e., if growth rates are unfavorable, it will have been good, albeit after the fact, that the client chose to delay to receive higher benefits, rather than receive benefits early that would have been invested at poor rates of return).

On the other hand, it is important to be certain that the client can afford to delay payments - i.e., that delaying Social Security retirement benefits does not cause a

It is important to note that there are a few caveats to the analysis as presented thus far. Most significantly, it should be viewed primarily in the context of a single individual considering whether or not to delay the onset of Social Security retirement benefits. Because of the interaction of retirement benefits with both spousal benefits and widow(er)'s benefits, there are several additional factors that should be incorporated into the decision for one spouse of a married couple to consider delaying Social Security benefits. An analysis of the issues associated with spousal and widow(er)'s benefits are beyond the scope of this month's newsletter, although they are planned to be covered in a future issue.

In addition, taxation has not been addressed at all in this analysis. Social Security benefits have their own unique rules for determining the amount of benefits that will be subject to taxation, and there is significant interplay between the taxation of Social Security benefits and other aspects of the client's planning situation that may create taxable income and affect the taxability of Social Security. An analysis of taxation of Social Security benefits and how they interact with other aspects of the retirement income picture are also beyond the scope of this month's newsletter.

Nonetheless, this newsletter issue should provide a strong basis for the standalone evaluation of the risks, opportunities, and potential positive or negative impact of the decision to begin Social Security retirement



benefits or delay them to receive a higher benefit amount in the future.

---

## Conclusion

---

In the end, the results reveal that living beyond the breakeven point can produce extremely large amounts of additional wealth, relative to the amount the client places at risk. However, delaying the onset of retirement benefits represents a non-trivial immediate risk to the client - the possibility that benefits will be delayed, and that due to an early death little or no higher benefits are ever received, resulting in the outright forfeiture of months or years of Social Security benefits that could have been spent, accumulated, or left as a legacy. The tradeoff is the possibility of receiving a significantly longevity-leveraged payoff for living well past life expectancy, but by definition most clients would not be anticipated to live long enough to enjoy the largest benefits.

Nonetheless, the situations in which delaying Social Security retirement benefits *do* pay off most significantly - extended longevity, high inflation, and low investment returns - are the exact situations when the value is most needed. Consequently, the decision to delay may become more desirable, not merely because the client anticipates living beyond the breakeven point, but because the delay decision provides numerous significant risk management benefits in the exact situations in which they are needed.

### What did you think?

Hopefully you found this latest issue of The Kitces Report to be of value to you. However, since it is produced for you, the reader, we would like to hear from you about how the style, format, and content of the newsletter could be further improved to make it more valuable for you.

Please let us know  
what you think by emailing us at  
[feedback@kitces.com](mailto:feedback@kitces.com)!

Thanks in advance  
for sharing your thoughts!

The publisher of [The Kitces Report](#) takes great care to thoroughly research the information provided in this newsletter to ensure that it is accurate and current. Nonetheless, this newsletter is not intended to provide tax, legal, accounting, financial, or professional advice, and readers are advised to seek out qualified professionals that provide advice on these issues for specific client circumstances. In addition, the publisher cannot guarantee that the information in this newsletter has not been outdated or otherwise rendered incorrect by subsequent new research, legislation, or other changes in law or binding guidance. The publisher of [The Kitces Report](#) shall not have any liability or responsibility to any individual or entity with respect to losses or damages caused or alleged to be caused, directly or indirectly, by the information contained in this newsletter. In addition, any advice, articles, or commentary included in [The Kitces Report](#) do not constitute a tax opinion and are not intended or written to be used, nor can they be used, by any taxpayer for the purpose of avoiding penalties that may be imposed on the taxpayer.