	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 a financial 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 over time. You must be willing to enter *summaries* of a wide variety of your personal**										
8	**financial data required by the model including applicable investments (taxable and retirement), pension, Social Security, work,**										
9	**annuity, and expenses. The final results are shown in summary tables and glide-path graphs of those tables. All data are**										
10	**entered and calculated in this spreadsheet. No data are exported or saved from the spreadsheet (either locally or to the Internet).**										
11	**Once the data entered, the spreadsheet estimates yearly cash-flows using income from various sources: Work, Pensions, Social**										
12	**Security, Annuities, and Life Insurance benefits; contributions and withdrawals from tax-deferred IRAs, Roths and Savings**										
13	**investment accounts. It estimates yearly investment returns and taxes on investment returns, expenses. Next it estimates yearly**										
14	**Federal tax rates and resulting cash-flows. It allows for scheduled and irregular contributions and withdrawals for investment**										
15	**accounts (IRA, Roth, Savings) as well as scheduled-and-irregular expenses and deductions and then calculates yearly net worth.**										
16	**It can be useful for investigating various planning scenarios by making changes and seeing how that affects the results.**										
17											
18	**It can be run in a variety of spreadsheet programs such as Windows Excel, the free OpenOffice or LibreOffice "calc", Google**										
19	**"sheet", etc. since it doesn't use Microsoft Visual Basic because VBA may not be available in all spreadsheet programs. Apple**										
20	**"numbers" spreadsheet program has some incompatibilities, so use one either Excel for Mac or one of the free spreadsheet**										
21	**programs. Apple "numbers" spreadsheet program has some incompatibilities, so use either Excel for Mac or one of the**										
22	**free spreadsheet programs. The spreadsheet does not save data on the Internet.**										
23											
24	**So why model? Although all models will be inaccurate, having a rough estimate can be useful for planning purposes. in the**										
25	**The spreadsheet is a compromise between complexity and completeness and leans direction of a simpler model. It is an**										
26	**educational tool. As statistician George Box noted "All models are wrong, but some are useful". In addition, a crude glide-path**										
27	**calculator is available to illustrate the concept that may be useful to experiment with to better understand the concept of**										
28	**glide-path before using the full SIPT spreadsheet that uses a much more complete financial planning model.**										
29											
30	Recent revisions:	Revised:	12/9/2015		V.0.22.4	***Beta***					
31		Revised:	7/14/2016		V.0.24.14	***Beta***					
32		Revised:	7/20/2016		V.0.24.15	***Beta***					
33		Revised:	8/7/2016		V.0.24.16	***Beta***					

	A	B	C	D	E	F	G	H	I	J	K
34	See	**Appendix D**		for list of outstanding issues (things TODO), and extended REVISION-LIST							
35											
36	Note: The spreadsheet will be revised each year after new Tax Tables & Cap-Gains/Div. rates & tax rules are announced.										
37											
38	© P. Lemkin 2012-2016										
39	GNU General Public License, version 3.0 (GPLv3) at				http://opensource.org/licenses/gpl-3.0.html						
40	See the full license description sections 15. Disclaimer of Warranty and 16. Limitation of Liability for details.										
41											
42	** For more on *Beta-level* software see			https://en.wikipedia.org/wiki/Software_release_life_cycle							
43											
44	**"Forever Beta"**										
45	*Version 0.123.6 No wait - one more thing.* Done!										
46	*Version 0.123.7 No, still not quite right.* Done!										
47	*Version 0.123.8 Well, still not quite there yet.* Done!										
48	*Version 0.123.9 Added a new feature competing software has.* Done!										
49	*Version 0.123.10 Oops, didn't implement feature correctly.* Done!										
50	. . .										
51											
52											
53											
54	***Cartoon by TarTar, 10-15-2015***										
55											
56	**Table of Contents for Introduction**										
57	Introduction										
58	1. Description of the SIPT Spreadsheet										
59	1.1 Some examples of questions that can be investigated using this spreadsheet										
60	1.2 The types of data you will need to enter										
61	1.3 How the spreadsheet works										
62	1.4 How Contributions, Withdrawals and Expenses are handled										
63	1.5 Error checking - Running out of money and age entry checking										
64	2. Disclaimer										
65	3. Directions for using the spreadsheet										
66	4. Discussion of the list of all worksheet tables in Appendix A										

