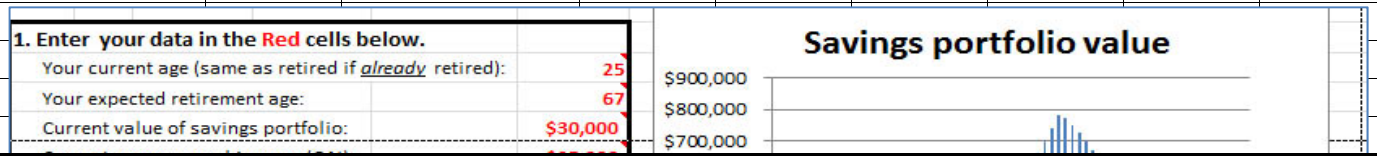
	A	B	C	D	E	F	G	H	I	J	K
1	**File: SIPT.xls**		**Elementary glide-path calculator (SimpleCalc)**					**Next SIPT worksheet (Assumptions)**			
2											
3	**Simplified Income-Stream Planning Tool**										
4	**Calculate Glide-Path from yearly Cash-flows, Income Streams, Expenses, Investment Accounts and Taxes**										
5											
6	**This Excel spreadsheet is a planning tool for people who want to plan for future saving and spending needs, want to get rough**										
7	**estimates of their saving and spending patterns, and are willing to enter summaries of their personal financial data required to**										
8	**compute this. Final results are shown in summary tables and glide-path graphs of those tables. All data are entered and**										
9	**calculated in this spreadsheet. No data are exported from the spreadsheet. From the data entered, the spreadsheet estimates**										
10	**yearly cash-flows using income from various sources: Work, Pensions, Social Security, Annuities, and Life Insurance benefits;**										
11	**contributions and withdrawals from tax-deferred IRAs, Roths and Savings investment accounts. It estimates yearly investment**										
12	**returns and taxes on investment returns, expenses. Next it estimates yearly Federal tax rates and resulting cash-flows. It allows**										
13	**for scheduled and irregular contributions and withdrawals for investment accounts (IRA, Roth, Savings) as well as scheduled-**										
14	**and-irregular expenses and deductions and then calculates yearly net worth. It can be useful for investigating various planning**										
15	**scenarios by making changes and seeing how that affects the results.**										
16											
17	**It can be used in a variety of spreadsheet programs such as Windows Excel, the free OpenOffice or LibreOffice "calc", Google**										
18	**"sheet", etc. since it doesn't use Microsoft Visual Basic because VBA may not be available in all spreadsheet programs. Apple**										
19	**"numbers" spreadsheet program has some incompatibilities, so use one either Excel for Mac or one of the free spreadsheet**										
20	**programs. It does not save data on the Internet. Why model? Although all models will be inaccurate, having a rough estimate**										
21	**can be useful for planning purposes. The spreadsheet is a compromise between complexity and completeness and leans in the**										
22	**direction of a simpler model. It is an educational tool. As statistician George Box noted "All models are wrong, but some are**										
23	**useful". In addition, a crude glide-path calculator is available to illustrate the concept that may be useful to experiment with**										
24	**to better understand the concept of glide-path before using the full spreadsheet.**										
25											
26	Recent revisions:	Revised:	12/9/2015		V.0.22.4	***Beta***					
27		Revised:	7/14/2016		V.0.24.14	***Beta***					
28		Revised:	7/20/2016		V.0.24.15	***Beta***					
29		Revised:	8/5/2016		V.0.24.16	***Beta***					
30	See	**Appendix D**		for list of outstanding issues (things TODO), and extended REVISION-LIST							
31											
32	Note: The spreadsheet will be revised each year after new Tax Tables & Cap-Gains/Div. rates & tax rules are announced.										
33											

** For more on *Beta-level* software see https://en.wikipedia.org/wiki/Software_release_life_cycle

Table of Contents for Introduction

Documentation in additional worksheets

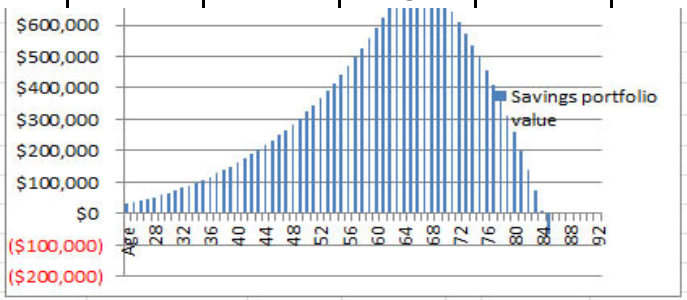
Click on the any of the following hyperlinks to go to the worksheets

