



# Google chart

Google chart tools are powerful, simple to use, and free. There are rich gallery of interactive charts and data tools.

# 1. Linechart

## 1.1 basic chart

example: GoogleCharsline.html

<> 1.1GoogleChartsline.html <

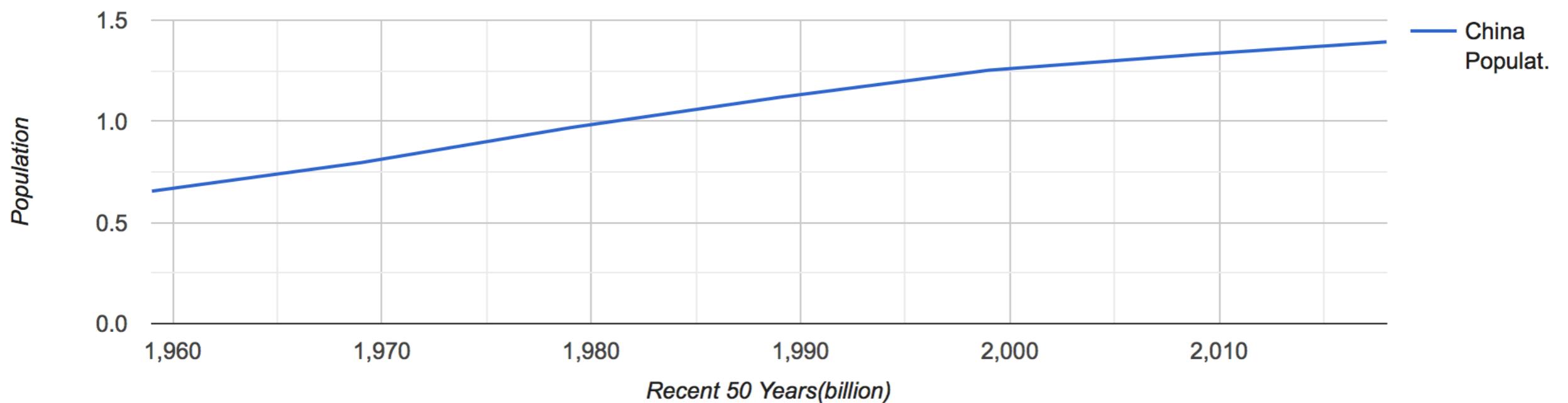
<> 1.1GoogleChartsline.html > ...

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Title</title>
6      <!--Load the GoogleChart API-->
7      <script type="text/javascript" src="https://www.gstatic.com/charts/loader.js"></script>
8  </head>
9
10 <body>
11 <!--Div that will hold the pie chart-->
12 <div id="linechart" style="width:1000px; height:300px"></div>
13 </body>
14 <script>
15     // Load the Visualization API and the line package.
16     google.charts.load('current', {packages: ['corechart', 'line']});
17     // Set a callback to run when the Google Visualization API is loaded.
18     google.charts.setOnLoadCallback(drawBasic);
19
20     // Callback that creates and populates a data table,
21     // instantiates the line chart, passes in the data and
22     // draws it.
23     function drawBasic() {
24
25         // Create the data table.
26         var data = new google.visualization.DataTable();
27         data.addColumn('number', 'X');
28         data.addColumn('number', 'China Population');
29
30         data.addRows([
31             [1959, 0.655], [1969, 0.796], [1979, 0.969], [1989, 1.119],
32             [1999, 1.253], [2009, 1.331], [2018, 1.393]
```

↔ 1.1GoogleChartsline.html ×

↔ 1.1GoogleChartsline.html > ...

```
29
30     data.addRows([
31         [1959, 0.655], [1969, 0.796], [1979, 0.969], [1989, 1.119],
32         [1999, 1.253], [2009, 1.331], [2018, 1.393]
33     ]);
34
35     var options = {
36         hAxis: {
37             title: 'Recent 50 Years(billion)'
38         },
39         vAxis: {
40             title: 'Population'
41         },
42     };
43
44
45     // Instantiate and draw chart, passing in some options.
46     var chart = new google.visualization.LineChart(document.getElementById('linechart'));
47     chart.draw(data, options);
48 }
49
50 </script>
51 </html>
52
```



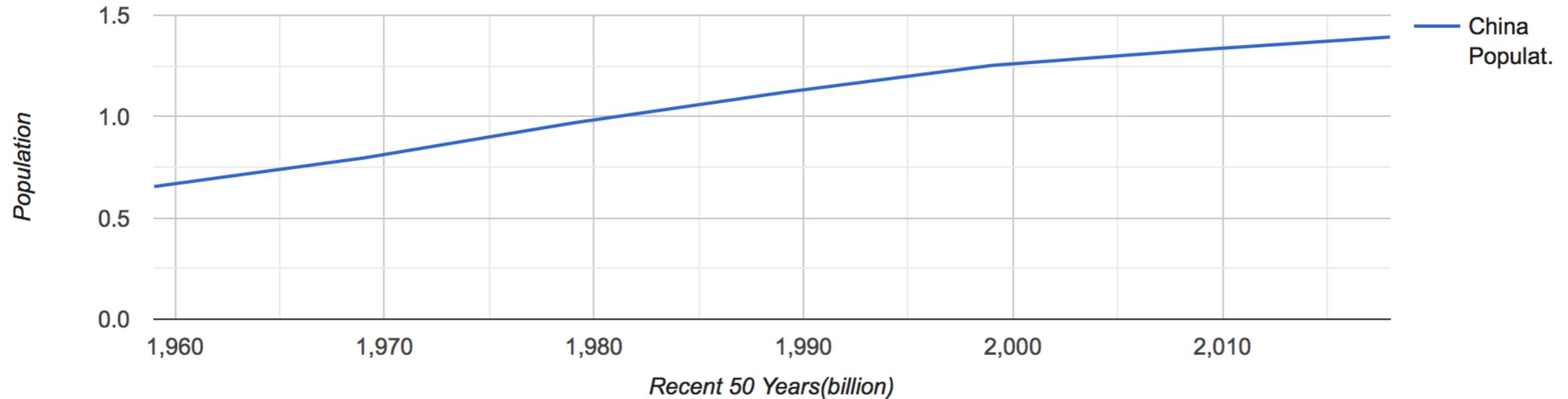
# 1. Linechart

## 1.2 basic chart with background color

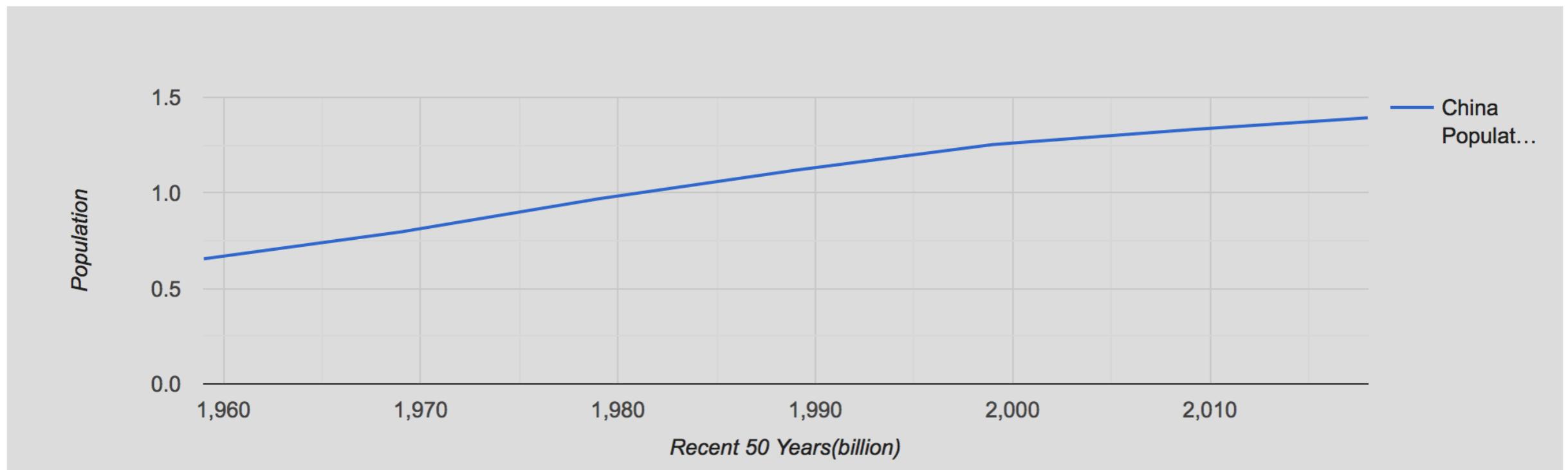
example: [GoogleCharslineWithBackgroundColor.html](#)

