

# Planning Templates

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Excel-Based Financial Planning Tools  
[www.Planningtemplates.com](http://www.Planningtemplates.com)

Explanation Notes  
Advisor Version 2005.01c

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Advisor Version 2005.01c Explanation Notes  
Planningtemplates.com

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## Overview – Version 2005.01c

Some Planning Templates workbooks may contain macros (sub-programs). To insure that the file will open with all macros functioning, in the Excel program go to Tools>Macros>Security> then select “Medium”. Close the Excel file and reopen. Once your security setting is set to medium, when opening the Planning Templates file you will be greeted with a window that invites the user to choose what to do with the macros. Select “**Enable Macros**” and the file will open with all macros functioning.

Once the file has been opened you can navigate from module to module by selecting the appropriate worksheet tab at the bottom of the screen. It also may be necessary to adjust the security level in your Excel program

Each module or spreadsheet is set up so that data may be entered only in appropriate cells. All other **cells are locked**. We have not offered the Planning Templates files in an unlocked fashion. We have taken this position in an effort to protect our work as well as to maintain a level of control over the results achieved by a product with the Planning Templates, Inc. name on it. That said, many of the cell labels have been unlocked to allow some flexibility in renaming some of the cells.

To move between the data entry cells simply click on the desired cell or use the tab key to cause the cursor to advance to another data entry cell. **Most data entry cell characters appear in dark red** unless otherwise noted in the spreadsheet file. The characters for most calculated numbers will be **blue** or **black**.

What if you see “#NAME?” in some of the formula cells? The following will likely resolve the problem: Some of the spreadsheets contain formulas/functions that the basic Excel installation cannot recognize. To remedy this problem from the menu list (top of the page) in Excel select Tools>Add-ins, then check the “Analysis Toolpak” then select OK... If Excel prompts you to insert your installation disk, simply do so and follow the instructions... You should then be able to close the file and reopen... the file should then function properly...

To **maximize the viewing area** on the screen while using the spreadsheets, select the “view” pull-down menu at the top of the screen and then select “full screen”. To reverse this setting, repeat the same sequence.

**Planningtemplates.com References:** All spreadsheets have **www.planningtemplates.com** references on them, however it is possible in the Advisor Version to turn these references off if you wish. To **turn the “.com” references off** go to the Overview spreadsheet (far left tab) in the Advisor workbook, scroll to the bottom of the page and select the check box.

## Coversheet - Version 2005.01c

The worksheet exists to allow a financial advisor the ability to prepare a financial analysis report coversheet with client and advisor information in the first page. **Entering the client name on the coversheet in the “client name” cell will transpose the client name to all spreadsheets.**

## Financial Foundations Outline — Version 2005.01c

The Financial Foundations chart is a prioritized outline that shows all of the areas of the financial planning process. Start at the bottom of the chart with **step one** by beginning to properly manage cash flow. In **step two** establish a cash reserve and put adequate insurance coverage in place. In **step three** begin to look to the future by accumulating wealth. **Step four** addresses estate planning and business planning issues.

This outline is **not** intended to be an exhaustive list of items that could be in each category, but rather a representative listing to give general category guidelines.

## Net Worth Statement — Version 2005.01c

All data entry cell characters are shown in dark red.

Net worth is a measure of the value of an estate. It is the value of what is owned, less the value of what is owed. To figure your net worth using the calculator enter the total value of what is owned and the value of what is owed, in each category listed. The Net Worth Calculator indicates the percentage of the total that each category represents and the calculator provides a total net worth figure.

Net Worth Graph: The second page in this model is a view of the net worth information entered on the first page presented in a graph. These graphs will update as data is entered in the model. The graphs are left in an unlocked position to allow the user to make label position adjustments if necessary, to improve on the presentation. To adjust the position of any label, simply click on the label and drag it to a more favorable position.

Most of the label cells have been left unlocked to enable the user to modify as needed.

## Budget Worksheet — Version 2005.01c

All data entry cell characters are shown in dark red.

The Budget Worksheet is designed to assist in planning monthly spending.

Begin at the top by indicating the number of paychecks you and your spouse receive each year. If paid every two weeks put 26, if you are paid twice-monthly put 24 in the cell, etc. After that, enter total pay before anything is taken out for taxes or any other withholding. Next, list all of the things that are withheld from each paycheck. The calculator should then indicate take home pay. As this data entry for each paycheck(s), the calculator totals your combined monthly and annual pay.

In the bottom section of the worksheet enter all of the monthly expenses. The Calculator then indicates how that number breaks down into a weekly and an annual number. It also indicates the percentage that each category is of the total pay. The bottom section keeps a running total of the expenses entered at the top of the expense column. If the expenses

entered ever total more than the take home pay a warning message will appear at the top of this section saying "Exceeds your take home pay." If this occurs, reduce some of your monthly expense entries.

In the upper right hand corner of the calculator indicate the number of months of cash reserve needed. The calculator then multiplies take home pay by the number of months.

Budget Worksheet Graph: The third page in this model offers a graphical view of the budget worksheet information entered on the first page. These graphs will update as data is entered in the model. The graphs are left in an unlocked position to allow the user to make label position adjustments if necessary, to improve on the presentation. To adjust the position of any label, simply click on the label and drag it to a more favorable position.

Most of the label cells have been left unlocked to enable the user to modify as needed.

## **Life Insurance Calculator Expanded**— Version 2005.01c

All data entry cell characters are shown in dark red.

The life insurance calculator will help determine how much life insurance is needed, relative to what the family will want to accomplish in the event of an untimely death. Answer the questions and the calculator indicates the appropriate amount of life insurance. Two life insurance models have been included in the advisor version to allow for "his & hers" capability.

### **Data Entry:**

Inflation assumption: This determines how much the survivor's income will need to increase each year to account for the increase in the cost of living. 3% - 4% is a safe range.

Investment Rate of Return: Indicate the rate of return assumed that the invested insurance benefits will achieve each year to create the survivor's annual income.

Final Expenses: Indicate here what it is assumed funeral and related expenses will cost.

Debts to be paid off: Self-explanatory. List a total number.

Retirement Assets to be liquidated: Usually (but not always) at someone's death, any retirement assets they possess (401K plan, Etc.) will be cashed out, and the proceeds become part of the money available to meet the family's needs. Indicate here the amount if any that will remain from retirement accounts after any applicable taxes have been taken out.

Other Financial Goals to Be Funded: This is a catchall. If you desire a survivor to purchase a new car, for example, indicate the price of such a goal here.

Survivor's Income need: How much income each year do the insurance proceeds need to provide? List that income number in today's dollars here.

Survivor's age: List the survivor's current age.

Survivor Needs Income Until?: List here the age through which an income stream from the insurance proceeds will be needed. This doesn't have to be for the survivor's entire life if it is possible that another income source will be available at some point.

Extra Income while children are dependent: Put here any extra income it is assumed survivors will need during the time they still live at home. This assumes a fixed amount (although inflated each year).

Last child leaves home in \_\_\_\_ Years: This is for indicating how long the supplemental income for the children will need to last.

Lump Sum needed to fund child's education: Create these numbers in the Education planner. This is the total amount of money, which if invested today at an assumed rate of return, will grow enough to totally fund that child's education.

Existing Coverage: On the upper right side of the spreadsheet you can list the current coverage in place. The model then subtracts current coverage from the total insurance need to determine the additional coverage need.

Life Insurance Spending/Investment Plan: This section is an outline of how the insurance money is to be allocated. It will show what is to be spent now and for what purpose. It will indicate what is to be invested to generate the survivor and dependent income streams. This will remove the mystery surrounding how the insurance money is to be used.

Set Print Range to First Page Only & Set Print Range to include Survivor Schedule Buttons: These buttons are included to make life easier. They set the print ranges without your having to know the necessary keystrokes.

Survivor's Income Schedule: This section outlines year-by-year income to be withdrawn from the investment pool to fund the survivors' living expenses.

The life insurance calculator print out should be placed in the front cover of the policy it represents. This provides an excellent set of marching orders for the surviving family.

## Education Planners — Version 2005.01c

All data entry cell characters are shown in dark red.

