



## TableMaker: An Excel Macro for Publication-Quality Tables

Marek Hlavac  
Harvard University

---

### Abstract

This article introduces **TableMaker**, a Microsoft **Excel** macro that produces publication-quality tables and includes them as new sheets in workbooks. The macro provides an intuitive graphical user interface that allows for the full customization of all table features. It also allows users to save and load table templates, and thus allows layouts to be both reproducible and transferable. It is distributed in a single computer file. As such, the macro is easy to share, as well as accessible to even beginning and casual users of **Excel**. Since it allows for the quick creation of reproducible and fully customizable tables, **TableMaker** can be very useful to academics, policy-makers and businesses by making the presentation and formatting of results faster and more efficient.

*Keywords:* table, presentation, Microsoft **Excel**, Visual Basic for Applications.

---

## 1. Introduction

The **TableMaker** macro creates fully customizable, publication-quality tables for the Microsoft **Excel** (Microsoft Corporation 2012) spreadsheet program. The macro provides an intuitive graphical user interface (GUI) that allows users to customize all aspects of the resulting tables. It also enables them to save and load table templates, and thus makes table layouts easy to reproduce and transfer. As a result, **TableMaker** can serve as an invaluable tool for academics, policy-makers and businesses, as it can greatly enhance the speed and efficiency of results presentation.

**TableMaker** was programmed in Visual Basic for Applications (VBA) for **Excel** (see, for instance, Walkenbach 2013), and is contained in a single macro-enabled **Excel** workbook (extension `.xlsm`). It is open-source, does not require any compilation, and is provided free of charge to both commercial and non-commercial users. As such, the macro is easy to distribute and accessible to even beginning and casual users of **Excel**. All that is required is the sending or

sharing of a single computer file. **TableMaker** is currently only compatible with Microsoft Windows (Microsoft Corporation 2014) systems, as the VBA version implemented in Microsoft **Excel** for Mac (Microsoft Corporation 2010) does not currently support all the programming features available under Windows.

**TableMaker** is, of course, not the only tool that allows statistical software users to generate publication-quality tables. Users of the R environment for statistical computing and graphics (R Core Team 2016), for instance, can avail themselves of packages such as **xtable** (Dahl 2014) or **reporttools** (Rufibach 2009) for the generation of descriptive statistics tables. If they are instead interested in producing well-formatted regression tables, they can use the **stargazer** package (Hlavac 2015) or alternatives such as **apsrtable** (Malecki 2012), **memisc** (Elff 2016) or **texreg** (Leifeld 2013). Similarly, **Stata** (StataCorp 2015) users can use **esttab** (Jann 2007), **estout** (Jann 2005) or **outreg2** (Wada 2014) to create publication-quality tables.

**TableMaker** differs from the existing table creation tools in several important respects:

- It is the first such tool available for Microsoft **Excel**. **Excel** is used not only in academic research (where statistical programming languages such as R or **Stata** predominate), but is also widely employed in offices and homes around the world. As a result, **TableMaker** has the potential to reach and benefit a larger user base than most alternatives.
- Thanks to **Excel**'s considerable formatting capabilities and its point-and-click user interface, publication-quality tables created by **TableMaker** can be further interactively modified by the user. By contrast, while packages such as **estout** or **stargazer** allow users to customize a large number of parameters before the table is created, changing table features *ex post* can be unwieldy.
- **TableMaker** tables are independent of any particular data set or model estimation results. Their layouts can therefore be regarded as standalone objects that can be easily stored for future reuse or shared among **Excel** users.

## 2. Getting started

To get started with the **TableMaker** macro, users need to open **TableMaker.xlsm**, as well as the “destination” workbook (i.e., the workbook in which they would like to include the new tables), in **Excel**. Upon opening the file, **Excel** may issue a security warning stating that “macros have been disabled.” If this is the case, users can enable macros by simply clicking on the adjacent “Enable Content” button. They can then create a new publication-quality table by following these instructions:

1. Activate the worksheet in front of which the table will be inserted.
2. Bring up the **TableMaker** interface by pressing Ctrl+Shift+N. Alternatively, the graphical user interface can be accessed by pressing Alt+F8 and running the **Table\_Maker** macro.
3. Customize the table specifications using the **TableMaker** graphical user interface.
4. Click on the green “Create Table” button. **TableMaker** will insert a new worksheet that contains the new table.

5. If necessary, manually make any additional adjustments to the generated table.
6. Fill in the data in the table – either manually or using appropriate **Excel** functions such as `VLOOKUP` or `HLOOKUP`.

In the next section, I present a sample publication-quality table created by **TableMaker**. In this way, I demonstrate the capabilities of the macro through a concrete visual example, as well as introduce some table-related vocabulary (e.g., “stub entry” or “unit heading”) that will help the reader understand terms in the remainder of this article. Section 4 documents **TableMaker**’s graphical user interface, and gives the reader a sense of the many table features that can be adjusted by the macro. In Section 5, I describe how users can specify the layout of the table columns, and include a discussion of advanced column formatting options. Section 6 presents a practical example that demonstrates how to create a publication-quality table in three simple steps. Section 7 concludes.