```
9  <body>
10 <div id="linechart" style="width:1000px; height:300px"></div>
11 </body>
12 <script>
13     google.charts.load('current', {packages: ['corechart', 'line']});
14     google.charts.setOnLoadCallback(drawBasic);
15
16     //have a background color
17     google.charts.setOnLoadCallback(drawBackgroundColor);
18
19     function drawBasic() {
20
21         var data = new google.visualization.DataTable();
22         data.addColumn('number', 'X');
23         data.addColumn('number', 'China Population');
24
25         data.addRows([
26             [1959, 0.655], [1969, 0.796], [1979, 0.969], [1989, 1.119],
27             [1999, 1.253], [2009, 1.331], [2018, 1.393]
28         ]);
29
30         var options = {
31             hAxis: {
32                 title: 'Recent 50 Years(billion)'
33             },
34             vAxis: {
35                 title: 'Population'
36             },
37             backgroundColor: 'E0E0E0'
38         };
39     };

```



With Background Color



# 1. Linechart

## 1.3 basic chart with color line

example: 1.3GoogleCharslineColor.html

```
<script>

  google.charts.load('current', {packages: ['corechart', 'line']});
  google.charts.setOnLoadCallback(drawLineColors);

  function drawLineColors() {

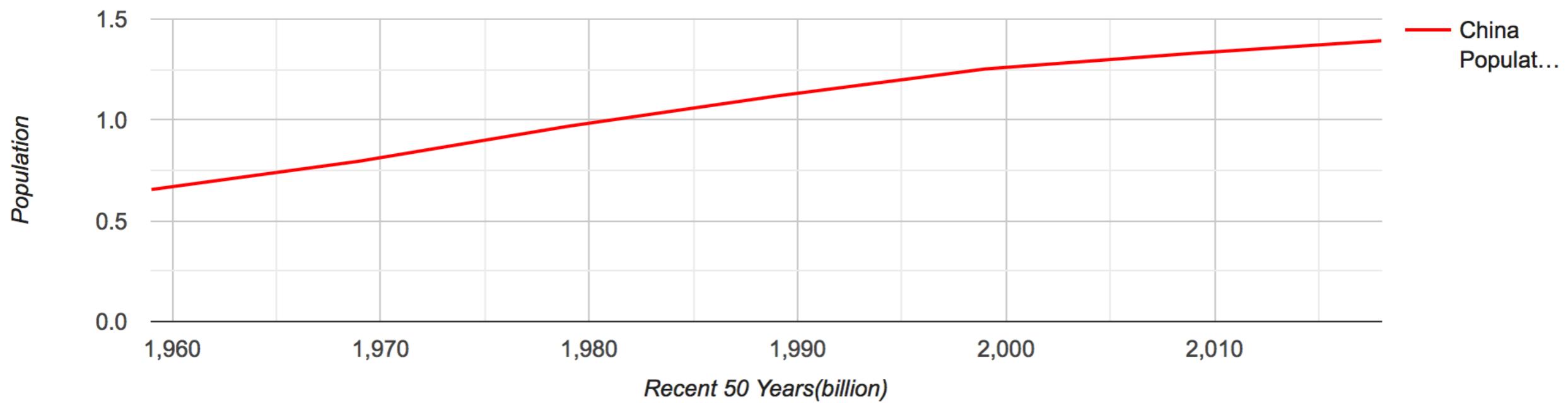
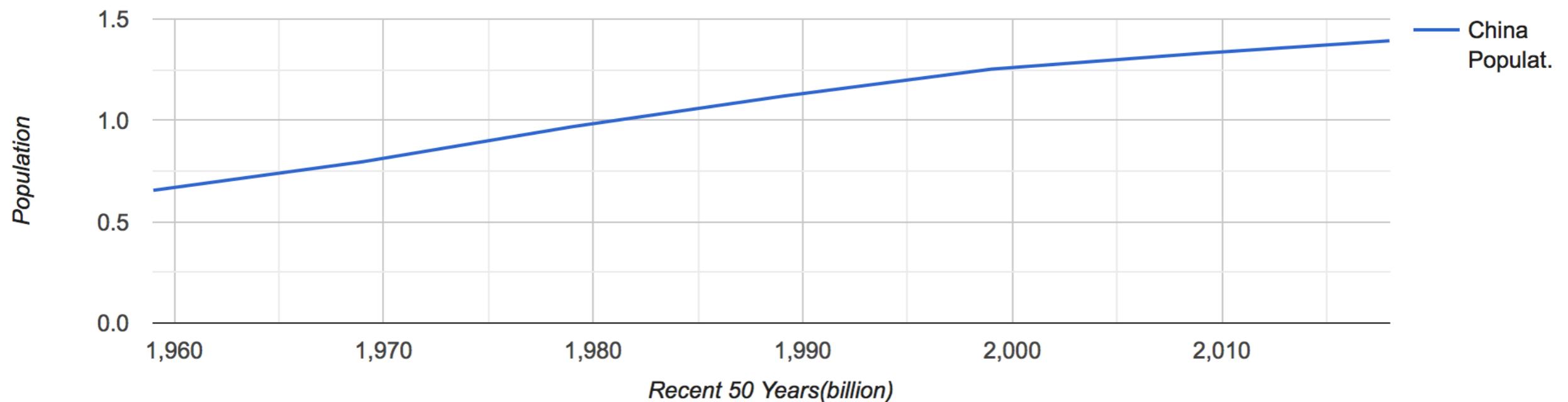
    var data = new google.visualization.DataTable();
    data.addColumn('number', 'X');
    data.addColumn('number', 'China Population');

    data.addRows([
      [1959, 0.655], [1969, 0.796], [1979, 0.969], [1989, 1.119],
      [1999, 1.253], [2009, 1.331], [2018, 1.393]
    ]);

    var options = {
      hAxis: {
        title: 'Recent 50 Years'
      },
      vAxis: {
        title: 'Population(billion)'
      },
      colors: ['red'],
    };

    var chart = new google.visualization.LineChart(document.getElementById('linechart'));