The Advisor Version contains three education planners. The first education spreadsheet that is intended to allow the user to illustrate educational costs for an individual child. The other two spreadsheets will allow you to enter up to four children at a time.

Data Entry:

Student's Name: Enter the student's name.

Student's Birthdate: Enter the student's date of birth.

Month of year in which school starts: This entry is for the purpose of establishing the point in each year at which you wish to have funds available for educational expenses at beginning of each academic school year. Most education institutions begin in August, so it is likely that you will typically enter 8 (for August) in this cell. This value will be transposed to the other columns for the multi-child education worksheets so all columns use the same start month point of reference.

Year in which school starts: Enter the start year of the student's school experience. You can enter a separate start year for all columns on the worksheet. In the case where a student is already in school, you will simply enter the year of the beginning of the next academic year.

Years of School: Enter the number of academic years for which you are planning.

Systematic Saving Through What Date: Enter the date through which you expect the saving contributions to be made.

Inflation Assumption: Enter the assumed inflation rate of education costs.

Investment Earning Assumption: Enter the assumed investment earning assumption.

Annual Education Costs (Today's Dollars): Enter in today's dollars the total cost of one academic year.

Current Savings Balance Allocated to Goal: Enter any savings currently allocated for educational costs for each respective child.

The model then calculates the monthly savings needed to achieve the goal, as well as what lump sum in addition to the current savings would satisfy the savings need. Annual education costs in future dollars are displayed in the bottom section of the worksheet.

## Accumulation Goal — Version 2005.01c

All data entry cell characters are shown in dark red.

The accumulation calculator is designed to help you save to pay cash for a specific purchase. For example, assume the goal of paying cash for an item that costs \$5000 in today's dollars.

Data Entry:

Beginning Deposit: Indicate here any money saved or designated for this purpose. In the example \$1000 is in the account already.

Assumed rate of return: Indicate here the investment rate of return desired for this savings goal. It is wise to use the return expected to be achieved after any investment fees or taxes are extracted.

Goal in today's Dollars: Enter here the cost of the item to be purchased, in today's dollars.

Years for savings: Enter the number of years before the purchase is made.

Inflation Assumption: Indicate the inflation rate you assume will be experience over the specified time frame of this savings goal.

Payments at Beginning/End of Period: Use the pull-down menu to select whether the periodic payment will occur at the beginning of the period or at the end of the payment period. If this makes no sense to you, select beginning and move on.

The calculator then tells what the item will actually cost at the end of the savings period, and how much is needed to save each month to reach the (inflated) goal.

## Future Value of Savings — Version 2005.01c

All data entry cell characters are shown in dark red.

This calculator is designed to help you know what your savings will be worth in the future taking into account an assumed rate of return on your investment.

Data Entry:

Beginning Deposit: Enter here any money you have on hand now, that is designated for this goal.

Periodic payments: Enter here the dollar amount of any periodic additions you expect add to this account.

Payments at Beginning/End of Period: Use the pull-down menu to select whether the periodic payment will happen at the beginning of the period or at the end of the payment period. If this makes no sense to you, select beginning and move on.

Frequency of Payments: Use the pull-down menu to indicate the frequency of the periodic additions to the account.

Number of years: Enter here the number of years savings will be allowed.

The calculator then tells how much money will be in the account after the specified number of years.

## **Retirement #1** – Version 2005.01c

All data entry cell characters are shown in dark red.

This calculator examines the retirement savings, or accumulation phase, and then looks at how long the money will last through the distribution, or retirement phase. This calculator can produce a 5-page report including a graphical view. Most of the information is provided on the first two pages of the report. Pages 3 and 4 provide additional detail. Page 5 is a graphical view that shows the life of the investment portfolio and the various retirement income sources.

### **Data Entry:**

#### **Accumulation Phase**

This phase looks at the period from now, until retirement. During this phase money will be accumulating to provide income in retirement. This calculator is designed with the individual in mind who has a retirement savings plan where some of his earnings will be deferred into the plan and the employer may be matching some of the contributions. It is assumed that the contributions entered occur throughout the entire accumulation period.

### **Data Entry:**

Annual Pay: Enter the total annual income for you and your spouse (on the right side of the top section).

% of pay Contributed: Enter the percentage of your annual income directed to the savings plan. Also enter the percent of your income that your employer is contributing to the plan by way of matching dollars.

Rate of Return: This is the earnings rate which can be assumed on your savings plan investment. The user can assume a different rate for each spouse.

Contributions/ Year: Use the pull-down menus to indicate the frequency of the contributions to the plan. Do so for employee as well as employer contributions. It is

assumed for the purposes of this model that these contributions will continue each year of the accumulation phase, up to the beginning of the distribution phase.

Current Age: Enter here your current age. This is simply to allow the model to identify your age at the beginning of your retirement period.

Current Year: List the current calendar year.

Years to Distribution Phase: Enter the number of years savings will be contributed for retirement. This marks the end of the accumulation phase and the beginning of the distribution phase. However, the model allows specifying a later age to begin various retirement cash flows.

Beginning Age at Distribution Phase: The model calculates your age at the beginning of the distribution phase.

Year at beginning of the Distribution Phase: The model calculates the calendar year at the beginning of the distribution phase.

Cost of living raise: This entry is to accommodate an annual increase in the amount being contributed to the plan (as well as increases in the annual investment withdrawals in the distribution phase). If, for example 5% of your annual pay is contributed to the plan, and you assume that your income will increase each year by a certain percentage, this entry causes your 5% annual contribution to grow proportionate to your pay increase.

Beginning Investment Balance: Enter here any money which is currently accumulated in all of your retirement accounts combined. Enter a value on the right side if your spouse also has money set aside in a retirement savings plan.

The remaining part of the top section of this calculator summarizes your contributions to the plan in the current year and the future value of your beginning balances to the plans, your contributions, and your employer's contributions. The total amount at retirement value is the total cumulative amount you will have at the specified retirement age from all sources. Next to the total amount at retirement enter an inflation rate and the calculator will show what your future retirement nest egg is worth in today's dollars.

## **Retirement Distribution Phase**

This section carries your retirement nest egg value calculated in the top section down to the retirement phase. This section evaluates how long your money will last as withdrawals are made from the investments. This section also considers the fact that your total retirement income may include several different sources.

### **Data Entry:**

Investment Return Net of Expenses: Enter the investment rate of return it is to assumed your money will earn during retirement, after any fees and expenses. Some people will want to assume a more conservative return rate in this phase of their financial life.

Beginning Investment Balance: The model carries to this section the total amount of investment assets accumulated in the first section of the model. This is the amount from which investment income will be withdrawn.

Next, are several columns outlining the parameters of the pension, and Social Security and any earned income cash flows. The model also allows specifying the actual start ages for each person's pension, social security, as well as beginning and ending ages for any earned income. In the far right column you will specify the target income (in today's dollars) from all income sources. Then the model considers all fixed income sources first and calculates the portfolio withdrawal as a residual amount needed to bring the income level up to the income target. (To help you see what the calculator is doing you may want to make all of the cost of living raise cells 0% and enter a round number in the target income cell).

Social Security Benefit Amount: for assistance in calculating an approximate amount of any appropriate Social Security retirement benefit to enter in the Retirement #1 model, consider using the quick Social Security calculator available at <http://www.ssa.gov/>.

Indicate the following for both people for Investment, Pension & Social Security and earned income cash flows:

Dollar Amount: Indicate the amount in today's dollars of the annual withdrawal from investments.

Starting Age: Indicate the age at which each respective income source will start.

Ending Age: Enter ending age for earned income only.

Annual Cost of Living Raise: Indicate the inflation factor can be assumed. This will increase the cash flow for each respective column.

Target Income All Sources: Enter the overall target income from all sources in today's dollars.

Below the distribution data entry section the calculator then shows the ages and year through which the investment account lasts.

**Following this data entry page you will see the following:**

Retirement Distribution Cash Flow page: This is a composite view of all of the cash flows combined.

Pension & Social Security Withdrawal Detail: Outlines the detail of his and hers pension & social security cash flow.

Earned Income in Retirement & Income Target: Outlines the detail of his and hers earned income and income target for each year.