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

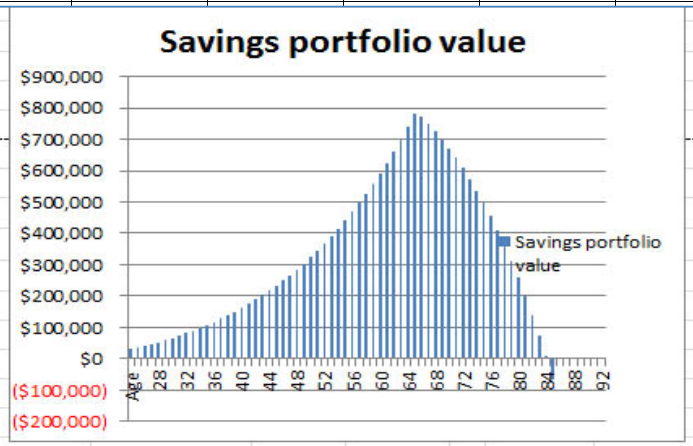
You might try using this SIPT spreadsheet that we describe in more detail below. Of course it can not predict the future but hives give a better estimate that may be more useful in doing planning.

1. Enter your data in the Red cells below.

Your current age (same as retired if *already* retired):	25
Your expected retirement age:	67
Current value of savings portfolio:	$30,000
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 and go over time. Results are calculated at the end of each year. It uses a yearly "cash flow" calculation defined as the sum of income and withdrawals, and expenses, contributions and estimated taxes are subtracted. Any funds

left over each year in the cash account are saved back into the investment taxable savings account for the next year. Similarly, in years with a yearly cash shortfalls are taken from the savings account the next year. The 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 people we call S1 and S2. S1 and S2 can be married or unmarried, however the latter should only use the tax filing status Separate Filing.

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. The results are updated when you change any of the data in the other data entry worksheets.

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**

	A	B	C	D	E	F	G	H	I	J	K
164	section **R.8**.										
165											
166	**1.1 Some examples of questions that can be investigated using this spreadsheet**										
167	**Q.1 Will I run out of money during retirement?**										
168	Given expected income sources and expected expenses in retirement, will I run out of money. If I save more or spend less,										
169	work shorter or longer - how will that affect my cash flows? How much do I need to save? Remember that this is a static model										
170	and will only be a crude approximation. There are many other more sophisticated models using monte-carlo and random										
171	sequence of returns that can give more accurate estimates. However, they all require you to have a good handle on your futur										
172	spending. The latter is where the SIPT may be useful.										
173											
174	**Q.1.1 Will the money being saved for college expenses (or a new home or cars, etc.) be adequate?**										
175	This is similar to question **Q.1** but the future dates for the starts of the expenses may be nearer or further out and the expenses										
176	may track differently from the consumer price index.										
177											
178	**Q.2 When should I do withdrawals on my tax-deferred IRAs?**										
179	Using the spreadsheet one could also do experiments, for example to determine whether taking some tax-deferred IRA										
180	early withdrawals (before 70 1/2) might minimize going into a much higher tax bracket when one must start to take IRA										
181	Required Minimum Distribution (RMD) without a penalty. If you take early IRA withdrawals once you are able to do it without										
182	the added tax penalty (after 59 1/2) and the money if not needed then it could then be reinvested in tax-efficient										
183	investments in a taxable savings account using broad-based low-cost low-turnover stock index and possibly muni bond										
184	index funds. This might possibly lower your RMDs and taxes later on for those who might be in a much a higher tax-bracket.										
185	Both tax-deferred IRAs and Roth IRAs can be accessed at 59 1/2 without a tax penalty. This spreadsheet does not currently										
186	check to see if you are doing or handle IRA withdrawals before 59 1/2.										
187											
188	**Q.3 When should I retire, claim Social Security, and how will this affect my savings?**										
189	The spreadsheet might also be used for helping to decide when to claim Social Security. Delaying claiming Social Security										
190	gives you a roughly 8% higher benefit for each year you delay (and that does not include the CPI adjustment made each year										
191	to Social Security). The total income needed from various income sources and additional withdrawals during the pre-claiming										
192	period could be evaluated with experiments to try claiming Social Security at different ages and then comparing the total income										
193	stream against expected expenses and taxes. You might experiment with different dates for taking Social Security and instead										
194	taking money from other accounts to used to provide income if needed before claiming.										
195											
196	**Q.4 How will irregular expenses affect my future income stream through retirement?**										