    chart.draw(data, options);
  }
}
```



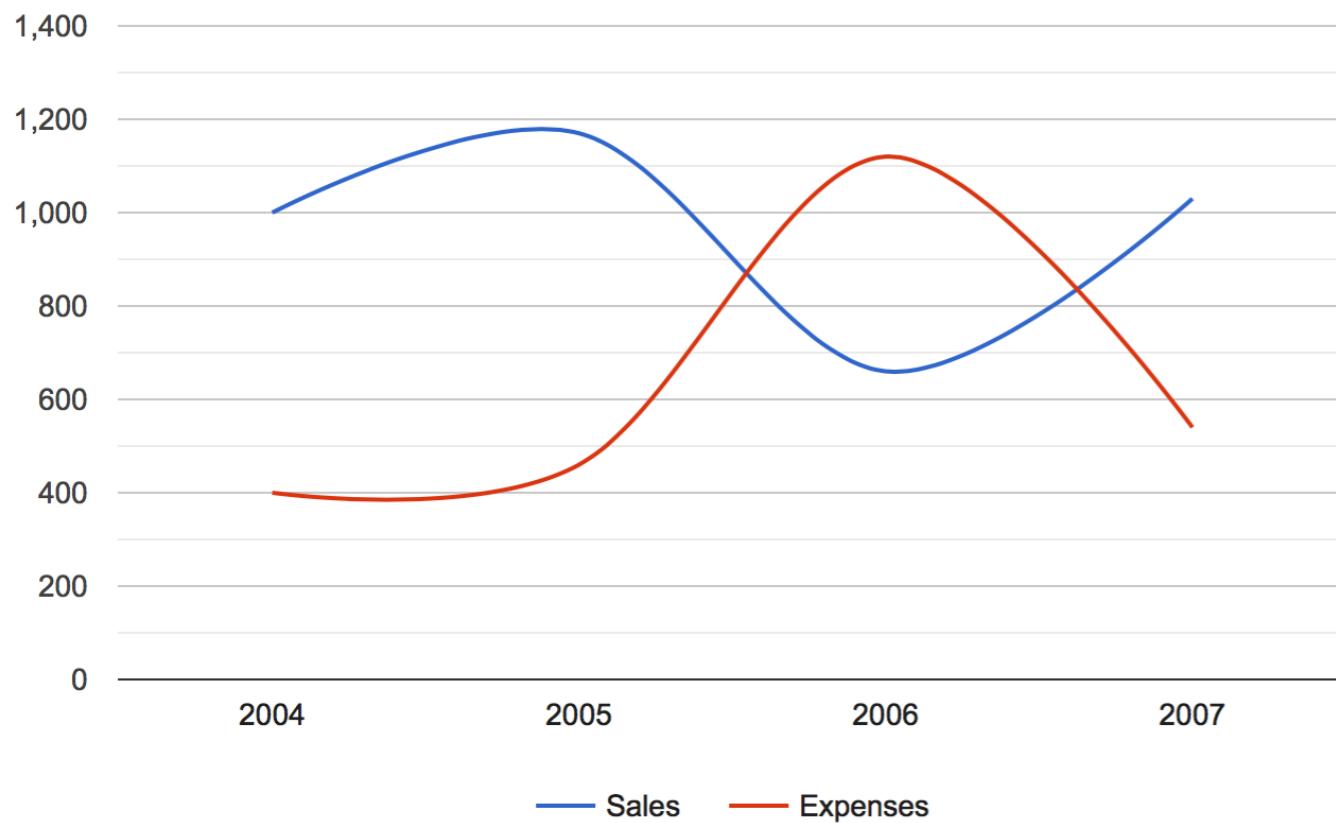
# 1. Linechart

## 1.4 basic chart with other options

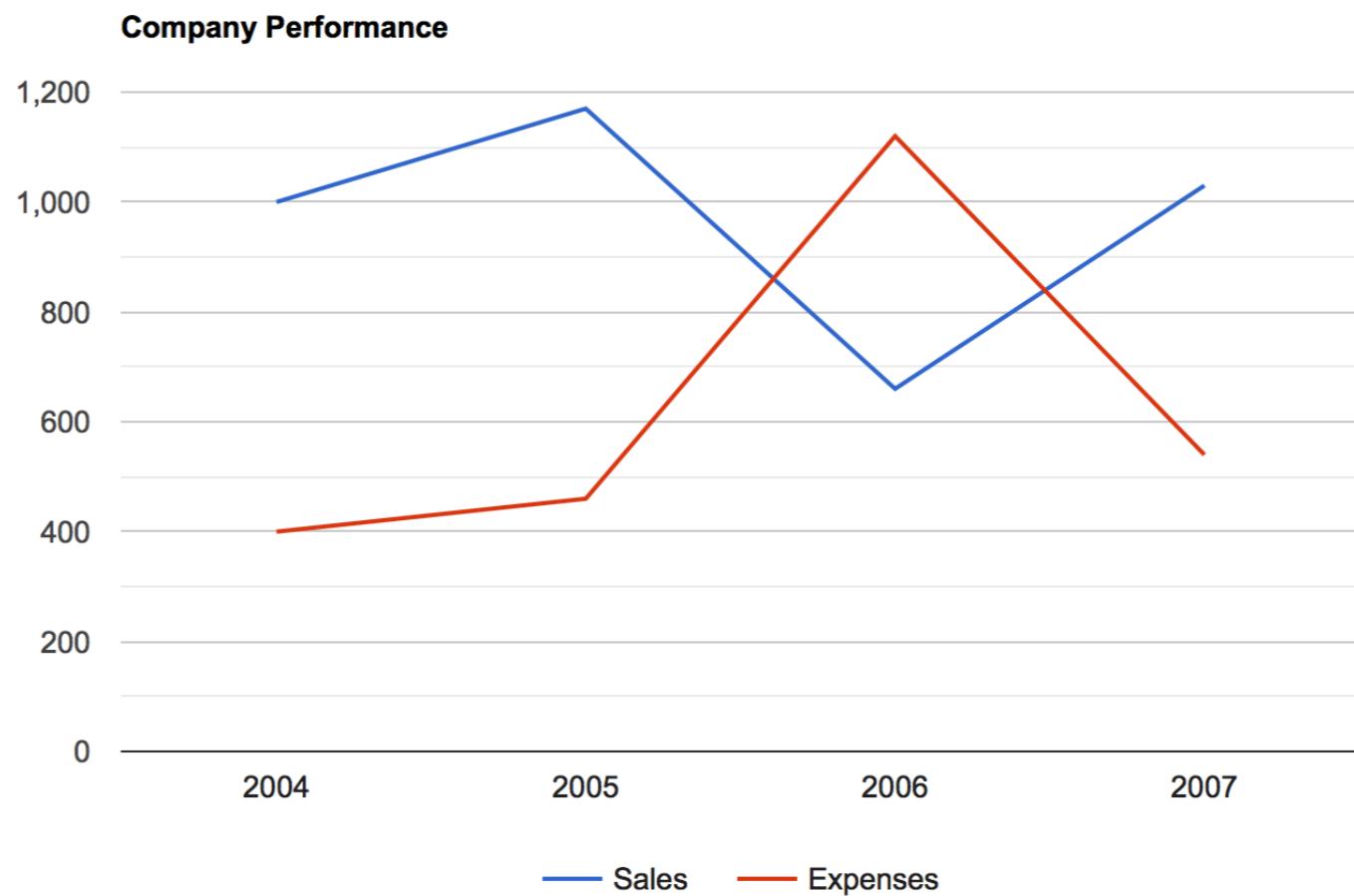
example: 1.4GoogleCharsWithOtherOptions.html

```
20
21     var data = new google.visualization.DataTable();
22     data.addColumn('number', 'X');
23     data.addColumn('number', 'China Population');
24
25     data.addRows([
26         [1959, 0.655], [1969, 0.796], [1979, 0.969], [1989, 1.119],
27         [1999, 1.253], [2009, 1.331], [2018, 1.393]
28     ]);
29
30     var options = {
31         hAxis: {
32             title: 'Recent 50 Years'
33         },
34         vAxis: {
35             title: 'Population(billion)'
36         },
37
38         colors: ['red'],
39         title: 'Chinese Population within 50 Years',
40         curveType: 'function',//make the line smooth same as {smoothLine: true,}
41         legend: { position: 'bottom' },//data index
42         animation: {// add this for animations
43             startup: true,
44             duration: 2000,
45             easing: 'out',
46         },
47     };
48
49
50     var chart = new google.visualization.LineChart(document.getElementById('linechart'));
51
52     chart.draw(data, options);
53 }
```

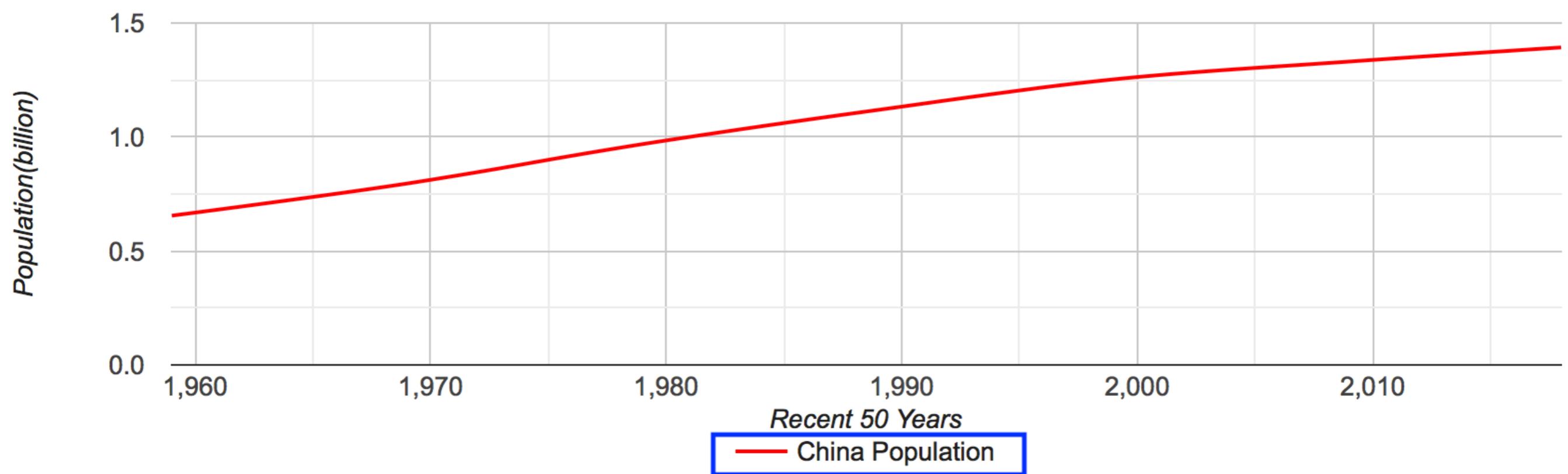
**Company Performance**



## The difference by using curveType



### Chinese Population within 50 Years



\*Try <1.4GoogleCharsWithOtherOptions.html>  
to see the animation

# 1. Linechart

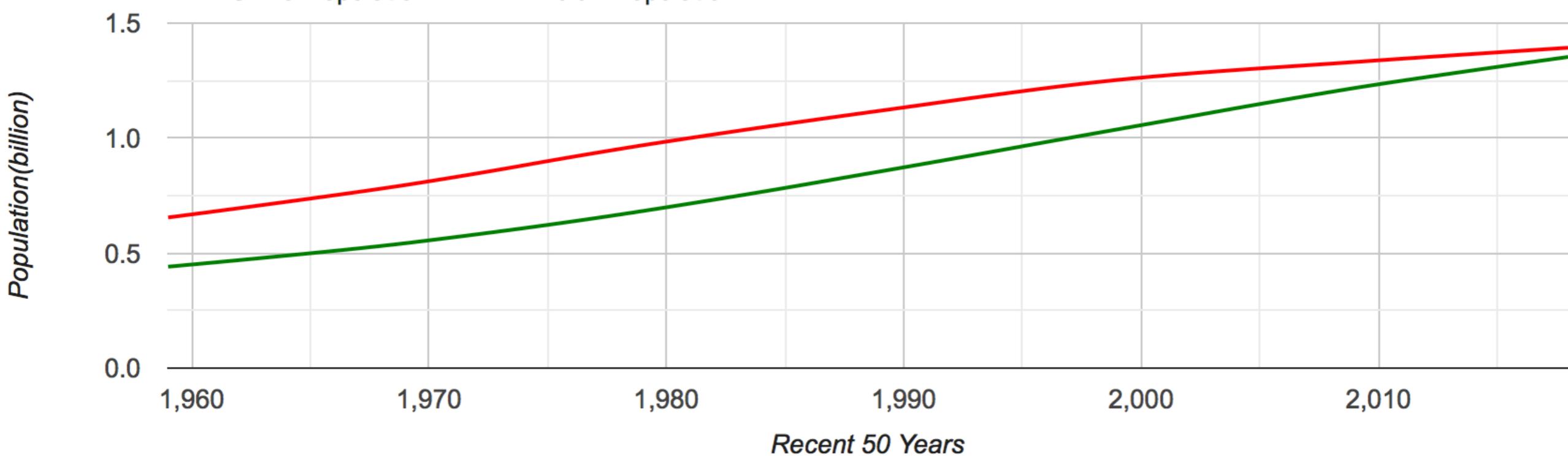
1.5 basic chart with two lines

example: 1.5ChinalIndianPopulation.html