Retirement Distribution Graphical View: This page has two graphs on it. The first is a picture of your investment portfolio's value through the distribution phase. The second pictures the combined retirement income sources. Both of the graphs are aligned so that when the investment portfolio is eliminated, the investment income source is also. In the middle of the page the ages at which the portfolio is exhausted is shown.

In planning it is wise to take into account a worst-case situation. Therefore this calculator is built to withdraw money from your nest egg as a lump sum at the beginning of each year.

## **Retirement #2 With Long Term Care** — Version 2005.01c

All data entry cell characters are shown in dark red.

This retirement calculator is for someone who is already retired since there is no accumulation phase. In this calculator one can evaluate how long your assets will last under several different income levels.

### **Data Entry:**

Investment Assets: Enter here the money in your retirement investment portfolio.

Rate of Return: This is the earnings rate assumed on your savings plan investment.

Current Year: Self-Explanatory

Current Age: List your current age. If completing this form for a couple, enter the younger age.

Long-term care section:

You can choose to cover LTC costs "out of pocket" or you can elect to purchase LTC insurance to cover the costs. This section allows you to illustrate the effect of long term care (LTC) costs on your investment portfolio. All amounts entered in the LTC section are assumed to be paid out of your investments. If you have purchased LTC insurance you can indicate the annual premium in this section. If this is done, choose 0% in the cost of living section for LTC costs. This will keep the premium level through time. If you do not have LTC insurance then you will need to assume that if LTC is needed, you will cover the cost from your investments.

Annual Cost (Today's Dollars): Enter here the assumed annual LTC costs in today's dollars.

Assumed Age to Begin Costs: Enter the age at which you assume LTC costs will begin.

Assumed Age to End Costs: Enter the age at which you assume LTC costs will end.

Annual Pension Income: List here the combined total money currently being received from any pension plans. Also indicate the inflation assumption or annual cost of living assumption & starting age.

Ann. Social Security: Note here your combined annual social security income, along with any inflation or annual cost of living increase & starting age.

Earned Income: In this column list any assumed earned income with any anticipated cost of living factor. Also list the beginning and assumed ending age for earned income.

In the far right column you will specify the target income (in today's dollars) from all income sources. The model then considers all fixed income sources first and calculates the portfolio withdrawal as a residual amount needed to bring the income level up to the income target. All long term care costs entered in this model are also withdrawn from the investment portfolio.

### **Retirement #3** – Version 2005.01c

All data entry cell characters are shown in dark red.

In retirement, income will most likely come from several different sources; investment income, pension, social security, and possibly another source. You will not have much control over most of these at this point of your life. The one you can have the greatest influence over is investment income. This calculator helps you compute how much money you will need to save in order to generate the investment income needed to meet your investment goals.

#### **Data Entry:**

Annual Retirement Income Needed: Enter in today's dollars the amount of annual income desired for each of your retirement years.

#### **Assumptions:**

Current Savings: Enter here the total dollar amount of investments presently set-aside for retirement.

Current Age: Self-explanatory.

Retirement Age: Enter the age at which you plan to retire.

Years until Retirement: This number is calculated for you.

Years Needing Retirement Income: If you plan on retiring at age 65 and expect to need retirement income until age 95, enter 30 here. (Total number of years between 65 and 95)

Investment Return before Retirement: Enter here the investment rate of return assume will be achieved prior to retirement.

Investment Return after Retirement: It is possible that you may become a more conservative investor after you retire. This entry and the one above, allows the flexibility to assume one investment return before retirement and a different one after retirement.

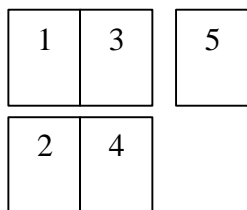
Inflation Assumption: Enter here the inflation you think will be experienced on average in the future. This will increase the income need to meet future purchasing power demands. 3-4% is a reasonable entry here.

The calculator then outlines the investment lump sum needed at the beginning of your retirement years to generate the income that will be derived from investments, for the specified number of years. The last number illustrated in the model is the amount you need to be saving on a monthly basis to achieve the goal. Keep in mind that this monthly savings requirement may partially be met with employer matching dollars.

## **Retirement # 4** - Version 2005.01c

All data entry cell characters are shown in dark red.

**Overview:** The Retirement # 4 model outlines a seventy-year period. It shows detail for the accumulation phase as well as the retirement income distribution phase. Although the spreadsheet appears as a single worksheet on your computer screen, the print formatting is set to print on 5 pages in portrait view. This orientation is an effort to keep the font size legible. To view the print job as the worksheet appears on your screen, simply lay the printed pages out as shown below:



You will notice the time line information on pages 1 & 2 match the time line information on pages 3 & 4. Seek to align these time lines when reviewing the print job.

The spreadsheet is designed, starting on the left, with the time line information, tax related information, the investment portfolios (non-qualified and qualified) column, followed by savings contributions, and the earned income section. These make up the "Accumulation Phase." To the right of the accumulation phase is the distribution phase. This phase begins with another time line section, some additional tax info, followed by all investment portfolio (non-qualified and qualified) withdrawals and fixed income sources that will exist in retirement. In the third column from the right in the distribution phase section you will

see the “Actual Income” from all sources column (which totals all income sources in the distribution phase – including any existing earned income) to the right of that column you will find the Target Net and Gross Income columns. Once the user indicates the target net income for all sources and the expected percentage of income to be paid in taxes, the model determines the gross income needed to achieve the target net income, and then seeks to satisfy the target gross income by first considering the fixed income and qualified portfolio sources, and then it calculates the Non-qualified portfolio withdrawal as a residual amount needed to bring the income level up to the gross income target. You will also notice that the data entry that governs each column’s data is generally above in that respective column.

## **Accumulation Section**

### **Data Entry:**

Ord. Inc. Tax Rate: Enter the appropriate ordinary income tax rate.

Dividend Tax Rate: Enter the appropriate dividend tax rate.

Cap Gain Tax Rate: Enter the appropriate capital gain tax rate.

Ordinary Income Earnings: Enter the percentage of the non-qualified portfolio earnings that is likely to be taxed at the ordinary tax rate.

Dividends Earnings: Enter the percentage of the non-qualified portfolio earning that is taxed at the dividend tax rate.

Capital Gains: Enter the percentage of the non-qualified portfolio earning that is taxed at the Capital Gains tax rate.

Tax Free: The worksheet then calculates any remaining amount that will be considered tax-free.

### **Earnings Non-Qualified**

Initial Gross Earnings: Enter expected gross investment earning assumption

Net of tax Earnings: The worksheet then calculates the net-of-tax earnings based on the tax information you have entered in the section above.

Periodic Rate Step Down: The worksheet allows you to indicate a periodic rate step down to simulate an increasingly more conservative asset allocation in the portfolio. Indicate the periodic rate reduction if any.

Step Down Freq. (Yrs.): Indicate the frequency that the earnings rate reduction should apply.

Minimum Rate Allowed: Enter a rate assumption floor. This stops the rate reduction at the specified rate.

Beginning Investment Balances: Enter all assets currently allocated for retirement purposes for person 1 and person 2 in taxable accounts.

### **Earnings Qualified**

Initial Gross Earnings: Enter expected gross investment earning assumption

Net of tax Earnings: The worksheet uses the gross amount for earnings in the qualified account since these funds grow tax deferred.

Periodic Rate Step Down: The worksheet allows you to indicate a periodic rate step down to simulate an assumed ever increasingly more conservative asset allocation in the portfolio. Indicate the periodic rate reduction.

Step Down Freq. (Yrs.): Indicate the frequency that the earnings rate reduction should apply.

Minimum Rate Allowed: Enter a rate assumption floor. This stops the rate reduction at the specified rate.

Beginning Investment Balances: Enter all assets currently allocated for retirement purposes for person 1 and person 2.

### **Qualified Savings Percentages**

Savings Phase Contribution Percentages: Enter the percentage of income that each person is contributing to retirement savings, as well as any employer matching percentage.

Investment Deposit Frequency Pull-down Menu: Indicate the frequency of investment contributions.