### 3. Sample table

Figure 1 shows an example of a publication-quality table that was created using the **TableMaker** macro for Microsoft **Excel**. The table was published in [Holzer and Hlavac \(2014\)](#), and reports some United States labor market statistics from the years 1979 and 2007.

The table contains a title, subtitle and a time period. There is one stub entry, labelled “Category”. There are, furthermore, three groupings of columns (“Mean Hourly Wages”, “Employment/Population Ratio” and “Mean Annual Earnings”), each of which contains two columns – one corresponding to the year 1979, and the other one to 2007. The first and the third column groupings feature unit headings that indicate that the amounts are denominated in 2010 U.S. dollars.

The columns also differ in their formats: Columns containing wage and earnings figures have a “currency” format (as indicated by the adjacent dollar sign), while the columns with employment/population ratios have a numeric format. The numbers in the first four columns are rounded off to two decimal places, whereas the earnings figures in the last two columns are rounded off to the nearest dollar. The data are spread across thirty rows, some of which are empty. Below the main body of the table are three lines of notes and one line that indicates the sources of the table’s content.

**TableMaker** allows users to customize each aspect of the table through an intuitive graphical user interface. The next section explains how.

### 4. Graphical user interface

The **TableMaker** macro provides users with an intuitive and easy-to-navigate graphical user interface. The interface consists of five tabs, in which users can specify a variety of table features. In this section, I describe each of these tabs in detail.

#### 4.1. Header and footer

On the Header and Footer tab, shown in Figure 2, users can choose whether the printed version of the table will include a header or a footer. If they decide to include either of these,

Mean Hourly Wages, Employment-Population Ratios and Mean Annual Earnings							
By Gender, Education, Race and Region							
1979-2007							
Category	Mean Hourly Wages		Employment/Population Ratio		Mean Annual Earnings		
	1979	2007	1979	2007	1979	2007	
	----- (2010 Dollars) -----				----- (2010 Dollars) -----		
All	\$ 16.57	\$ 21.63	0.65	0.69	\$ 33,232	\$ 45,357	
<b>By Gender:</b>							
Men	\$ 19.60	\$ 24.01	0.79	0.75	\$ 43,062	\$ 53,404	
Women	12.72	19.08	0.53	0.64	20,894	36,767	
<b>By Education:</b>							
Less than High School	\$ 13.42	\$ 12.51	0.48	0.47	\$ 24,503	\$ 22,924	
High School	15.26	16.67	0.66	0.66	29,704	32,627	
Some College	16.78	19.34	0.74	0.73	33,460	39,774	
College	21.50	28.33	0.78	0.79	45,678	60,302	
Advanced Degree	25.42	35.82	0.87	0.81	59,180	83,709	
<b>By Education and Gender:</b>							
High School or Less: - Men	\$ 17.33	\$ 17.51	0.74	0.68	\$ 36,386	\$ 35,200	
- Women	11.36	13.65	0.47	0.54	18,056	24,726	
Bachelor's Degree or More: - Men	\$ 25.99	\$ 34.91	0.91	0.85	\$ 61,938	\$ 84,104	
- Women	17.37	26.69	0.68	0.75	30,616	52,847	
<b>By Race:</b>							
White	\$ 17.05	\$ 23.13	0.66	0.71	\$ 34,632	\$ 49,267	
Black	14.07	17.98	0.60	0.65	25,442	36,767	
Hispanic	13.89	16.53	0.60	0.67	26,404	32,008	
<b>By Region:</b>							
Northeast	\$ 16.72	\$ 23.57	0.64	0.71	\$ 34,051	\$ 49,343	
Midwest	16.82	20.75	0.66	0.72	34,319	43,543	
South	15.43	20.42	0.63	0.68	30,724	43,159	
West	17.96	22.87	0.65	0.68	34,877	47,422	
Notes:	The sample is restricted to ages 16-69. It excludes agriculture and the military. It also excludes full-time students and self-employed individuals. Individuals with with hourly wages below \$2 or above \$5,000, as well as those with annual earnings below \$1,000 or above \$10 million, are not included.						
Source:	Current Population Survey, Outgoing Rotation Groups and Annual Social and Economic Supplement.						

Figure 1: Example of a TableMaker generated publication-quality table.

**TableMaker** users can type into the appropriate text boxes to specify what text will appear in the header or footer, as well as to choose its position (left, center or right) on the page. Users can also adjust the font type, size and style (bold, italics or underlined).

#### 4.2. Title, subtitle and time period

Figure 3 shows the Title, Subtitle, Time Period tab, where users can specify the title, subtitle and the time period of their table. Again, users can adjust the font type, style and size using the provided text boxes and buttons.