```
18
19
20     function drawLineColors() {
21
22         var data = new google.visualization.DataTable();
23         data.addColumn('number', 'X');
24         data.addColumn('number', 'China Population');
25         data.addColumn('number', 'Indian Population');
26
27         data.addRows([
28             [1959, 0.655, 0.441], [1969, 0.796, 0.543], [1979, 0.969, 0.683], [1989, 1.119, 0.855],
29             [1999, 1.253, 1.038], [2009, 1.331, 1.218], [2018, 1.393, 1.353]
30         ]);
31
32         var options = {
33             hAxis: {
34                 title: 'Recent 50 Years'
35             },
36             vAxis: {
37                 title: 'Population(billion)'
38             },
39             colors: ['red','green'],
40             title: 'Chinese & Indian Population',
41             curveType: 'function',
42             legend: { position: 'top' }
43         };
44
45         var chart = new google.visualization.LineChart(document.getElementById('linechart'));
46
47         chart.draw(data, options);
48     }
49
50 </script>
51 </html>
```

### Chinese & Indian Population

— China Population — Indian Population

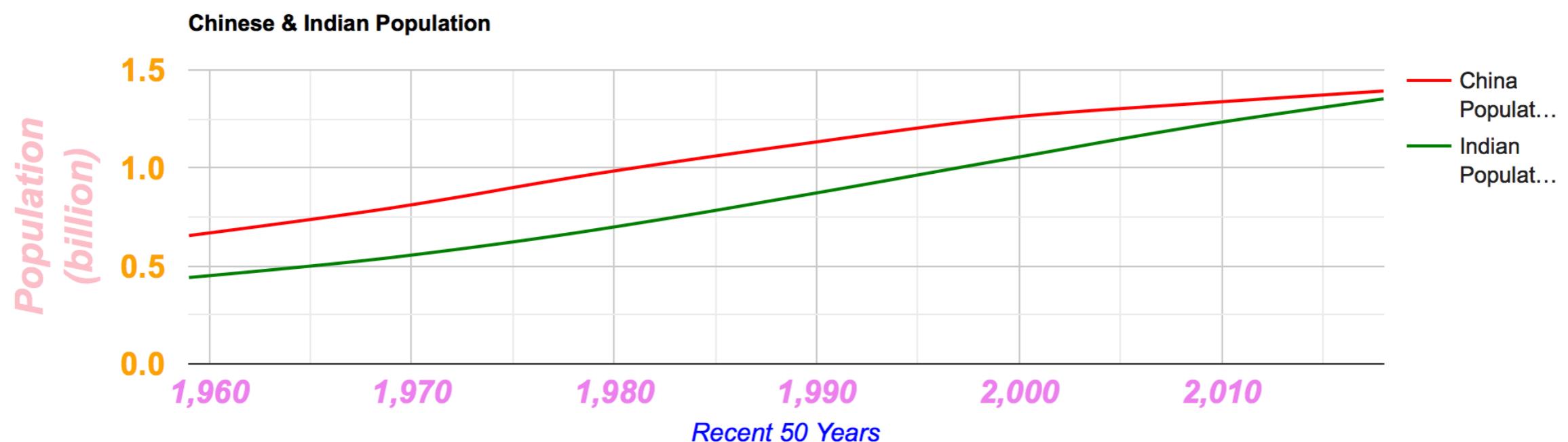
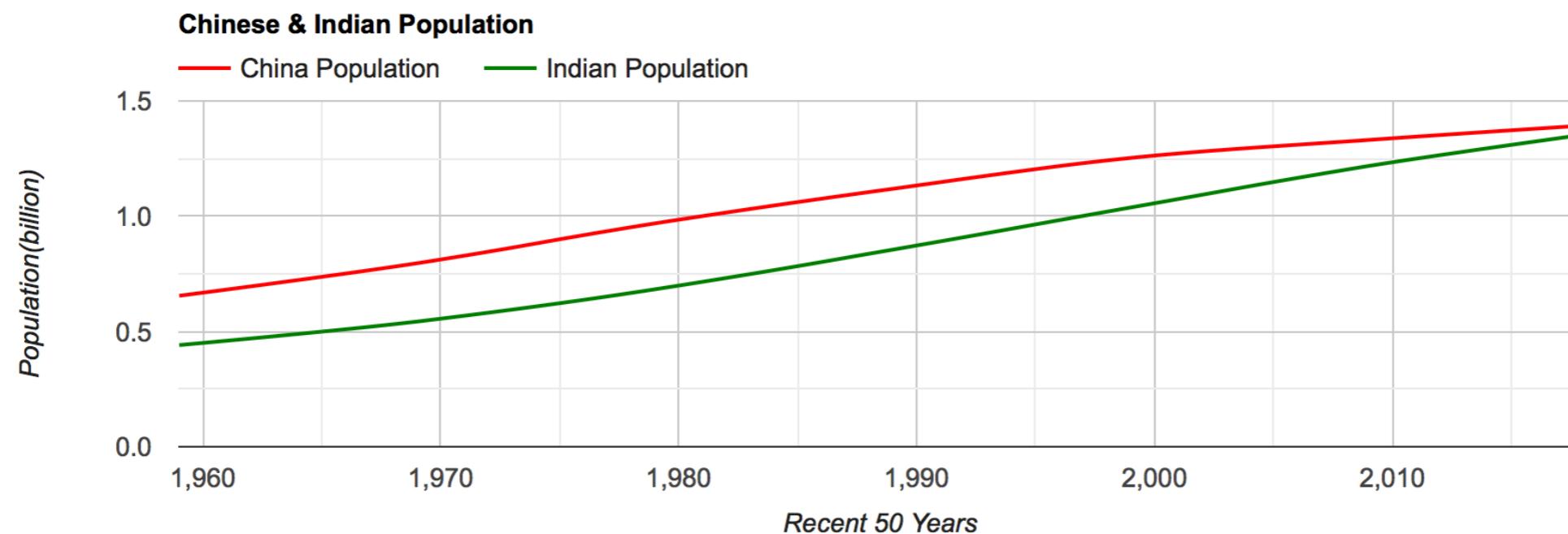


# 1. Linechart

1.6 basic chart with colorful axis tick

example: 1.6GoogleCharsDrawAxisTickCount.html

