

CSSS 569 · Visualizing Data

**GALLERY 5:
TURNING TABLES INTO GRAPHS**

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Turning Tables into Graphs: European Health Authority

	National	Regional (Lander)	Local (stad/Gemind)
Austria	Pharmaceutical	L1/L2/F/R	
	Primary care	L1/F	L2/P
	Sec and Ter care	L1/F	L2/P
	Public Health	F	L1
	National	Regional (Regions)	Local (Communes)
Belgium	Pharmaceutical	L1/L2/F/R	
	Primary care	L1/F	L2/P
	Sec and Ter care	L1/F	L2/P
	Public Health	L1/F	L2/P
	National	Regional (Oblasti)	Local (Obshtina)
Bulgaria	Pharmaceutical	L1/L2//R/F	
	Primary care	L1/L2/F	P
	Sec and Ter care	L1/L2/F	P
	Public Health	L1/L2/F/P	
	National	No elected regional level	Local (eparchies)
Cyprus	Pharmaceutical	L1/L2/F/R	
	Primary care	L1/L2/F/P	
	Sec and Ter care	L1/L2/F/P	
	Public Health	L1/L2/F/P	

An example from work I did with Scott Greer and Elize Fonseca (“Allocation of Authority in European Health Policy,” *Social Science and Medicine*, 2012)

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Our data code the level of government at which European countries lodged authority over specific health policies

DV: level of government federal, regional, or local

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The policies are defined along two dimensions, policy area and policy tool:

IV: policy area pharma, primary care, secondary/tertiary care, or public health

IV: policy tool framework (L1), implementation (L2), finance, regulation, provision

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We ask to which level (federal, regional, or local) a country allocates authority
E.g., a country might use to finance public health

Later, we will model the data to find whether certain areas or tools lodge at certain levels across countries, controlling for other covariates

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For now, let's do a little *exploratory data analysis* (EDA)

Is there even interesting variation in the allocation of authority to explain?

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Problems with this table?

1. Poor distinction between dependent variable & covariates: cell entries code policy tools (IV), rows code policy areas (IV), columns code level (DV)

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Problems with this table?

2. Alphabetical listing of cases is inefficient for comparison and detection of patterns of variation, such as clusters of similar countries

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Problems with this table?

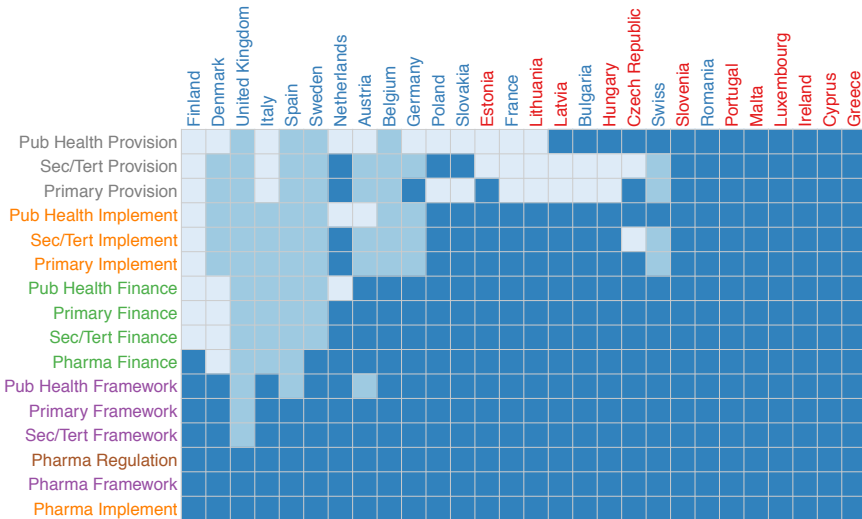
3. Coding system is opaque (L1? L2? etc.)

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Problems with this table?

