

Combining Charts into a Dashboard



Greg Sommerville

www.gregsommerville.com



Chart Options for Height & Width

```
// Specifying height/width in pixels  
var chartOptions = {  
    height: 400,  
    width: 300,  
};
```



Chart Options for Height & Width

// Specifying height/width in pixels

```
var chartOptions = {  
    height: 400,  
    width: 300,  
};
```

// Specifying height/width in percentages

```
var chartOptions = {  
    height: '100%',    // bad idea  
    width: '100%',    // usually not needed  
};
```



Default Margins

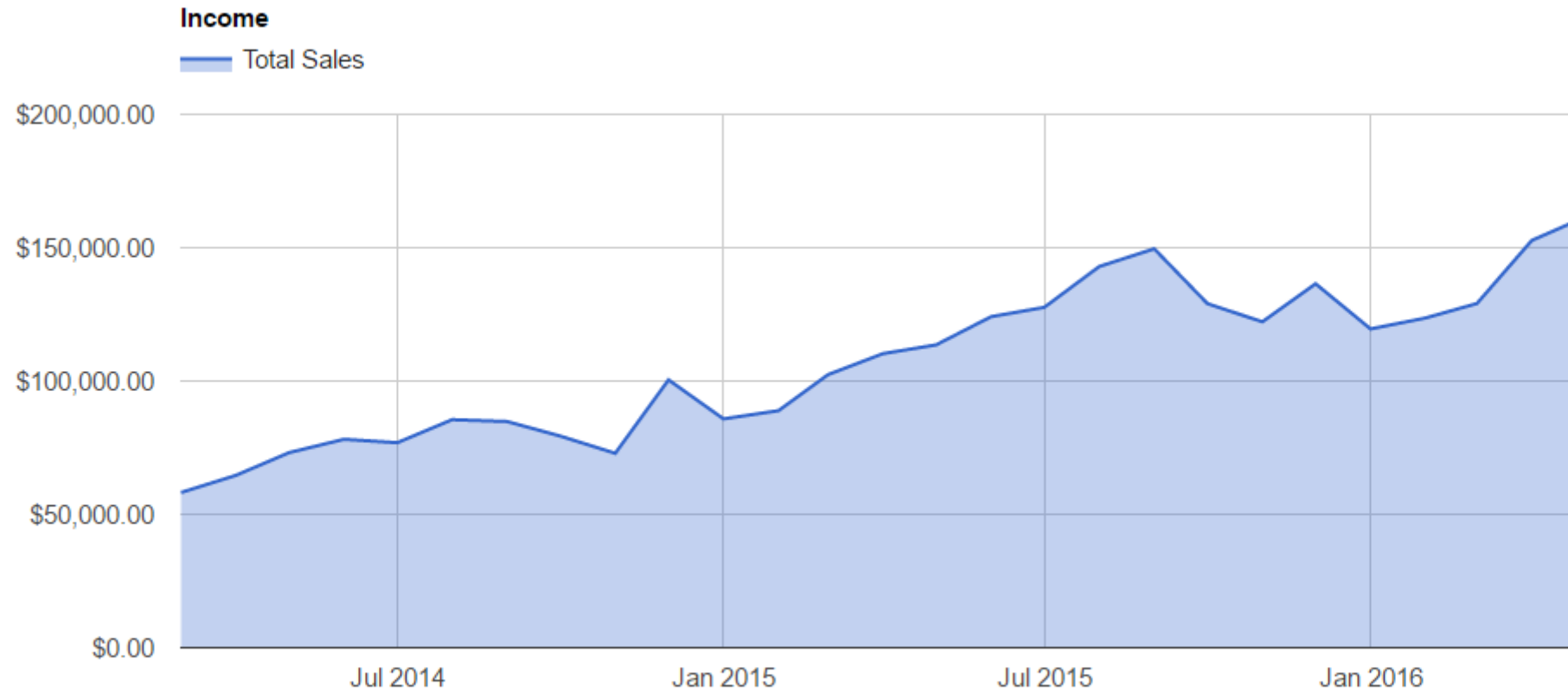


Chart Options for ChartArea

```
// Specifying chartArea in pixels
var chartOptions = {

    chartArea: {
        left: 10,
        width: 600,
        top: 10,
        height: 400
    }

};
```



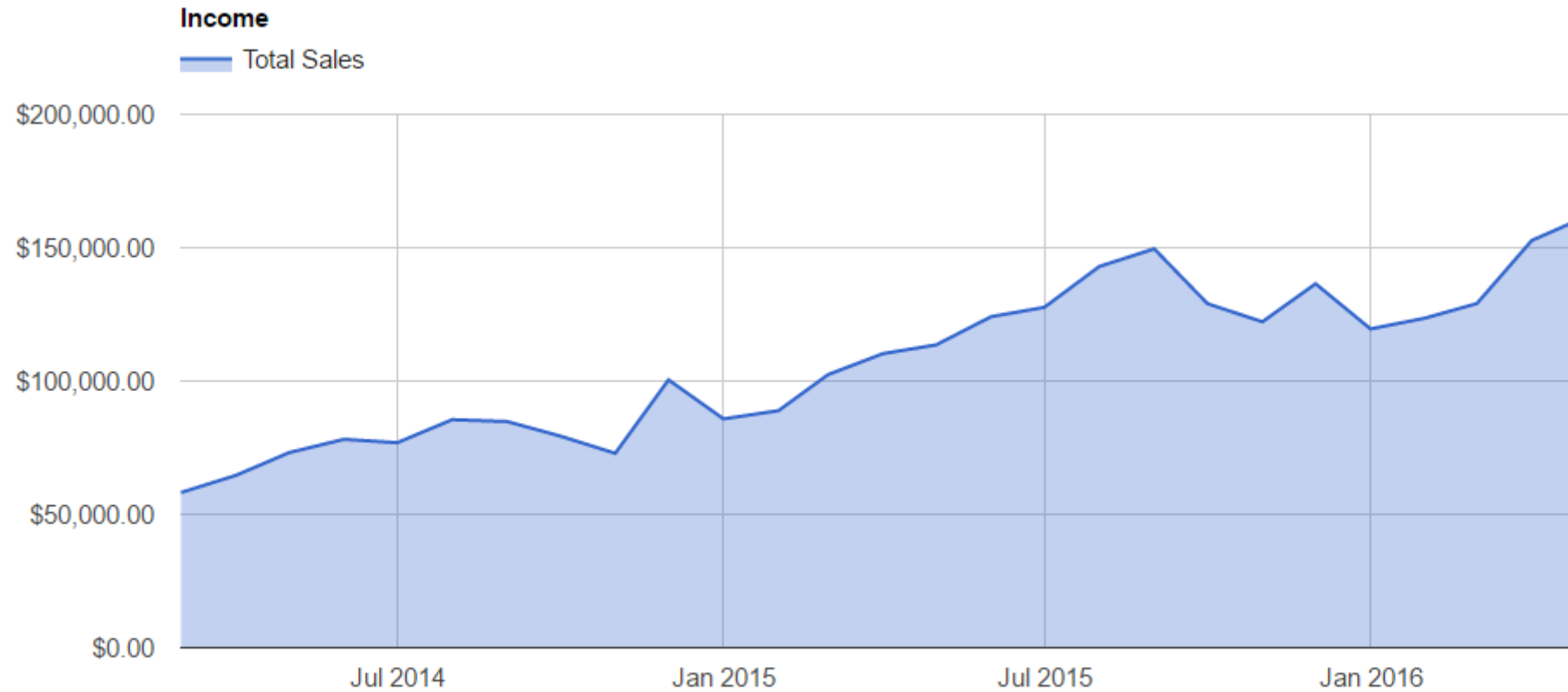
Good Default Values

```
// adjust the height and chartArea vals until you get
// something you like
var chartOptions = {
  height: 400,

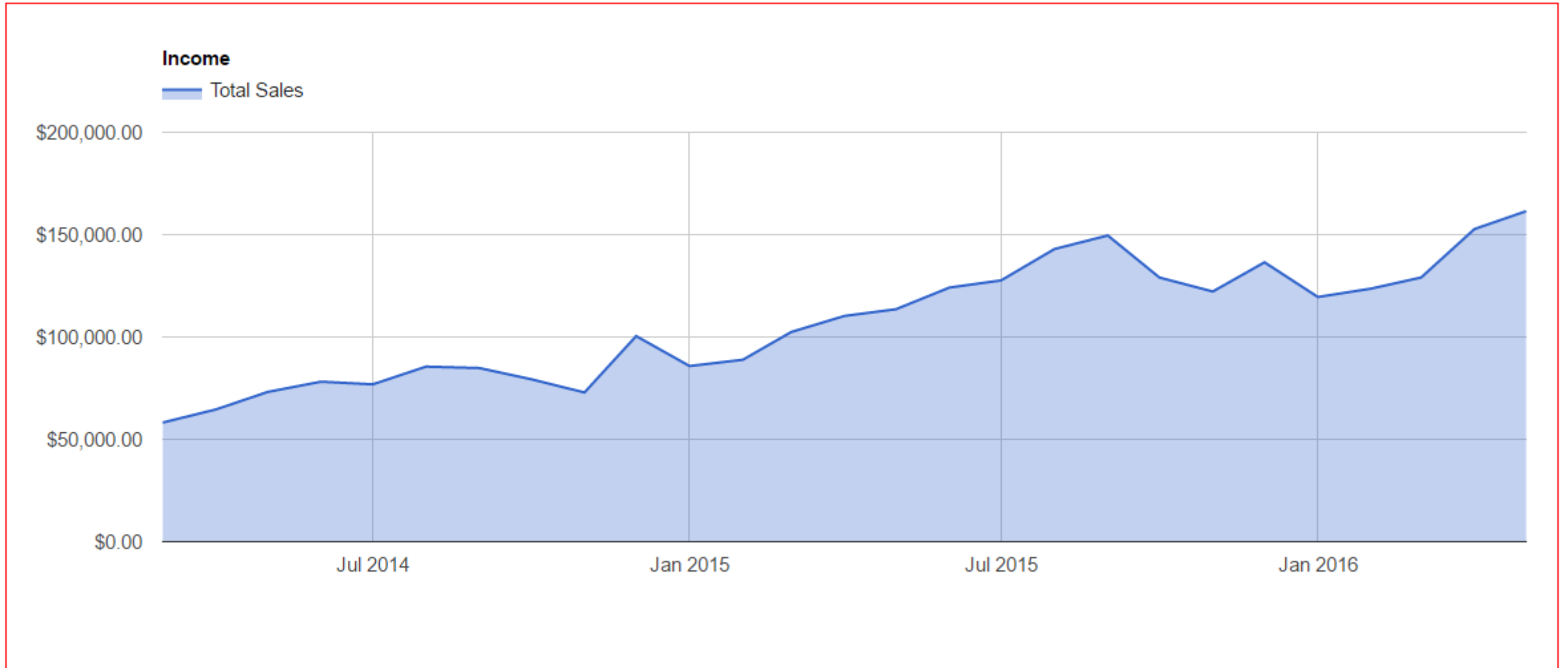
  // increase "left" if the Y axis legends get cropped
  // and decrease width to compensate
  chartArea: {
    left: '10%',
    width: '90%'
  }
};
```



Default ChartArea



Specified ChartArea



Layout Approaches



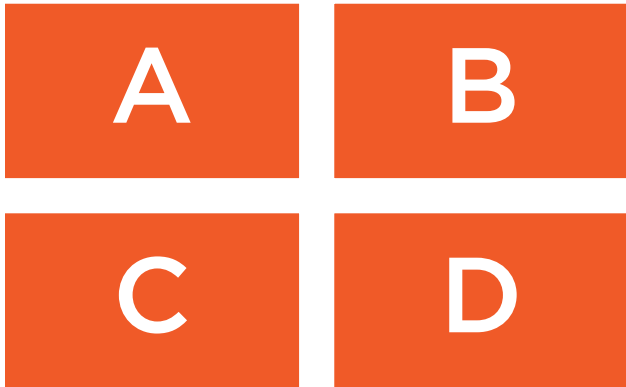
Demo: HTML tables, DIVs with table styles, and inline-block DIVs



HTML Tables vs. DIVs

HTML Table
or
DIV with 'display: table'

DIVs with 'display: inline-block'



Non-Responsive Layouts Work For:

- Simple grid arrangement
- High screen resolution



Demo: Non-responsive divs for the sample dashboard



Responsive Design & Bootstrap



Bootstrap

Created by Twitter

Open Source + Free

Home Page: **GetBootstrap.com**

Current Version: **3.x**

Example Usage:

```
<div class='btn btn-sm'>  
  ...  
</div>
```



Bootstrap Screen Sizes

Size	Abbreviation	Screen Widths	Typical Usage
Extra Small	xs	0 - 767	Phone
Small	sm	768 - 991	Tablet
Medium	md	992 - 1199	Small Monitor
Large	lg	1200 +	Big Monitor



Bootstrap Grid System

```
<div class='container'>  
  <div class='row'>  
    <!-- DIV(s) for the columns go here.
```

There are 12 columns per row,
and you can use from 1 to 12 per DIV.

Example: Using 9 columns in a DIV means 9/12,
or 75% of the width of the screen.

```
-->
```

```
</div>  
</div>
```



Bootstrap Columns

```
<div class='container'>  
  <div class='row'>  
  
    <div class='col-xs-6'>  
    </div>  
  
    <div class='col-xs-6'>  
    </div>  
  
  </div>  
</div>
```



Different Widths for Different Screens

```
<div class='container'>  
  <div class='row'>  
  
    <div class='col-xs-12 col-md-6'>  
    </div>  
  
    <div class='col-xs-12 col-md-6'>  
    </div>  
  
  </div>  
</div>
```



Demo: DIVs with red, green blue blocks (with Bootstrap)



Using Bootstrap for Dashboard Layouts



Demo: Using Bootstrap to handle layout for our dashboard



Summary



Topics We've Covered:

- Sizing individual charts
- The chartArea property
- Non-responsive layouts
- Bootstrap basics
- Using Bootstrap with our dashboard

Next up:

- User-controlled customization
- Exporting data
- Startup animations