```
27     var options = {  
28         hAxis: {  
29             title: 'Recent 50 Years',  
30             textStyle: {  
31                 color: 'violet',  
32                 fontSize: 20,  
33                 fontName: 'Arial',  
34                 bold: true,  
35                 italic: true },  
36             titleTextStyle: {  
37                 color: 'blue',  
38                 fontSize: 16,  
39                 fontName: 'Arial',  
40                 bold: false,  
41                 italic: true }  
42         },  
43         vAxis: {  
44             title: 'Population\n(billion)',  
45             textStyle: {  
46                 color: 'orange',  
47                 fontSize: 20,  
48                 bold: true},  
49             titleTextStyle: {  
50                 color: 'pink',  
51                 fontSize: 24,  
52                 bold: true}  
53         },  
54         title: 'Chinese & Indian Population',  
55         colors: ['red', 'green'],  
56         curveType: 'function',  
57         legend: { position: 'right' }  
58     };  
59     var chart = new google.visualization.LineChart(document.getElementById('chart'));  
60     chart.draw(data, options);
```



## 2. Columnchart

### 2.1 basic column chart

example: 2.1GoogleColumnChart.html

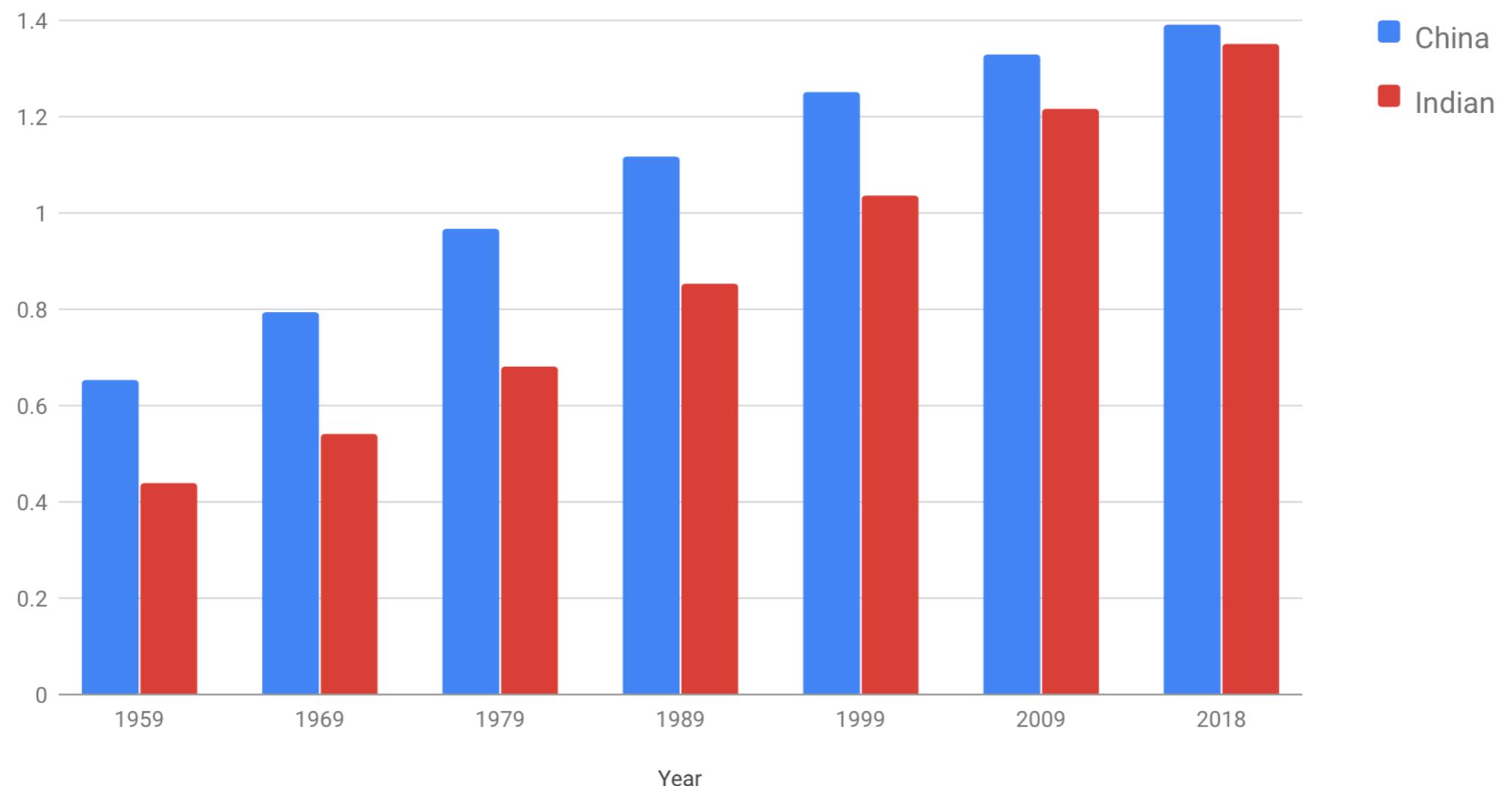
```
1  <html>
2  <head>
3      <script type="text/javascript" src="https://www.gstatic.com/charts/loader.js"></script>
4      <script type="text/javascript">
5          google.charts.load('current', {'packages':['bar']});
6          google.charts.setOnLoadCallback(drawChart);
7          function drawChart() {
8              var data = google.visualization.arrayToDataTable([
9                  ['Year', 'China', 'India'],
10                 ['1959', 0.655, 0.441],
11                 ['1969', 0.796, 0.543],
12                 ['1979', 0.969, 0.683],
13                 ['1989', 1.119, 0.855],
14                 ['1999', 1.253, 1.038],
15                 ['2009', 1.331, 1.218],
16                 ['2018', 1.393, 1.353]
17             ]);
18             var options = {
19                 chart: {
20                     title: 'Chinese & Indian Population',
21                     subtitle: '(1959 - 2019)'
22                 }
23             };
24             var chart = new google.charts.Bar(document.getElementById('columnchart'));
25             chart.draw(data, google.charts.Bar.convertOptions(options));
26         }
27     </script>
28 </head>
29 <body>
30     <div id="columnchart" style="width: 800px; height: 500px;"></div>
31 </body>
32 </html>
```

line chart data

```
var data = new google.visualization.DataTable();
data.addColumn('number', 'X');
data.addColumn('number', 'China Population');
data.addColumn('number', 'India Population');

