

Exercise on Chart Decoding

Learning Goal: Train yourself in *decoding* charts so that you can better understand how virtually every single visualization can be described using the language and rules of *visual encoding* and decomposed into low-level graphical components.

How do you know if you are on the right track? You can describe a chart in terms of its graphical components.

Instructions

For each of the following charts identify:

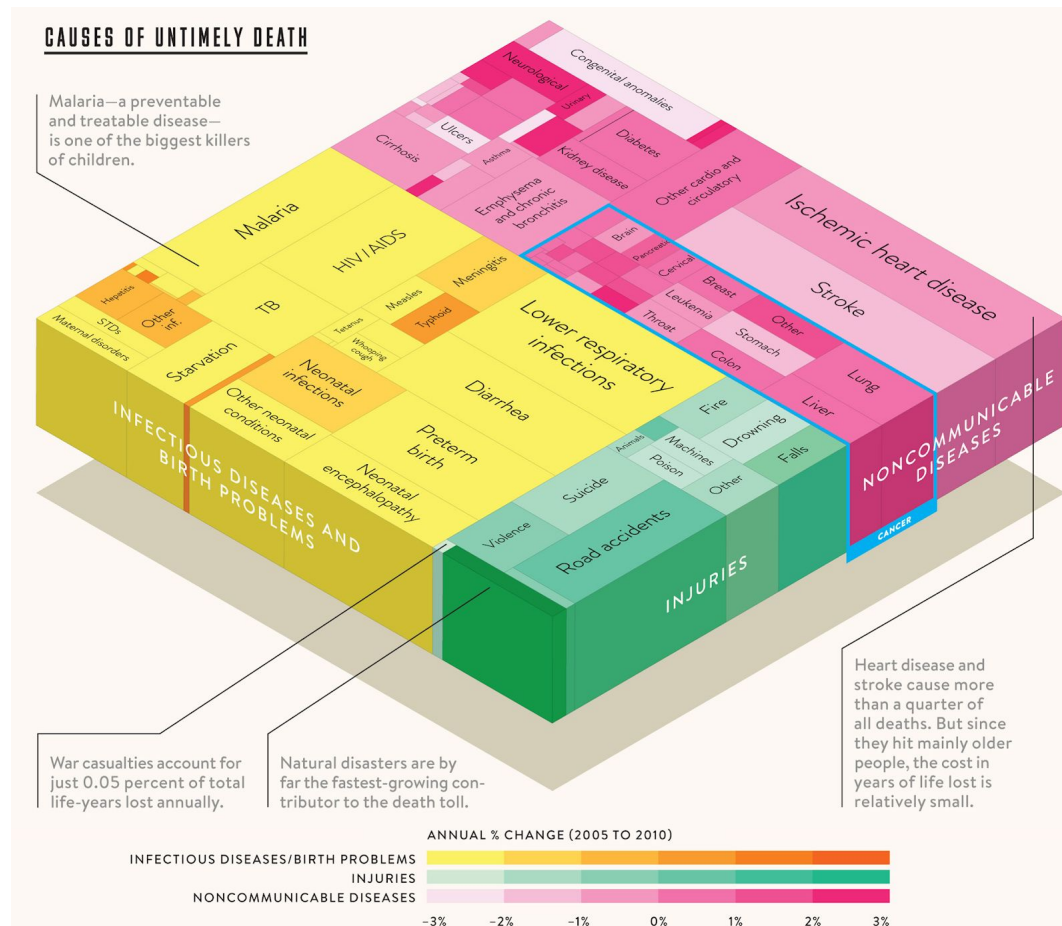
- Data **items** and **marks** used to encode them.
- Data **attributes** and **channels** used to encode them.

Use this template for your answers for each chart:

- Data items represent: ...
- Mark used for data items are: ...
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...

NOTE: at the bottom of each chart there is a link to a web page providing details about the project (including information about the data).

