# The Windfall Elimination Provision \& Social Security Benefits: A Case Study 

Stephanie Owings-Edwards, Fort Lewis College, USA

Rick Mull, Fort Lewis College, USA


#### Abstract

This case is appropriate for an introductory financial analysis course, intermediate case study in financial analysis, or any course that is preparing students to take the CFA exam. Because of the policy analysis that is included, it could also be used in a public finance class or an intermediate microeconomics course. It provides a basis for developing an understanding of how Social Security benefits are calculated. The specific focus of the case is on the Windfall Elimination Provision and the calculations which must be made to re-estimate benefits for those who are affected by this provision. The student plays the role of financial advisor. When advising a client about the stream of income which can be anticipated in retirement, it is vitally important to realize that, if the client has worked both as a government employee and in the private sector, the benefits the client will receive from Social Security may be less than what is indicated in the annual Social Security Statement. The policy implications section of the case also points out some of the surprising affects resulting from the structure of the Windfall Elimination Provision. The questions at the end of the case test the students' understanding of the complexities of the system. Depending on the instructor's guidance, students can familiarize themselves with the on-line calculators developed by the Social Security Administration.


## INTRODUCTION

$\longrightarrow$f you are acting as a financial advisor to someone who has worked both as a government employee and in the private sector, you need to be aware that what your client will receive in Social Security benefits may be less than what is indicated on his/her annual statement from Social Security. For many individuals, the difference is very substantial. This discrepancy is due to the Windfall Elimination Provision. Although this law went into affect in 1983, many individuals and their advisors are still unaware of it.

## BASICS

To understand how the Windfall Elimination Provision works, you first need to understand how Social Security benefits are calculated for those who have worked exclusively at jobs that paid into the Social Security system. The Social Security Administration calculates your average monthly earnings, adjusted for inflation, for the 35 years in which you earned the greatest amount. If you only worked for 30 years, the other 5 years will be entered into the formula as zeros. The benefits that you will be paid are based on a formula that more heavily weights initial dollars earned. For instance, a worker who turns 62 in 2007 will receive monthly benefits equal to $90 \%$ of the first $\$ 680$ in averaged indexed monthly earnings plus $32 \%$ of the next $\$ 3,420$ plus, $15 \%$ of anything above $\$ 4,100$. Thus, a 62 year-old retiring this year who earned $\$ 54,000$ per year, on average, in today's dollars, over the course of 35 years, would receive a monthly benefit of $\$ 1,766^{\mathrm{ii}}$. That is, his benefits would be equal to $39 \%$ of his averaged indexed lifetime monthly earnings. If this same individual had only earned $\$ 36,000$ per year, his monthly benefit would be $\$ 1,354^{\mathrm{iii}}$. That is, his benefit would be equal to $45 \%$ of his averaged indexed lifetime monthly earnings. The system is intentionally structured to offer more generous returns to workers who have earned less over their lifetime. This is the type of formula that is used to calculate your estimated benefit in your annual Social Security statement, regardless of what type of employer you worked for.

If you spent part of your working life paying into the Social Security system and part of it working as a public employee ${ }^{\mathrm{iv}}$ in one of the 15 states where public employees do not pay Social Security taxes, ${ }^{\mathrm{v}}$ the above formula generally overestimates what you will receive in Social Security benefits. You know you have not paid into the Social Security system if your annual statement lists your Social Security earnings as zero for a year in which you worked. ${ }^{\text {vi }}$ Under these circumstances, in order to estimate what you will receive in Social Security benefits, you must calculate how many years of "substantial" Social Security earnings you have accumulated.

In Table 1, the substantial earnings column lists the minimum dollar value of annual Social Security earnings that an individual must have amassed in order for that year's work to qualify. For instance, if you look at the annual statement that Social Security sends you and find that your taxed Social Security earnings in 1981 were more than $\$ 5,550$, then 1981 counts as a substantial earnings year.