data.addRows([
    [1959, 0.655, 0.441], [1969, 0.796, 0.543],
    [1999, 1.253, 1.038], [2009, 1.331, 1.218],
    [2018, 1.393, 1.353]
]);
```

Chinese & Indian Population  
(1959 - 2019)



## 2. Columnchart

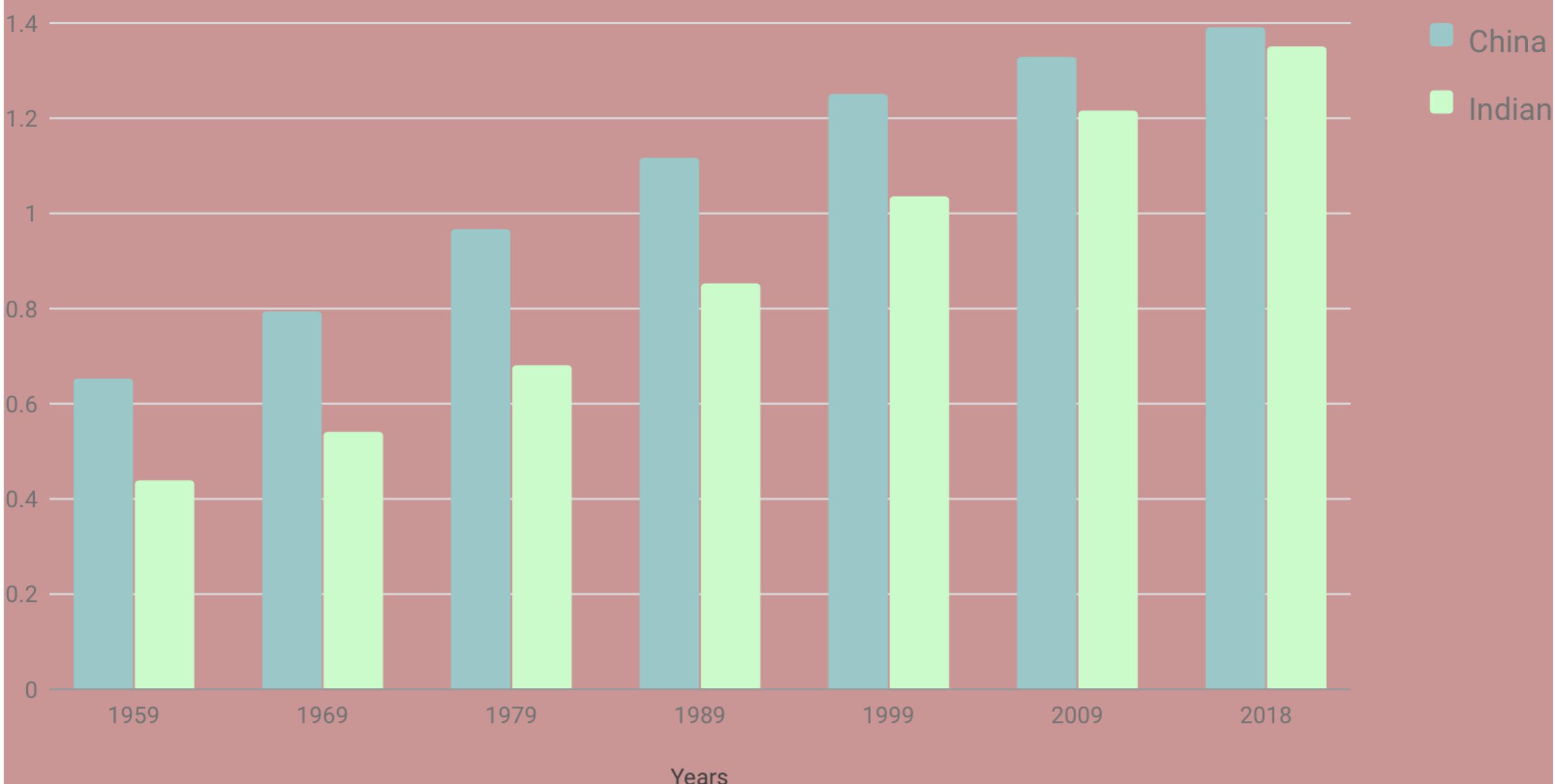
2.2 with more option style column chart

example: 2.2GoogleColumnChartwithStyle.html

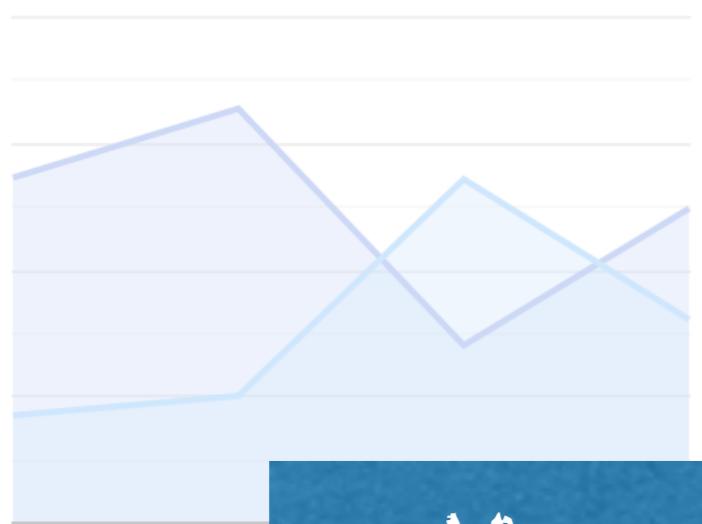
```
google.charts.setOnLoadCallback(drawChart);
function drawChart() {
  var data = google.visualization.arrayToDataTable([
    ['Years', 'China', 'Indian'],
    ['1959', 0.655, 0.441],
    ['1969', 0.796, 0.543],
    ['1979', 0.969, 0.683],
    ['1989', 1.119, 0.855],
    ['1999', 1.253, 1.038],
    ['2009', 1.331, 1.218],
    ['2018', 1.393, 1.353]
  ]);
  var options = {
    chart: {
      title: 'Chinese & Indian Population',
      subtitle: '(1959 – 2019)'
    },
    titleTextStyle: {
      color: '#336699',
      fontName: 'Times New Roman',
      fontSize: 35,
      bold: true,
      italic: true
    },
    colors: ['#99CCCC', '#CCFFCC'],
    backgroundColor: "#CC9999"
  };
  var chart = new google.charts.Bar(document.getElementById('columnchart'));