	A	B	C	D	E	F	G	H	I	J	K
67	**Assumptions**	Summary list of all settings in **Setup,** and **AgeData** through **ExpenseData** worksheets									
68	**Results**	Glide-path of income from Income & Withdrawal sources less Expenses & Taxes									
69	**Resources**	Lists of articles, literature, web sites related to financial planning									
70	**Figures**	Screen shots & descriptions illustrating how the spreadsheet works									
71	**Appendix A**	List of all worksheets describing their tables and sections									
72	**Appendix B**	Extra calculators (not tied in with the rest of the spreadsheet)									
73	**Appendix C**	Glossary - definitions of terms used in the spreadsheet									
74	**Appendix D**	List of outstanding issues (Things TODO and CHECK), and REVISION-LIST History									
75	**FAQ**	Answers to Frequently Asked Questions									
76											
77											
78	**Introduction**										
79											
80	While you are saving for future expenditures such as retirement, a new house, college education for your children you										
81	might wonder if you are saving enough or spending too much on current expenses. A glide-path analysis lets you look										
82	at your finances over time. How does it change with the contributions to savings during your accumulation phase										
83	and how rapidly your savings are being depleted during retirement? It can be useful to periodically check how you										
84	are doing to make sure you're still on track to reach your goals, and if not what might you change to improve your										
85	retirement glide path.										
86											
87	The full **Simplified Income-Stream Planning Tool (SIPT)** in the remainder of this spreadsheet lets you enter detailed personal										
88	data to help answer those questions more accurately - both for near term expenses and post-retirement. There are many										
89	rudimentary retirement calculators available on-line (see **RS. Resources** section **RS.8** for a list). To give the flavor of these										
90	types of calculations, we provide one in the	**SimpleCalc**	worksheet. The following screenshot shows some								
91	typical data and results. In this example, the portfolio value went to zero at age 86. To get a more accurate analysis, you										
92	might try using this SIPT spreadsheet that we describe in more detail below. Of course it can not predict the future but										
93	gives an estimate that may be useful in doing planning.										
94											
95											
96											
97											
98											

Current gross annual income (GAI):	$25,000
Annual contributons to savings portfolio:	$3,750
Yearly annuity from Social Security at retirement	$6,000

2. Additional parameters you can adjust or use THE defaults)

Pre-retirement annual rate of return on portfolio:	4.50%
Post-retirement annual rate of return on portfolio:	2.50%
Expected annual income Cost Of Living Adjustment:	2.00%
Increase of annual retirement withdrawals::	3.00%
Increase in annual contributions to savings portfolio:	2.00%
Percent of GAI needed in retirement when retire:	80%



You run out of savings at age	86
The value of your savings at retirement	$770,241
Percent of income saved while working	15.0%
Number of years you can fund in retirement	19
Percent of expenses from Soc. Sec. at retirement	13.3%

Values for savings and expenses over time

Year	Age	Savings portfolio value	Savings contribution	Gross Annual Income	Cola adjusted Social Security if any	Retired Annual Expenses	Percent expenses from Soc. Sec. In retirement
1	25	$30,000	$3,750	$25,000	$0	$0	0.0%
2	26	$35,269	$3,825	$25,500	$0	$0	0.0%
3	27	$40,853	$3,902	$26,010	$0	$0	0.0%

1. Description of the SIPT Spreadsheet

This spreadsheet software computes a rough estimate of yearly income and expense flows as various income sources and expenses come into and out of availability and applicability over time. Results are calculated at the end of each year. It uses a yearly "cash flow" calculation defined when income and withdrawals are added, and expenses and estimated taxes are subtracted. Contributions are added to the investments accounts. Any funds left over each year in the cash account are saved back into the investment taxable savings account for the next year. Any yearly cash shortfalls are taken from the savings account. Yearly cash-flow losses (gains) are removed from (added to) the taxable savings account for the next year. This spreadsheet is an Excel workbook consisting of a number of worksheets containing your personal data that you enter. In Excel, the spreadsheet as a whole is called a workbook which in turn is a collection of worksheets. Clicking on one of the tabs at the bottom of the window will bring up that particular worksheet.

Setting up the spreadsheet

Use the **S. Setup** worksheet to specify which worksheets you need to fill out. It works with one person S1 or two spouses we call S1 and S2. In Excel, you switch between worksheets by clicking on the worksheet tab at the bottom of the Excel window or by clicking on worksheet hyperlinks (blue font with an underline) available throughout the spreadsheet. The **R. Results** worksheet summarizes data computed on the other data worksheets both as tables and then graphs of the data in the tables. This is updated when you change any of the other worksheets data.

Depending on your level of expertise and familiarity with financial terms, you may want to read **Appendix C** (glossary of financial terms) before entering your data. In addition, this spreadsheet requires you to switch between different worksheets that focus on *particular* types of data (e.g., work income, Social Security benefits, IRAs, expenses, etc.).

Types of personal data required

One or more income sources can be defined and include: work income, *pensions, Social Security,* and *annuity payouts* . There are three types of investment accounts including: *tax-deferred deductable IRA, Roth IRA* and *Savings (taxable investments)* , bank bank accounts, and CDs). For purposes of the spreadsheet, 401(k), 403(b), 457(b), Traditional-IRA, Rollover IRAs are considered to contributions and be tax-deferred IRAs. Similarly a Roth-401(k) is considered a Roth IRA. This is because when you retire, retirement accounts can be rolled over to "Rollover-IRA" and Rollover-Roth" accounts. You may make both scheduled and irregular contributions/withdrawals to each of the spreadsheet investment accounts. An irregular event is a one-time event occurring on a particular year. You may specify expenses as both scheduled and irregular events. You might think about your list of future irregular expenses as a planning tool for your future expenses in your "Bucket-List" - such as college expenses, retirement, trips, gifts, etc. (See the discussion of the 2007 comedy film **The Bucket List** http://en.wikipedia.org/wiki/Bucket_list for a nice definition.) The spreadsheet calculates your remaining assets yearly so you can used this for planning future expenses.