4. Table goes on for four pages! Hard to spot patterns



Available Levels of Government

Two Tiers

Three Tiers

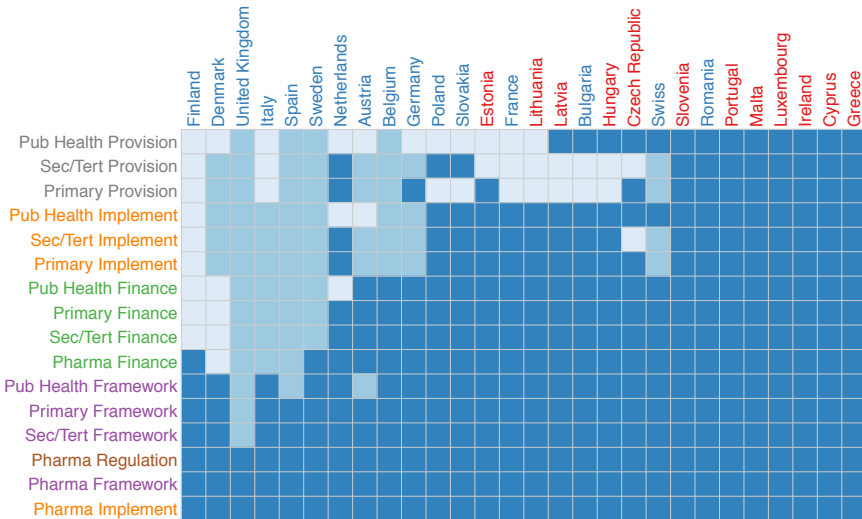
Observed Allocation of Authority

Local

Regional

State

Let's redraw the table as a heatmap



Available Levels of Government

Two Tiers

Three Tiers

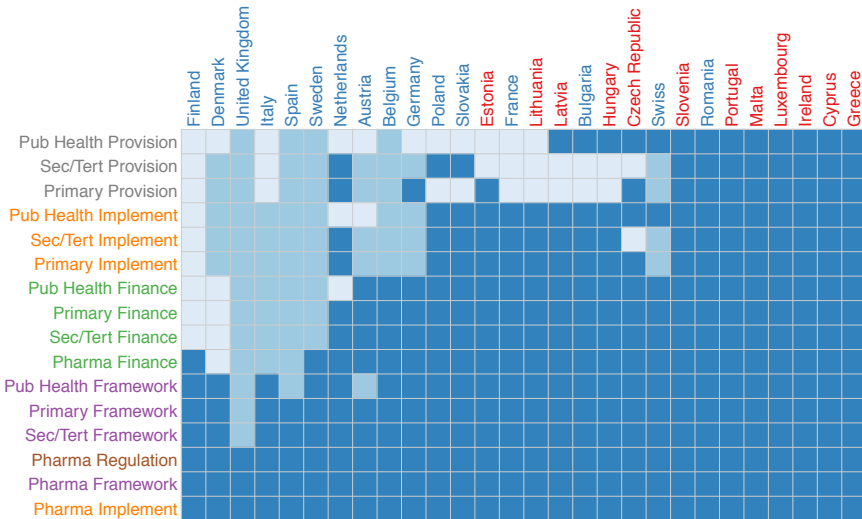
Observed Allocation of Authority

Local

Regional

State

Allocation of authority is highlighted as the shading of each cell



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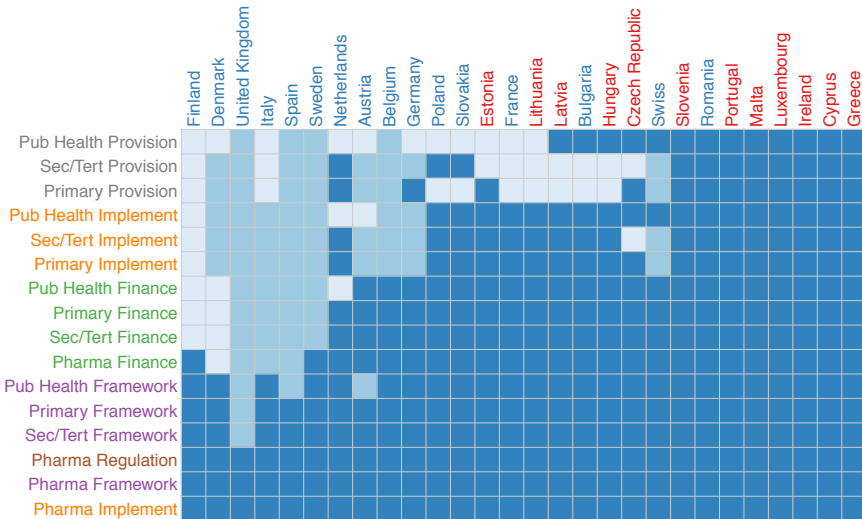
Observed Allocation of Authority

Local

Regional

State

Rows and columns code covariates, and are sorted by cluster analysis



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Three Tiers

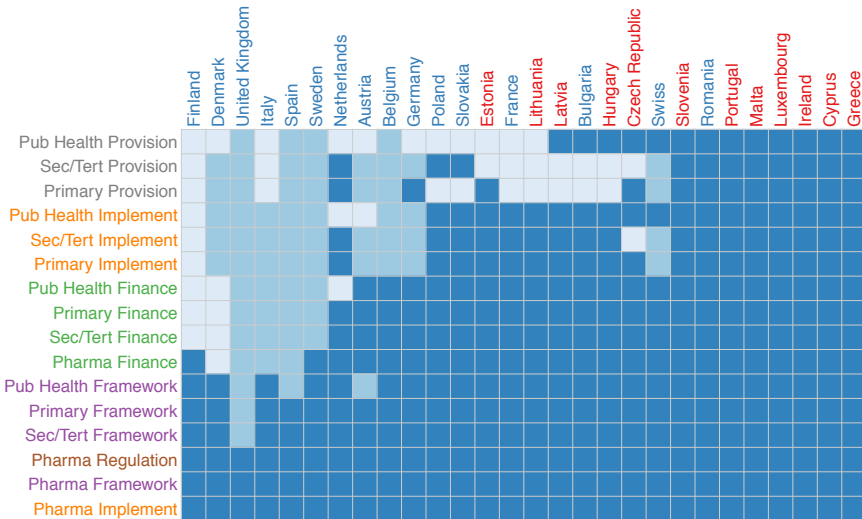
Observed Allocation of Authority

Local

Regional

State

Rows and columns colors help detect patterns in clustering



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Observed Allocation of Authority

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Regional

State

We did not sort by row color, so any emergent pattern is noteworthy