Description and Evidence Gathering

Department of Government
London School of Economics and Political Science

Preview

- You have everything you need to complete:
    - Problem set 2 (Concepts)
    - Problem set 3 (Measurement)

Preview

- You have everything you need to complete:
  - Problem set 2 (Concepts)
  - Problem set 3 (Measurement)

- Next week is reading week (no lecture or class)

Preview

- You have everything you need to complete:

    - Problem set 2 (Concepts)
    - Problem set 3 (Measurement)

- Next week is reading week (no lecture or class)

- Week 7 – Online lecture + guest lecture

Preview

- You have everything you need to complete:

  - Problem set 2 (Concepts)
  - Problem set 3 (Measurement)

- Next week is reading week (no lecture or class)

- Week 7 – Online lecture + guest lecture

- Start thinking about what kinds of topics interest you as possible research proposals

Review

- Data Description
- Variable summaries
  - Statistics
  - Tabulation
 - Aggregation

- Visualisation

Anscombe's Quartet

| I		II		III		IV	
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89

$\bar{x} = 9$, $Var(x) = 11$,
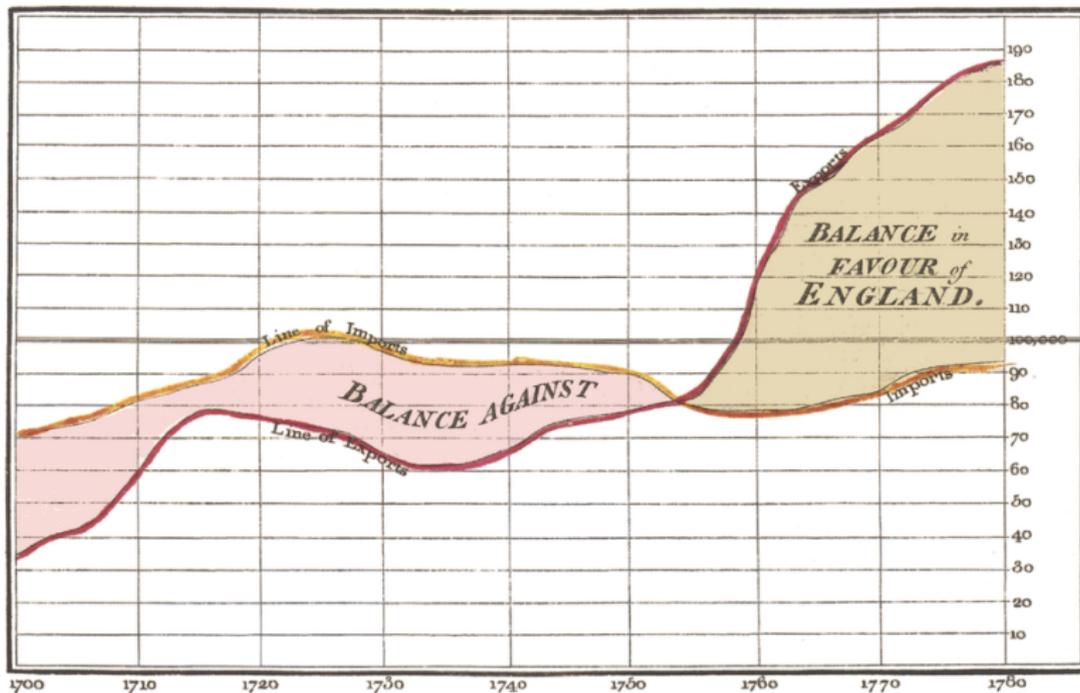$\bar{y} = 7.5$, $Var(y) = 4.12$,
$Corr(x, y) = 0.816$