If the cash-flow is ever negative for a particular year, It takes the shortfall from the taxable savings account (**9. SavingsData**). If this is a problem, one could possibly increase some of the income sources (IRA or ROTH) other than taxable savings and/or lower expenses to make the cash-flow positive if it was down a lot. The spreadsheet will warn you if this happens in **R.Results** section **R.8**.

1.1 Some examples of questions that can be investigated using this spreadsheet

Q.1 Will I run out of money during retirement?

Given expected income sources and expected expenses in retirement, will I run out of money. If I save more or spend less, work shorter or longer - how will that affect my cash flows? How much do I need to save?

	A	B	C	D	E	F	G	H	I	J	K
164	**Q.1.1 Will the money being saved for college expenses (or a new home or cars, etc.) be adequate?**										
165	This is similar to question **Q.1** but the future dates for the starts of the expenses may be nearer or farther out and the expense										
166	amounts and savings income and savings amounts required are quite different.										
167											
168	**Q.2 When should I do withdrawals on my tax-deferred IRAs?**										
169	Using the spreadsheet one could also do experiments, for example to determine whether taking some tax-deferred IRA										
170	early withdrawals (before 70 1/2) might minimize going into a much higher tax bracket when one must start to take IRA										
171	Required Minimum Distribution (RMD) without a penalty. If you take early IRA withdrawals once you are able to do it without										
172	the added tax penalty (after 59 1/2) and the money if not needed then it could then be reinvested in tax-efficient										
173	investments in a taxable savings account using broad-based low-cost low-turnover stock index and possibly muni bond										
174	index funds. This might possibly lower your RMDs and taxes later on for those who might be in a much a higher tax-bracket.										
175	Both tax-deferred IRAs and Roth IRAs can be accessed at 59 1/2 without a tax penalty. This spreadsheet does not currently										
176	check to see if you are doing or handle IRA withdrawals before 59 1/2.										
177											
178	**Q.3 When should I retire, claim Social Security, and how will this affect my savings?**										
179	The spreadsheet might also be used for helping to decide when to claim Social Security. Delaying claiming Social Security										
180	gives you a roughly 8% higher benefit for each year you delay (and that does not include the CPI adjustment made each year										
181	to Social Security). The total income needed from various income sources and additional withdrawals during the pre-claiming										
182	period could be evaluated with experiments to try claiming Social Security at different ages and then comparing the total income										
183	stream against expected expenses and taxes. You might experiment with different dates for taking Social Security and instead										
184	taking money from other accounts to used to provide income if needed before claiming.										
185											
186	**Q.4 How will irregular expenses affect my future income stream through retirement?**										
187	You can experiment with seeing how adding irregular expenses affects your retirement income. This can be useful for example										
188	to see how many trips a year you might take; how a pricy a private college or a less expensive public college fits into your										
189	planning; how expensive a house you might buy; etc. All these decisions will affect how your retirement income stream might										
190	behave.										
191											
192	**Q.5 How much more income could I earn long term if I have a more aggressive stock portfolio (more stocks)?**										
193	The stock/bond asset allocation model used here is fairly elementary using *fixed average long-term returns* of stocks and bonds										
194	for the duration of the period used in the model However, using a more aggressive portfolio (more stocks, riskier stocks, etc.)										
195	might give you a higher return. In the long-run, for example, more small-cap stocks might earn a bit more return than large-cap										
196	stocks, etc. So you can see the effect of this over the long term. Note, that this spreadsheet model does not take varying returns										
197	or sequence of returns into account that can greatly affect the results if withdrawals are taken from that account over time.										