	A	B	C	D	E	F	G	H	I	J	K
197	You can experiment with seeing how changing irregular expenses affects your retirement income. This can be useful for example										
198	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										
199	planning; how expensive a house you might buy; etc. All these decisions will affect how your retirement income stream might										
200	behave.										
201											
202	**Q.5 How much more income could I earn long term if I have a more aggressive stock portfolio (more stocks)?**										
203	The stock/bond asset allocation model used here is fairly elementary using *fixed average long-term returns* of stocks and bonds										
204	for the duration of the period used in the model. It can be useful to get a ball-park estimate. However, using a more aggressive										
205	portfolio (more stocks, riskier stocks, etc.) might give you a higher return. In the long-run, for example, more small-cap stocks										
206	might earn a bit more return than large-capstocks, etc. So you can see the effect of this over the long term. Note, that this										
207	spreadsheet model does not take varying returns or sequence of returns into account that can greatly affect the results if										
208	withdrawals are taken from that account over time.										
209											
210	**Q.6 What is the effect of different levels of inflation on my savings over time?**										
211	You can specify different expected long term CPI (Consumer Price Index estimate of inflation) values and see how that affects										
212	your savings and expenses needed during retirement. Instead of using the default CPI you set, you can specify different CPIs in your										
213	income and expenses in the different accounts that may be more or less than the default CPI.										
214											
215	**Q.7 What would the effect be of adding annuities during retirement? What if I started them at different times?**										
216	You can experiment adding annuities for each spouse, with and without COLA adjustments, to see the effects on retirement cash										
217	flow. Note that the purchase costs of adding fixed-annuities at different ages in the future can be viewed as irregular expenses.										
218											
219											
220	**1.2 The types of data you will need to enter**										
221	You must specify the starting and ending ages for each income stream (work, pension, Social Security, and/or annuities),										
222	and do this independently for each spouse S1 and S2. You should specify the expected average market returns for stock and bonds										
223	(fixed income) in your investment portfolio. Historically, roughly 90% of your portfolio return is determined by your asset										
224	allocation (in this case the stock:bond ratio). In addition, you can specify (the same or different) Cost Of Living Adjustments										
225	or COLAs for each of these income streams that increase the income and expenses by that percentage each year. You may also										
226	specify the expected Consumer Price Index (CPI) that can used as a default for the various COLAs you need to enter.										
227											
228	**Types of Savings**										
229	Similarly, you must specify the age ranges for scheduled investment (IRA, Roth, taxable Savings) contributions and withdrawals										

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-flow and where insurance (if any) payouts are deposited. You can specify both scheduled contributions as a fixed amounts and withdrawals as a percentage each year that increase by a COLA if desired. You can also specify irregular contributions and withdrawal events that can occur at any age or have several events the same year independently for both S1 and S2. For 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 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 and irregular contributions and withdrawals respectively each year. These are tracked separately for S1 and S2.

Types of Expenses

Expenses are specified similar to contributions and withdrawals for investment accounts, but as scheduled and irregular *expense* events. Whereas yearly investment account withdrawals are added to the cash-flow, expenses are subtracted 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 individual 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. S1 and S2 can be married or unmarried. Married S1 and S2 can use tax filing status of Married Filing Jointly (MFJ) or Married Filing Separately (MFS), or Head of Household (HH). However the unmarried S1 and S2 should only use the Tax filing status Single Filing (SF).

Limitations on the types of calculations done in the spreadsheet

The computations use fixed estimates you specify for various parameters including a fixed CPI, fixed COLAs, fixed stock and fixed income returns whereas in reality these all change year to year introducing major changes ine the actual results. 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

