

```
<!DOCTYPE html>

<html>

<head>

  <meta charset="utf-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Final Project</title>


  <link rel="stylesheet" href="//code.jquery.com/ui/1.11.1/themes/smoothness/jquery-ui.css">

  <link href="css/bootstrap.min.css" type="text/css" rel="stylesheet" media="screen">

  <link rel="stylesheet" type="text/css"
href="http://fonts.googleapis.com/css?family=Tangerine">


  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.1/css/bootstrap.min.css">

  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.1/css/bootstrap-
theme.min.css">


  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>

  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.1/js/bootstrap.min.js"></script>


</head>


<style>

@font-face {

font-family: Audimat;

src: url("AUdimat-Regular.otf") format("opentype");

}
```

```
svg {  
  font: 14px sans-serif;  
}
```

```
.background path {  
  fill: none;  
  stroke: #ddd;  
  shape-rendering: crispEdges;  
}
```

```
.foreground path {  
  fill: none;  
  stroke: #1FDA9A;  
}
```

```
.brush .extent {  
  fill-opacity: .3;  
  stroke: #fff;  
  shape-rendering: crispEdges;  
}
```

```
.axis line,  
.axis path {  
  fill: none;  
  stroke: #3F2860;  
  shape-rendering: crispEdges;  
}
```

```
}
```

```
/*styling for legend buttons within each tab*/
```

```
.myLegend{
```

```
    padding: 2px;
```

```
    margin: 2px;
```

```
    cursor: pointer;
```

```
    color: black;
```

```
    font-size: 12px;
```

```
    background:transparent;
```

```
}
```

```
.selected {
```

```
    color: blue;
```

```
    background: white;
```

```
}
```

```
.axis text {
```

```
    text-shadow: 0 1px 0 #fff, 1px 0 0 #fff, 0 -1px 0 #fff, -1px 0 0 #fff;
```

```
    cursor: move;
```

```
}
```

```
.d3-tip {
```

```
    line-height: 4;
```

```
    font-weight: bold;
```

```
    padding: 14px;
```

```
background: rgba(0, 0, 0, 0.8);
color: #fff;
border-radius: 4px;
}
```

```
/* Creates a small triangle extender for the tooltip */
```

```
.d3-tip:after {
  box-sizing: border-box;
  display: inline;
  font-size: 12px;
  width: 100%;
  line-height: 1;
  color: rgba(0, 0, 0, 0.8);
  content: "\25BC";
  position: absolute;
  text-align: center;
}
```

```
/* Style northward tooltips differently */
```

```
.d3-tip.n:after {
  margin: -1px 0 0 0;
  top: 100%;
  left: 0;
}
```

```
h1{
  text-align:center;
  color: #000088;
```

```
font-size: 12px;  
padding:0;  
}
```

```
h3 {  
    text-align: center;  
    color: #000088;  
    font-size: 3em;  
    padding-top: 10px;  
  
}
```

```
body{  
    margin-left:10%;  
}
```

```
/*styling for the legend on the left*/
```

```
#legend{  
  
    margin-top: 30px;  
    /*width: auto;*/
```

```
    height:310px;  
}
```

```
#legend ul{  
    background-color:#F8F8F8;  
  
}
```

```
#legend ul li{  
    width: 55px;  
    font-size: 8px;  
}
```

```
/*styling for parallel coordinates*/
```

```
#pchart {  
    background-color: #F8F8F8;  
    margin-top: 30px;  
    /*width: 800px;*/  
  
}
```

```
/*styling for bar charts*/
```

```
#chart1 {  
    height: 200px;  
    /*width:auto;*/  
}
```

```
#chart2 {  
  
    height: 200px;  
    /*width: auto;*/  
}
```

```
p {  
    font-size: 9px;  
}
```

```
button{
  width:130px;
  height:30px;
  background-color: white;
}
```

```
</style>
```

```
<!--All custom written code using Bootstrap framework; formatting the layout/structure of all
components on the page-->
```

```
<div class="container">
```

```
  <!--header-->
```

```
<div class="row">
```

```
  <div class="span12"><h3> Public Education </h3>
```

```
    <h1>Based on data from the <a href= "http://nces.ed.gov/surveys/els2002/" >NCES
    ELS:2002 Education Longitudinal Study</a></h1>
```

```
  </div>
```

```
</div>
```

```
<div class="row">
```

```
  <!--legend to the left with a tabbed-layout using Bootstrap-->
```

```
  <div class="span4" id="legend">
```

```
    <ul class="nav nav-tabs">
```

```
      <li class="active"><a data-toggle ="tab" href="#1">School Resources</a></li>
```

```
      <li><a data-toggle ="tab" href="#5">Parents Highest Education</a></li>
```

```
      <li><a data-toggle ="tab" href="#2">Parent Involvement</a></li>
```

```
      <li><a data-toggle ="tab" href="#3">Hours Worked</a></li>
```

```
      <li><a data-toggle ="tab" href="#4">Extracurricular Involvement</a></li>
```