	A	B	C	D	E	F	G	H	I	J	K
198											
199	**Q.6 What is the effect of different levels of inflation on my savings over time?**										
200	You can specify different expected long term CPI (Consumer Price Index estimate of inflation) values and see how that affects										
201	your savings and expenses needed during retirement. Instead of using the default CPI you set, you can specify different CPIs in your										
202	income and expenses in the different accounts that may be more or less than the default CPI.										
203											
204	**Q.7 What would the effect be of adding annuities during retirement? What if I started them at different times?**										
205	You can experiment adding annuities for each spouse, with and without COLA adjustments, to see the effects on retirement cash										
206	flow. Note that the purchase costs of adding fixed-annuities at different ages in the future can be viewed as irregular expenses.										
207											
208											
209	**1.2 The types of data you will need to enter**										
210	You must specify the starting and ending ages for each income stream (work, pension, Social Security, and/or annuities),										
211	and do this independently for each spouse S1 and S2. You specify the expected average market returns for stock and bonds										
212	(fixed income) in your investment portfolio. Historically, roughly 90% of your portfolio return is determined by your asset										
213	allocation (in this case the stock:bond ratio). In addition, you can specify (the same or different) Cost Of Living Adjustments										
214	or COLAs for each of these income streams that increase the income and expenses by that percentage each year. You may also										
215	specify the expected Consumer Price Index (CPI) that can used as a default for the various COLAs you need to enter.										
216											
217	**Types of Savings**										
218	Similarly, you must specify the age ranges for scheduled investment (IRA, Roth, taxable Savings) contributions and withdrawals										
219	for S1 and S2. The IRA and Roth accounts are optional, but the Savings account is required since it is used to reconcile the cash-										
220	flow and where insurance (if any) payouts are deposited. You can specify both scheduled contributions as a fixed amounts and										
221	withdrawals as a percentage each year that increase by a COLA if desired. You can also specify irregular contributions and										
222	withdrawal events that can occur at any age or have several events the same year independently for both S1 and S2. For										
223	example, one could withdraw money to buy a new car, pay for kids college, take a big trip and buy a new house at the same										
224	year. You specify the age (e.g. 59) rather than the year (e.g. 2019) for the events. It computes the sum of the scheduled										
225	and irregular contributions and withdrawals respectively each year. These are tracked separately for S1 and S2.										
226											
227	**Types of Expenses**										
228	Expenses are specified similar to contributions and withdrawals for investment accounts, but as scheduled and irregular										
229	*expense* events. Whereas yearly investment account withdrawals are added to the cash-flow, expenses are subtracted										
230	from the cash-flow. You can also specify scheduled and irregular deductions that are used for part of the tax calculations.										

Otherwise, options are similar such as starting and stopping ages with an expense COLA are specified. A rough estimate of Federal and State taxes that are computed are subtracted from the cash account. Note that State taxes are estimated by a fixed percentage not as a AGI-dependent marginal tax rate. Different states may also have various deduction levels associated with different types of pensions, etc. which are not taken into account.

It can be used by a single person (S1) or a couple (S1 and S2)

If there is no spouse S2, then just enter zeros for all income, contributions, withdrawals, and expenses for S2 entries. You can enter the same age range as for S1 to simplify data entry.

Limitations on the types of calculations done in the spreadsheet

The computations use estimates you specify for various parameters and uses a fixed CPI, fixed COLAs, fixed stock and fixed income returns whereas in reality these all change year to year. It does not address the problem of sequence of returns and sequence of withdrawals that can radically affect long term returns. The reality is that all future rates of returns, CPIs, COLAs, tax rates, tax rules and schedules, deduction schedules, etc. are unknown. However, we know they *will* vary and both of these factors can greatly affect future results. Better methods such as monte-carlo or randomized sequences of actual past returns can improve the model, but still can not guarantee returns. Such advanced methods are beyond the scope of this spreadsheet. Black Swan events do happen - think 9/11 and the 2007-Great Recession. So these results are really ball-park estimates, but that still may be useful for planning.

1.3 How the spreadsheet works

Each worksheet has an **INSTRUCTIONS** paragraph in the beginning that explains what you need to fill out in that worksheet.

A few figures illustrating some of the aspects of the spreadsheet are found in the **Figures** worksheet. Some of the figures are for an older version of the spreadsheet but give the general flavor of how the worksheets work.

Personal configuration of the spreadsheet using the "S. Setup: worksheet

You must first specify which data worksheets you want to use. Go to the **S. Setup** worksheet to specify the types of accounts that apply to your personal situation in section **S.1** (see Figure 1) and either select "used" or "ignored" for each of the worksheet options. You may specify whether you want to include irregular contributions and withdrawals in the investment and expense accounts in section **S.2** (see Figure 2). Finally, you can specify whether you want to add scheduled contributions and withdrawals for the investment accounts in table **S.3** (see Figure 3). Figures 4 and 5 show examples of account worksheets that MUST be edited and those NO NEED TO EDIT based on the parameters you set in section **S.1**. Figure 6 shows how irregular expenses are entered into the **10. ExpensesData** worksheet. Figure 7 shows how irregular contributions and withdrawals are

entered into the investment accounts worksheets. The following is a summary list of the other worksheets. You can click on the hypertext to go to that worksheet or click on the worksheet name tab at the bottom of this window. Figure 8. shows an example of the **R. Results** summary table **R.1**. The other worksheets are discussed in more detail below.

Then enter your Age and Tax data

After editing the **S. Setup** worksheet, you should then edit the **1. AgeData** worksheet, and then enter basic tax filing data in the **2. TaxData** worksheet. Then you should visit each of the other data-entry worksheets and enter your personal data.

Remember to save the Excel workbook (spreadsheet) after or during your editing of the various worksheets. Your personal data will not be saved unless you tell Excel (or whatever spreadsheet program you are using) to save it. As you make changes, saving the spreadsheet often is a good idea.

Some worksheets let you enter multiple sets of data as a table we call a "Table-GUI"

You enter data only in the red cells. Put $0 or 0%, etc. in cells that don't apply. Worksheets **1. AgeData, 3. WorkData, 7. IRAdata** and **8. Roth** data have table-GUI data entry. The following is an example of a Table-GUI for the **3. WorkData** worksheet.