	A	B	C	D	E	F	G	H	I	J	K
296	3	0	0	$0	0.00%	$0	58	66	$15,000	1.50%	$0
297											
298	**View the final results in the "R. Results" worksheet after you have entered all your data.**										
299	After you have entered all of your data, you can view your results summarized in the **R. Results** worksheet. This takes										
300	intermediate results computed in the rest of the worksheets and gives you a global picture of your situation year by year.										
301											
302	**The worksheets are color coded by function.**										
303	**Introduction** and **Resources** worksheets are white.				*is additional documentation*						
304	**SimpleCalc** worksheet:		SimpleCalc		*is the elementary glide-path calculator*						
305											
306	**Figures** and **Appendices** worksheets are				*is additional documentation*						
307											
308	You can view a summary view at any time of all your settings in **S. Setup,** and **1. AgeData** through **10. ExpenseData** worksheets.										
309	Assumptions worksheet		Assumptions		*Summary list of all settings by user in the other worksheets*						
310	You don't edit the **Assumptions** worksheet since it summarizes the other data worksheets.										
311											
312	Results worksheet:		R. Results		*summarizes spreadsheet glide-path results* ***after*** *entering your data*						
313	You don't edit the **R. Results** worksheet since it summarizes the other data worksheets.										
314											
315	Configuration worksheets:		S. Setup		*used to configure entire spreadsheet (indicate which sheets are used)*						
316			1. AgeData		*enter age, CPI, market returns, insurance used throughout spreadsheet*						
317			2. TaxData		*enter Federal tax data and filing status*						
318											
319	The income worksheets specify one or more sources of yearly income,										
320	Income worksheets:		3. WorkData		*enter your work income data, if any (current or future)*						
321			4. Pension Data		*enter your pension income data, if any (current or future)*						
322			5. SocSecData		*enter your Social Security income data, if any (current or future)*						
323			6. AnnuityData		*enter your annuity income data, if any (current or future)*						
324											
325	The investment accounts are also a source of money through taking withdrawals (as well as allowing contributions).										
326	Investment worksheets:		7. IRAdata		*enter your tax-deferred IRA accounts data, if any (current or future)*						
327			8. RothData		*enter your Roth IRA accounts data, if any (current or future)*						
328			9. SavingsData		*enter your taxable savings accounts data, if any (current or future)*						

	A	B	C	D	E	F	G	H	I	J	K
329											
330	This is the worksheet where you enter your yearly expenses										
331	Expense worksheet:		**10. ExpensesData**		*enter your expenses data (current or future)*						
332											
333	This is where the yearly cash-flow is computed from (Income + Withdrawals - Expenses - Taxes)										
334	You don't edit the **CashData** worksheet.										
335	Cash-flow worksheet:		**11. CashData**		*summarizes the cash flow from the other worksheets*						
336											
337	This RMD table used with IRA withdrawals is in the RMDtable worksheet										
338	You don't edit the **RMDtable** worksheet unless the IRS updates it's RMD data.										
339	RMD table worksheet:		12. RMDtable		*contains the IRS Required Minimum Distribution data*						
340											
341	For each of the applicable data worksheets accounts, enter income, contributions and/or withdrawals or expense data										
342	(i.e., ages, amounts, rates of return (ROR), COLAs, etc.). There is a detailed list of all these worksheets tables and sections										
343	in **Appendix A**.										
344											
345	Income sources are: work income, pensions, Social Security, and annuity benefits. Investment accounts include tax-deferred										
346	IRAs, Roth IRAs, and savings investment accounts. You may specify contributions and withdrawals from investment accounts.										
347	Expenses and deductions are entered in the **10. ExpensesData** worksheet. Taxes are then estimated on the total										
348	taxable income. All data worksheets let you specify the age when the incomes, contributions and withdrawals or expenses										
349	start as well as when they end. Investment contributions and withdrawals as well as expenses and tax deductions are										
350	specified by both scheduled yearly events and by irregular events. Irregular events are specified at particular ages										
351	rather than on a yearly schedule.										
352											
353	**How excess or insufficient cash is handled at the end of each year**										
354	Each year, all income and investment withdrawals are "deposited" or added into the cash-flow table in **11. CashData**										
355	worksheet. Expenses and taxes are "removed" or subtracted from the **11. CashData** worksheet. The resulting excess (or										
356	shortfall) is calculated and added or (removed) from the taxable savings in **9. SavingsData**. Here is an example to help clarify										
357	the difference between scheduled and unscheduled events. For example, you might schedule yearly withdrawals from the										
358	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										
359	(e.g., $22,000). This is described in more detail in section **1.4** below.										
360											
361	**How life insurance payouts are handled**										