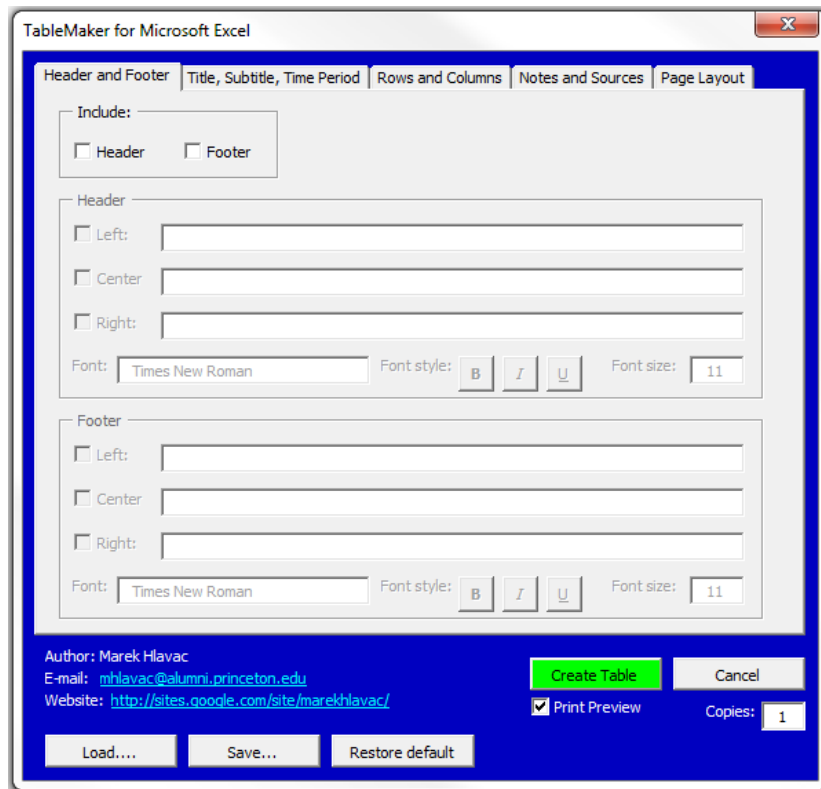


Figure 2: Header and footer.

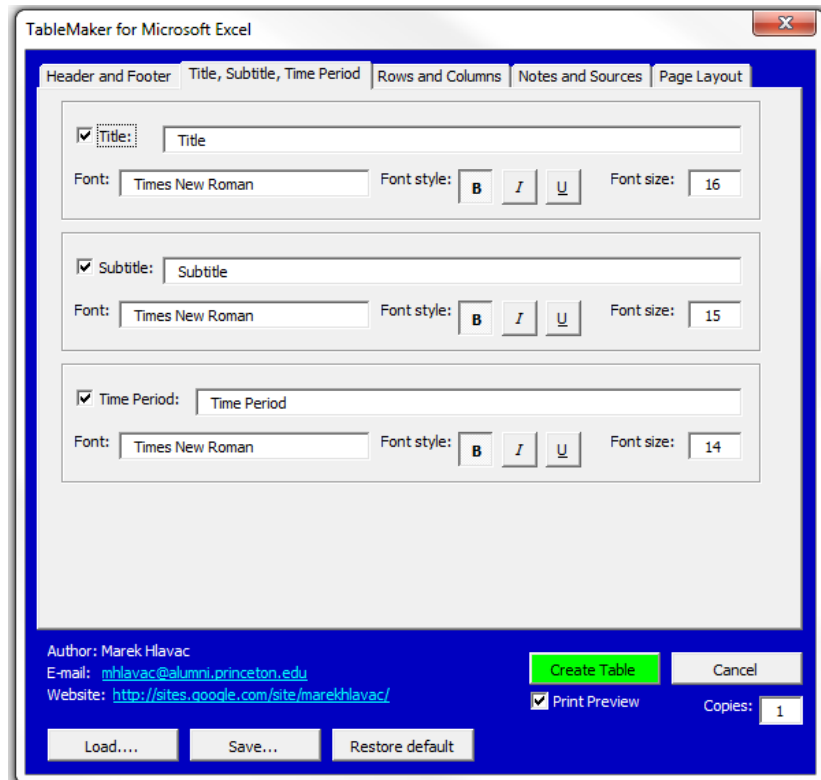


Figure 3: Title, subtitle and time period.

### 4.3. Rows and columns

The Rows and Columns tab (see Figure 4) allows users to specify the number and formatting of rows, columns, stub entries and the data in the table. This tab is composed of three major parts: Rows, Columns and Data.

In the Rows part, **TableMaker** users can specify the number of rows in the table, as well as the number and labelling of stub entries (i.e., columns that usually specify the type of item that the row refers to). Optionally, users can choose to include a row counter and to adjust its width, as well to include a Totals row that would most typically include the sum totals of values in the corresponding table columns.

