

## Product Video Case

**Submission deadline: On eLearning, before 8 pm on Sun, April 2, 2017**

Note that the design of the experiment was such that product video was not deployed for all products in the treatment group for the entire duration of the experiment (28 weeks). In fact, it was chosen that there was a period in-between (the video switch-on period) during which the videos were deployed. This means that even the treatment group products were effectively in control group during the “pre-video period” and the “video switch-off period”.

	<b>Pre-video Period</b>	<b>Video Switch-on Period</b>	<b>Video Switch-off Period</b>
<b>Products with Video (Treatment group)</b>			
<b>Products without Video (Control group)</b>			

## Part -1

Use the data file ProdVideoData and design your regression model to find the impact of product videos on sales of products?

The data columns are as follows:

sku: The sku of the product

wk: The count of the week. This runs from 1 to 28.

vidwk: This is a binary variable (0/1). If it is 1, then it means that the product video was switched on for that product in that week. Note that because of the pre-video period and video switch off period (see table above) this variable is not 1 throughout the 28 weeks even for test group products

sales: number of units sold for that sku in that week

price, email, cat, homepg, deptpg: These are all binary variables and if the value is 1, then it means that the product was on that kind of promotion in that week

In order to include the product dummy variables, you first need to create product dummies. You can use the following STATA command to create these dummies:

```
tabulate(sku), gen(skudum)
```

You can use other regression software also for this purpose.

## PART -2

1. What could be the reason for switch-on and switch-off in the experiment design (refer to the picture above)?
2. Can you improve your regression model to account for any other possible biases if you had additional data? What additional data would you need?