The Organizational Structure and Capacity of Emergency Food Assistance Provdiers in the Detroit Metropolitan Area

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Abstract

Food insecurity is an issue facing many households in the United States. It often disproportionately affects already vulnerable populations and often further exacerbates the cycle of poverty. Emergency food assistance programs serve as a key resource for many food insecure persons. However, the complexity of these agencies is not well studied. Despite the prevalence of food pantries, there is relatively little work that seeks to understand how these organizations operate. This report aims to help fill that void by examining the organizational structure and capacity of emergency food assistance providers in the greater Detroit area. Using unique survey data of food pantries in metro Detroit gathered from 2012 to 2013. I found that 90.6 percent of surveyed agencies provide groceries while only 27.5 percent have meal programs. Also, 75.8 percent of agencies provide non-food related benefits such as help with housing or counseling services. This result depicts the role food pantries play in the larger safety net.

1 Introduction

This is my intro to my great paper, I will explain the cool things I can do with my new 'computational thinking' powers combined with some Latex.

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2 Explaining Labels

Sections may use a label[1]. This label is needed for referencing. For example the next section has label *datas*, so you can reference it by writing: As we see in section 3.

3 Data analysis

Here you can explain how to get the data:

```
> states=read.csv("https://goo.gl/So48s5")
```

3.1 Exploration

Here, I start exploring the data. The first step is to know what variables I have, and in what scale they are:

```
'data.frame':        51 obs. of  8 variables:
 $ state                : Factor w/ 51 levels "Alabama",".."..
 $ satMean              : int  991 920 932 1005 897 959 89..
 $ satDemand            : num  0.08 0.41 0.26 0.06 0.47 0...
 $ k12ExpenditurePupil  : int  3627 8330 4309 3700 4491 50..
 $ incomeHouseholsMedian: num  27.5 48.3 32.1 24.6 41.7 ...
 $ diplomaHsAdults      : num  0.669 0.866 0.787 0.663 0.7..
 $ collegeDegreeAdults  : num  0.157 0.23 0.203 0.133 0.23..
 $ region               : Factor w/ 4 levels "Midwest","N"..
```

A next step demands:

- Knowing the *central* and *dispersion* values.
- Visualizing the variables of interest.

Except for the column *state*, we can compute the centrality and spread measures for the other variables in the data. I will do that in Table 1 in the next page.

[1] In fact, you can have a label wherever you think a future reference to that content might be needed.

Table 1: Mean and Spread values

Statistic	N	Mean	St. Dev.	Min	Max
satMean	51	944.098	66.935	832	1,093
satDemand	51	0.358	0.262	0.040	0.810
k12ExpenditurePupil	51	5,235.961	1,401.155	2,960	9,259
incomeHouseholsMedian	51	33.957	6.423	23.465	48.618
diplomaHsAdults	51	0.763	0.056	0.643	0.866
collegeDegreeAdults	51	0.200	0.042	0.123	0.333

As you saw, my Table 1 is nice. As you, saw the mean of the variable *satMean* is 944.098039215686. Now let's use a boxplot to explore location:

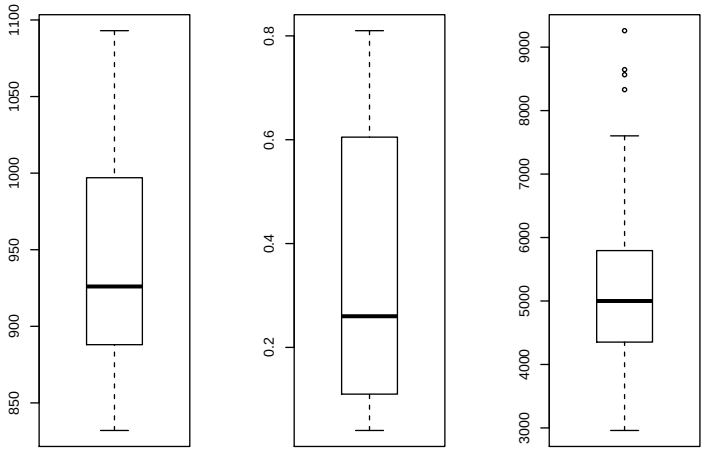

Figure 1: Location of values

As we have a categorical variable, we could create a frequency table:

3.2 Modeling

Here, I propose that the amount of money spent for child per state in the US has an effect on the mean average pupils in a state get in SAT:

Table 2: Distribution of Region

Region	Frequency
Midwest	12
N. East	9
South	17
West	13

```
> reg1=lm(satMean~k12ExpenditurePupil, data = states)
```

Here, I modify the previous model; while I insist that the amount of money spent for child per state in the US has an effect on the mean average pupils in a state get in SAT; I will control the effect the demand per state (as demand were equal accross states). Then,

Model 2:

```
> reg2=lm(satMean~k12ExpenditurePupil+satDemand, data = states)
```

I have the results, but have not display them, let's do it in the coming subsection

3.3 Modeling nicely

What about this:

Table 3: Regression Models

	Dependent variable:	
	satMean	
	(1)	(2)
Dollars per Student	-0.022^{***}	0.009^{**}
	(0.006)	(0.004)
Share taking SAT		-253.770^{***}
		(22.491)
Constant	$1{,}060.732^{***}$	989.807^{***}
	(32.701)	(18.396)
Observations	51	51
R^2	0.217	0.786
Adjusted R^2	0.201	0.777
Residual Std. Error	59.814 (df = 49)	31.623 (df = 48)
F Statistic	13.615^{***} (df = 1; 49)	88.009^{***} (df = 2; 48)
Note:		*p<0.1; **p<0.05; ***p<0.01

4 Explaining Citations

Citing requires a *bib* file with all the books. You can create it from Zotero, and then add it here with the command *cite*. For example, open the file named 'GovernanceAnalytics' and write the name of the author here.