In the Columns part, users can determine the layout and cell format of the table's columns. Two options are available: a basic layout specification for relatively simple tables and an advanced layout specification for more complex ones. Section 5 describes these two alternatives in detail. Users can also specify the formatting of numeric, currency and percentage cells. In particular, they can decide how many decimal places will be reported, whether to include a thousands separator, and what currency symbol will be used.

Users can adjust the width of the columns, as well as the width of the buffer columns that separate them. Each column can, furthermore, be optionally indexed by letters in alphabetical order (check box "(a), (b), (c), etc.") or by increasing numbers (check box "(1), (2), (3), etc."). Last but not least, users can toggle unit headings – an additional row typically used to report what units are being used in a particular column – either at the upper or the lower level of column headings. Finally, in the Data part, users can adjust the font of the data that will be used to fill up the rows and columns of the table.

### 4.4. Notes and sources

Figure 5 reproduces the Notes and Sources tab. Here, users can toggle whether notes, footnotes and source annotations should appear below the table, and specify how many lines should be devoted to each. As usual, the font types, styles and sizes can all be adjusted.

### 4.5. Page layout

Finally, the Page Layout tab (in Figure 6) lets users adjust where and how the resulting table will be presented on the page. Users can choose the page orientation of the table (landscape or portrait), decide whether the table should be centered on the page (either horizontally or vertically), or adjust page breaks. Page breaks can be put in automatically, manually after a specified number of items, or the table can be made to fit on a requested number of pages. In addition, **TableMaker** users can choose to include blank rows and columns – from the top and left of the page, respectively – and to exclude some rows and columns from the print area.

### 4.6. Bottom of the GUI

Once they have specified its layout using the options in the five tabs, users can insert the resulting table into the current worksheet by clicking on the green "Create Table" button at the bottom of the GUI. If needed, **TableMaker** can produce multiple copies of the table, or provide a print preview of the table.

If users would like to use a particular table template in the future, they can save it as a `.tmt`

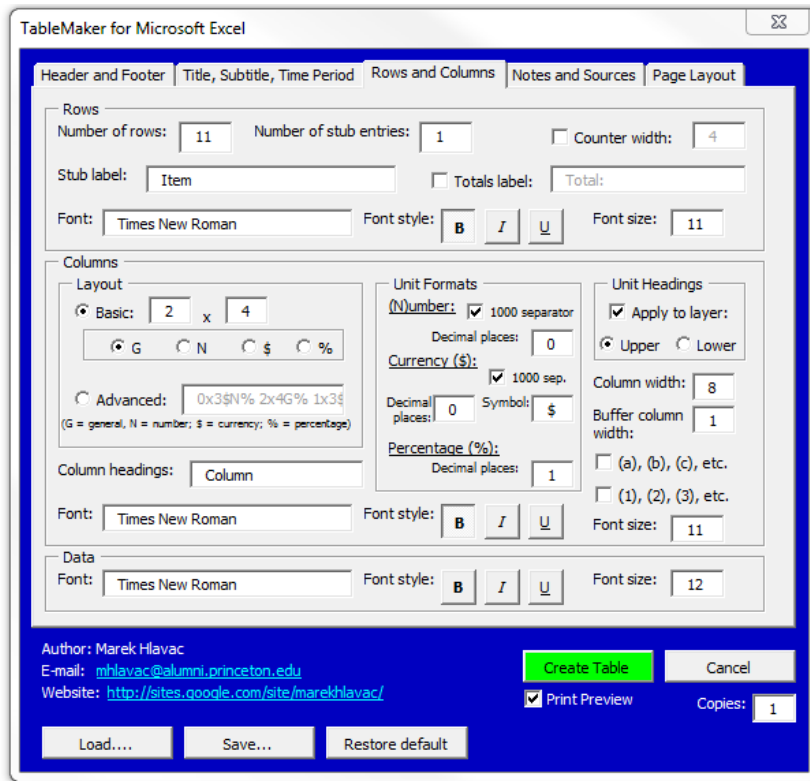


Figure 4: Rows and columns.