### **Non-Qualified Savings**

Misc. Savings or Inheritance: This column provides the opportunity to illustrate either a lump sum inheritance (or other windfall like the sale of a business) or an annual contributions to the non-qualified portfolio made over a series of years. To include an expected inheritance you can show the dollar amount and input the beginning and ending years to be the same year. This will add that single number to the portfolio in that specified year. You have the option of inflating that number if that is appropriate. To show an annual contribution over a series of years, simply input the annual dollar value in the amount cell and indicate the beginning and ending year of the contributions. If it is appropriate include the inflation factor.

## **Income Summary:**

### **Savings Phase**

Income Savings Phase: Enter the annual income for person 1 and person 2.

Current Age: Enter the current age for each person.

Current Year: Enter current year.

Savings through What Age?: Enter the age through which each person will make contributions to the retirement savings plan.

Savings through what Year?: This value is calculated for you.

Inflation Factor: Enter the assumed cost of living factor for each income. This serves to increase the savings contributions proportionately.

### **Post Savings Phase**

This section is for you to illustrate earned income past the time frame during which savings contributions will be made. This may be a continuation of the same income level or a reduced income that occurs into the retirement years. It is assumed to begin the year following the end of the savings phase. This earned income is one of the income sources included when the model is considering all retirement income sources before calculating the portfolio withdrawal needed to meet the target income level. This is the only potential income source during retirement that is not on the “distribution” phase area of the worksheet.

Income Post Savings Phase: Enter any earned income for each person that will follow the actual accumulation phase.

Starting age: This is calculated for you. It is the beginning age of the post savings income.

Ending Age: Enter the age through which this post saving income is expected to last.

Inflation Factor: Indicate any expected inflation factor that will apply to any post savings phase earning income.

Tax Treatment: Enter the percentage of income that is attributable to each tax category.

### **Distribution Section:**

As stated above, this phase begins with another time line section, followed by all investment portfolio withdrawals and fixed income sources that will exist in retirement. In the third column from the right of the distribution phase you will see the “Actual Income” from all sources column (which totals all income sources in the distribution phase –

including any existing earned income). The last 2 columns show the Target Net and Gross Income. Once the user indicates the target net income for all sources and the expected percentage of income to be paid in taxes, the model determines the gross income needed to achieve the target net, and then seeks to satisfy the gross income need by first considering the fixed income and qualified portfolio sources, and then it calculates the Non-qualified portfolio withdrawal as a residual amount needed to bring the income level up to the necessary gross income target.

## Data Entry

### Assumed Tax Rates (Post Retire)

Ord. Inc. Tax Rate: Enter the appropriate ordinary income tax rate.

Dividend Tax Rate: Enter the appropriate dividend tax rate.

Cap Gain Tax Rate: Enter the appropriate capital gain tax rate.

### Layer One Qualified Withdrawals

Annual Amount: Manually Enter the first layer of expected qualified portfolio withdrawals. Some may wish to use this to manually enter enough money to cover “required minimum distributions” from the qualified account. This value can be zero if you do not need this added flexibility.

Starting Year: Enter the beginning year of this withdrawal stream.

Ending Year: Enter the ending year of this withdrawal stream.

Inflation Factor: Enter any expected annual increase in this withdrawal stream.

### Layer Two Qualified Withdrawals

Annual Amount: Manually Enter the first layer of expected qualified portfolio withdrawals as stated above. Enter the second layer of qualified portfolio withdrawals. Review additional notes below for further insight.

**Additional Notes:** The two qualified portfolio withdrawals (layer one and two) were set up as manual entries to allow the user more flexibility on the amount of and timing of those withdrawals. One can be used to indicate RMDs and the other can be used to indicate an additional layer of withdrawals that may occur during another time frame – perhaps later. Once the qualified portfolio withdrawals are manually entered, the model then seeks to satisfy the net of tax target gross income by considering all fixed income sources along with the qualified withdrawals you entered, and then the worksheet calculates the non-qualified portfolio withdrawal as a residual amount needed to bring the income level up to the gross income target.

\*\*\*To arrive at the **appropriate manual entry for the qualified withdrawal**, first determine when you want qualified withdrawals to begin for layer one and two (what Year). Set the first layer of withdrawals to the desired dollar amount (can be zero), then use the second layer to estimate (aiming high in your estimate) what additional dollar amount (in today’s dollars) of the total income requirement might need to come from the qualified account. Enter your (high) estimate in the layer two withdrawal section. Part of the decision on amount you enter is determining whether or not you want some of the income to come from the non-qualified portfolio. Lowering the qualified withdrawal amount will increase the calculated non-qualified withdrawal amount. Once

you have made your preliminary entries look at the actual income column relative to the target income (far right columns) to see if your entries have created a surplus income or an income shortfall. If you have aimed high enough in your estimate on the second layer withdrawals to be showing an income surplus, you then should manually adjust the second layer number down until you see no surplus in the far right column. If you are familiar with the "Goal Seek" feature of Excel, it can be used to facilitate this process.

Also, to the extent that the "actual" income (column AI) generated by your entries exceeds the "target" gross income (column AK) the numbers in the actual income column turn blue and a "surplus" label shows up to the right of the worksheet. If the actual income generated by your entries is too low to meet the target gross income needed, the numbers turn green and a "shortfall" label shows up to the right of the worksheet. If this happens evaluate what adjustments can be made in your data entry to correct the problem. **The most likely adjustment needed is in the layer two qualified dollar withdrawal amount ...**

There is a column just to the right of the qualified withdrawals that places a "y" when it is likely that minimum distributions are necessary, by virtue of the fact that one of the clients is age 70 or above. (The model does not calculate minimum distributions it merely indicates when they are likely needed just as a precaution).

Starting Year: Enter the beginning year of this withdrawal stream.

Ending Year: Enter the ending year of this withdrawal stream.

Inflation Factor: Enter any expected annual increase in this withdrawal stream.

Tax Treatment: Indicate the expected tax treatment of income coming from the qualified accounts.

### **Social Security Person 1**

Amount: Enter the expected annual Social Security dollar amount in today's dollars.

Starting Age: Enter the starting age for Social Security payments for person 1. It is anticipated that there will not be an ending age for Social Security.

Inflation Factor: Enter any cost of living factor that will apply to Social Security payments.

Tax Treatment: Indicate the expected tax treatment from this income source.

### **Social Security Person 2**

Amount: Enter the expected annual Social Security dollar amount in today's dollars.

Starting Age: Enter the starting age for Social Security payments for person 1. It is anticipated that there will not be an ending age for Social Security.

Inflation Factor: This inflation is assumed to coincide with the inflation factor for SS Person 1.

Tax Treatment: Indicate the expected tax treatment from this income source.

## **Pension for Person 1**

Amount: Enter the expected annual pension income for person 1 in today's dollars.

Starting Age: Enter the expected starting age for pension income for person 1.

Ending Age: Enter the expected ending age for pension income for person 1.

Inflation Factors: Enter the inflation factor that will apply to the LTC annual cost number.

Tax Treatment: Indicate the expected tax treatment from this income source.

## **Pension for Person 2**

Amount: Enter the expected annual pension income for person 2 in today's dollars.

Starting Age: Enter the expected starting age for pension income for person 2.

Ending Age: Enter the expected ending age for pension income for person 2.

Inflation Factors: Enter the inflation factor that will apply to pension income for person 2.

Tax Treatment: Indicate the expected tax treatment from this income source.

## **Target Income Retirement**

Gross Income Need: No entry needed. This is a calculated value.

Estimated Income % lost to taxes Entry: Prior to addressing this entry, it is advisable to enter the net of tax income target three cells below this one. Once that entry is made you can adequately address this cells entry.

Detail: The user should have by now entered the **tax treatment for all income sources** in the distribution phase. The worksheet then considers the percentage of the total income coming from each source, the tax treatment of each source for each year and calculates an average percentage of money lost to taxes (looking from the beginning of retirement through the younger persons age 100 and dropping the lowest 10). This value is reported to you in cell AJ22. **Using this information** (in cell AJ22) as a guide, the user then manually enters the estimated percentage of income lost to taxes in cell AJ21. If the value you enter here differs from the calculated value in the cell AJ22 by 5% in either direction (up or down), the background of cell AJ21 will turn yellow. This is to alert you to when a manual adjustment is needed in AJ21. This manual entry method was used in an effort to avoid a circular reference in the formula structure. This "money lost to taxes" entry allows the model to calculate the gross income needed from all sources to result in the net after tax income needed to meet the net income goals specified.