Job Nbr	S1 start job age	S1 end job age	Job Income	Job income COLA	S1 work adjustment	S2 start job age	S2 end job age	Job Income	Job income COLA	S1 work adjustment
1	25	62	$50,000	2.00%	$0	25	35	$20,000	2.20%	$0
2	63	69	$40,000	0.50%	$0	35	57	$40,000	1.50%	$0
3	0	0	$0	0.00%	$0	58	66	$15,000	1.50%	$0

View the final results in the "R. Results" worksheet after you have entered all your data.

After you have entered all of your data, you can view your results summarized in the **R. Results** worksheet. This takes intermediate results computed in the rest of the worksheets and gives you a global picture of your situation year by year.

The worksheets are color coded by function.

Introduction and **Resources** worksheets are white. *is additional documentation*

SimpleCalc worksheet: SimpleCalc *is the elementary glide-path calculator*

Figures and **Appendices** worksheets are *is additional documentation*

You can view a summary view at any time of all your settings in **S. Setup,** and **1. AgeData** through **10. ExpenseData** worksheets.

Assumptions worksheet Assumptions *Summary list of all settings by user in the other worksheets*

	A	B	C	D	E	F	G	H	I	J	K
297	You don't edit the **Assumptions** worksheet since it summarizes the other data worksheets.										
298											
299	Results worksheet:		R. Results		*summarizes spreadsheet glide-path results **after** entering your data*						
300	You don't edit the **R. Results** worksheet since it summarizes the other data worksheets.										
301											
302	Configuration worksheets:		S. Setup		*used to configure entire spreadsheet (indicate which sheets are used)*						
303			1. AgeData		*enter age, CPI, market returns, insurance used throughout spreadsheet*						
304			2. TaxData		*enter Federal tax data and filing status*						
305											
306	The income worksheets specify one or more sources of yearly income,										
307	Income worksheets:		3. WorkData		*enter your work income data, if any (current or future)*						
308			4. Pension Data		*enter your pension income data, if any (current or future)*						
309			5. SocSecData		*enter your Social Security income data, if any (current or future)*						
310			6. AnnuityData		*enter your annuity income data, if any (current or future)*						
311											
312	The investment accounts are also a source of money through taking withdrawals (as well as allowing contributions).										
313	Investment worksheets:		7. IRAdata		*enter your tax-deferred IRA accounts data, if any (current or future)*						
314			8. RothData		*enter your Roth IRA accounts data, if any (current or future)*						
315			9. SavingsData		*enter your taxable savings accounts data, if any (current or future)*						
316											
317	This is the worksheet where you enter your yearly expenses										
318	Expense worksheet:		10. ExpensesData		*enter your expenses data (current or future)*						
319											
320	This is where the yearly cash-flow is computed from (Income + Withdrawals - Expenses - Taxes)										
321	You don't edit the **CashData** worksheet.										
322	Cash-flow worksheet:		11. CashData		*summarizes the cash flow from the other worksheets*						
323											
324	This RMD table used with IRA withdrawals is in the RMDtable worksheet										
325	You don't edit the **RMDtable** worksheet unless the IRS updates it's RMD data.										
326	RMD table worksheet:		12. RMDtable		*contains the IRS Required Minimum Distribution data*						
327											
328	For each of the applicable data worksheets accounts, enter income, contributions and/or withdrawals or expense data										
329	(i.e., ages, amounts, rates of return (ROR), COLAs, etc.). There is a detailed list of all these worksheets tables and sections										
330	in **Appendix A**.										

Income sources are: work income, pensions, Social Security, and annuity benefits. Investment accounts include tax-deferred IRAs, Roth IRAs, and savings investment accounts. You may specify contributions and withdrawals from investment accounts. Expenses and deductions are entered in the **10. ExpensesData** worksheet. Taxes are then estimated on the total taxable income. All data worksheets let you specify the age when the incomes, contributions and withdrawals or expenses start as well as when they end. Investment contributions and withdrawals as well as expenses and tax deductions are specified by both scheduled yearly events and by irregular events. Irregular events are specified at particular ages rather than on a yearly schedule.

How excess or insufficient cash is handled at the end of each year

Each year, all income and investment withdrawals are "deposited" or added into the cash-flow table in **11. CashData** worksheet. Expenses and taxes are "removed" or subtracted from the **11. CashData** worksheet. The resulting excess (or shortfall) is calculated and added or (removed) from the taxable savings in **9. SavingsData**. Here is an example to help clarify the difference between scheduled and unscheduled events. For example, you might schedule yearly withdrawals from the Savings account on either a specific schedule (e.g., 1%/year) or on an irregular basis such as a particular withdrawal for a new car a (e.g., $22,000). This is described in more detail in section **1.4** below.

How life insurance payouts are handled

If there is ever a life insurance payout for S1 and/or S2 for policies described in **1. AgeData** section **1.4**, the payout is computed for **9. SavingsData** table 9.4.2.1 and added tax-free to the savings according to the payee.

Demonstration Data that you must override to enter your data

The spreadsheet comes with demonstration (demo) data already set up for demonstration purposes and to gives examples of reasonable values in all of the data-entry worksheets. You may or may not use all of the data-entry worksheets. You direct the spreadsheet to not use any particular data worksheet by selecting "**ignoring**" them in the **S. Setup** worksheet section **S.1** lets you declare the data worksheets that *you do want* you specify as "**used**". [You can also ignore data from particular worksheets by setting the income, contribution or withdrawal amounts data to **$0** to remove them from the calculations.] The investment returns for the investment account (IRA, Roth, and Savings accounts) from the previous year are added to the current year for each of the respective accounts (whether the balance is + or -).