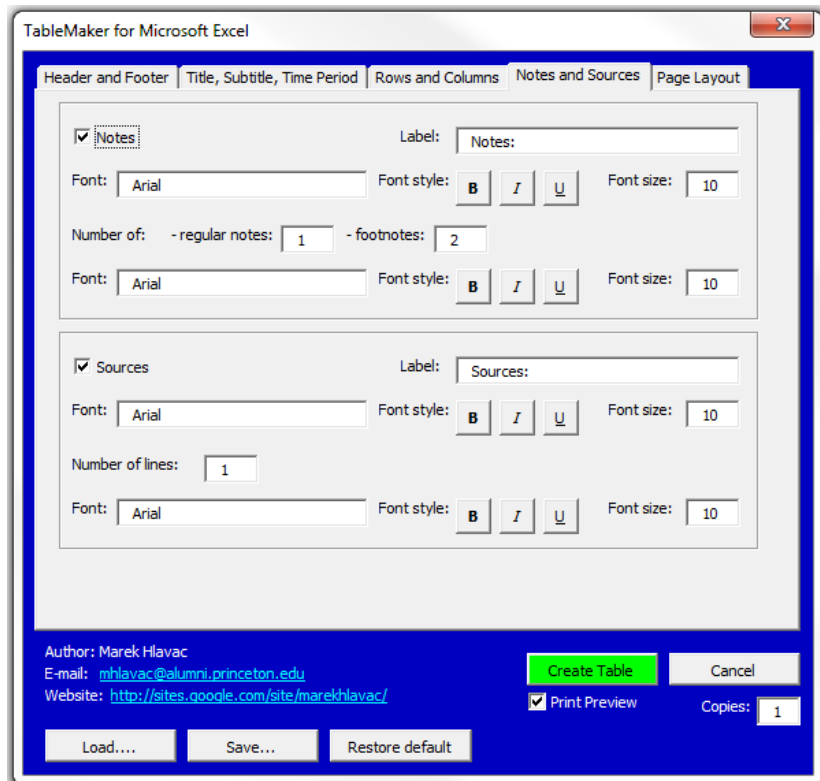


Figure 5: Notes and sources.

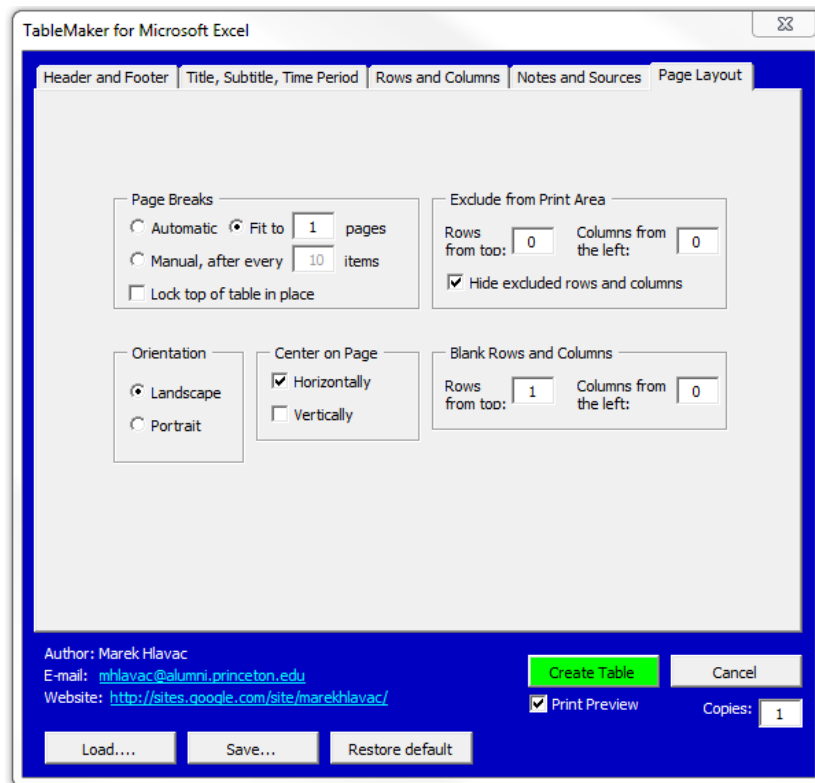


Figure 6: Page layout.

file using the “Save...” button on the lower left-hand side of the window. Later, templates can be retrieved using the “Load...” button.

The “Restore default” button will restore all table settings to their default values. **TableMaker** will search for a `default.tmt` template file in its directory, and will load the default values from that file. If `default.tmt` cannot be found, all values will change to a pre-programmed default. This implies that you can set a particular set of values to be the default by saving your template as `default.tmt` in the directory that contains `TableMaker.xlsm`.

## 5. Layout of table columns

### 5.1. Basic layout

The “Basic” layout option allows **TableMaker** users to design relatively simple tables with several identical column groupings. To do so, users can specify two numbers on the Rows and Columns tab. The right number indicates how many columns there will be in a single grouping, while the left number indicates how many identical groupings there will be. If the left number is zero, there will be no common heading for the grouping, only headings for individual columns. Users can choose what kind of columns the table will contain:



	A	BC	D	EFG	H	IJK	L	MNO	P	QRS	T	UVW	X	YZ
1														
2														
3														
4														
5														
6														
7	<b>Item</b>													
8														
9														
10	Item 1	\$				%			\$			%		
11	Item 2													
12	Item 3													
13	Item 4													
14	Item 5													
15	Item 6													
16	Item 7													
17	Item 8													
18	Item 9													
19	Item 10													
20	Item 11													
21														
22														
23														
24														
25														
26														
27														
28														

Figure 7: Advanced layout: 2x3\$%N.