Anscombe's Quartet

Simpson's Paradox

Source: Wikimedia
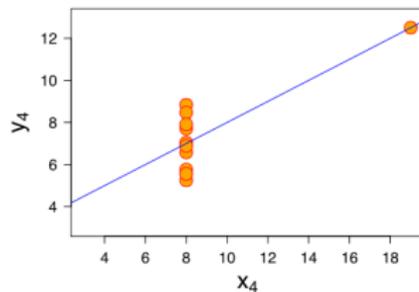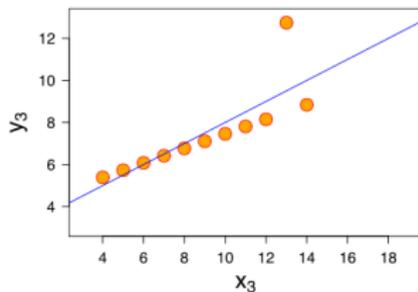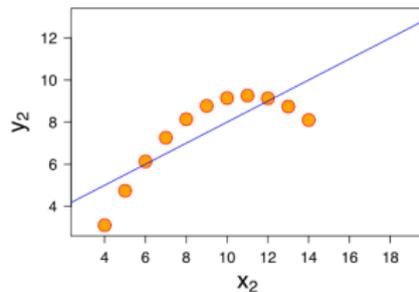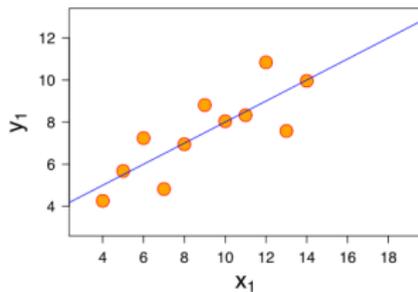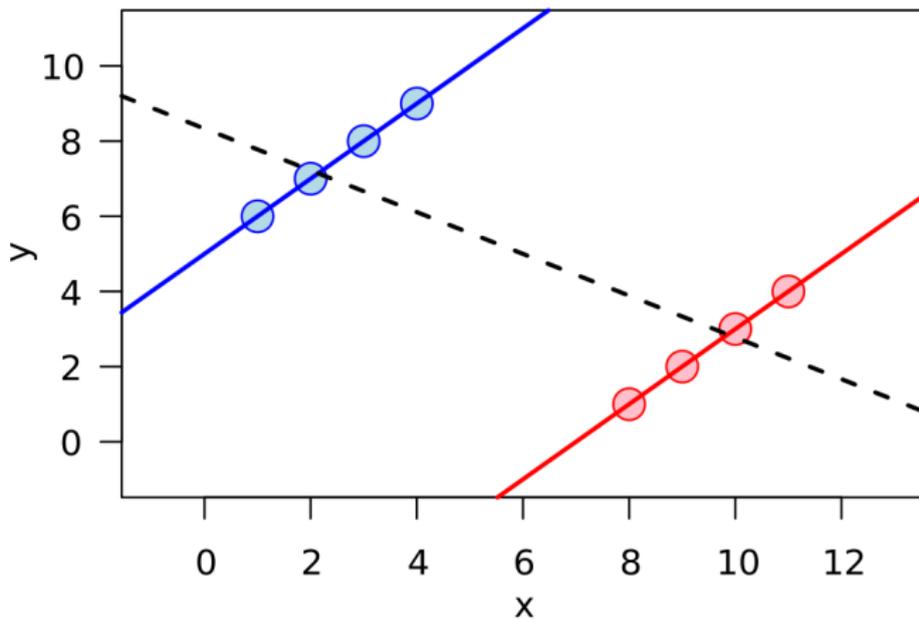
Exports and Imports to and from DENMARK & NORWAY from 1700 to 1780.

The Bottom line is divided into Years, the Right hand line into L10,000 each.

Published as the Act directs, 1st May 1786, by Wm. Playfair

Neele sculpt 352, Strand, London.

Source: Wikimedia

Source: Wikimedia
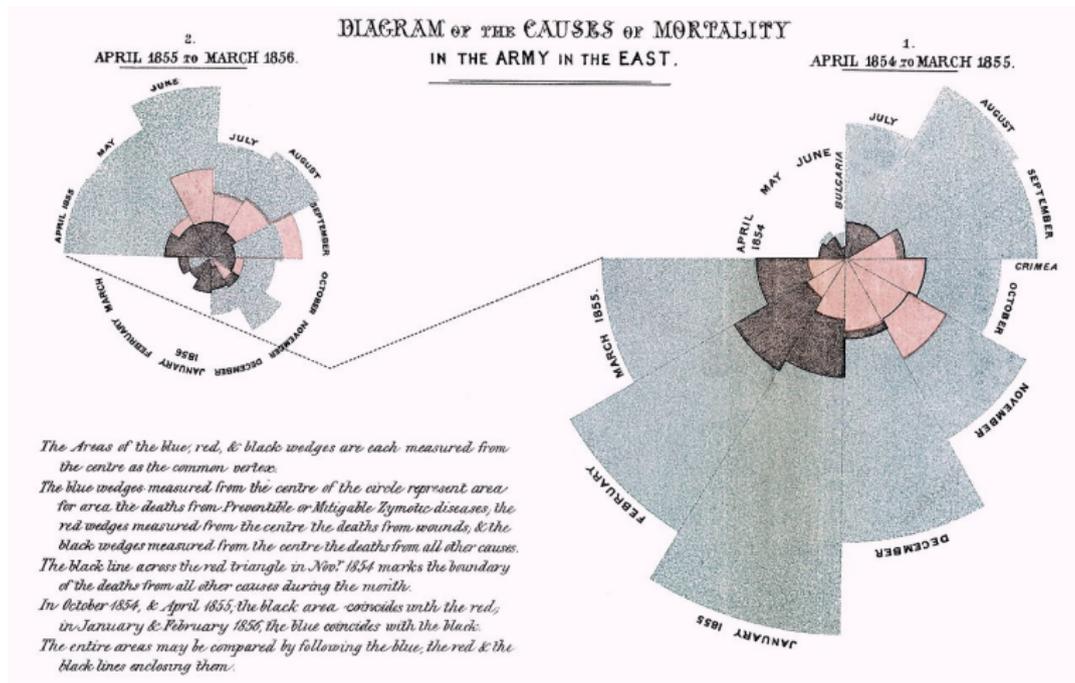
The bottom line

A visualization should be a display of
quantitative (and/or qualitative) data that
tells an information-rich story in an honest
and beautiful manner.

"Description"

- "Description" is a label for many practices
  - Meaning is ambiguous

"Description"

- "Description" is a label for many practices
  - Meaning is ambiguous

- Gerring describes many forms of description
  - Summaries, associations
  - Grouping/categorization (e.g., typologies)
  - Accounts (e.g., biography, history)

"Description"

- "Description" is a label for many practices
  - Meaning is ambiguous

- Gerring describes many forms of description
  - Summaries, associations
  - Grouping/categorization (e.g., typologies)
  - Accounts (e.g., biography, history)

- Toshkov has a different typology
  - Multi-/single-case
  - Multi-/uni-variate

Description $\equiv$ "What?"

A common feature of descriptive research
and descriptive research questions is a focus
on *what* questions.

"What?" Questions

"What?" Questions

- What is this?

"What?" Questions

- What is this?
- What other things are (un)like this?

"What?" Questions

- What is this?
- What other things are (un)like this?
- What features does this have?

"What?" Questions

- What is this?
- What other things are (un)like this?
- What features does this have?
- What people, institutions, and ideas does this involve?

"What?" Questions

- What is this?
- What other things are (un)like this?
- What features does this have?
- What people, institutions, and ideas does this involve?
- Where is this? When is this? What happened before and after?

"What?" Questions

- What is this?
- What other things are (un)like this?
- What features does this have?
- What people, institutions, and ideas does this involve?
- Where is this? When is this? What happened before and after?
- How much of this is there?

Answering Descriptive RQs

1. Ask question

2. Decide what kind of evidence will answer that question

3. Gather evidence

4. Analyse evidence

5. Draw inferences and make claims

6. (Iterate)

Ex.: Broad Street Cholera

Ex.: Broad Street Cholera

1 Who is getting cholera?

Ex.: Broad Street Cholera

1. Who is getting cholera?
2. DSOs about who is sick (& not sick)

Ex.: Broad Street Cholera

1. Who is getting cholera?
2. DSOs about who is sick (& not sick)
3. Interview patients or use medical records

Ex.: Broad Street Cholera

1. Who is getting cholera?

2. DSOs about who is sick (& not sick)

3. Interview patients or use medical records

4. Examine associations between cholera and patient characteristics

Ex.: Broad Street Cholera

1 Who is getting cholera?

2 DSOs about who is sick (& not sick)

3 Interview patients or use medical records

4 Examine associations between cholera and patient characteristics

5 Inference: Geographical clustering

Ex.: Broad Street Cholera

1. Who is getting cholera?

2. DSOs about who is sick (& not sick)

3. Interview patients or use medical records

4. Examine associations between cholera and patient characteristics

5. Inference: Geographical clustering

6. Iterate: What is different about this geographical area?

"What?" Questions

- What is this?
- What other things are (un)like this?
- What features does this have?
- What people, institutions, and ideas does this involve?
- Where is this? When is this? What happened before and after?
- How much of this is there?

Description and DSOs

Description might. . .

- . . . explore a single case to generate one or more DSOs

- . . . compare multiple DSOs or summaries thereof

- . . . not involve DSOs at all

Generating DSOs

country	continent	lifeExp	pop
Austria	Europe	79	8199783
Equatorial Guinea	Africa	?	?
Iceland	Europe	81	301931
Iran	Asia	70	69453570
Kuwait	Asia	77	2505559
Lesotho	Africa	42	2012649
Serbia	Europe	74	10150265
Sudan	Africa	58	42292929
Sweden	Europe	80	9031088
Trinidad and Tobago	Americas	69	1056608

Comparing DSOs

```
          country continent lifeExp       pop
          Lesotho    Africa      42   2012649
Equatorial Guinea    Africa      51    551201
            Sudan    Africa      58  42292929
```

Beyond DSOs

Beyond DSOs

- Sequencing

Beyond DSOs

- Sequencing

- Characterisation of processes

Beyond DSOs

- Sequencing

- Characterisation of processes

- Policy, content, or discourse analysis

Beyond DSOs

- Sequencing

- Characterisation of processes

- Policy, content, or discourse analysis

- Conceptualisation

Beyond DSOs

- Sequencing

- Characterisation of processes

- Policy, content, or discourse analysis

- Conceptualisation

- Causal hypothesis generation

Common Methods of Descriptive Evidence Gathering

- Documentary analysis
  - Archival research
  - Text analysis
- Interviewing
  - Surveys
  - Elite interviews
  - Focus groups
- Direct observation
  - Participant–observation

Question → Method

The choice of what methods to use should **always** follow from the research question being asked.

Some RQ/Method Pairings

Research Question	Evidence
How do cases differ?	DSOs
What do people think?	Interviewing
What happened?	Archival analysis
How does this institution work?	??

Some RQ/Method Pairings

Research Question	Evidence
How do cases differ?	DSOs
What do people think?	Interviewing
What happened?	Archival analysis
How does this institution work?	??

Yet, we often use non-obvious methods, and multiple methods.

Considerations

Considerations

- How do we decide what kind of evidence is appropriate?

Considerations

- How do we decide what kind of evidence is appropriate?
- How do we arbitrate between conflicting evidence?

Considerations

- How do we decide what kind of evidence is appropriate?
- How do we arbitrate between conflicting evidence?
- How do we decide if evidence is "true"?

Considerations

- How do we decide what kind of evidence is appropriate?
- How do we arbitrate between conflicting evidence?
- How do we decide if evidence is "true"?
- How do we know when we have "enough" evidence?

What counts as text?

- Primary sources
  - Raw, original evidence

- Secondary sources
  - Interpretations of raw evidence

- Tertiary sources
  - Compendia or indices of two other types of sources

How do you use texts?

- Think about your own experience reading, interpreting, and interacting with textual sources for academic purposes (e.g, for writing a term paper).

- With the person sitting next to you, discuss:
  1. The process by which you try to understand the meaning and content of texts
  2. How you choose texts to read

Use of Texts

- Text as description
    - Rely on text in lieu of direct observation
    - What do we gain? What do we lose?

Use of Texts

- Text as description
  - Rely on text in lieu of direct observation
  - What do we gain? What do we lose?

- Text as DSOs
  - Treat texts as units (see MT Week 7)

Challenges of Text

1. Source "Quality"

2. Subjectivity and differing perspectives

3. Historiography

4. Selection and confirmation bias

Challenges of Text

1. Source "Quality"

2. Subjectivity and differing perspectives

3. Historiography

4. Selection and confirmation bias

But these are really the challenges of *any* research!