The fewer years of substantial earnings that you accumulated, the lower your actual Social Security benefits will be. To determine the size of benefits for those who have worked for employers who do not pay into the Social Security system, the first bracket of averaged, indexed, monthly income, based on an individual's Social Security earnings, will be multiplied by less than $90 \%$. How much less depends on how many years of substantial earnings you have accumulated. For instance, a worker who turns 62 in 2007 and who had fewer than 20 years of substantial earnings will receive a monthly benefit equal to $40 \%$ of the first $\$ 680$ of averaged-indexed earnings plus $32 \%$ of the next $\$ 3,420$ plus $15 \%$ of anything above $\$ 4,100$. Thus a worker who averaged, over the course of 35 years, $\$ 36,000$ per year in earnings at jobs which paid Social Security taxes ${ }^{\text {vii }}$ would receive a monthly benefit equal to $\$ 1,014$. ${ }^{\text {vii }}$ That is $25 \%$ less than what the person's annual Social Security statement would indicate.

Table 1

| Year | Substantial <br> Earnings | Minimum Annual Earnings <br> For 4 Quarter's Credits | Year | Substantial <br> Earnings | Minimum Annual Earnings For <br> 4 Quarter's Credits |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1978 | $\$ 4,425$ | $\$ 1,000$ | 1993 | $\$ 10,725$ | $\$ 2,360$ |
| 1979 | $\$ 4,725$ | $\$ 1,040$ | 1994 | $\$ 11,250$ | $\$ 2,480$ |
| 1980 | $\$ 5,100$ | $\$ 1,160$ | 1995 | $\$ 11,325$ | $\$ 2,520$ |
| 1981 | $\$ 5,550$ | $\$ 1,240$ | 1996 | $\$ 11,625$ | $\$ 2,560$ |
| 1982 | $\$ 6,075$ | $\$ 1,360$ | 1997 | $\$ 12,150$ | $\$ 2,680$ |
| 1983 | $\$ 6,675$ | $\$ 1,480$ | 1998 | $\$ 12,675$ | $\$ 2,800$ |
| 1984 | $\$ 7,050$ | $\$ 1,560$ | 1999 | $\$ 13,425$ | $\$ 2,960$ |
| 1985 | $\$ 7,425$ | $\$ 1,640$ | 2000 | $\$ 14,175$ | $\$ 3,120$ |
| 1086 | $\$ 7,875$ | $\$ 1,760$ | 2001 | $\$ 14,925$ | $\$ 3,320$ |
| 1987 | $\$ 8,175$ | $\$ 1,840$ | 2002 | $\$ 15,750$ | $\$ 3,480$ |
| 1988 | $\$ 8,400$ | $\$ 1,880$ | 2003 | $\$ 16,125$ | $\$ 3,560$ |
| 1989 | $\$ 8,925$ | $\$ 2,000$ | 2004 | $\$ 16,275$ | $\$ 3,600$ |
| 1990 | $\$ 9,525$ | $\$ 2,080$ | 2005 | $\$ 16,725$ | $\$ 3,680$ |
| 1991 | $\$ 9,900$ | $\$ 2,280$ | 2006 | $\$ 17,475$ | $\$ 3,880$ |
| 1992 | $\$ 10,350$ |  | 2007 | $\$ 18,150$ | $\$ 4,000$ |

If you have 30 years or more of substantial earnings and have also worked for an employer who did not collect Social Security taxes there should be no difference between what you will receive in benefits and what your annual statement indicates that you will receive. However, do not confuse earnings that are high enough to qualify as one of the 40 quarters necessary to be eligible for Social Security with substantial earnings. The "Minimum Annual Earnings For 4 Quarter's Credits" column of Table 1 lists the minimum dollar value of annual earnings necessary for Social Security eligibility. Note that in every year, substantial earnings are more than four times greater than the minimum earnings required to qualify for Social Security.

If you only briefly worked for a non-contributing employer, the $50 \%$ rule may benefit you. The reduction in your Social Security benefit cannot be more than $50 \%$ of the pension from your non-contributing employer. If you paid into a defined contribution plan rather than a defined benefit plan, or if you received a lump-sum payment when you stopped working for your non-contributing employer, Social Security will impute a pension value for you. This
calculation will be based on your expected lifespan at retirement. As an approximation, consult the Department of Health and Human Services' National Vital Statistics Report. They report that a white woman, now 45 years-old, has a life expectancy of 82 years. If this 45 year-old retired at age 67 , then she would expect to spend 15 years in retirement. The lump sum received from the non-contributing employer would be spread over these 15 years.