Net Income Need – Today's Dollars: Indicate the overall target net income (in today's dollars) desired from all sources in cell AJ23.

Inflation Factor: Enter the inflation factor that should be applied to the target net income through time.

User Selected Year to Begin Investment Withdrawals: This worksheet will begin calculating investment withdrawals in an effort to meet the target income goal in one of two years. Either the year indicated in this user-selected cell or in the “default year” that is predetermined by the spreadsheet. If you wish to use the default year select the check box. The calculated default year is indicated for you the cell to the right of the check box. The default year is determined by looking at the earliest year that the savings phase is concluded for either person 1 or person 2 (in cells N8 or O18), and then it adds one year to it.

Portfolio Lasts until: This section indicates the ages of person 1 and person 2 and the year through which the portfolio lasts.

## Loan Calculator — Version 2005.01c

All data entry cell characters are shown in dark red.

This calculator determines the periodic payments required for any loan. Indicate the **dollar amount** of the loan, the loan **interest rate**, the number of **payments per year**, and the **number of years** in the term of the loan, and the calculator indicates the necessary loan payments.

The total cost of the loan is the total number of payments multiplied by the amount of each payment. This will underscore the cost of borrowing money. It is not recommended to borrow money for depreciating items. The Cash for Car calculator illustrates for you how paying cash for cars instead of borrowing can benefit the bottom line of a retirement nest egg.

## Mortgage Calculator Expanded — Version 2005.01c

All data entry cell characters are shown in dark red.

This calculator figures the **Principle and Interest** payment on any term mortgage. Enter **the loan amount**, the **interest rate** and the **term** of the loan. The **principle and interest** payment will be indicated for you. Keep in mind that your **taxes and insurance** payments will be over and above this amount and will vary from property to property. The Columns below this section evaluate the effect to an additional payment on the term of the loan. Simply enter any **extra monthly payment** you will be paying and indicate the payment number on which you will begin this extra payment. For example, if you have had your loan in place for two years and you anticipate beginning the extra payments on the last payment of the second year, enter 24 in the “**Beginning on Pmt #**” cell. The calculator will assume this payment pattern will continue until the loan is paid off. The calculator will then indicate the new term of the loan, given the acceleration effect of the extra payment.

On the right side of the calculator (labeled - **Payment Record**) determines the cumulative interest and/or principle paid through any number of whole years. It is set up to be able to look at any two years at the time while indicating the difference in the two years shown. If

you want to know the total interest paid on the loan in the 9<sup>th</sup> year, simply enter 8 in the left column and 9 in the right column. This will show the cumulative interest paid through year 8 and the cumulative interest paid through year 9. The difference between the two numbers is the interest paid in year nine. This can also be used to determine the interest paid over a range of years, or over the whole life of the loan. For example, if you have a 30-year loan, you can enter 30 years in the Payment record columns and that column will indicate the interest over the total life of the loan. Keep in mind that this section only accommodates whole years rather than fractions of years.

In the bottom right section you may choose whether or not to view the amortization schedule. Use the pull-down menu to view the schedule.

## **Prepaid Mortgage** — Version 2005.01c

All data entry cell characters are shown in dark red.

The Prepaid Mortgage is actually two calculators. It will figure when a mortgage will be paid off if a specified extra monthly payment is made, or what extra monthly payment will be required to pay a mortgage off in a specified time frame.

### **With A Specified Time Frame:**

Balance Due: Enter the balance due on a mortgage.

Interest Rate on Loan: Enter the rate on a current mortgage.

Current Principle & Interest Payment: Enter only the current Principle & interest payment. Do not include any taxes or insurance payments here.

To Be Paid Off In How Many Years?: Enter the time frame (number of years) in which you want to pay off the mortgage.

The calculator then tells you how much extra per month you will need to pay to accomplish the goal.

### **With a Specified Extra Monthly Payment:**

Balance Due: Enter the balance due on the mortgage.

Interest Rate on Loan: Enter the rate on the current mortgage.

Current Principle & Interest Payment: Enter only the current Principle & interest payment. Do not include any taxes or insurance payments here.

Anticipated Extra Monthly Payment: Enter the extra monthly payment you will make.

The calculator figures when the loan will be paid off, in number of years.

## Prepaid Compare - Version 2005.01c

A comparison between paying extra payments into your mortgage and investing outside your mortgage, for the purpose of paying loan off early.

All data entry cell characters are shown in dark red.

Each of us may at some point have money that we want to use to seek early pay-off of our mortgage. The question is what is the best way to accomplish the goal. Consider paying extra payments into the loan itself or consider investing the money for the purpose of accumulating on the side the necessary funds to pay the loan off at some point in the future. This calculator compares these two options.

### Basic Loan Information

Original Loan Amount: Enter your original mortgaged amount.

Interest Rate: Enter the interest rate on the mortgage.

Term (Years): Enter the term of current loan.

**The next section** splits the model into two parts, one examining paying the extra monthly payment into the loan, and the other investing the money into a side account for the purpose of paying off the loan. The side account is assumed to be a growth stock mutual fund. There are four data entry cells in this section.

Extra Monthly Pmt.: Enter the amount of the extra monthly savings which will be made. This amount will be automatically entered on the investment side of the calculator.

Begin Extra PMT on Pmt #: Enter the loan payment on which the extra payments will be made. For Example: a 30-year loan has 360 payments. If 47 payments have been made and the extra payment will begin on the next payment, enter 48 as the starting payment. This number is automatically entered as the starting point on the investment side of the calculator.

Your Tax Rate: Enter the tax rate that will likely apply, given the investment selected. If a growth stock mutual fund is used, the tax rate you enter here should tend toward your capital gains rate (Either 10% or 20% on the Federal level). If an investment is selected that earns interest or dividends primarily, you should enter your ordinary income tax rate.

Gross Investment Return: Enter the growth rate you want to assume for the investment before any taxes are applied. The calculator will figure the net after tax return and it will use the net number in the investment growth calculation.

The calculator then indicates the payment number on which the loan will be paid off, and translates that to numbers of years. You can then see which option will pay the loan off sooner. The smaller the numbers are better here.

Additionally, the calculator will indicate the total interest paid over the term of each scenario (payments in the loan & payments in side savings). This indicates the potential tax deductibility of each option. In this case the higher the number the better.

## **Short Term Mortgage or Long Term Mortgage (With Side Savings)? –**

Version 2005.01c

### **15 or 30**

All data entry cell characters are shown in dark red.

If the goal is to pay a mortgage off in 15 years, there basically is a choice to make. Conventional wisdom says to buy a 15-year mortgage, however one needs to consider the fact that there may be a more efficient way to accomplish the same goal. This calculator compares the use of a short-term mortgage with a longer-term loan coupled with a side savings account. It is true that purchasing the 15-year loan may help one who lacks the necessary discipline to invest on the side. Many popular financial strategies require discipline to implement successfully, for example buying term insurance and investing the difference.

In this model enter the term of each loan. The most common comparison will be a 15-year loan to a 30-year loan, however you can examine any term loan desired.

#### **Data Entry:**

Term: Enter the number of years in each respective loan.

Rate: Enter the interest rate on each loan. Keep in mind the 15-year loan will not have the same rate as the 30-year loan. Look up averages for the 15 and 30-year mortgages in the newspaper, or use specific quotes from a mortgage company.

Loan Amount: Enter the amount of money to be borrowed. Notice that only a value for the short-term loan is entered. This same number will be carried over to the correct slot for the longer-term loan.

#### Side Savings Entries

% You pay in Taxes: Enter here your tax bracket, or better yet the actual percentage you actually pay in taxes. Usually someone in a 28 % tax bracket, for example, will actually pay something less than 28% in actual taxes.

Pre-Tax Rate of Return: Enter here the gross return you would like to assume for the investment you will select for the side savings. The calculator will then, based on the tax rate you enter above, figure the net after tax rate of return you will achieve on the investment. That rate assumption is then used in the future value calculation of the investment.

### **Comparison Overview:**

Notice that on the short-term mortgage (for this discussion 15 years) the loan is paid off after the specified term. The calculator also shows the cumulative interest paid over the life of the loan. If this mortgage is on your primary residence, and you itemize your deductions, then this number indicates the amount of interest which can be deduct if this loan is used.