S. Setup section **S.2** lets you enable/disable the use of Irregular contributions and withdrawals by selecting "**yes**" or "**no**". **S. Setup** worksheet **S.3** lets you enable/disable the use of scheduled contributions and withdrawals by selecting "**yes**" or "**no**".

Removing the irregular demonstration data in (7. IRAdata, 8. RothData, 9. SavingsData, 10. ExpensesData)

Some of the worksheets have irregular demonstration data (**7. IRAdata, 8. RothData, 9. SavingsData, 10. ExpensesData**) that you should replace with empty entries when you are entering your own data or use the "-**noDemo-**" version of the spreadsheet. Only enter data in the red cells. The spreadsheet is also distributed in two other file versions with "**-noIrregularData-**" and "**-noData-**" in their titles.

The spreadsheet files are distributed with the name, version number, and demo data as part of the file

The spreadsheet is distributed in three different versions depending on how much demonstration data are to be provided. This is noted in the file names as we now describe.

The file names all versions of the "Simplified-Income-Planning-Tool" are prefixed with "**SIPT-**".

For example, the version number is indicated as: **V.0.19.2**

This is followed by the release date is indicated by: **11-8-2015a**

a) full demo data	**SIPT-Demo-V.0.19.2-11-8-2015a.xlsx**
b) no irregular demo data	**SIPT-noIrregularDemo-V.0.19.2-11-8-2015a.xlsx**
c) no demo data	**SIPT-noDemo-V.0.19.2-11-8-2015a.xlsx**

a) is the spreadsheet with full demo data. It is useful for viewing the full demonstration examples in all data entry worksheets. It includes examples for the data entry worksheets. In most people's situations, you might only use a few of these types of income sources for your data.

b) is the same demo data spreadsheet as (a) but with all irregular data deleted and replaced with empty entries. It is useful for entering your data and viewing demonstration answers without the irregular demonstration data. The "-noIrregularDemo-" data version may be useful in entering your personal data by seeing what typical answers might be and you can adjust your answers to your situation by overwriting the demo answers in the red cells.

c) has all entries set to either **$0** or **0.0%** (as needed in all data-entry worksheets), with no irregular data, and with all worksheets unselected in worksheet **S. Setup**. It is useful for entering your data from scratch without having to overwrite any demonstration data answers.

You can enter your own data in any of the three versions overwriting demo data as required.

All worksheets where calculations are performed are protected except for the red cells where you are to enter your data

Because entering data in non-red cells might corrupt the spreadsheet, we protect all worksheets except red cells where you enter your data. You can unprotect any worksheet you are in by going into the Excel Format option and clicking

on *Unprotect worksheet* . For more details on protecting/unprotecting worksheets, see **RS. Resources RS.9 Excel resources.**

1.4 How Contributions, Withdrawals and Expenses are handled

Both scheduled and additional withdrawals taken from the tax-deferred IRA, Roth IRA, and Savings accounts are added to the cash-flow in the **11. CashData** worksheet. Both scheduled and irregular Expenses (**10. ExpensesData** worksheet) and Federal and State taxes **(2. TaxData** worksheet) are taken from the cash account. Roughly, for each year y,

Cash(y) = Income(y) + Withdrawals(y) - Contributions(y) - Expenses(y) - Taxes(y) + Insurance Payout(y)

Then, the cash balance is added (subtracted if negative) to the savings account for the next year,

Savings(y+1) = Savings(y) + Cash(y)

This means if you have large future expenses planned, you may want to lower expenses and/or withdraw some of the money over several years from the tax-deferred IRA, or taxable savings with high unrealized capital gains to help pay for them. Doing this over several years prior to the expense may possibly avoid your going into a much higher marginal tax bracket. Then when this additional money is added to the Cash-flow, the expenses will be covered and the Cash-flow will not show a negative amount. You have the option in the **11. CashData** worksheet to rebalance spouse S1 and S2 by rebalancing cash between them for a year in which one of them has a negative balance. This is enabled in the **Setup S.2** worksheet. That is, each year if the cash flow for either S1 or S2 is negative, it then subtracts the negative amount from the positive one so the one with extra cash helps out the spouse S1 or S2 who has a negative balance.