You may be thinking you can skirt all of this by simply collecting a Social Security benefit based on your spouse's work. Generally speaking, a spouse can collect $50 \%$ of his or her partner's benefit. However, the Government Pension Offset requires that, for state employees, the spousal benefit be reduced by an amount equal to two-thirds of the state pension. ${ }^{\text {ix }}$ If you will not draw a pension but received a lump-sum benefit when you terminated employment from the state, the Social Security administration will impute a pension value for you. So, if your spouse has a monthly Social Security benefit of $\$ 1000$ and the monthly value of your state pension is calculated to be $\$ 750$ then you are not entitled to any spousal Social Security benefit. ${ }^{\mathrm{x}}$

## POLICY IMPLICATIONS

Table 2 lists the Social Security earnings history of two potential clients, (Individual A and Individual B):

Table 2

| Year | Individual A <br> Earnings | Individual B <br> Earnings | Year | Individual A <br> Earnings | Individual B <br> Earnings |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | $\$ 484$ | $\$ 0$ | 1994 | $\$ 32,849$ | $\$ 80,000$ |
| 1982 | $\$ 0$ | $\$ 0$ | 1995 | $\$ 32,714$ | $\$ 80,000$ |
| 1983 | $\$ 0$ | $\$ 0$ | 1996 | $\$ 37,991$ | $\$ 80,000$ |
| 1984 | $\$ 0$ | $\$ 0$ | 1997 | $\$ 40,423$ | $\$ 80,000$ |
| 1985 | $\$ 1,864$ | $\$ 0$ | 1998 | $\$ 44,260$ | $\$ 80,000$ |
| 1986 | $\$ 4,782$ | $\$ 0$ | 1999 | $\$ 72,600$ | $\$ 80,000$ |
| 1987 | $\$ 6,236$ | $\$ 0$ | 2000 | $\$ 19,908$ | $\$ 80,000$ |
| 1988 | $\$ 11,698$ | $\$ 80,000$ | 2001 | $\$ 1,400$ | $\$ 0$ |
| 1989 | $\$ 25,172$ | $\$ 80,000$ | 2002 | $\$ 0$ | $\$ 0$ |
| 1990 | $\$ 25,334$ | $\$ 80,000$ | 2003 | $\$ 0$ | $\$ 0$ |
| 1991 | $\$ 25,595$ | $\$ 80,000$ | 2004 | $\$ 0$ | $\$ 0$ |
| 1992 | $\$ 24,750$ | $\$ 80,000$ | 2005 | $\$ 0$ | $\$ 0$ |
| 1993 | $\$ 23,460$ | $\$ 80,000$ | 2006 | $\$ 0$ | $\$ 0$ |

These individuals are similar in many respects. They both will retire at age 67. They both initially worked for employers who paid into the Social Security system but now work for non-contributing employers and anticipate continuing to do so until retirement. They both anticipate a monthly pension from the non-contributing employer that makes the $50 \%$ rule irrelevant. All of their 13 years of substantial earnings occurred in identical years. However, one individual consistently worked at low paying jobs. The other had earnings which always exceeded the maximum taxable level for Social Security. Using the basic version of on-line calculator at the Social Security web site ${ }^{\mathrm{xi}}$, we determine that Individual A would receive statements from Social Security that lead him/her to anticipate a monthly benefit of $\$ 881$ upon retirement. Individual B would receive statements that lead him/her to anticipate a monthly benefit of $\$ 1,280$. However, these numbers are incorrect. The actual monthly benefits that these individuals can anticipate receiving are calculated using the WEP version of the on-line calculator. This yields a monthly benefit for Individual A of $\$ 541$ \& a monthly benefit for Individual B of $\$ 940$. For Individual A, there is a $39 \%$ decrease between the amount (s)he anticipates receiving from Social Security, based on the annual statement, and the actual amount (s)he will receive. For Individual B, it is a $27 \%$ decline.

