Installing and Using the SSWPEG Graph Scheme

Andy Grogan-Kaylor

21 Feb 2023 13:22:50

Introduction

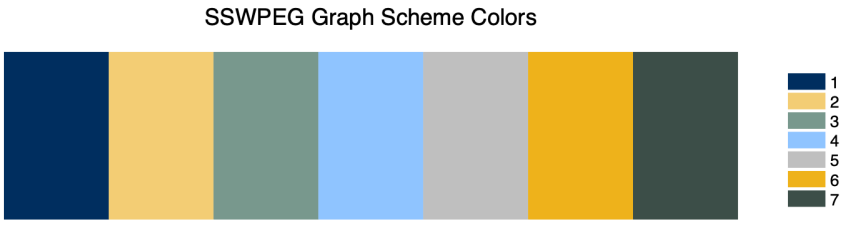

Figure 1: Colors in SSWPEG Scheme

Stata provides the use of graph schemes that improve the overall look of graphs.

See `help scheme`.

The *SSWPEG graph scheme* makes use of colors often used by the School of Social Work Program Evaluation (SSWPEG) group.

Installation

Use of the *SSWPEG graph scheme* depends on installation of the `lean2` graph scheme developed by Svend Juul.

Type `findit lean2` and click through on the install links to install `lean2`.

Then type `net from https://agrogan1.github.io/Stata` and click the links to install.

Example Data

We are going to use the famous "iris" data collected by Edgar Anderson.

```
. clear all
.
. use "iris.dta", clear
.
. summarize
```

Variable	Obs	Mean	Std. dev.	Min	Max
Sepal_Length	150	5.843333	.8280661	4.3	7.9
Sepal_Width	150	3.057333	.4358663	2	4.4
Petal_Length	150	3.758	1.765298	1	6.9
Petal_Width	150	1.199333	.7622377	.1	2.5
Species	150	2	.8192319	1	3

Histogram

```
. histogram Petal_Length, scheme(SSWPEG)
(bin=12, start=1, width=.49166667)
```

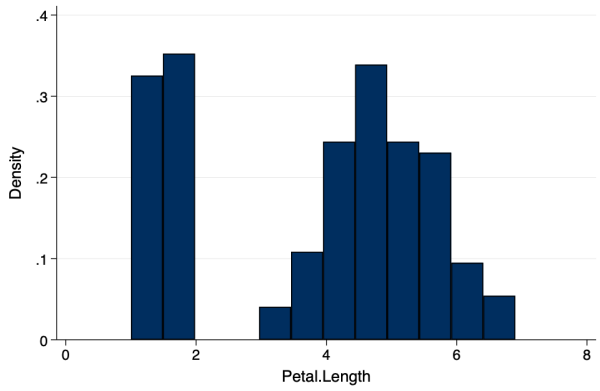

Figure 2: Histogram Using SSWPEG Scheme

Histogram With Transparency

```
. histogram Petal_Length, fcolor(%50) scheme(SSWPEG)
(bin=12, start=1, width=.49166667)
```

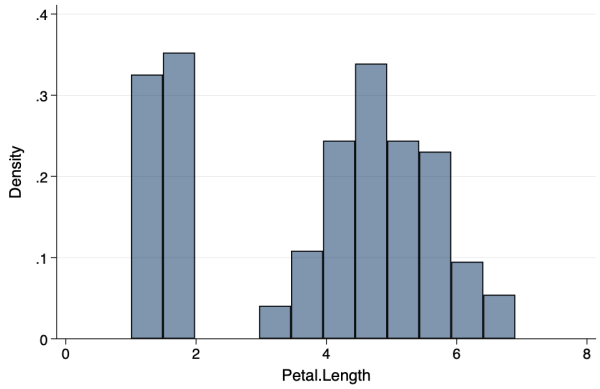

Figure 3: Histogram Using SSWPEG Scheme And Slightly Transparent Bars

Bar Graph

We graph `over` species of irises. The unintuitively named `asyvars` option ensures that the bars of the graph are different colors rather than all the same color.

```
. graph bar Petal_Length, over(Species) scheme(SSWPEG) asyvars
```

Bar Graph With Transparency

```
. graph bar Petal_Length, over(Species) intensity(70) scheme(SSWPEG) asyvars
```

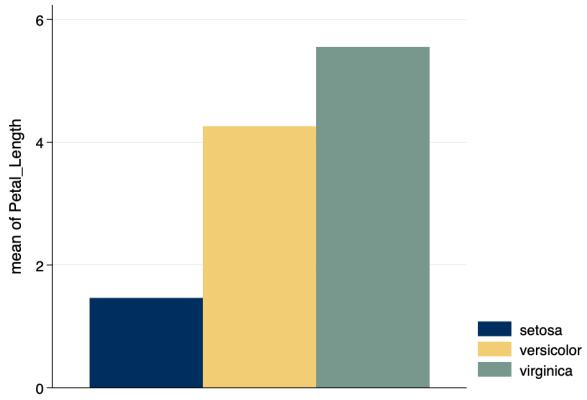

Figure 4: Bar Graph Using SSWPEG Scheme

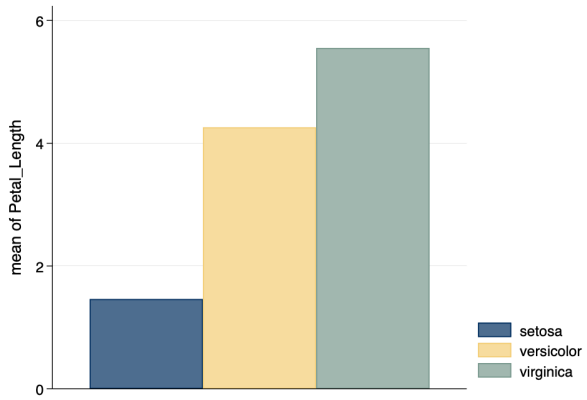

Figure 5: Bar Graph Using SSWPEG Scheme and Slightly Transparent Bars

Scatterplot

```
. twoway (scatter Petal_Length Petal_Width) ///
> (lfit Petal_Length Petal_Width), ///
> scheme(SSWPEG)
```