1.5 Error checking - Running out of money and age entry checking

There is some error checking built into the spreadsheet, although far from complete. In the income source data worksheets, If you enter an age less then your current age it will give you an error message to that effect. The age must be at least the age you enter in the **1. AgeData** worksheet. Also, when taking scheduled Investment withdrawals and expenses, you must specify both a starting age and ending age. (To schedule yearly events for your lifetime, enter a large value such as 100 or 110 for the ending age). The spreadsheet checks to make sure your starting age is less than your ending age, and will warns you if it is not. If your withdrawals from an investment account are too high, the account will run out of money and will show a negative balance. This last error checking will warn you in case that happens so you can withdraw less to avoid this situation. These checks are summarized in sections **R.8.1** and

430 **R.8.2** in the **R. Results** worksheet. If there is no error, then a blue dot will appear. Otherwise you will see an error
431 message describing the situation and directing you to the appropriate worksheet to correct it.
432 In summary:
433
434 (a) Validity checks are made for IRA, Roth, Savings and Cash-flow accounts to test if any of them run out of money. This
435 is indicated with a **PROBLEM** warning on the **R. Results** worksheet **R.8.2**. The error will remain until you correct it.
436
437 (b) Validity checks are made in the data worksheets comparing the age entries with those of the **1. AgeData** worksheet
438 If the ages entered are inconsistent, it will show an **ERROR xxx** message until you fix it. For entries that are not
439 being used (since you set the amounts in question to $0), you must set your starting age in the other
440 worksheets to at least the current age in the **1. AgeData** worksheet. This is summarized for all worksheets in
441 **R. Results** section **R.8.1**.
442
443

444 2. Disclaimer

445 This software attempts to model an income stream from several different income sources, investment withdrawals,
446 expenses, taxes and cash-flows over time. No claim is made to the accuracy, suitability, and correctness of the
447 algorithms. Also, note that the further out one goes over time, the less accurate any estimates will be. Since the
448 software uses static models and static rates of return, CPI, etc. that you enter, it will not track actual market values
449 over time. The software uses only Excel formulas and <I>does not use Visual Basic (VBA)</I>, so one can easily review
450 all computations as desired. Because it uses generic spreadsheet coding (with no VBA), it will run in a variety of
451 spreadsheet programs such as Windows Excel, free OpenOffice or LibreOffice "calc", free Google"sheet", etc.. Use this
452 software at your own discretion and risk as an initial way to think about personal finance problems. This is educational
453 software. Absolutely no warrantee is offered for this software and no responsibility is taken for any errors in. or use of
454 the software.

455
456

457 3. Directions for using the spreadsheet

458 The spreadsheet as it is distributed has demonstration data entered in **red** cells through the worksheet. Enter your data
459 by overwriting the demonstration data. You might want to save your spreadsheet with a new file name as you make changes.
460 The demonstration data provides examples of answers to give you an idea of typical values. Note that negative numbers are
461 shown as red ($1,234) rather than -$1,234, and should not be edited.
462

	A	B	C	D	E	F	G	H	I	J	K
463	**The first worksheets you should use to enter your data**										
464	You must first configure the spreadsheet to your personal situation. This is done in the **S. Setup** worksheet sections **S.1** to **S.3**.										
465	By not using that worksheet specified in S. Setup section S.1, it will also ignore that data. Then enter your data in the										
466	**1. AgeData** and **2. TaxData** worksheets since these are used by the other data worksheets. In table **S. Setup S.1** you declare the										
467	set of data worksheets that are applicable to you (see Figure 1), where you select "**use**" or "**ignore**". In **S. Setup** section **S.2**										
468	you can configure the spreadsheet to use irregular contributions and withdrawals for investment accounts and the expenses										
469	account (see Figure 2 in **Figures** worksheet In **S.3** you can configure the spreadsheet to use scheduled contributions and										
470	withdrawals for the investment accounts (see Figure 3). Most of the **S.2** and in **S.3** require a "**yes**" or "**no**" answer with one										
471	question using having a "**keep**" or "**remove**" question.										
472											
473	**Then, entering data in other worksheets**										
474	After setting the initial configuration in the **S. Setup, 1. AgeData** and **2. TaxData** worksheets, enter the rest of your personal										
475	data in the data worksheets **3. WorkData** through **10. ExpensesData** you have selected (see section **1.3** above for a list of data										
476	entry worksheets). Again, only enter data in the red cells on the worksheets. You switch between worksheets either by clicking										
477	on the tabs at the bottom of this Excel window or by clicking on the hypertext worksheet name in the **Worksheet Navigation**										
478	table at the end of each worksheet (see an example at the bottom of this worksheet). Some worksheets (like this one) will										
479	also have hyperlinks to other worksheets.										
480											
481	**3. WorkData, 4. PensionData, 5. SocSecData, 6. AnnuityData, 7. IRAdata, 8. RothData, 9. SavingsData, 10. ExpensesData**										
482											
483	If a particular data worksheet does not apply to one of the spouses S1 or S2, or there is no spouse S2, then just enter **$0** for any										
484	income, contribution, withdrawal, etc. amounts for that worksheet. That lets the data be ignored in computing the results from										
485	the various data sources. Although by not using that worksheet specified in **S. Setup** section **S.1**, it will also ignore that data.										
486											
487	**Viewing your results in the "R. Results" worksheet**										
488	As you enter the data into the various worksheets, the spreadsheet will automatically recompute the other worksheets that use										
489	it to incorporate those changes. In particular, they will be reflected in the **R. Results** worksheet. You can see how changes in any										
490	worksheet affects the results by going back and forth between the **R. Results** worksheet and the data worksheet you are										
491	currently working on.										
492											
493	**Experimenting with other configurations after you have entered your personal data**										
494	You can model the income stream in various ways using temporary changes in the **S. Setup** configuration you might make. For										
495	example you could leave out various income sources such as stopping work, adding an annuity, adding a Roth IRA, etc. You could										
496	also try using different years for claiming Social Security, working longer, taking withdrawals from the IRAs or savings at										

different ages, or leave out or reduce certain expenses, etc..

