Doing Research on a Budget

Created and Presented by
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Doing Research on a Budget?
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Doing Research on a Budget:

(Yauh peng, yauh leng)
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CTO Employment Survey

- MS Excel with Virtual Basic for Applications
- MS Word with MailMerge and Virtual Basic for Applications
- Tableau Desktop / Tableau Public with Javascript
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' This is the main entry point for the whole routine
Sub processData()
    Dim ret As Integer
    ret = initializeAll(surveyDataSheetName, perCollegeSheetName, collegeKeySheetName)
    If ret = 1 Then
        MsgBox "Successful initialization...Press OK to continue."
        ' call other functions here
        ret = calcStateTotals()
        MsgBox "State Totals Calculated. Press OK to Continue"
        ret = calcAllColleges()
        MsgBox "Ready to move the statewide results to sheet: " & perCollegeSheetName & " Press OK to continue."
        ret = moveStateResults(statewideSheetName, perCollegeSheetName)
        ' now also calculates the total cohort size in column CK (89) for the state
        MsgBox "All done! Press OK to exit"
    Else
        MsgBox "Error in initialization... Press OK to exit."
    End If
End Sub
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31,630 rows (one per responder)

71 rows (one per College)
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' ---------------------------------------------------------- Table 2 -------------------------------------------

With Selection.Find
  .Text = "Figure 2."
  .Replacement.Text = ""
  .Forward = True
  .Wrap = wdFindContinue
  .Format = False
  .MatchCase = False
  .MatchWholeWord = False
  .MatchWildcards = False
  .MatchSoundsLike = False
  .MatchAllWordForms = False
End With
Selection.Find.Execute
Selection.MoveDown Unit:=wdLine, Count:=1
Set myTable = ActiveDocument.Tables(2)
myTable.Range.Copy
'Create Chart
Set salesChart = ActiveDocument.InlineShapes.AddChart.Chart
Set chartWorksheet = salesChart.ChartData.Workbook.Worksheets(1)
With chartWorksheet
  .ListObjects("Table1").DataBodyRange.Delete
  .ListObjects("Table1").Resize chartWorksheet.Range("A1:B7")
  .Range("A2:B8").Select
  .Paste
End With
salesChart.ApplyChartTemplate ("S:\_CTEOS (all\/CTEOS 2016\crtxFiles\Chart2-2015.crtx")
salesChart.HasLegend = False
salesChart.HasTitle = False
Set myAxis = salesChart.Axes(xlCategory, xlPrimary)
With myAxis
  .HasMajorGridlines = False
  .HasTitle = False
End With
salesChart.ChartData.Workbook.Close

Find “Figure 2”
Get the data from the table
Create chart using the data from the table
Format the chart using the template
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Santa Rosa Junior College

Background
Skills-building students from Santa Rosa Junior College were surveyed if they met one of the following criteria in 2015-2016, or did not return to school in 2016-2017: earned a certificate of 6 or more units, earned a vocational degree, or earned in CTE units. The survey was administered in early 2017 by email, telephone, and mail. The survey addressed student perceptions of the CTE program, employment outcomes, and how their coursework and training relate to their current career.

A total of 1,967 surveys were distributed and 959 surveys were actually completed (49%). The response rate was 59%. Of the 959 respondents, 58.4% (552) were male, 41.6% (397) were female, for a total overall response rate of 29.9%.

Results
Respondents were asked their primary reason for studying at Santa Rosa Junior College, and the majority (67.4%) indicated earning a certificate or degree (with or without transcript). Figure 1 shows the results.

Figure 1. Primary reason for studying

Respondents were also asked why they stopped taking classes at Santa Rosa Junior College. Here are the most frequently cited reasons, in order of frequency:

- My goals were met (368)
- I completed the program (345)
- I got a job (278)
- Transferred to another school (141)

40.8% of former students were “very satisfied” with the education and training they received at Santa Rosa Junior College, and 80.4% were “satisfied” for an overall satisfaction rate of 51.2.

2% of respondents indicated they had transferred to another college or university.

83.7% of respondents reported they had found a job.

Figure 2. Current Employment Status

Respondents were asked if they were currently employed, and the results were as follows:

- 68.4% were employed at their current job (75 of respondents)
- 15.5% were working another job (18 of respondents)
- 16.1% were employed at their current job but were looking for a new job (18 of respondents)

31.5% of respondents reported earning the required wage.

30.5% of respondents reported earning less than the required wage.

28.5% of respondents reported not being employed.

Figure 3. Work status before studies/training and after

Respondents were asked, if currently employed, how closely related their job is to their field of study at Santa Rosa Junior College. 56.6% indicated they are working in the same field as their studies and training, followed by 18.0% indicating they work in a field that is “close” to their studies and training, and 25.4% indicated their job is not related to their studies. When asked if they were actively seeking a job in another field, 83.4% of employed respondents said no.

Of those respondents who engaged in a job search after finishing their studies, 15.3% reported finding a job and 24.9% were still looking. Of those with a successful job search, 84.9% found a job within six months (33.8% within three months).