  chart.draw(data, google.charts.Bar.convertOptions(options));
}
```

# *Chinese & Indian Population*

(1959 - 2019)



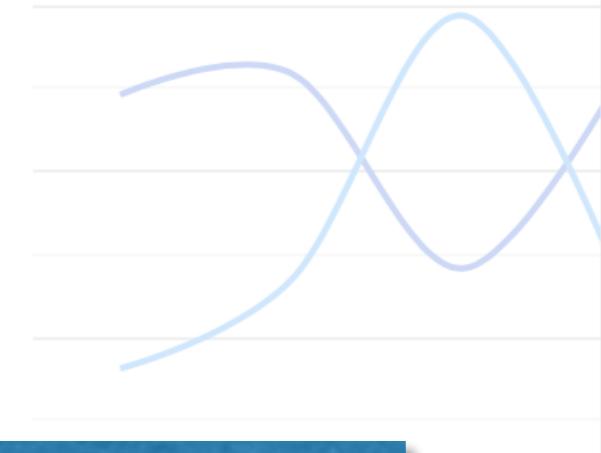
Area Chart



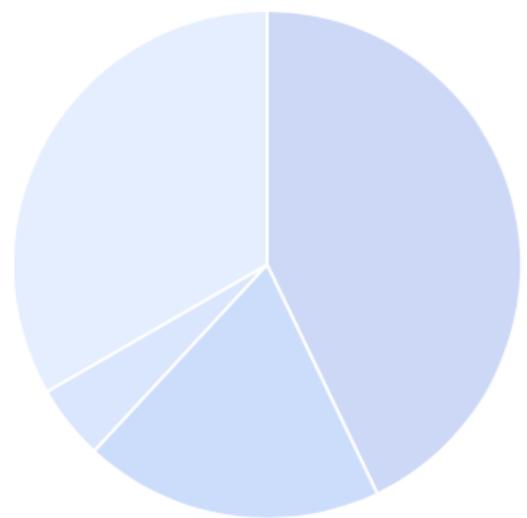
Stepped Area Chart



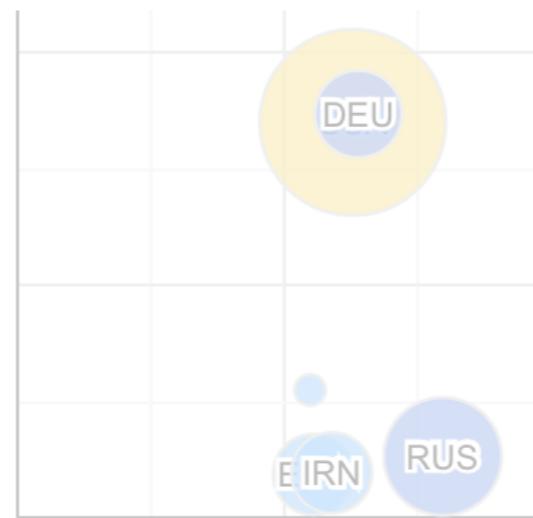
Line Chart



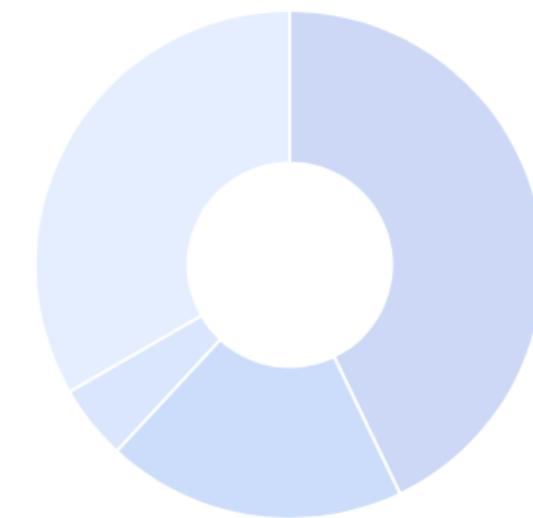
Pie Chart



Bubble Chart

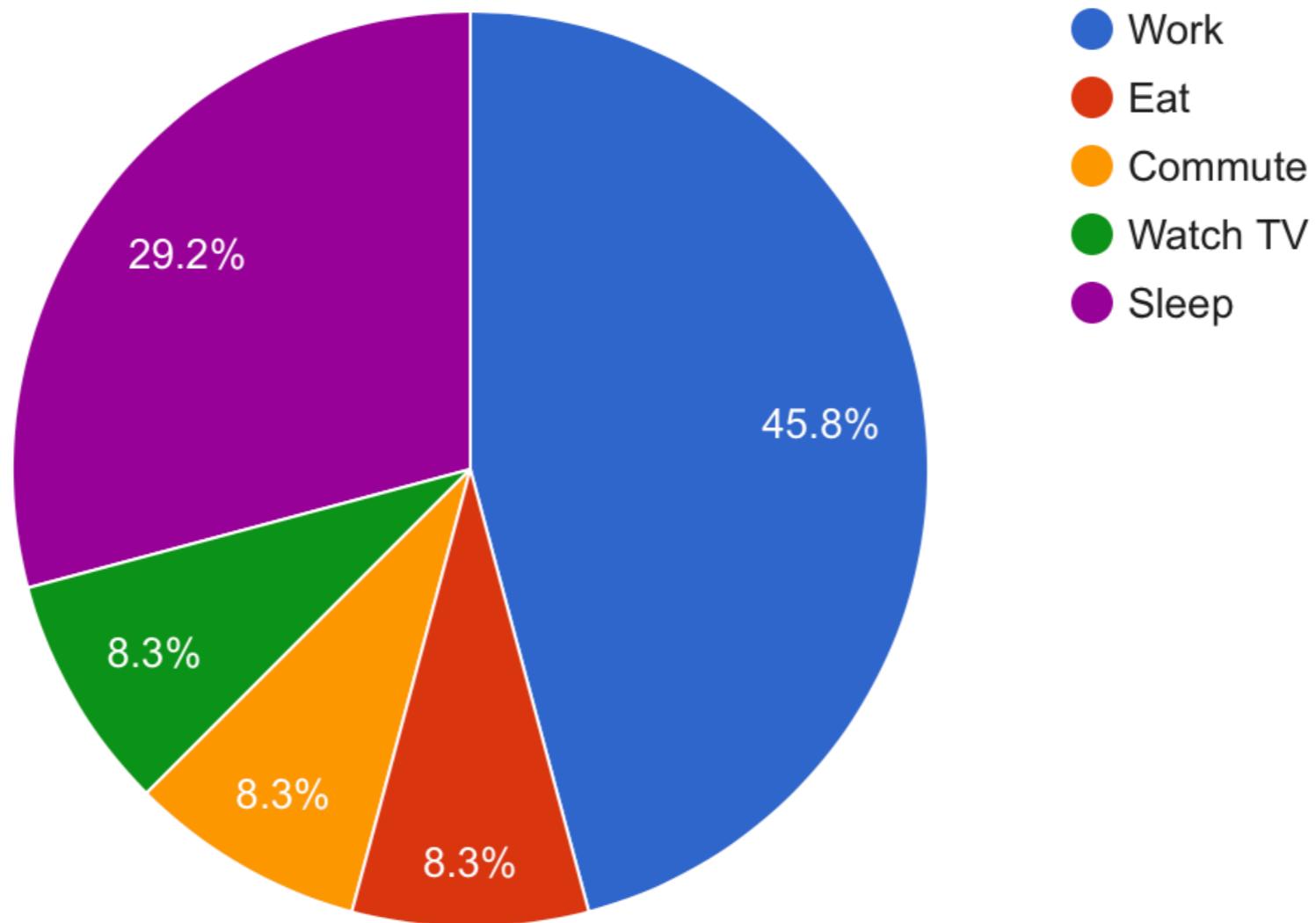


Donut Chart

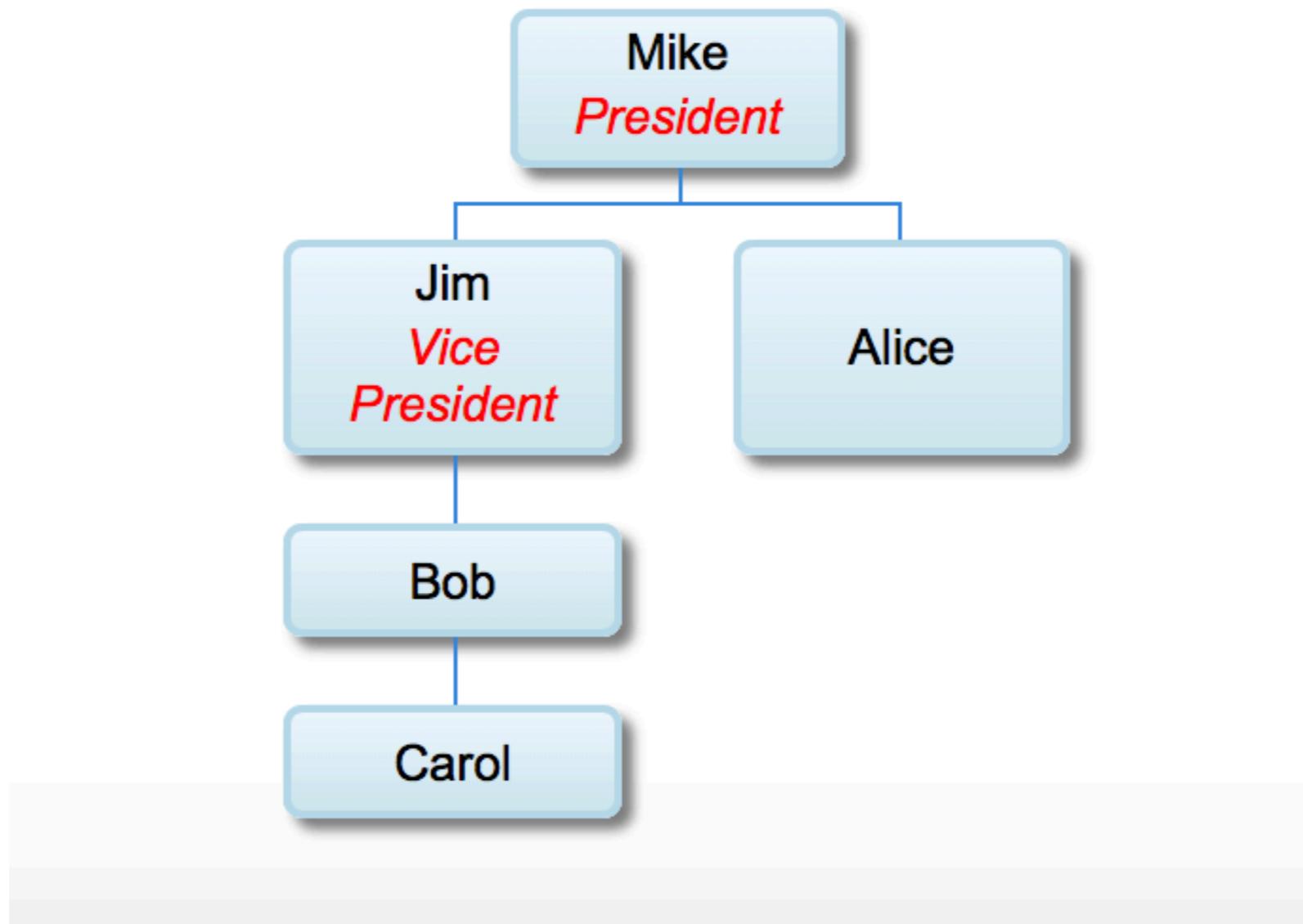


## More Chart Types

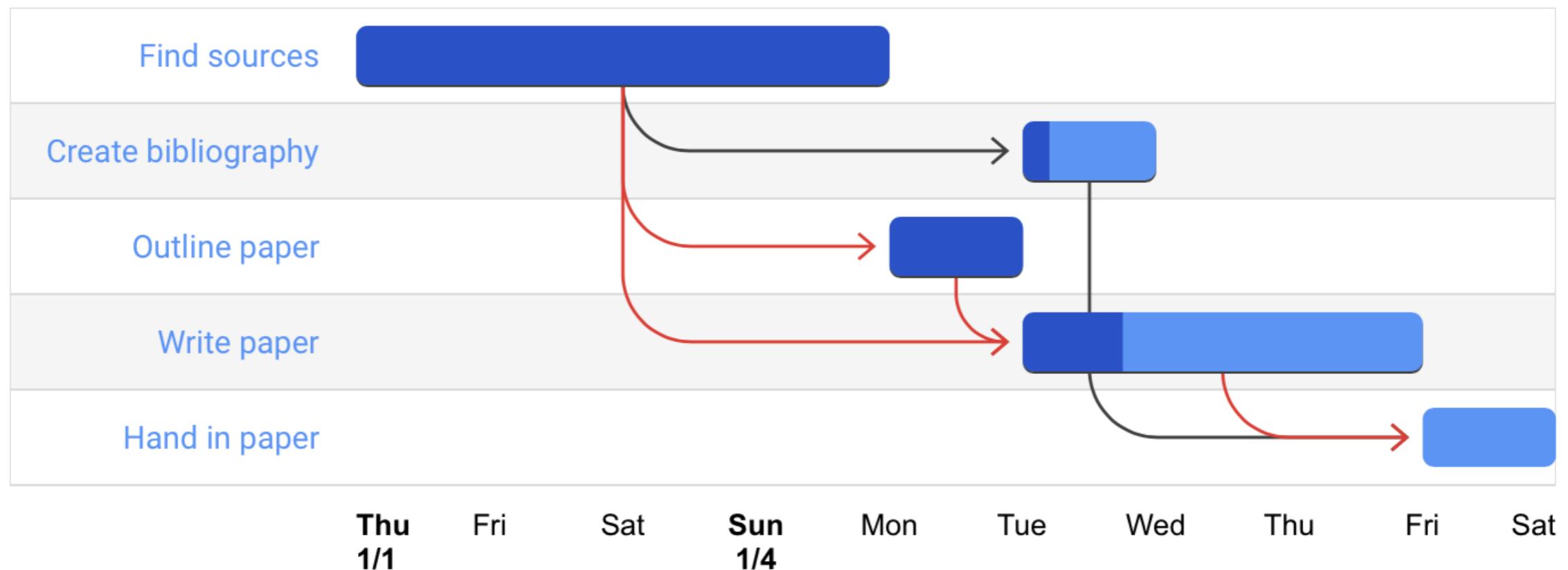
## My Daily Activities



# Pie Chart



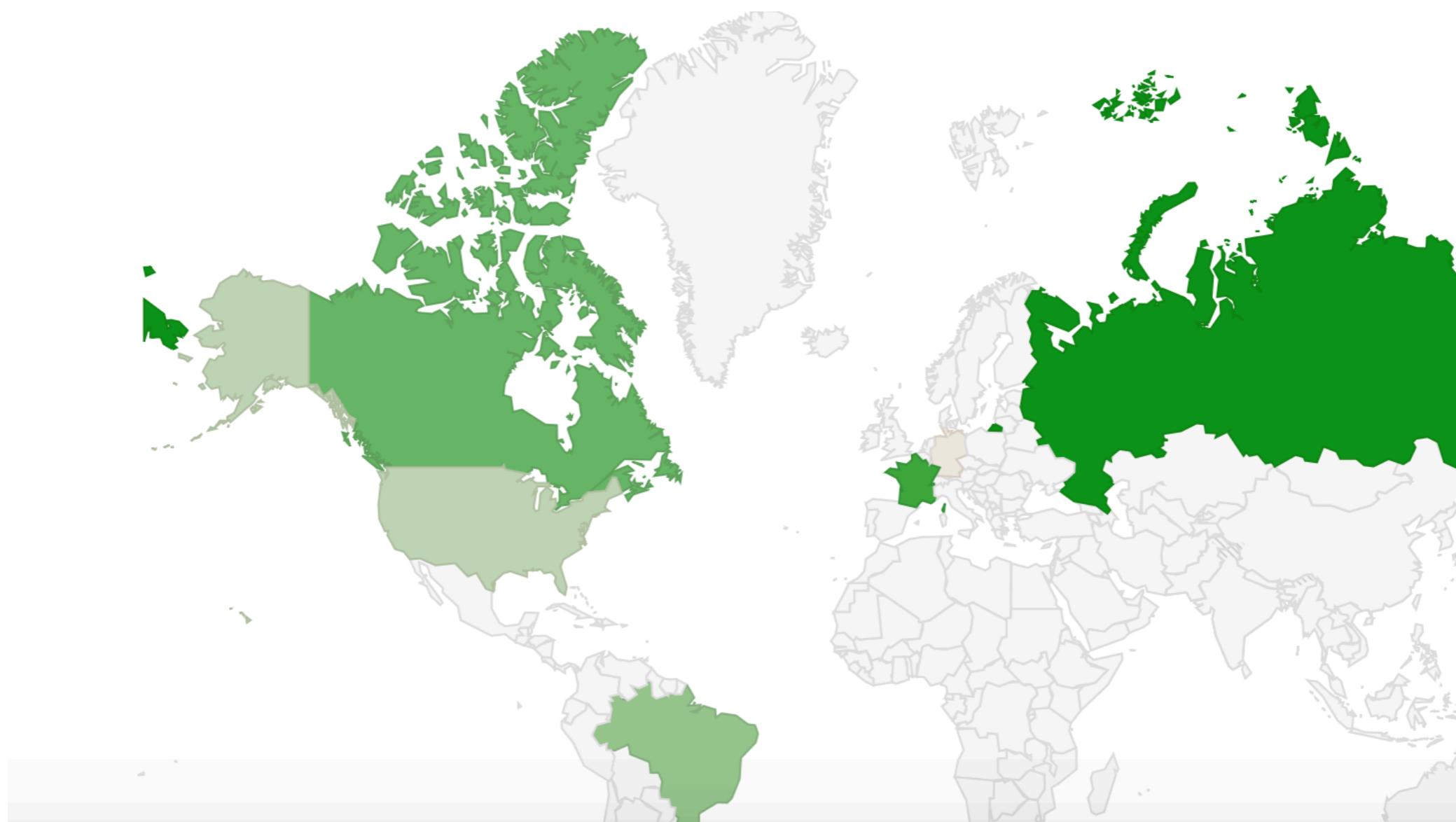
# Organization Chart



# Gantt Chart

## Region GeoCharts

The `regions` style fills entire regions (typically countries) with colors corresponding to the values that you assign.



**For more types of Google Charts, please visit :**

[https://developers.google.com/chart/interactive/  
docs/gallery](https://developers.google.com/chart/interactive/docs/gallery)

# Tutorial: w3Schools:

[https://www.w3schools.com/howto/howto\\_google\\_charts.asp](https://www.w3schools.com/howto/howto_google_charts.asp)

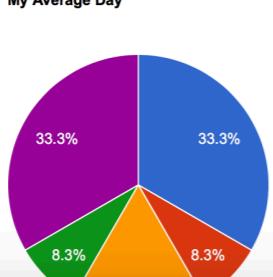
How TO - Google Charts