	A	B	C	D	E	F	G	H	I	J	K
362	If there is ever a life insurance payout for S1 and/or S2 for policies described in **1. AgeData** section **1.4**, the payout										
363	is computed for **9. SavingsData** table 9.4.2.1 and added tax-free to the savings according to the payee.										
364											
365	**Demonstration Data that you must override to enter your data**										
366	The spreadsheet comes with demonstration (demo) data already set up for demonstration purposes and to gives examples										
367	of reasonable values in all of the data-entry worksheets. You may or may not use all of the data-entry worksheets. You										
368	direct the spreadsheet to not use any particular data worksheet by selecting "**ignoring**" them in the **S. Setup** worksheet										
369	section **S.1** lets you declare the data worksheets that *you do want* you specify as "**used**". [You can also ignore data from										
370	particular worksheets by setting the income, contribution or withdrawal amounts data to **$0** to remove them from										
371	the calculations.] The investment returns for the investment account (IRA, Roth, and Savings accounts) from the										
372	previous year are added to the current year for each of the respective accounts (whether the balance is + or -).										
373	**S. Setup** section **S.2** lets you enable/disable the use of Irregular contributions and withdrawals by selecting										
374	**"yes"** or **"no"**. **S. Setup** worksheet **S.3** lets you enable/disable the use of scheduled contributions and withdrawals by										
375	selecting **"yes"** or **"no"**.										
376											
377	**The spreadsheet files are distributed with the name, version number, and demo data as part of the file**										
378	The spreadsheet is distributed in two different versions depending on how much demonstration data are to be										
379	provided. This is noted in the file names as we now describe.										
380	The file names all versions of the "Simplified-Income-Planning-Tool" are prefixed with "**SIPT-**".										
381	For example, the version number is indicated as:				**V.0.19.2**						
382	This is followed by the release date is indicated by:				**11-8-2015a**						
383											
384		**a)** full demo data		**SIPT-Demo-V.0.19.2-11-8-2015a.xlsx**							
385		**b)** no demo data		**SIPT-noDemo-V.0.19.2-11-8-2015a.xlsx**							
386											
387	**a)** is the spreadsheet with full demonstration data. It is useful for viewing the full demonstration examples in all data entry										
388	worksheets. It includes examples for the data entry worksheets. In most people's situations, you might only use a few of										
389	these types of income sources for your data.										
390	**b)** The no demo version of the spreadsheet has nodemonstration data and is ready for entering your own data.										
391	All data entries are set to either $0 or 0.0% in all data-entry worksheets. All worksheets are unselected in worksheet										
392	**S. Setup**. It is useful for entering your data from scratch without having to overwrite any demonstration data answers.										
393											
394	You can enter your own data in any of the two versions overwriting demo data as required.										

All worksheets 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 **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 message describing the situation and directing you to the appropriate worksheet to correct it.

In summary:

(a) Validity checks are made for IRA, Roth, Savings and Cash-flow accounts to test if any of them run out of money. This is indicated with a **PROBLEM** warning on the **R. Results** worksheet **R.8.2**. The error will remain until you correct it.

(b) Validity checks are made in the data worksheets comparing the age entries with those of the **1. AgeData** worksheet If the ages entered are inconsistent, it will show an **ERROR xxx** message until you fix it. For entries that are not being used (since you set the amounts in question to $0), you must set your starting age in the other worksheets to at least the current age in the **1. AgeData** worksheet. This is summarized for all worksheets in **R. Results** section **R.8.1**.

2. Disclaimer

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

3. Directions for using the spreadsheet

The spreadsheet as it is distributed has demonstration data entered in **red** cells through the worksheet. Enter your data

by overwriting the demonstration data. You might want to save your spreadsheet with a new file name as you make changes.
The demonstration data provides examples of answers to give you an idea of typical values. Note that negative numbers are shown as red ($1,234) rather than -$1,234, and should not be edited.

The first worksheets you should use to enter your data

You must first configure the spreadsheet to your personal situation. This is done in the **S. Setup** worksheet sections **S.1** to **S.3**.
By not using that worksheet specified in S. Setup section S.1, it will also ignore that data. Then enter your data in the **1. AgeData** and **2. TaxData** worksheets since these are used by the other data worksheets. In table **S. Setup S.1** you declare the set of data worksheets that are applicable to you (see Figure 1), where you select "**use**" or "**ignore**". In **S. Setup** section **S.2** you can configure the spreadsheet to use irregular contributions and withdrawals for investment accounts and the expenses account (see Figure 2 in **Figures** worksheet In **S.3** you can configure the spreadsheet to use scheduled contributions and 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 question using having a "**keep**" or "**remove**" question.