On the right side of the model the calculator indicates the balance due on the 30-year loan at the point that the short-term loan is completed. In this example the short-term loan is completed at the 15-year point. Additionally, the right side indicates the account balance on the side savings account at that same (15-year) point. If the investment performance of the side savings is significant enough, there should be enough in the account to pay the 30-year mortgage off and pocket some extra money. Another point to note is that the cumulative interest paid on the 30-year mortgage should be higher than on the 15-year loan. This means you should have greater tax savings from the long-term mortgage.

In addition to the potential higher tax deductibility of the long-term mortgage, you have obligated yourself to a lower monthly loan payment. In the event of financial difficulty you can stop the contributions to the side savings account and concentrate on your mortgage payments. On the 15-year loan you are still obligated to make the higher payments.

Keep in mind that there are many variables that determine the best plan for you. If you do not have the discipline to invest the difference in the side savings, you may need to consider the 15-year loan. In some cases the math will point you to the 15-year loan. This calculator will help you draw your conclusions from real information, as it applies to your specific situation.

### **Refinance Your Mortgage?: – Version 2005.01c**

All data entry cell characters are shown in dark red.

This is a worksheet to determine the break-even point if a mortgage were refinanced. The break-even point is the amount of time needed to stay in your present home to realize any actual savings from refinancing the mortgage. Obviously, refinancing will cost something. Therefore, even though the new payments after refinancing will be lower, it will take some time for this “savings” to pay you back for the cost of refinancing. This is your break-even point.

Notice that this worksheet itemizes the likely expenses you will incur when refinancing. List them separately or simply group all expenses as one item in entry #12, Any Other

Expenses. Then enter the current mortgage payment followed by the new payment after refinancing. The calculator will then figure the break-even point as a number of months figure.

**Another Perspective:** This section calculates the internal rate of return on an investment where your refinance expenses are invested, and your savings from the refinancing is a monthly cash flow to you from such an investment. In other words, what if you did not refinance your loan but rather chose to invest the money that you would have used to pay the expenses associated with refinancing, and that investment provides a monthly cash flow to you equal to the monthly savings that the refinancing would have provided? In this case, we will assume that this monthly investment cash flow includes a return of principle - over the period considered in this section. (In this section you specify the number of years you plan on staying in your home after refinancing. This is the period we are referring to.) If you believe you can find an investment that will out perform the internal rate of return achieved by refinancing (calculated for you in this section), you would be better off to invest the money rather than refinancing. This concept was provided to us by Phil Storms, who is from the Denver area.

## Time Value of Money - Version 2005.01c

All data entry cell characters are shown in dark red.

Many have seen illustrations that compare the investment results of two individuals, one that started early and one that waited. The results of the one that started early generally exceeds the results of the one that waits. This calculator provides this same illustration in an interactive model that can be customized to fit many clients' situations. The example in this calculator posted on our web site shows the comparison of three investors. The first one, person A, started investing \$2000 per year at age twenty, and continued the process through age 27. This means he or she invested \$16,000. This investor then allows the account to accumulate until age 65. The second investor, or in the web example person B, waited until age twenty-eight to start investing and saved \$2000 each and every year until age 65 (total invested is \$76,000). We assume a 10% investment rate of return in this example. You will notice that person A at age 65 has more money at age 65 than person B. The "Person C" section can be used to determine the amount any other age person would have to save to achieve the same results that Person A or B achieved. This can be done by trial and error, or with the use of Excel's Goal Seek feature. (See Excel's help section for information on how to use Goal Seek)

Data Entry:

Frequency of Contributions: Use the pull-down menu to indicate the frequency of payments. Keep in mind that you will also indicate, in another section, the total amount invested each year. This pull-down simply determines whether this annual amount is achieved by periodic installments or as an annual lump sum.

Investment Return: Indicate the “net of expenses” investment return you want to assume. For example, if it is believed the investment will gross 12% with 1% expenses, and then enter 11% in this cell.

The following are the same for persons A, B & C.

Contributions begin at age: Enter the age at which each person will begin investing. The valid age range is from age 20 to 65. If you want to illustrate a one-time investment you should enter the beginning and ending age as the same.

Contributions end at age: Enter the age at which each person will stop investing.

Total Annual Contributions: Enter the total annual invested amount. Keep in mind this amount may be achieved through periodic installments as indicated by the pull-down menu.

This calculator will demonstrate the true time value of money. One’s greatest financial asset is time.

## **Rate of Return** — Version 2005.01c

All data entry cell characters are shown in dark red.

If you know the beginning balance of any investment account and the ending balance after a certain number of months, this calculator will compute the rate of return achieved. For example: A mutual fund account that has \$5,000 at the beginning of 1998. The investor has been adding to the account \$100 monthly. The account balance at the end of 1998 was \$7,000. This calculator will indicate that you experienced a 3.57% return in this account over the 12-month period.

**Beginning Balance**: Enter here the starting account balance from the beginning of the time frame you want to ascertain the rate of return.

**Monthly Additions**: If additions have been made to this account on a monthly basis, enter here the amount of monthly contributions. This calculator will not accommodate additions of any other frequency.

**Number of Months in Period**: If a one-year period is being examined enter 12 (for 12 months in year) in this cell. If you are looking at a year and a half enter 18, etc.

**Ending Balance**: Enter here the balance at the end of the examination period.

**Your Annualized Return Over Specified Time Frame**: This is the return achieved over the months indicated.

This calculator can be helpful when in looking at a statement from your mutual fund family indicating your account balances a year ago relative to today. Keep in mind additions made to the account changes the calculation. This calculator accommodates systematic monthly additions. Additions of other frequencies will require a more sophisticated calculation.

## **Account Internal Rate of Return** - Version 2005.01c

This model calculates the internal rate of return on an investment account that has a series of deposits and/or withdrawals. The worksheet currently accommodates up to forty deposit or withdrawal events. The data entry cells are identified with a blue background. All other cells are locked. All deposits should be entered as positive numbers and withdrawals should be entered as negative numbers.

### Data Entry

Period End Date: Enter the last day of the period over which you want to calculate the internal rate of return.

Balance on End Date: Enter the account balance on the Period End Date.

Date of Investment Or Withdrawal: Enter in this column the dates of each respective deposit or withdrawal event that the account has experienced in the period being examined.

Amount Invested or Withdrawn: Enter in this column the amount of each deposit or withdrawal corresponding to the date entered in the left column. All Deposits should be entered as positive numbers and withdrawals should be entered as negative numbers.

The calculator model then outlines for you the total contributions, the total withdrawals and the overall net investment. Finally, the model indicates the annualized internal rate of return in the account.

## **Taxable or Tax Free Equivalent Yield** – Version 2005.01c

All data entry cell characters are shown in dark red.

These two calculators are built to address the same idea from two different perspectives.

**The top section** calculator determines what taxable rate of return is equal to a known tax-free (exempt) return. **For example**: You are a Muni-Bond investor and you are receiving a 5% tax-free yield. At your assumed tax rate of 36% the taxable equivalent yield would be 7.81%. In other words, if you could find a taxable investment yielding 7.81%, this would be the same as investing in a tax-free investment at 5%, for someone in your tax bracket. (After paying taxes on the 7.81% earnings in the taxable investment, the same

amount is left over as was achieved in the tax-free investment). If you could find a taxable investment yielding more than 7.81%, the taxable investment would be the best choice.

In **the bottom section**, the taxable rate of return is known and you are solving for the tax-free equivalent.

## **Mutual Fund Growth & Expense Comparison** – Version 2005.01c

All data entry cell characters are shown in dark red.

An ongoing debate exists about whether to buy a mutual fund with a front-end load (sales charge) or a No-load fund. This calculator illustrates the effect of rates of return, front-end sales charges, and annual expense ratios on fund performance.

Most financial magazines, which report on mutual fund historical performance, will report if the fund has a front-end load and what the annual expense ratio is for each fund. The expense ratio is a percentage of the fund that the Fund Company extracts to cover its expenses for operating the fund. Most companies assess and extract the expense ratio on a daily basis. For our purposes, this calculator extracts the annual expense ratio amount as a lump sum at year-end. This is slightly different than reality, but both funds will be treated the same, providing a level playing field for this comparison.