◀ Previous      Next ▶

Learn how to add Google Charts to your web page.

**Example**

**My Web Page**



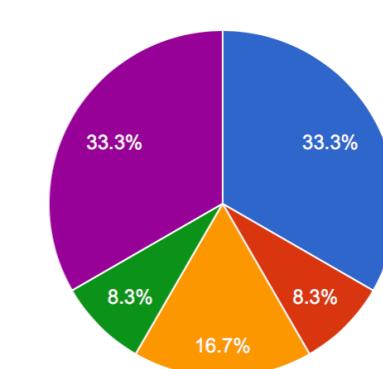
My Average Day

- Work
- Eat
- TV
- Gym
- Sleep

COLOR PICKER

Result Size:

My Web Page



My Average Day

- Work
- Eat
- TV
- Gym
- Sleep

```
<!DOCTYPE html>
<html lang="en-US">
<body>

<h1>My Web Page</h1>

<div id="piechart"></div>

<script type="text/javascript"
src="https://www.gstatic.com/charts/loader.js"></script>

<script type="text/javascript">
// Load google charts
google.charts.load('current', {'packages':['corechart']});
google.charts.setOnLoadCallback(drawChart);

// Draw the chart and set the chart values
function drawChart() {
  var data = google.visualization.arrayToDataTable([
    ['Task', 'Hours per Day'],
    ['Work', 8],
    ['Eat', 2],
    ['TV', 4],
    ['Gym', 2],
    ['Sleep', 8]
  ]);

  // Optional; add a title and set the width and height of the chart
  var options = {'title': 'My Average Day', 'width':550,
    'height':400};

  var chart = new google.visualization.PieChart(document.getElementById('piechart'));
  chart.draw(data, options);
}

</script>
```



Thank you!