

# About TaxTools

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## Overview

TaxTools is a collection of web-based tools for calculating income tax information. The current set of tools is:

- Age Calculator
- Alternative Minimum Tax (AMT) Calculator
- Enhanced Deduction for Seniors Calculator
- Estimated Tax Calculator (federal)
- Estimated Tax Calculator (California)
- Required Minimum Distribution (RMD) Calculator
- Simple Math Calculator
- Small Business Tax Calculator
- Social Security - Taxable Benefits Calculator
- Social Security - Lump Sum Calculator
- State Income Tax Refund Calculator

You can access the latest version of tools on the web using the following URL.

[bruceblinn.com/6-OtherStuff/Taxes/index.html](http://bruceblinn.com/6-OtherStuff/Taxes/index.html)

Each tool contains a brief description describing its purpose and how to use it. The more complicated tools will have a link to a separate page with more detailed information about the tool.

There is a lot of shared code between the tools, which gives them a similar appearance and behavior. For example, green fields are for input in all the tools, and blue fields display the values that are calculated by the tools. The tools are intended to be used in a browser. The display of each tool is restricted to 7.5 inches to make it easier to print the pages.

## Interface

### Tooltips

Many of the tools provide tooltips. These are small popup displays that show up when you move the mouse over one of the fields. They provide a short explanation of the purpose of the fields. When available, tooltips are provided for both input fields to help you enter the correct information, and for output fields to explain what the information means.

### Numeric Input

For any input field where a numeric value is expected, dollar signs(\$) and commas(,) are ignored. This allows you to enter a number as, for example, "\$40,000", "\$40000", or "40000". In addition, numeric fields can contain simple arithmetic expressions. For example, you can enter "(\$40,000 + 4,000) \* 0.075" to enter 7.5% of 44000. All numeric input will be rounded to the nearest whole number. The expression evaluator supports the following operators:

- Numbers with decimal points
- Operators for addition (+), subtraction (-), multiplication (\*), and division (/)

Unary minus operator (-)  
Parentheses  
Operator precedence for parentheses, unary minus, and for doing multiplication and division before addition and subtraction.

## Debugging Information

Some of the tools can display additional information that shows internal calculations and intermediate results. Enter any of the following keywords in any input field to see this information. The keywords are not case-sensitive and can be entered in any order. Separate the input value and one or more keywords using commas or whitespace.

Debug - Display intermediate results for the current tool.  
IncTax - Show the worksheet results for the federal income tax calculation.  
SSTax - Show the worksheet results for the amount of Social Security that is taxable calculation.  
SETax - Show the worksheet results for the self-employment tax calculation.  
Trace - Logs function entry and exit to the console log.

## Changes I'm Thinking About

More tools

- CTC, EIC, and CalEITC Calculators
- Sales Tax Calculator
- Currency Exchange Rate Calculator

Add checks to fields that have known limits so the input values do not exceed those limits.

If an input field is modified internally, should the input field be updated so the user can see that the corrected value?

I could merge the small business tax calculation into the estimated tax calculation, but it would calculate values that are currently entered by the user. If more and more fields are calculated then the tool becomes more of a tax program than a tool for estimating the tax from the numbers that you enter. Where should the dividing line be?

Should the tools be implemented as Excel spreadsheets. It would allow the user to see the actual computations that are being made. Users could review the formulas for accuracy and provide feedback. They could also make changes to their copy of the spreadsheet to prototype new ideas. However, since each spreadsheet contains all the code that it uses, once it is copied, it would be difficult to know how it differs from another version. It would be impossible to update all the copies when a change needs to be made. Version control could be a nightmare.

## Feedback

If you have any feedback on TaxTools, send it to [bruce\\_blinn@yahoo.com](mailto:bruce_blinn@yahoo.com). I would welcome any information about problems with the tools or suggestion on how to improve them.

## Version Numbers

There is a single version number for all of the tax tools because there so much shared code between the tools. The version number is a 3-part number, but only the first two parts are usually present in released versions of TaxTools.

The first part of the version number corresponds to the current tax year. Sometime between April 15 or early Fall, the first part of the version number is changed to the current year, and it will not be changed until after the end of the tax season. When the first part of the version number is incremented, the other parts are reset.

The second part of the version number is the incremented each time a new version of TaxTools is released. There are always two versions of TaxTools: the released version and a prototype version. The second part of the version number starts at 00 for the released version and 01 for the development version. Whenever the development version is merged into the released version, the second part of the version number is

incremented by two in both versions. Thus, the second part of the version number in a released version is always an even number, and in the development version, it is an odd number that is one greater than the released version.

The third part of the version number starts at 000 and is incremented for each change. This part of the version number is only used in the released version of TaxTools if a change is needed, and the development version is not ready to be merged into the released version.

In summary:

- The first part of the version number is incremented each tax year.
- The second part of the version number is incremented whenever the development version is merged into the released version.
- And, the third part is incremented whenever the source code is changed.

The version number of the development version is always appended with an at sign (@) to call attention to the version fact that it is under development and not ready to be used.