Comparing these two individuals reveals that the percent reduction in the Social Security benefit resulting from the Windfall Elimination Provision is much greater for the low earner than the high earner. Because the Windfall Elimination Provision reduces benefits by the same dollar amount (\$340) for the high earner and lower earner it results in a much larger decrease in the living standard of the low earner. The low earner will see his/her

Social Security benefit fall by $39 \%$ whereas the high earner will see his/her Social Security benefits fall by only $27 \%$. This is a peculiar thing. The general formula the Social Security Administration has developed to calculate benefits is specifically structured such that "lower-paid workers get a higher return than highly paid workers."xii That is, there is a social redistribution component to Social Security. However, for workers who are affected by the Windfall Elimination Provision, the low paid workers are the ones who are most adversely impacted. If the Windfall Elimination Provision formula was restructured such that all brackets were reduced by the same percent then both high and low earners would be affected identically. ${ }^{\text {xiii }}$ Or, if the social redistribution component was to be preserved, the higher earnings brackets could be reduced by a greater percentage than the lower brackets. ${ }^{\text {xiv }}$ Further refinements of the formula could take into account earnings on a year-by-year basis rather than averaged over a 35 year span. This would prevent those who worked only a few years but who had high earnings in those years from appearing to have low wages. ${ }^{\mathrm{xv}}$

Table 3 contrasts two individuals both of whom have worked at jobs where they paid into Social Security for 30 years.

Table 3

| Year | Earnings <br> Individual $\mathbf{C}$ | Earnings <br> Individual $\mathbf{D}$ | Year | Earnings <br> Individual C | Earnings <br> Individual D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1965 | $\$ 1,200$ | $\$ 1,199$ | 1981 | $\$ 5,550$ | $\$ 5,549$ |
| 1966 | $\$ 1,650$ | $\$ 1,649$ | 1982 | $\$ 6,075$ | $\$ 6,074$ |
| 1967 | $\$ 1,650$ | $\$ 1,649$ | 1983 | $\$ 6,675$ | $\$ 6,674$ |
| 1968 | $\$ 1,950$ | $\$ 1,949$ | 1984 | $\$ 7,050$ | $\$ 7,049$ |
| 1969 | $\$ 1,950$ | $\$ 1,949$ | 1985 | $\$ 7,425$ | $\$ 7,424$ |
| 1970 | $\$ 1,950$ | $\$ 1,949$ | 1986 | $\$ 7,875$ | $\$ 7,874$ |
| 1971 | $\$ 1,950$ | $\$ 1,949$ | 1987 | $\$ 8,175$ | $\$ 8,174$ |
| 1972 | $\$ 2,250$ | $\$ 2,249$ | 1988 | $\$ 8,400$ | $\$ 8,399$ |
| 1973 | $\$ 2,700$ | $\$ 2,699$ | 1989 | $\$ 8,925$ | $\$ 8,924$ |
| 1974 | $\$ 3,300$ | $\$ 3,299$ | 1990 | $\$ 9,525$ | $\$ 9,524$ |
| 1975 | $\$ 3,525$ | $\$ 3,524$ | 1991 | $\$ 9,990$ | $\$ 9,989$ |
| 1976 | $\$ 3,825$ | $\$ 3,824$ | 1992 | $\$ 10,350$ | $\$ 10,349$ |
| 1977 | $\$ 4,125$ | $\$ 4,124$ | 1993 | $\$ 10,725$ | $\$ 10,724$ |
| 1978 | $\$ 4,425$ | $\$ 4,424$ | 1994 | $\$ 11,250$ | $\$ 11,249$ |
| 1979 | $\$ 4,725$ | $\$ 4,724$ | 1995 | $\$ 11,325$ | $\$ 11,324$ |
| 1980 | $\$ 5,100$ | $\$ 5,099$ |  |  |  |

These individuals are almost identical. Both were born in 1945 and will retire at age 62. In 1996 they both began working for a non-contributing employer. Both anticipate a pension from their non-contributing employer which is large enough that they are unaffected by the $50 \%$ rule. The only difference between these two individuals is that one has always made $\$ 1$ less than the minimum cut-off for substantial earnings. Thus, there is only a $\$ 30$ difference in their total Social Security earnings. This means the poorer of the two paid about $\$ 1.86^{\mathrm{xvi}}$ less in Social Security taxes over his working lifetime. Using the basic version of the on-line calculator, we determine that Individual C could anticipate monthly benefits from Social Security of \$559. However, Individual D, although he will receive statements indicating that he will receive monthly benefits of $\$ 559$, will in fact receive only $\$ 303$ in benefits/month. That is a $46 \%$ reduction in benefits resulting from a $0.017 \%$ difference in earnings. This comparison emphasizes how distorting it can be to have a specific dollar cut-off for substantial earnings. A graduated scale could address this problem.

## CONCLUSION

For those who are acting as financial advisors for clients who worked for multiple employers, at least one of whom did and did not pay into the Social Security system, it is vitally important to be aware of the Windfall

Elimination Provision. As a financial consultant, you must be able to explain the effects of the provision on the stream of payments your client can rely upon during his/her retirement.

## TEACHING NOTES:

- Consider a client who has worked both for employers who paid Social Security taxes and for those who do not pay into the system. This client has 15 years of substantial earnings. In 2005, he is considering taking a part-time job which accesses Social Security taxes and will pay him \$5,000 (gross). Will this job increase his Social Security benefits? Explain.
- It will increase his Social Security benefits even though it will not count as a year of substantial earnings, IF it increases his average monthly earnings. Remember that average monthly earnings are based on the 35 years in which you earned the greatest amount. If the $\$ 5000$ in earnings replaces a zero (a year in which the individual did no work which was taxed as Social Security income) then his average will rise.
- Consider a client who has worked for employers who paid Social Security taxes and those who do not pay into the system. This client has 15 years of substantial earnings. In 2005, he is considering taking a parttime job which accesses Social Security taxes and will pay him $\$ 5,000$ (gross). The client's 35 -year earnings history has some years where he worked exclusively for employers who did not pay into the Social Security system. Assuming a Social Security tax rate of $6.2 \%$, if your client sees his average monthly earnings increase in the $32 \%$ bracket as a result of this job, approximately how long will it take him to simply recover the Social Security taxes he will pay on his $\$ 5,000$ in earnings?
- $\$ 5,000 /$ per year $=\$ 416.67 /$ month
- $\$ 416.67 / 35$ years $=\$ 11.90 /$ month in average earnings
- $\$ 11.90^{*} .32=\$ 3.81=$ increase in monthly benefits
- Annual benefits will increase by $(\$ 3.81)(12)=\$ 45.71$
- Social Security taxes $=\$ 5000(.062)=\$ 310$
- $\$ 310 / \$ 45.71=6.78$ years to recover taxes
- Note that this calculation does not consider interest
- Consider a client who has worked for 8 years for a non-contributing employer. He has 120 quarters of Social Security earnings. However, in three of the years where he worked for employers who paid into the Social Security system, he was paid less than the minimum level of substantial earnings. He will turn 62 in 2007 and intends to retire. His averaged, indexed, monthly earnings from jobs where he paid Social Security taxes, over the highest paying 35 years of his working lifespan, are $\$ 4,500$. How much should the client expect to receive in Social Security benefits? How much does his annual Social Security statement indicate he will receive in benefits? How low would his monthly pension from the non-contributing employer need to be for his benefits to be affected by the fifty-percent rule?
- $(.75)(\$ 680)+(.32)(\$ 3420)+(.15)(\$ 400)=\$ 1664.40=$ benefits client should expect
- $(.90)(\$ 680)+(.32)(\$ 3420)+(.15)(\$ 400)=\$ 1766.40=$ benefits on SS statement
- The current reduction in benefits is equal to $\$ 102$. Thus, if his pension from the non-contributing employer was less than $\$ 204$ then his benefits will be greater than $\$ 1664.40$.


## REFERENCES

1. Estimating the Social Security Windfall Elimination Provision's Impact on Clients. Richard Mason, John R. Mills, Brian Ferrell. Journal of Financial Planning. Dec., 2005.
2. Social Security Offsets: Policies Public Employees Love to Hate and Don’t Understand. Thomas Margenau. Benefits \& Compensation Digest. May, 2007.

## End Notes:

[^0][^1]
[^0]:    ${ }^{1}$ Thanks to Mike Ringer of the Durango Social Security office for his valuable insights \& explanations. Any errors should be attributed to the authors.
    ii $\$ 54,000$ per year $=\$ 4500$ per month; $(.9)(\$ 680)+(.32)(\$ 3420)+(.15)(\$ 400)=\$ 1766.40 ; \$ 680+\$ 3420+\$ 400=\$ 4500$
    iii $\$ 36,000$ per year $=\$ 3000$ per month; $(.9)(\$ 680)+(.32)(\$ 2320)=\$ 1354.40 ; \$ 2320+\$ 680=\$ 3000$

[^1]:    ${ }^{\text {iv }}$ "public employee" can refer to state, county, municipal and city workers
    ${ }^{\mathrm{v}}$ The states where some or all public employees do not pay Social Security taxes are: Alaska, California, Colorado, Connecticut, Georgia, Illinois, Louisiana, Kentucky, Maine, Massachusetts, Missouri, Nevada, Ohio, Rhode Island, Texas (Journal of Financial Planning, Dec. 2005)
    ${ }^{\text {vi }}$ The exception to this would be if an individual has SSA wages which were earned but not recorded
    vii Remember, if the individual works 35 years or less and there are years where the individual had no taxed Social Security earnings, those years will be entered as zeros. That is, the absence of taxed Social Security earnings will significantly decrease the monthly average.
    viii $\$ 36,000$ per year $=\$ 3000$ per month; $(.4)(\$ 680)+.32(\$ 2320)=\$ 1014.40$
    ${ }^{\text {ix }}$ Note that if both husband and wife have worked at jobs which collected Social Security taxes, the spousal benefit is offset by the size of the earned Social Security benefit
    ${ }^{\mathrm{x}}(\$ 1000)(.50)=\$ 500=$ spousal benefit if spouse has no pension; $(2 / 3)(\$ 750)=\$ 500=$ amount by which Social Security spousal benefit will be reduced
    ${ }^{\text {xi }}$ Mason, Mills \& Ferrell have compared the results of working with these online calculators with the results from a downloadable detailed calculator provided by Social Security and find them to be very similar
    ${ }^{\text {xii }}$ SSA Publication \#05-10045
    ${ }^{\text {xiii }}$ For instance, for someone reaching full retirement age in 2007, the brackets are $90 \%, 32 \%$ and $15 \%$. If the Windfall Elimination Provision reduced all brackets by $20 \%$ then the new brackets would be $72 \%, 25.6 \%$ and $12 \%$. This change would reduce benefits to all individuals who worked outside of the Social Security system by an identical $20 \%$.
    ${ }^{\text {xiv }}$ For instance, for someone reaching full retirement age in 2007 the brackets are $90 \%, 32 \%$ and $15 \%$. If the Windfall Elimination Provision reduced the first bracket by $20 \%$, the next bracket by $50 \%$ and the highest bracket by $80 \%$ then the new brackets would be $72 \%, 16 \%$ and $3 \%$. Someone with averaged indexed monthly earnings of $\$ 4500$ would see his benefit fall by $41 \%$ as a result of the Windfall Elimination Provision while someone would averaged indexed monthly earnings of $\$ 3000$ would see her benefit fall by $36 \%$ as a result of the Windfall Elimination Provision.
    ${ }^{\mathrm{xv}}$ Someone who had two years of Social Security earnings worth $\$ 80,000 /$ year will appear to have a lower monthly income than someone who had 10 years of Social Security earnings worth $\$ 25,000 /$ year since the earnings are averaged over 35 years.
    xvi $\$ 1.86=(.062)(\$ 30)$