4. Discussion of the list of all worksheet tables in Appendix A

Appendix A is a detailed list of all worksheet tables and sections. As mentioned, it is consists of those worksheets into which you enter your personal data, those that you may have to edit when the IRS rule or data changes, a cash-flow table where income and expenses are tallied, and finally the **R. Results** worksheet where results are summarized. It may be useful to look through these lists to familiarize yourself with the type of data that will be needed and what types of results are presented - or just view the different worksheets.

NOTE: You enter your data only in the Red Cells in the Data Input Worksheets.

ONLY enter or edit data in RED cells.

ORANGE cells are normally not changed unless the IRS changes various tax rates (do not edit).

BLUE cells are major results or intermediate results (do not edit).

BLACK cells are intermediate computations (do not edit).

GRAY areas of the other worksheets indicate where the analysis has not been implemented yet and should be ignored.

Note: You don't have to edit tables in any of the other worksheets beyond the following warning message if it is present:

- - - > DO NOT CHANGE ANY VALUES in the following tables in this worksheet. < - - -

5. Notes on current version of the spreadsheet

Note (1) The spreadsheet does not handle state taxes fully as that would depend on the specific tax rules of each state, and would need to take tax-free muni-bond income into account. However, in the **2. TaxData** worksheet it does allow you to declare a state tax percentage which will be added to your marginal tax rate and applied to the adjusted gross income. It also allows you specify the tax-free deduction as a percentage in **9. SavingsData** section **9.2** so that muni bond income could be approximated.

	A	B	C	D	E	F	G	H	I	J	K
527											
528	Note (2) The spreadsheet model uses average estimated values you specify for CPI, tax rates, withdrawal values (RMDs										
529	are enforced), and rates of return that will obviously be a bit different in the future. But probably not too far off for rough										
530	estimation purposes. You can use the CPI, set in **1. AgeData** worksheet, as the default COLA for Soc Sec, Pension, IRA,										
531	Roth and Savings withdrawals, work and annuity income, and Expenses. You can also override each of these COLAs on										
532	the respective worksheets. If the COLA value you use on the data worksheets is -**0** or **0%**, then it uses the CPI value you set.										
533											
534	Note (3) You may include income from any of the sources (pensions, social security, work, and/or annuities).										
535	Withdrawals made from Investment accounts (IRA, Roth, Savings) are treated as income. None are required except the IRA										
536	RMD withdrawals that are done automatically at age 70 1/2.										
537											
538	Note (4) The Social Security benefits tables are computed for each spouse for each year delayed past age 62 (see worksheet										
539	**5. SocSecData** section **5.1**).										
540											
541	Note (5) You can take scheduled and/or irregular yearly expenses from the **10. ExpensesData** worksheet.										
542											
543	Note (6) You can have scheduled (i.e., yearly) as well as irregular contributions and withdrawals on the investment										
544	accounts. You can disable contributions and withdrawals per account on the **S. Setup** worksheet sections **S.2** and **S.3**.										
545	It can be useful to temporarily disable irregular expenses to get an idea of the "steady-state" behavior of the income										
546	stream flow.										
547											
548	Note (7) The spreadsheet does not calculate additional tax penalties for taking withdrawals from the tax-deferred IRA of										
549	Roth IRA before age 59 1/2. It forces you to take the maximum of tax-deferred IRA RMD or your specified withdrawals. Note										
550	also, it currently does not differentiate with inherited-IRAs which may have a different RMD schedules from the regular IRA										
551	but instead computes a "virtual" deductible IRA as the weighted mean of 401(k), 403(b), 457(b), Traditional-IRA and RMDs.										
552	Rollover-IRA data. Also there is an RMD calculation associated with inherited-Roths or 401(k)-Roths currently which have										
553	a required RMDs.										
554											
555	**Appendix D** lists the more information about the current status including a list of things TODO and the ongoing										
556	REVISION-LIST history.										
557											
558		Elementary glide-path calculator (SimpleCalc)					Next SIPT worksheet (Assumptions)				
559											

	A	B	C	D	E	F	G	H	I	J	K
560	**Worksheet Navigation.**										
561	To go to a specific worksheet, click on one of the following:										
562		Introduction									
563		Assumptions									
564		R. Results									
565		S. Setup									
566		1. AgeData									
567		2. TaxData									
568		3. WorkData									
569		4. PensionData									
570		5. SocSecData									
571		6. AnnuityData									
572		7. IRAdata									
573		8. RothData									
574		9. SavingsData									
575		10. ExpensesData									
576		11. CashData									
577		12. RMDtable									
578		RS. Resources		Articles, literature, web sites							
579		Figures		Screen shots & descriptions							
580		Appendix A		List of all worksheets tables & section							
581		Appendix B		Extra calculators							
582		Appendix C		Glossary of terms							
583		Appendix D		List of outstanding issues and Revision list							
584		FAQ		Frequently Asked Questions							