### **Data Entry:**

Pretax Rate of Return: Enter the rate of return you want to assume for both funds "x" and "y".

Front End Sales Load: Enter the percentage of the front-end sales load each fund charges. From 0-8.5% is the allowable range.

Annual Expense Ratio: This information should be accessible from a financial publication that tracks mutual fund performance. (Typically from .02% up to 2.5%)

Monthly Payments: Enter systematic contributions to be paid to the fund.

Beginning Balance: Enter the beginning assumed lump sum payment into the fund.

Test Period: This is on the right side of the calculator. This determines the test period for all calculations. All calculation results are shown in blue and are for the specified time.

Looking at the answers provided in blue lettering the account balances through the year specified in the test period cell. Also see the cumulative fees and expenses and which fund would have yielded the best "net" return. The fund's overall performance is influenced by the fund's rate of return, front-end sales charge, and the annual expense ratio. All three of these factors are important, but the bottom line is what is the actual net result.

All data entry cell characters are shown in dark red.

It is likely that most people with significant accumulations in an IRA actually never use the money. Additionally, it is likely the desire of these IRA owners to get as much of this money to the next generation as possible. However, most IRA owners do not realize that their account has two layers of tax that will be eventually be assessed on the account, if it is in tact at the death of the owner. The IRA is taxed as part of the estate of the owner and it is taxed as ordinary income to any non-spouse beneficiary. If this occurs, it is possible that as much as 80% of the account balance could be lost to taxes. It is obvious that a “do nothing” approach to addressing the IRA is not a reasonable solution. The do nothing approach is in part interrupted by the fact that mandatory withdrawals begin at age 70 ½, subjecting the funds to ordinary income tax, one way or the other.

There may be several reasonable solutions used to address these problems that exist with the IRA. One strategy that can be considered is a systematic spend-down of the account for the purpose of funding a wealth replacement insurance trust, or simply for the purpose of supplying income for the IRA owner. A systematic spend-down subjects the cash flow to ordinary income tax. However, as stated above, due to mandatory distributions the funds will eventually be subject to this tax anyway. It could be that in order for the owner to eliminate one layer of potential (estate) tax it is necessary to accept the other layer of (ordinary income) tax. If this net-after-tax cash flow is used to fund a wealth replacement insurance trust it may be possible to replace the value of the IRA to the heirs on a tax-free basis.

This planning model provides a guideline for the IRA owner who wants to begin a systematic spend-down to fund a wealth replacement strategy. Keep in mind that some of the new stretch IRA payout options may meet the needs of some IRA owners.

**Data Entry:**

Age: Enter the current age of the IRA owner.

Current Year: Enter the current calendar year.

IRA Account Balance: Enter dollar amount, which is in the IRA account now.

Assumed Net Investment Return in IRA Account: Enter the return you anticipate averaging in the IRA net of fees and expenses over the entire distribution period.

Spend-Down Period (Yrs): Enter the number of years over which the spend down will be accomplished. The model will accommodate 1-30 years.

What % of Original Remains: Enter here the amount of the original account balance desired to remain in the IRA after the spend-down period is over. This can be 0%.

**Ordinary Income Tax Bracket:** Enter here the percentage of taxes that you expect to pay on all IRA distributions over the entire spend-down period. Keep in mind that when determining the tax bracket that you should include income from all sources in addition to the IRA withdrawals.

The Model will accommodate up to a 30-year spend-down. The distribution table at the bottom of the model outlines the gross IRA withdrawal, applicable taxes and the net cash flow available for any wealth replacement strategy or spendable income. At the bottom of the model you will see totals for the entire distribution, total taxes paid, and the total available for life premium or spending.

Keep in mind that this model is not intended to calculate the minimum distribution requirement after age 70 ½.

## **Pay Cash (For Cars) and Invest the Difference** — Version 2005.01c

All data entry cell characters are shown in dark red.

Many people are in the habit of borrowing money every 4 to 5 years to buy a car. What would happen if they didn't borrow money for these purchases, but rather saved in advance and paid cash for the cars? In other words, instead of paying interest to use someone else's money, you find someone to pay you for the use of your money. This calculator looks at just that scenario.

In the **top section** enter the starting point of an assumed series of 5 car purchases. Enter in this cell (Original Purchase Price) the dollar amount of the first loan, which is assumed to be the amount over and above any trade in. We will look at five purchases to occur in intervals you indicate. In most cases this interval will be 4 or 5 years. We will take the inflation rate you specify and increase each successive purchase accordingly. You will also need to indicate the assumed auto loan interest rate. The top section then outlines for you five car purchases, showing the total amount of the loans and the cumulative cost of the monthly payments of the loans.

Where the **top section** is looking at the cost of borrowing the money to buy cars, the **bottom section** is looking at investing money in advance of each purchase to accumulate the purchase price. You will need to enter in the bottom section your assumed investment rate of return. The calculator will then display the monthly payments needed in advance of each purchase to pay cash for each car, while comparing that to the loan payments required as a result of borrowing money for the same car. The bottom section goes a step further, however. Notice that the advance savings required for each purchase is **less** than the loan payment required for the loan payments in the top section. We will then show that difference being saved in an investment over the test period (at the investment rate you indicated) and you will see the total amount accumulated as a result of diverting this savings. The result if using cash (in the bottom section) for purchases instead of borrowing money is you bought the same cars over the same time frame but you have also accumulated some cash on the side. It seems that cash based purchases are a more efficient use of resources.

Some may want to know how to switch from debt-based purchases to cash based purchases. This will require a few years of sacrifice. If you are in the “borrow for cars cycle”, after your current car is paid for, **keep it**. Begin to pay yourself (invest) for your next car until you have the cash to make the next purchase. This may take 4 to 5 years, but this sacrifice will be worth it if you can accumulate the cash on the side that shown in this calculator, and that will have a positive effect on your retirement nest egg.

## **Allocation Balancing with New Money** — Version 2005.01c

All data entry cell characters are shown in dark red.

This model is designed to assist an investor determine the allocation of new money which is being deposited in a “non-qualified” (non-retirement) portfolio. This model assumes that existing portfolio dollars will stay in its current position. Keep in mind that reallocating existing dollars in an account that is not tax deferred may trigger a taxable event. This worksheet seeks to allocate new money proportionately over the various asset classes that are deficient in an effort to move toward a “target” allocation of funds across all of the classes.

In this model the user will indicate the amount of the new-money being deposited, define the current asset classes and the allocation of funds in each, and define the target portfolio allocation.

For the users convenience the model includes some sample portfolios on the far right of the worksheet. Click on the button for the sample you wish to see and the worksheet will import a guideline allocation in that column for that portfolio selected. The example portfolio section also allows you to override the built in portfolio examples by selecting the custom portfolio button. When this button is selected the content in the example portfolio section matches all content you enter in the far left (Asset Class) column as well as the target portfolio percentages entered in column G. If the user selects any of the example portfolios they reflect the built in data. If you select the Custom option all of the data then matches all of your data entry in the columns mentioned.

### **Data Entry:**

Expected Account Addition (New Money): Enter the dollar amount of the new money being added to the portfolio.

Asset Classes: List the names of all of the asset classes that are, or will be in the portfolio. The model accommodates up to eight asset classes.

Current Portfolio Dollar Amounts: List the amount of funds that are currently in each of the asset classes. The calculator will then indicate the percentage of funds that each dollar amount represents.

Target Portfolio Percentages: Enter the allocation that you are attempting to achieve.

The calculator then outlines the recommended allocation of the new money the user should consider for each asset class to move as close to the target portfolio as possible. At the bottom of the worksheet you will see a graphical view of each portfolio.

