THE ECONOMICS OF (BIG) DATA

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What is Data?

Data truly is ...

01

… a **set of values** of **subjects** with respect to **qualitative** or **quantitative variables.**

02

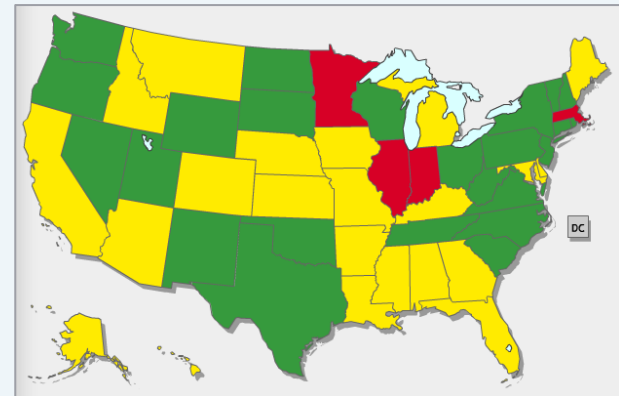… how we **express observation** in **reusable form.**

Example: Sales by State (in thousands) – YTD

State	Estimated Sales Volume (thousands)	Estimated Margin Dollars (thousands)	As a Percentage of Sales Volume	Reported State Revenue (thousands)	As a Percentage of Sales Volume
Alabama	9,407,662	556,288	5.91%	619,628	6.59%
Florida	27,989,966	1,409,475	5.04%	2,233,129	7.98%
Georgia	17,592,770	846,439	4.81%	934,175	5.31%*
Kentucky	8,373,641	446,225	5.33%	563,168	6.73%
Mississippi	6,062,489	363,781	6.00%	431,432	7.12%
North Carolina	14,963,345	717,689	4.80%	1,654,346	11.06%
South Carolina	8,491,004	450,971	5.31%	531,916	6.26%
Tennessee	11,081,297	592,445	5.35%	849,662	7.67%
Virginia	13,897,635	906,978	6.53%	926,932	6.67%

Source: Calculated from U.S. Department of Transportation and Oil Price Information Service data.

*Including Georgia's 1 percent general fund sales tax increases revenue as a percentage of sales to 6.3 percent.

Why is Data Important?

Why are data not the new oil?

The Economist

Crunch time in France
Ten years on: banking after the crisis
South Korea's unfinished revolution
Biology, but without the cells

The world's most valuable resource

Data and the new rules of competition

Plenum Discussion

01100100
10100110
10101101

Characteristics of Data

Infinitely **durable and reusable**

1

1010001010
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2 **Infinitely available** – no scarce resource

Value is created through use

3

4 Data is **quickly outdated**

Data is created through interaction, not isolation

5

6 **Data is non-exclusive in its use**

∞
Data is **nonrival**

Data is only partially excludable

Data involves **externalities**