	A	BC	D	EFG	H	IJK	L	MNO	P	QRS	T	UVW	X	YZA	AB	AAIA	AF	AAH
1																		
2																		
3																		
4																		
5																		
6																		
7	<b>Item</b>																	
8																		
9																		
10	Item 1		%		%		%		%		%		%		%		%	
11	Item 2																	
12	Item 3																	
13	Item 4																	
14	Item 5																	
15	Item 6																	
16	Item 7																	
17	Item 8																	
18	Item 9																	
19	Item 10																	
20	Item 11																	
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		

Figure 8: Advanced layout: 4x2%.

- G = general (no particular format),
- N = numeric,
- \$ = currency,
- % = percentage.

## 5.2. Advanced layout

For more advanced formatting of the column layout, users can toggle the “Advanced” option in the Layout part of the Columns tab, and edit the text box.

The text code for each grouping has the following format:  $LxR[\text{formats}]$ , where  $L$  is equivalent to the left number in basic layout (number of identical groupings) and  $R$  corresponds to the right number (how many columns in a grouping).  $[\text{formats}]$  is a sequence of characters (G, N, \$ or %) that sets column types, in order from left to right. If there are fewer characters in  $[\text{formats}]$  than there are columns in a given grouping, it is assumed that the rightmost columns are of the type of the last  $[\text{formats}]$  character. If no  $[\text{formats}]$  sequence is given, all columns are assumed to be general. The following pages present several examples of advanced column formatting.

- $2x3\$ \% N$  is illustrated in Figure 7, and stands for two identical groupings of three columns each. The left column has a currency format, the middle column contains percentages, and the right column is numeric.
- $4x2\%$  represents four identical groupings of 2 columns each. All columns are formatted as percentages. See Figure 8.
- $0x5GN$ , shown in Figure 9, creates one grouping of five columns, but without a common heading for the columns – the first column is general, and the remaining ones are numeric.

You can write down the above definitions next to each other, separated by spaces, to combine the groupings in a single table (left to right) – e.g.,  $0x5GN 2x3\$ \% N 4x2\%$ , as illustrated by Figure 10.

## 6. Practical example

The **TableMaker** macro enables users to create publication-quality tables in three simple steps. First, they can use the GUI to create a basic foundation for the table. Next, users can manually adjust the formatting of the table. In the third and final step, they populate the table’s cells with the appropriate data values.

This section presents a practical example that illustrates this very straightforward process. In particular, we reproduce the labor market statistics table from [Holzer and Hlavac \(2014\)](#) that was presented earlier in Figure 3.

	A	BC	D	EFG	H	IJK	L	MNO	P	QRS	T	UV
1												
2	<b>Title</b>											
3	<b>Subtitle</b>											
4	<b>Time Period</b>											
5												
6												
7	<b>Item</b>	<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		
8	-----)											
9												
10	Item 1											
11	Item 2											
12	Item 3											
13	Item 4											
14	Item 5											
15	Item 6											
16	Item 7											
17	Item 8											
18	Item 9											
19	Item 10											
20	Item 11											
21												
22												
23		Notes: Regular note 1.										
24												
25		<sup>1</sup> Footnote 1.										
26		<sup>2</sup> Footnote 2.										
27												
28		Sources: Source line 1.										

Figure 9: Advanced layout: 0x5GN.

	A	BC	D	EFG	H	IJK	L	MNO	P	QRS	T	UVW	X	YZA	AB	AA1A	AF	AAEA	AJ	AAIA	AN	AAIA	AR	AA1A	AV	AA1A	AZ	BBBB	BD	BB1B	BH	BB1B	BL	BB1B	BP	BB1B	BT	BB1B	BX	BB	
1																																									
2	<b>Title</b>																																								
3	<b>Subtitle</b>																																								
4	<b>Time Period</b>																																								
5																																									
6		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>			
7	<b>Item</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>	<b>Column</b>
8	-----)																																								
9																																									
10	Item 1																																								
11	Item 2																																								
12	Item 3																																								
13	Item 4																																								
14	Item 5																																								
15	Item 6																																								
16	Item 7																																								
17	Item 8																																								
18	Item 9																																								
19	Item 10																																								
20	Item 11																																								
21																																									
22																																									
23		Notes: Regular note 1.																																							
24																																									
25		<sup>1</sup> Footnote 1.																																							
26		<sup>2</sup> Footnote 2.																																							
27																																									
28		Sources: Source line 1.																																							

Figure 10: Advanced layout: 0x5GN 2x3\$%N 4x2%.

*Step 1: Create table*

First, we use the **TableMaker** macro to create a foundation/skeleton for the table. In our example, we need three groupings that consist of two columns each. The first two columns contain currency values, the middle two contain numeric values, while the rightmost two contain currency values again. We therefore use an advanced layout specified by 1x2\$ 1x2N 1x2\$. Figure 11 shows the resulting foundation table.