</ul>

<div class="tab-content">

<div id="1" class="tab-pane fade in active">

<h1>School Resources</h3>

<p>A composite measure of the sum of the affirmative answers to questions about availability of resources such as classroom computers, media centers, school library, etc. at the student's school</p>

<p>-----</p>

<p>Bar graph view: </p>

<p>1: School resource score 0-4 </p>

<p>2: School resource score 4-8 </p>

<p>3: School resource score 8-12 </p>

<p>4: School resource score 12+ </p>

<button class="myLegend selected" data-series="series-1">Positive Outcome </button>

<button class="myLegend selected" data-series="series-2">Negative Outcome  
</button>

</div>

<div id="5" class="tab-pane fade">

<h1>Parents Highest Education</h3>

<p>Parent's highest level of education. The lowest value 0 represents that neither parent has completed HS. The highest value, 8, indicates that at least one parent has a Ph.D or other professional degree</p>

<p>-----</p>

<p>Bar graph view</p>

<p>1: HS Diploma or lower</p>

<p>2: Attended and/or graduated from 2-year school</p>

<p>3: Attended and/or graduated from 4-year school</p>

<p>4: Master's, PhD or other advanced degree</p>



```

        <button class="myLegend selected" data-series="series-9">Positive Outcome </button>

        <button class="myLegend selected" data-series="series-10">Negative Outcome
</button>

</div>

<div id="2" class="tab-pane fade">

    <h1>Parent Involvement</h3>

    <p>A composite measure of the parent's involvement in the child's educational
experience.Consists of a sum of the affirmative responses to questions related to the paren'ts
involvement through parent-teacher orgs, checking homework, restricting free time, etc.</p>

    <p>-----</p>

    <p>Bar graph view: </p>

    <p>Ranges 1-4 indicate lower-higher levels of parent involvement</p>

    <button class="myLegend selected" data-series="series-3">Positive Outcome </button>

    <button class="myLegend selected" data-series="series-4">Negative Outcome
</button>

</div>

<div id="3" class="tab-pane fade">

    <h1>Hours worked</h3>

    <p>A measure of the # of hours the student worked per week in high school, on
average</p>

    <p>-----</p>

    <p>Bar graph view:</p>

    <p>1: 0-10 hours</p>

    <p>2: 10-20 hours</p>

    <p>3: 20-30 hours</p>

    <p>4: 30-40 hours</p>

    <button class="myLegend selected" data-series="series-5">Positive Outcome </button>

    <button class="myLegend selected" data-series="series-6">Negative Outcome
</button>

</div>

```

```
<div id="4" class="tab-pane fade">
  <h1>Extracurricular Involvement</h3>
  <p>A measure of the # of hours the student spent involved in extracurricular activities
per week, on average</p>
  <p>-----</p>
  <p>Bar graph view:</p>
  <p>1: 0-5 hours</p>
  <p>2: 5-10 hours</p>
  <p>3: 10-15 hours</p>
  <p>4: 15-20 hours</p>
  <button class="myLegend selected" data-series="series-7">Positive Outcome </button>
  <button class="myLegend selected" data-series="series-8">Negative Outcome
</button>
</div>
```

```
</div>
```

```
</div>
```

```
<!--Parallel coordinates chart-->
```

```
<div class="span8" id="pchart"></div>
```

```
</div>
```

```
<div class="row">
```

```
<!--bar charts-->
```

```
<div class="span6" id="chart1"></div>
```

```
<div class="span6" id="chart2"></div>
```

```
</div>
```

```
</div>
```

```
<body>
```

```
<script src="//code.jquery.com/jquery-1.10.2.js"></script>  
<script src="//code.jquery.com/ui/1.11.1/jquery-ui.js"></script>
```

```
<script src="bootstrap.min.js"></script>  
<script src="http://code.highcharts.com/highcharts.js"></script>  
<script src="http://code.highcharts.com/modules/exporting.js"></script>  
<script src="http://code.highcharts.com/highcharts-3d.js"></script>  
<script src="http://d3js.org/d3.v3.min.js"></script>
```

```
<script>
```

```
//Parallel Coordinates- imported and modified using d3.js
```

```
var margin = {top:30, right: 20, bottom: 30, left: 20},
```

```
    width = 650 - margin.left - margin.right,
```

```
    height = 300 - margin.top - margin.bottom;
```

```
var x = d3.scale.ordinal().rangePoints([0, width], 1),
```

```
    y = {},
```

```
    dragging = {};
```

```
var line = d3.svg.line(),
```

```
    axis = d3.svg.axis().orient("left"),
```

```
    background,
```

```
    foreground;
```

```

var svg = d3.select("#pchart").append("svg")
    .attr("width", width + margin.left + margin.right)
    .attr("height", height + margin.top + margin.bottom)
    .append("g")
    .attr("transform", "translate(" + margin.left + "," + margin.top + ")");

var xAxis = d3.svg.axis()
    .scale(x)
    .orient("bottom");

var yAxis = d3.svg.axis()
    .scale(y)
    .orient("left")
    .tickFormat(d3.format(".2s"));

var parsed_data;
var yr;

//Loading PC data from file
function render() {
    d3.csv("source.csv", function(error, parallel) {
        parallel = parallel.filter(function(d) {
            if(d.School_Resources >=0 && d.Parent_Involvement >= 0 && d.Hours_Worked >= 0 &&
                d.Extracurricular >= 0 && d.Parent_Education >= 0 && d.Sex >= 0) {
                return true;
            } else {

```

```

    return false;
  }
})
// Extract the list of dimensions and create a scale for each.
x.domain(dimensions = d3.keys(parallel[0]).filter(function(d) {
  return (y[d] = d3.scale.linear()
    .domain(d3.extent(parallel, function(p) { return +p[d]; }))
    .range([height, 0]));
}));

// Add grey background lines for context.
background = svg.append("g")
  .attr("class", "background")
  .selectAll("path")
  .data(parallel)
  .enter().append("path")
  .attr("d", path);

// Add blue foreground lines for focus.
foreground = svg.append("g")
  .attr("class", "foreground")
  .selectAll("path")
  .data(parallel)
  .enter().append("path")
  .attr("d", path);

// Add a group element for each dimension.
var g = svg.selectAll(".dimension")

```

```
.data(dimensions)
.enter().append("g")
.attr("class", "dimension")
.attr("transform", function(d) { return "translate(" + x(d) + ")"; })
.call(d3.behavior.drag()
  .origin(function(d) { return {x: x(d)}; })
  .on("dragstart", function(d) {
    dragging[d] = x(d);
    background.attr("visibility", "hidden");
  })
  .on("drag", function(d) {
    dragging[d] = Math.min(width, Math.max(0, d3.event.x));
    foreground.attr("d", path);
    dimensions.sort(function(a, b) { return position(a) - position(b); });
    x.domain(dimensions);
    g.attr("transform", function(d) { return "translate(" + position(d) + ")"; })
  })
  .on("dragend", function(d) {
    delete dragging[d];
    transition(d3.select(this)).attr("transform", "translate(" + x(d) + ")");
    transition(foreground).attr("d", path);
    background
      .attr("d", path)
      .transition()
      .delay(500)
      .duration(0)
      .attr("visibility", null);
  })
  )
```

```

    );

    // Add an axis and title.
    g.append("g")
      .attr("class", "axis")
      .each(function(d) { d3.select(this).call(axis.scale(y[d])); })
      .append("text")
      .style("text-anchor", "middle")
      .attr("y", -9)
      .attr("font-size", 10)
      .text(function(d) { return d; });

    // Add and store a brush for each axis.
    g.append("g")
      .attr("class", "brush")
      .each(function(d) {
        d3.select(this).call(y[d].brush = d3.svg.brush().y(y[d]).on("brushstart",
brushstart).on("brush", brush));
      })
      .selectAll("rect")
      .attr("x", -8)
      .attr("width", 16);
  });
}

```

```
function position(d) {  
  var v = dragging[d];  
  return v == null ? x(d) : v;  
}
```

```
function transition(g) {  
  return g.transition().duration(500);  
}
```

// Returns the path for a given data point.

```
function path(d) {  
  return line(dimensions.map(function(p) { return [position(p), y[p](d[p])]; }));  
}
```

```
function brushstart() {  
  d3.event.sourceEvent.stopPropagation();  
}
```

// Handles a brush event, toggling the display of foreground lines.

```
function brush() {  
  var actives = dimensions.filter(function(p) { return !y[p].brush.empty(); }),  
      extents = actives.map(function(p) { return y[p].brush.extent(); });  
  foreground.style("display", function(d) {  
    return actives.every(function(p, i) {  
      return extents[i][0] <= d[p] && d[p] <= extents[i][1];  
    }) ? null : "none";  
  });  
}
```



```
render();
```

```
//Bar charts: Imported and mostly modified code
```

```
$(function () {  
    $('#chart1').highcharts({  
        chart: {  
            type: 'bar',  
  
        },  
        title: {  
            text: 'Outcome - Employment'  
        },  
        xAxis: {  
            categories: ['1', '2', '3', '4'],  
            title: {  
                text: 'level (1-4)'  
            }  
        },  
        yAxis: {  
            min: 0,  
            title: {  
                text: '# of Students',  
                align: 'high'  
            },  
            labels: {
```

```

        overflow: 'justify'
    }
},
tooltip: {

},
plotOptions: {
    bar: {
        dataLabels: {
            enabled: false
        }
    }
},
legend: {
    enabled: false,
    layout: 'horizontal',
    align: 'right',
    verticalAlign: 'top',
    x: -40,
    y: 50,
    floating: true,
    borderWidth: 1,
    backgroundColor: ((Highcharts.theme && Highcharts.theme.legendBackgroundColor) ||
'#FFFFFF'),
    shadow: true
},
//The series data is hard-coded, however it was generated in excel using our data set
series: [{
    id: 'series-1',

```

```
    name: 'School Resources vs. Employed',
    data: [71,25, 16, 2],
    visible: false
  }, {
    id: 'series-2',
    name: 'School Resources vs. Not Employed',
    data: [65,17, 9, 1],
    visible: false
  }, {
    id: 'series-3',
    name: 'Parent Involvement vs Employed',
    data: [1,7,59,24],
    visible: false
  }, {
    id: 'series-4',
    name: 'Parent Involvement vs. Not Employed',
    data: [4,3,64,15],
    visible: false
  }, {
    id: 'series-5',
    name: 'Employed during School vs. Employed',
    data: [39,24,7,8],
    visible: false
  }, {
    id: 'series-6',
    name: 'Employed during School vs. Not Employed',
    data: [24,18,15,10],
```

```
        visible: false
    }, {
        id: 'series-7',
        name: 'Extracurricular Involvement vs. Employed',
        data: [90,43,23,10],
        visible: false
    }, {
        id: 'series-8',
        name: 'Extracurricular Involvement vs. Not Employed',
        data: [114,15,14,3],
        visible: false
    }, {
        id: 'series-9',
        name: 'Parent Highest Education vs. Employed',
        data: [42,24,67,34],
        visible: false
    }, {
        id: 'series-10',
        name: 'Parent Highest Education vs. Not Employed',
        data: [35,35,39,40],
        visible: false
    },
]

});
```

```
var chart = $('#chart1').highcharts();
```

```
$('#myLegend').click(function() {  
    var series = chart.get($(this).attr('data-series'));  
    if (series.visible) {  
        series.hide();  
        $(this).removeClass('selected');  
    } else {  
        series.show();  
        $(this).addClass('selected');  
    }  
});  
  
});
```

```
$(function () {  
    $('#chart2').highcharts({  
        chart: {  
            type: 'bar'  
        },  
        title: {  
            text: 'Outcome- HS Completion'  
        },  
        xAxis: {  
            categories: ['1', '2', '3', '4'],  
            title: {
```

```
      text: 'level (1-4)'
    }
  },
  yAxis: {
    min: 0,
    title: {
      text: '# of Students',
      align: 'high'
    },
  },
  labels: {
    overflow: 'justify'
  }
},
tooltip: {

},
plotOptions: {
  bar: {
    dataLabels: {
      enabled: false
    }
  }
},
legend: {
  enabled: false,
  layout: 'horizontal',
  align: 'right',
  verticalAlign: 'top',
```

```

    x: -40,
    y: 50,
    floating: true,
    borderWidth: 1,
    backgroundColor: ((Highcharts.theme && Highcharts.theme.legendBackgroundColor) ||
'#FFFFFF'),
    shadow: true
  },
  //series data is hard-coded, however we generated the values in excel using our dataset
  series: [{
    id: 'series-1',
    name: 'School Resources vs. Completed HS',
    data: [250, 86, 45, 13],
    visible: false
  }, {id: 'series-3',
    name: 'Parent Involvement vs. Completed HS',
    data: [10,26, 230, 60],
    visible: false
  }, {
    id: 'series-5',
    name: 'Employment During School vs. Completed HS',
    data: [110, 76, 47, 36],
    visible: false
  }, {
    id: 'series-7',
    name: 'Extracurricular Involvement vs. Completed HS',
    data: [429, 90, 54, 23],
    visible: false
  }, {

```

```

        id: 'series-9',
        name: 'Parents Highest Edu. Level vs. Completed HS',
        data: [161, 114, 196, 130],
        visible: false
    },

]

});

var chart = $('#chart2').highcharts();

$('.myLegend').click(function() {
    var series = chart.get($(this).attr('data-series'));
    if (series.visible) {
        series.hide();
        $(this).removeClass('selected');
    } else {
        series.show();
        $(this).addClass('selected');
    }
});

});

</script>

</script>
</body>
</html>

```