Of currently employed respondents, 44.8% had been employed at their current job less than six months, 15.3% between six months and one year, 22.8% between one and two years, 17.9% between two and three years and 28.4% had been employed at their current job for more than three years.

Before their studies, 35.3% of respondents worked full-time. After completing their studies, 34.7% worked full-time. Figure 2 shows the results.

Figure 4. Earnings before studies/training and after

Respondents, including those who had transferred, were asked what impact their coursework had on their employment. Here are the responses, listed in rank order of frequency:

- Prepared me for a possible new job (226)
- No impact on my employment (207)
- Taught me new skills that allowed me to get a job at a new organization (156)
- Taught me new skills that allowed me to get a promotion at my same organization (71)
- Taught me new skills that allowed me to stay in my current job (70)
- Taught me how to start my own business (30)

Summary and Conclusions
The results of the survey showed that completing CTE studies and training -- whether or not a credential is earned, whether or not a student transfers -- is related to positive employment outcomes. The proportion of respondents who are employed, are working in the same field as their studies or training, and are working full time.

Respondents overall posted a 23.9% increase in their hourly wage after completing their studies (2016-2017). Figure 4 shows the results.

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  - No impact on my employment (207)
  - Taught me new skills that allowed me to get a job at a new organization (156)
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  - Taught me new skills that allowed me to stay in my current job (70)
  - Taught me how to start my own business (30)

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SRJC Fact Book on line

- MS SQL Server Management Studio or HeidiSQL

- Tableau Desktop / Tableau Public

- Javascript (in Drupal) for Web Pages
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Obfuscate sensitive data

SQL Query
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Latest snapshot date

[Tableau Desktop logo]
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Program Evaluations

- R i386 / R Studio with various packages
- Tableau Desktop / Tableau Public
library("MatchIt", lib.loc="~/R/win-library/3.3")
mydata <- read.csv("C:/PropensityScoreIn.csv")
attach(mydata)
library("MatchIt", lib.loc="~/R/win-library/3.3")
mydata <- read.csv("C:/PropensityScoreIn.csv")
attach(mydata)

m.out = matchit(  
  Treatment ~ Ethnicity + Gender + HSCode + LocalGPA,  
  data=mydata,  
  method="nearest",  
  ratio=1  
)
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plot(m.out, type="jitter")
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plot(m.out, type="hist")
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summary(m.out)
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m.data1 <- match.data(m.out)
write.csv(m.data1, file="C:/PropensityScoreOut.csv")
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```r
m.data1 <- match.data(m.out)
write.csv(m.data1, file="C:/PropensityScoreOut.csv")
```
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US Census Data
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US Census Data

api.key.install(key="....my key....")

install.packages("choroplethr")
library(choroplethr)

install.packages("choroplethrMaps")
library(choroplethrMaps)

data(df_pop_state)
state_choropleth(df_pop_state)

data(df_pop_county)
county_choropleth(df_pop_county)
api.key.install(key="....my key....")

install.packages("choroplethr")
library(choroplethr)

install.packages("choroplethrMaps")
library(choroplethrMaps)

data(df_pop_state)
state_choropleth(df_pop_state)

data(df_pop_county)
county_choropleth(df_pop_county)
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county_choropleth(df_pop_county,
    state_zoom = "california")
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```r
county_choropleth(df_pop_county, 
  state_zoom = "california")
```
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Search

Google

donut in Tableau site:stackoverflow.com

About 309 results (0.64 seconds)

Tableau Donut Chart With Text In Center - Stack Overflow
stackoverflow.com/questions/33797615/tableau-donut-chart-with-text-in-center

Nov 19, 2015 - I am completely new to tableau and I got a requirement of creating a ... using google: "Tableau donut chart". ... Thanks a lot...I got it worked from....

Tableau Pie-Chart with Measures - Stack Overflow
stackoverflow.com/questions/32257678/tableau-pie-chart-with-measures

Aug 27, 2015 - If I understand your question correctly, it sounds like you want to make a pie chart... Might I suggest a donut chart to make it more appealing/readable? interworks.com/blog/tmcullough/2014/03/06/... - vizyourdata Aug 28 '15...

Plotting a pie chart on tableau - Stack Overflow
stackoverflow.com/questions/21490435/plotting-a-pie-chart-on-tableau

Jan 31, 2014 - Actually it is pretty simple, you will have to rearrange your data as below. ... Tableau Donut Chart With Text In Center 0 ... Tableau - showing ...
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Thank you!
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Thank you!
Session Description: Modern institutional researchers are faced with rapidly growing amounts of data and data sources, increasing demands for data processing and reporting, and ever present budget cuts which make it hard to acquire expensive state-of-the-art data processing tools. Fortunately, there is a number of excellent research tools that are very inexpensive or even free. This presentation will demonstrate how to leverage low-cost Tableau Desktop with free SQL clients and R programming packages to create powerful, easily updatable, interactive visualizations and dashboards. Specifically, participants will learn how to configure Tableau Desktop to acquire data directly from relational databases, how to use R statistical packages to pre-process data for Tableau (propensity score matching example), and how to use some advanced Tableau features to build impressive visualizations. While this presentation will include some very basic programming concepts, it welcomes researchers at all levels including those with no programming experience.
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