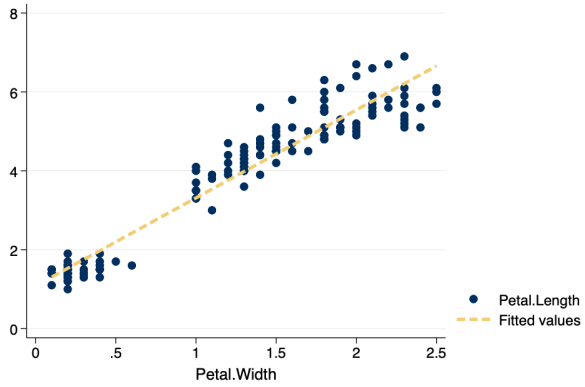

Figure 6: Scatterplot Using SSWPEG Scheme

Scatterplot With Transparency

```
. twoway (scatter Petal_Length Petal_Width, mcolor(%30)) /// markers have 30% transparency
> (lfit Petal_Length Petal_Width), ///
> scheme(SSWPEG)
```

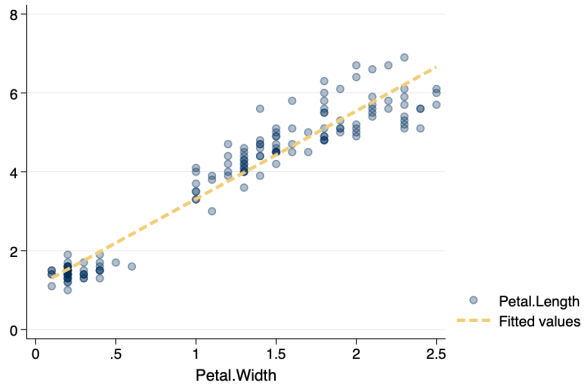

Figure 7: Scatterplot Using SSWPEG Scheme And Slightly Transparent Markers

Legend Placement

Sometimes you may wish to have the legend of the graph placed at the *bottom* of the graph. The `pos(6)` suboption inside the `legend` option will place the legend at the bottom, while you can manually control the number of legend rows with the `rows` suboption.

```
. graph bar Petal_Length, over(Species) scheme(SSWPEG) asyvars legend(pos(6) rows(1))
```

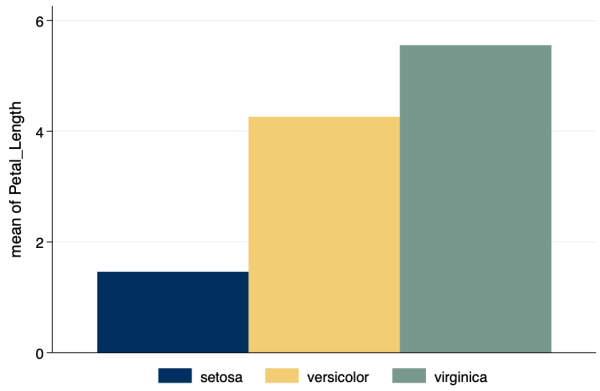

Figure 8: Bar Graph Using SSWPEG Scheme and Modified Legend

Individual SSWPEG Colors

Individual University of Michigan colors are listed below.

Color	RGB	Hex
Blue	0 46 95	#002e5f
Pale Yellow	243 205 116	#f3cd8d
Teal	120 152 141	#78988d
Light Blue	143 196 255	#8fc4ff
Gray	191 191 191	
Dark Gold	238 178 27	#EEB21B
Dark Teal	60 78 72	

Stata can use RGB codes for colors. As an example.

```
. twoway (scatter Petal_Length Petal_Width, mcolor("120 152 141 %50")) /// markers are Teal
>  with 50% transparency
> (lfit Petal_Length Petal_Width, lcolor("238 178 27")), /// Dark Gold line
> scheme(SSWPEG)
```

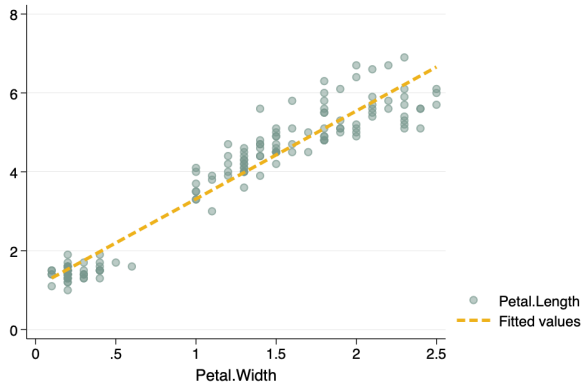

Figure 9: Scatterplot Using SSWPEG Scheme, Selected Colors, And Slightly Transparent Markers