Then, entering data in other worksheets

After setting the initial configuration in the **S. Setup, 1. AgeData** and **2. TaxData** worksheets, enter the rest of your personal data in the data worksheets **3. WorkData** through **10. ExpensesData** you have selected (see section **1.3** above for a list of data entry worksheets). Again, only enter data in the red cells on the worksheets. You switch between worksheets either by clicking on the tabs at the bottom of this Excel window or by clicking on the hypertext worksheet name in the **Worksheet Navigation** table at the end of each worksheet (see an example at the bottom of this worksheet). Some worksheets (like this one) will also have hyperlinks to other worksheets.

3. WorkData, 4. PensionData, 5. SocSecData, 6. AnnuityData, 7. IRAdata, 8. RothData, 9. SavingsData, 10. ExpensesData

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 income, contribution, withdrawal, etc. amounts for that worksheet. That lets the data be ignored in computing the results from the various data sources. Although by not using that worksheet specified in **S. Setup** section **S.1**, it will also ignore that data.

Viewing your results in the "R. Results" worksheet

As you enter the data into the various worksheets, the spreadsheet will automatically recompute the other worksheets that use it to incorporate those changes. In particular, they will be reflected in the **R. Results** worksheet. You can see how changes in any worksheet affects the results by going back and forth between the **R. Results** worksheet and the data worksheet you are currently working on.

Experimenting with other configurations after you have entered your personal data

You can model the income stream in various ways using temporary changes in the **S. Setup** configuration you might make. For example you could leave out various income sources such as stopping work, adding an annuity, adding a Roth IRA, etc. You could 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

	A
525	would need to take tax-free muni-bond income into account. However, in the **2. TaxData** worksheet it does allow you to
526	declare a state tax percentage which will be added to your marginal tax rate and applied to the adjusted gross income.
527	It also allows you specify the tax-free deduction as a percentage in **9. SavingsData** section **9.2** so that muni bond income
528	could be approximated.
529	
530	Note (2) The spreadsheet model uses average estimated values you specify for CPI, tax rates, withdrawal values (RMDs
531	are enforced), and rates of return that will obviously be a bit different in the future. But probably not too far off for rough
532	estimation purposes. You can use the CPI, set in **1. AgeData** worksheet, as the default COLA for Soc Sec, Pension, IRA,
533	Roth and Savings withdrawals, work and annuity income, and Expenses. You can also override each of these COLAs on
534	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.
535	
536	Note (3) You may include income from any of the sources (pensions, social security, work, and/or annuities).
537	Withdrawals made from Investment accounts (IRA, Roth, Savings) are treated as income. None are required except the IRA
538	RMD withdrawals that are done automatically at age 70 1/2.
539	
540	Note (4) The Social Security benefits tables are computed for each spouse for each year delayed past age 62 (see worksheet
541	**5. SocSecData** section **5.1**).
542	
543	Note (5) You can take scheduled and/or irregular yearly expenses from the **10. ExpensesData** worksheet.
544	
545	Note (6) You can have scheduled (i.e., yearly) as well as irregular contributions and withdrawals on the investment
546	accounts. You can disable contributions and withdrawals per account on the **S. Setup** worksheet sections **S.2** and **S.3**.
547	It can be useful to temporarily disable irregular expenses to get an idea of the "steady-state" behavior of the income
548	stream flow.
549	
550	Note (7) The spreadsheet does not calculate additional tax penalties for taking withdrawals from the tax-deferred IRA of
551	Roth IRA before age 59 1/2. It forces you to take the maximum of tax-deferred IRA RMD or your specified withdrawals. Note
552	also, it currently does not differentiate with inherited-IRAs which may have a different RMD schedules from the regular IRA
553	but instead computes a "virtual" deductible IRA as the weighted mean of 401(k), 403(b), 457(b), Traditional-IRA and RMDs.
554	Rollover-IRA data. Also there is an RMD calculation associated with inherited-Roths or 401(k)-Roths currently which have
555	a required RMDs.
556	
557	Note (8) Each year the spreadsheet must have the tax tables updated in 2. TaxData worksheet and in 12. RMDdata if
558	the RMD values. Because it implements the Federal tax brackets, if the IRS changes the number of tax brackets, then the

spreadsheet needs to have changes made as well.

Appendix D lists the more information about the current status including a list of things TODO and the ongoing REVISION-LIST history.

[Elementary glide-path calculator (SimpleCalc)]

[Next SIPT worksheet (Assumptions)]

Worksheet Navigation.

To go to a specific worksheet, click on one of the following: