**DATA CAMP VM EXERCISE**

**Some background on the task we are trying to solve:**

The Affordable care act was enacted by President Barack Obama in March 2010 and our dataset provides information on the health insurance coverage for citizens of 49 states in the U.S.A from 2010 to 2015. This dataset has been divided into 2 parts for the purpose of this course, the task here is to measure the impact of the Affordable care act on the following KPIs; health insurance coverage, uninsured rates and Medicaid programs per state for the periods under review. Before we dive into tableau let’s explore what the columns of our data mean.

**Measurable learning objective 1: Data check**

**Context:** We’ll carryout data check to confirm that our data has no duplicates and that it was properly loaded unto tableau

**Instructions**:

* Connect the datasets named **Health insurance coverage** and **Tax Medicare**
* Create 4 calculated fields for each dataset to count their rows and ensure we have no duplicates namely: **number of states, number of health insurance coverage** and **number of states** and **number of Medicaid enrollment.**
* Add them to a new sheet and title the new sheet **Data check.**

**Question:** Did the number of states match the number of health insurance coverage and number of Medicaid enrollment for both datasets?

**Answer:** 49

**Measurable learning objective 2: Analyzing health insurance coverage change 2010 -2015**

**Context:** It will be interesting to see how the Obamacare (Affordable care act) changed the rate of the citizens with health insurance coverage yearly for each state and the impact the Medicaid expansion had on such change. To achieve that we’ll use the divide statement to create a measure that will calculate our yearly coverage change rate for each state and then visualize our analysis using a simple map viz.

**Instructions**:

* Create a calculated field ‘Yearly coverage change per states’ using the Divide statement.
* Create another field titled the **coverage rate per state**, using our **yearly coverage per state** and **Health insurance coverage change 2010-2015** fields in order to calculate the coverage rate per state from 2010-2015.
* Next we’ll build a simple map to visualize our health insurance coverage change, yearly coverage change and coverage change rate and finally drag the medic aid expansion to the color section of our ‘Marks’ pane.
* Next is to format our coverage rate values as percentage.
* We want to use the state field as our filter for this viz, the next step for us is to drag the state field to the **filter** pane above the marks pane on the left side of our viz, click on the arrow on the field, and check ‘show filter’
* On the right side of your viz and filter card with all the states will show, check ‘all’ box to show all states on your map, check again to show no state on your map and then check Arkansas.

**Question:** What is the yearly coverage change, coverage rate and color for the state of Arkansas?

**Answer:** 46,800, 20% and Green

**Measurable learning objective 3: Analyzing uninsured rates 2010 -2015**

**Context:** We’ll analyze how the Affordable care act impacted the uninsured rates per state from 2010-2015, to achieve this we’ll use a simple bar chart viz and format it so the numbers are displayed in percentage.

**Instructions:**

* Drag the ‘state’ field to the column section.
* Next, drag the ‘uninsured rates 2010-2015’ field to the rows section.
* Drag the ‘uninsured rates 2010-2015’ field to the ‘Label’ section on the marks pane.
* Format your numbers to show in percentage.

**Question:** What is the uninsured rate for Minnesota?

**Answer:** -5%

**Measurable learning objective 4: Analyzing uninsured rates for the years 2010 & 2015.**

**Context:** These columns will provide us with further insights on the values in previous visualization. To achieve that we’ll use a simple bar chart for our visualization.

**Instructions:**

* Drag the ‘state’ field to the column section.
* Next, drag the ‘uninsured rates 2015’ field to the rows section.
* Drag the ‘uninsured rates 2010’ field to the rows section.
* Drag both years to the Label section and format your viz so the values show in percentage.

**Question:** What is the uninsured rate for Minnesota for 2010 & 2015?

**Answer:** 9% & 5%

**Measurable learning objective 5: Building an interactive dashboard for our viz.**

**Context:** We’ll use a dashboard to present our visualizations in a way that tells a comprehensive story.

**Instructions:**

* Click on the dashboard icon below your worksheet, to open a new dashboard.
* Adjust your dashboard size, using the fields on the sizing pane to the left of your dashboard.
* Change you dashboard from tiled to floating.
* Drag and drop sheets to your canvass and adjust them as desired.
* Finally your map as filter for all worksheets on the dashboard.