	A	BC	D	EFG	H	IJK	L	MNO	P	QRS	T	UVW	X	Y	
1															
2	<b>Title</b>														
3	<b>Subtitle</b>														
4	<b>Time Period</b>														
5															
6	<b>Column</b>				<b>Column</b>				<b>Column</b>						
7	<b>Item</b>	<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>		<b>Column</b>			
8		-----()		-----()		-----()		-----()		-----()		-----()			
9															
10	Item 1	\$		\$						\$		\$			
11	Item 2														
12	Item 3														
13	Item 4														
14	Item 5														
15	Item 6														
16	Item 7														
17	Item 8														
18	Item 9														
19	Item 10														
20	Item 11														
21															
22															
23		Notes:		Regular note 1.											
24															
25		Sources:		Source line 1.											

Figure 11: The foundation/skeleton for a soon-to-be publication-quality table.

*Step 2: Format table*

Next, we need to adjust the formatting of the table created in Step 1. In our case, we manually edit its title, subtitle and time period components. In addition, we edit the stub and column headings, and add an appropriate number of rows to the table. Figure 12 presents the well-formatted tables that emerges as a result.

Of course, some of these adjustments (e.g., specifying the title or subtitle) could have already been made in Step 1 using the GUI. It is up to the user to decide at which point to adjust various parts of the table. In practice, if the user expects to create the table only once, adjusting most features manually after creating a very simple foundation is likely to be faster. By contrast, if the user expects to use the same foundation for a table multiple times, it might be more convenient to specify most features using the GUI, and to save the template for future use.

*Step 3: Populate table*

Finally, we populate the table with data. In this example, the data are stored in the “Data for Example” worksheet in the **TableMaker** workbook. Figure 13 shows the first eight entries. The worksheet contains the values of several labor market statistics – mean hourly wages, the employment/population ratio and mean annual earnings – for the years 1979 and 2007. The “Category” column specifies the year, as well as the demographic, geographic or educational group to which the statistics pertain.

To fill the formatted table from Step 2 with data, we can use, for instance, the **VLOOKUP** function. Figure 14 contains a close-up that illustrates the use of **VLOOKUP** to populate the table. Once all relevant cells have been populated with the appropriate labor market statistics, we will have reproduced the publication-quality table presented in Figure 1.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1																									
2		<b>Mean Hourly Wages, Employment-Population Ratios and Mean Annual Earnings</b>																							
3		<b>By Gender, Education, Race and Region</b>																							
4		<b>1979-2007</b>																							
5																									
6			<b>Mean Hourly Wages</b>					<b>Employment/Population Ratio</b>					<b>Mean Annual Earnings</b>												
7		<b>Category</b>	<b>1979</b>		<b>2007</b>			<b>1979</b>		<b>2007</b>			<b>1979</b>		<b>2007</b>										
8			----- ( 2010 Dollars ) -----										----- ( 2010 Dollars ) -----												
9																									
10		All	\$		\$									\$		\$									
11																									
12		<b>By Gender:</b>																							
13		Men	\$		\$									\$		\$									
14		Women																							
15																									
16		<b>By Education:</b>																							
17		Less than High School	\$		\$									\$		\$									
18		High School																							
19		Some College																							
20		College																							
21		Advanced Degree																							
22																									
23		<b>By Education and Gender:</b>																							
24		High School or Less: - Men	\$		\$									\$		\$									
25		- Women																							
27		Bachelor's Degree or More: - Men	\$		\$									\$		\$									
28		- Women																							
29																									
30		<b>By Race:</b>																							
31		White	\$		\$									\$		\$									
32		Black																							
33		Hispanic																							
34																									
35		<b>By Region:</b>																							
36		Northeast	\$		\$									\$		\$									
37		Midwest																							
38		South																							
39		West																							
40																									
41		Notes: The sample is restricted to ages 16-69. It excludes agriculture and the military. It also excludes full-time students and self-employed individuals. Individuals with with hourly wages below \$2 or above \$5,000, as well as those with annual earnings below \$1,000 or above \$10 million, are not included.																							
42																									
43																									
44																									
45		Source: Current Population Survey, Outgoing Rotation Groups and Annual Social and Economic Supplement.																							

Figure 12: Formatted table.

	A	B	C	D
1	<b>Category</b>	<b>Mean Hourly Wages</b>	<b>Employment/Population Ratio</b>	<b>Mean Annual Earnings</b>
2	all_1979	16.574116	0.646235	33232.09766
3	all_2007	21.63233	0.694418	45357.26563
4	black_1979	14.068096	0.597518	25441.91406
5	black_2007	17.979197	0.65382	36766.59375
6	educ_AD_1979	25.421528	0.868204	59179.50391
7	educ_AD_2007	35.820248	0.809835	83709.45313
8	educ_C_1979	21.503077	0.782146	45678.39453
9	educ_C_2007	28.325966	0.791827	60301.63281

Figure 13: Portion of the data that will be used to populate the table.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1																									
2	<b>Mean Hourly Wages, Employment-Population Ratios and Mean Annual Earnings</b>																								
3	<b>By Gender, Education, Race and Region</b>																								
4	<b>1979-2007</b>																								
5																									
6				<b>Mean Hourly Wages</b>				<b>Employment/Population Ratio</b>				<b>Mean Annual Earnings</b>													
7	<b>Category</b>			1979	2007			1979	2007			1979	2007												
8				----- (2010 Dollars) -----								----- (2010 Dollars) -----													
9																									
10			All	\$ 16.57	\$ 21.63			0.65	0.69			\$ 33,232	\$ 45,357												
11																									
12			<b>By Gender:</b>																						
13			Men	\$=VLOOKUP("male_1979",Data for Example!\$A\$1:\$D\$41,2,0)								\$ 43,062	\$ 53,404												
14			Women	12.72	19.08			0.53	0.64			20,894	36,767												

Figure 14: A close-up that illustrates the use of the VLOOKUP function to populate the publication-quality table.

## 7. Conclusion

In this article, I have introduced the **TableMaker** macro for Microsoft **Excel**. The macro allows for the quick creation of fully customizable, publication-quality tables. I have showcased the macro's capabilities by providing an example of a **TableMaker** generated table from an academic publication. In addition, I have described both basic and advanced options for the formatting of table columns, and demonstrated how users can follow a simple, three-step process to create well-formatted tables.

**TableMaker** represents a versatile tool for the production of high-quality tables in **Excel**. It provides an easy-to-navigate GUI that allows for the customization of every aspect of the generated tables. In addition, it allows users to save and load table templates, and thus makes all table layouts easily reproducible and transferable.

All in all, **TableMaker** can offer significant benefits to academics, policy-makers and businesses. It can greatly enhance the speed and efficiency of report creation and presentation, and thus save valuable time that can then be allocated to other productive tasks.

## Acknowledgments

I would like to thank two anonymous reviewers for helpful comments and suggestions.

## References

- Dahl D (2014). *xtable: Export Tables to L<sup>A</sup>T<sub>E</sub>X or HTML*. R package version 1.7-4, URL <https://CRAN.R-project.org/package=xtable>.
- Elff M (2016). *memisc: Tools for Management of Survey Data, Graphics, Programming, Statistics, and Simulation*. R package version 0.99.6, URL <https://CRAN.R-project.org/package=memisc>.

- Hlavac M (2015). **stargazer**: *L<sup>A</sup>T<sub>E</sub>X/HTML Code and ASCII Text for Well-Formatted Regression and Summary Statistics Tables*. R package version 5.2, URL <https://CRAN.R-project.org/package=stargazer>.
- Holzer H, Hlavac M (2014). “A Very Uneven Road: U.S. Labor Markets in the Past 30 Years.” In J Logan (ed.), *Diversity and Disparities: America Enters a New Century*. Russell Sage Foundation, New York. URL <http://www.russellsage.org/research/reports/very-uneven-road>.
- Jann B (2005). “Making Regression Tables from Stored Estimates.” *The Stata Journal*, **5**(3), 288–308.
- Jann B (2007). “Making Regression Tables Simplified.” *The Stata Journal*, **7**(2), 227–244.
- Leifeld P (2013). “**texreg**: Conversion of Statistical Model Output in R to L<sup>A</sup>T<sub>E</sub>X and HTML Tables.” *Journal of Statistical Software*, **55**(8), 1–27. doi:10.18637/jss.v055.i08.
- Malecki M (2012). **apsrtable**: *Model-Output Formatter for Social Science*. R package version 0.8-8, URL <https://CRAN.R-project.org/package=apsrtable>.
- Microsoft Corporation (2010). *Microsoft Excel for Mac 2011*. Redmond. URL <http://www.microsoft.com/mac/excel>.
- Microsoft Corporation (2012). *Microsoft Excel 2013*. Redmond. URL <http://products.office.com/en-us/excel>.
- Microsoft Corporation (2014). *Microsoft Windows*. Redmond. Versions 95, 98, XP, Vista, 7, 8, 8.1, URL <http://windows.microsoft.com/en-us/windows/home>.
- R Core Team (2016). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.
- Rufibach K (2009). “**reporttools**: R Functions to Generate L<sup>A</sup>T<sub>E</sub>X Tables of Descriptive Statistics.” *Journal of Statistical Software*, **31**(1), 1–7. doi:10.18637/jss.v031.c01.
- StataCorp (2015). *Stata Statistical Software: Release 14*. StataCorp LP, College Station. URL <http://www.stata.com/>.
- Wada R (2014). “**outreg2**: Stata Module to Arrange Regression Outputs into an Illustrative Table.” *Statistical Software Components*. Stata module, URL <http://fmwww.bc.edu/repec/bocode/o/outreg2.ado>.
- Walkenbach J (2013). *Excel 2013 Power Programming with VBA*. 1st edition. John Wiley & Sons, Hoboken. doi:10.1002/9781118257616.

**Affiliation:**

Marek Hlavac  
Harvard University  
John F. Kennedy School of Government

79 John F. Kennedy Street  
Cambridge, MA 02138, United States of America  
E-mail: [hlavac@fas.harvard.edu](mailto:hlavac@fas.harvard.edu)