**IF I DO NOT USE ALL OF THE ASSET CLASS ROWS, HOW DO I ELIMINATE THE ZERO VALUES IN THE GRAPHS?** Scroll half way down in the worksheet such that you can see the bottom of the data grid and the top of the graphs. Select one of the graphs by clicking in the white area just outside the graph labels. When you select the graph in this way you should see blue and purple outlines from around the source data in the top section of the spreadsheet. You should notice a little square in the bottom right corner of the blue and purple data source outlines. Move your cursor over the little square. The cursor will be transformed into a “plus sign”. Click the little square and drag the outlines upward such that the outlines only surround the active data rows in the grid – omitting rows that do not contain asset class and associated data. This process will eliminate the empty lines in the worksheet from the graph data source and it will therefore remove the zero values from the graph. Repeat this process for the other graphs as well. If at some point you choose to use more rows in the spreadsheet, it will be necessary to move the graph data source outlines back to their original position.

## **Allocation Balancing with Existing Money** — Version 2005.01c

All data entry cell characters are shown in dark red.

This model is designed to assist an investor determine what adjustments in the existing allocation of funds will move the portfolio toward a specified target allocation. We are assuming this is being considered for a portfolio that is in a tax-deferred account. Reallocating existing dollars in an investment that is not tax deferred may trigger a taxable event. Consult your advisor before reallocating existing funds. This worksheet will assist in determining where to extract funds and where to reallocate those funds so as to move toward the target portfolio.

For the users convenience the model includes some sample portfolios on the far right of the worksheet. Click on the button for the sample you wish to see and the worksheet will import a guideline allocation in that column for the portfolio in question. The example portfolio section also allows you to override the built in portfolio examples by selecting the custom portfolio button. When this button is selected the content in the example portfolio section matches all content you enter in the far left (Asset Class) column as well as the target portfolio percentages entered in column G. If the user selects any of the example portfolios they reflect the built in data. If you select the Custom option all of the data then matches all of your data entry in the columns mentioned.

## **Data Entry:**

**Asset Classes:** In this column list the names of all of the asset classes that are, or will be in the portfolio. The model accommodates up to 16 asset classes.

**Current Portfolio Dollar Amounts:** List the funds that are currently in each of the asset classes. The calculator will then indicate the percentage of funds that each dollar amount represents.

**Target Portfolio Percentages:** Enter the allocation that you are attempting to achieve.

The calculator then outlines the dollar amount that should be extracted from each asset class and where to deposit the funds to achieve the target portfolio. At the bottom of the worksheet you will see a graphical view of each portfolio.

IF I DO NOT USE ALL OF THE ASSET CLASS ROWS, HOW DO I ELIMINATE THE ZERO VALUES IN THE GRAPHS? Scroll half way down in the worksheet such that you can see the bottom of the data grid and the top of the graphs. Select one of the graphs by clicking in the white area just outside the graph labels. When you select the graph in this way you should see blue and purple outlines from around the source data in the top section of the spreadsheet. You should notice a little square in the bottom right corner of the blue and purple data source outlines. Move your cursor over the little square. The cursor will be transformed into a “plus sign”. Click the little square and drag the outlines upward such that the outlines only surround the active data rows in the grid – omitting rows that do not contain asset class and associated data. This process will eliminate the empty lines in the worksheet from the graph data source and it will therefore remove the zero values from the graph. Repeat this process for the other graphs as well. If at some point you choose to use more rows in the spreadsheet, it will be necessary to move the graph data source outlines back to their original position.

## **Equalizing Future Benefits** — Version 2005.01c

All data entry cell characters are shown in dark red.

**First model of two:** This model seeks to answer the question – What allocation of a specified investment dollar amount will yield equal future values for several family members, at a specified distribution age.

We know the present value (current resources). We are solving for the future value.

For example, a grandparent has \$50,000 wants to deposit funds in separate accounts for his grandchildren such that each will receive an equal dollar amount at age 20. Keep in mind that providing an equal dollar amount does not mean that equal purchasing power will be provided.

## **Data Entry:**

Enter current Resources: Enter the gross amount of money that is to be dedicated to the plan.

Earnings Assumption: Enter the investment earnings assumption. Any variance in this value will alter the future value results.

Names: Enter the names of the fund recipients.

Current Age: Enter the current ages of each recipient of the future value.

Distribution Age: Enter the age at which each recipient will receive the money from there account.

The model then calculates the recommended allocation of the current resources so the future dollar amounts will be equal at the distribution age of each person. The future value for each is also calculated.

## **Second model of two:**

This model seeks to answer the question – What current resource (and allocation of that resource) will provide a specified future value for a group of family members.

We know the future value we want each person to receive. We are solving for the present value (current resources).

For example, a grandparent wants to provide \$20,000 in separate accounts for her grandchildren at age 20. What deposit will be required today to achieve the goal? Keep in mind that providing an equal dollar amount does not mean that equal purchasing power will be provided

Desired Future Value: Enter the gross amount of money that is to be distributed to each family member.

Earnings Assumption: Enter the investment earnings assumption. Any variance in this value will alter the future value results.

Names: Enter the names of the fund recipients.

Current age: Enter the current ages of each recipient of the future value.

Distribution Age: Enter the age at which each recipient will receive the money from there account.

The model then calculates the current resources (and recommended allocation) so that the future dollar amounts will be equal at the specified amount at the distribution age of each person.

## **Estate Tax Calculator**— Version 2005.01c

All data entry cell characters are shown in dark red.

This calculator is designed to estimate ones Federal Estate Tax liability consistent with the tax reform bill of 2001. The current law provides for the elimination of the estate tax by the year 2010. However, unless Congress acts again, the sunset clause brings the estate tax back in the year 2011. Stay tuned...

Be aware that taxable gifts (post 1976) as well as other credits can modify the results of this calculator. Please consult your tax advisor as you go through this process to confirm the specifics of your situation.

Data Entry:

Current Year: Select the current year. This adjusts the unified credit amount according to the schedule outlined in the tax reform bill of 2001.

Estimated Gross Estate: Inventory the assets in your estate and enter the total value in this cell.

Administration Expenses: The calculator allows you to select estate settlement expenses totaling from 0-10% of the gross estate. Use the pull-down menu to may the appropriate selection. The calculator then indicates the dollar amount of the administration expenses.

Debts to be Paid: Enter any remaining debts that will need to be paid at the settlement of the estate.

Funeral Expenses: Enter final expenses here.

Charitable Bequests: Enter any charitable donations that are outlined in the will.

The calculator then calculates the taxable estate and indicates the tentative tax obligation.

% of Unified Credit Remaining: It is possible that some or all of the unified credit has been used. If this is the case indicate the percent of the current unified credit that has not been used.

The calculator then indicates the total unified credit that remains and the corresponding exclusion.

In the bottom section of the calculator you will see the total estate tax due, the estimated net estate to the family and the estate shrinkage, due to the taxes and other adjustments.

## Structured Settlement – Present Value of Multiple Cash Flows– Version 2005.01c

All data entry cell characters are shown in dark red.

A structured settlement is the payment of money in connection with a legal claim. This settlement calls for at least part of the money to be paid through a future cash flow. This calculator allows one to make a comparison between the value of the structured settlement (future) payments and a present day lump sum payments. A structured settlement can result from a legal action or may be voluntary as a pre-trial settlement. This calculator accommodates up to five different cash flows and assumes beginning of period annual payments.

Data Entry:

The data entry is to be repeated for any of the (up to) five cash flows that will be used each calculation.

Cash Flow Recipient: Enter the names of those to receive the settlement payments.

Current Year: Enter the current year.

Year # to Start Payout: The calculator accommodates up to 70 years. Indicate in this cell in which year the first payment will occur (assuming the current year is # 1).

Yrs. Of Payments: Indicate in this cell the number of years that the payments will continue.

Today's \$ Annual Payout: Enter the dollar amount for each future payment in today's dollars. Enter \$0 in this cell for any columns you will not be using.

Inflation Assumption: Enter the annual increase that will be applied to each successive payment.

Discount Rate: Enter the appropriate discount rate. This is used in the calculation of the present value of the future cash flow.

This calculator can also be used assist in comparing the value of future cash flow with a possible current day lump sum payment.

## Cover Sheet, Contents Page, & Recommendations Page - Version 2005.01c

These presentation pages are to enable a financial professional to put together a complete proposal for clients. **Entering the client name in the Cover Sheet will transpose the name to each of the calculators allowing each to be personalized.** If you do not want a client name on the calculators, simply leave the “client name” cell on the Cover Page blank. The Contents & Recommendation pages allow you 24 & 25 lines respectively that will accept text.