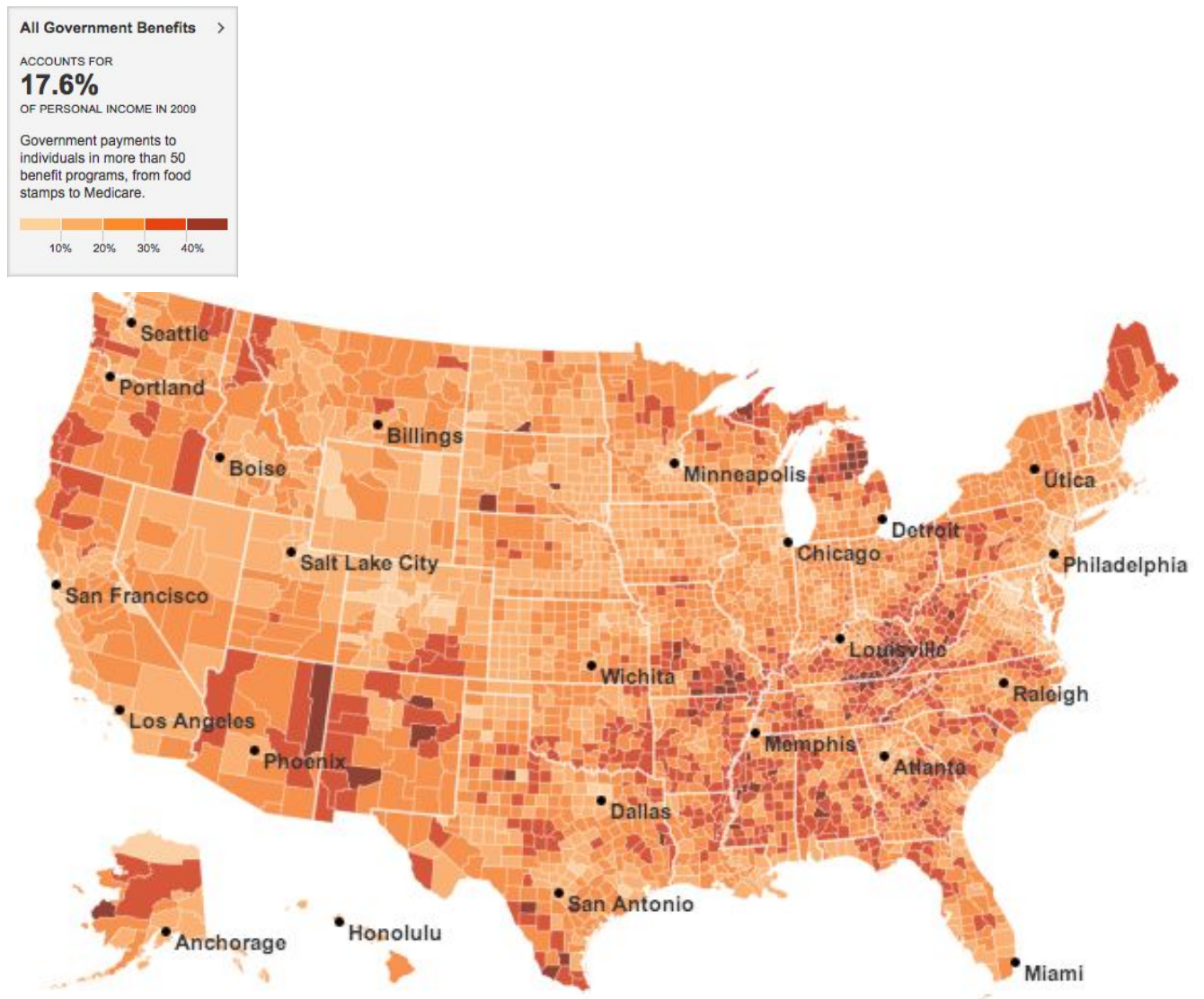
Chart 1



<https://www.wired.com/2013/11/infoporn-causes-of-death/>

- Data items represent:
- Mark used for data items are:
- Data attributes are:
- Visual channels are:
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...

Chart 2



<http://www.nytimes.com/interactive/2012/02/12/us/entitlement-map.html>

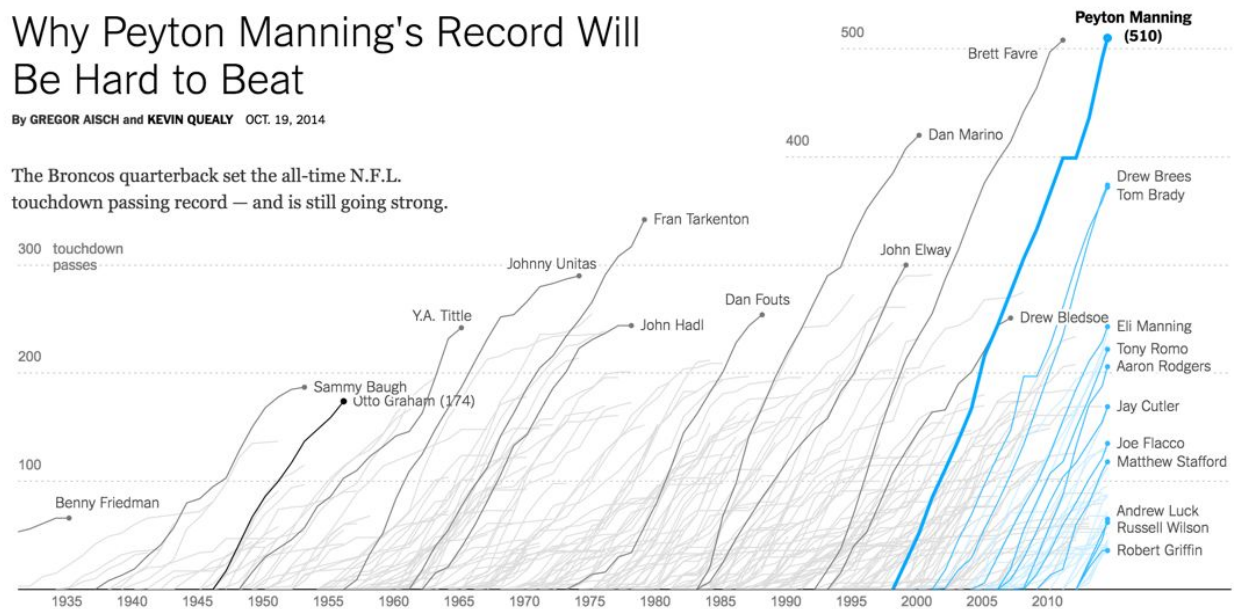
- Data items represent: ...
- Mark used for data items are: ...
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...

Chart 3

Why Peyton Manning's Record Will Be Hard to Beat

By GREGOR AISCH and KEVIN QUEALY OCT. 19, 2014

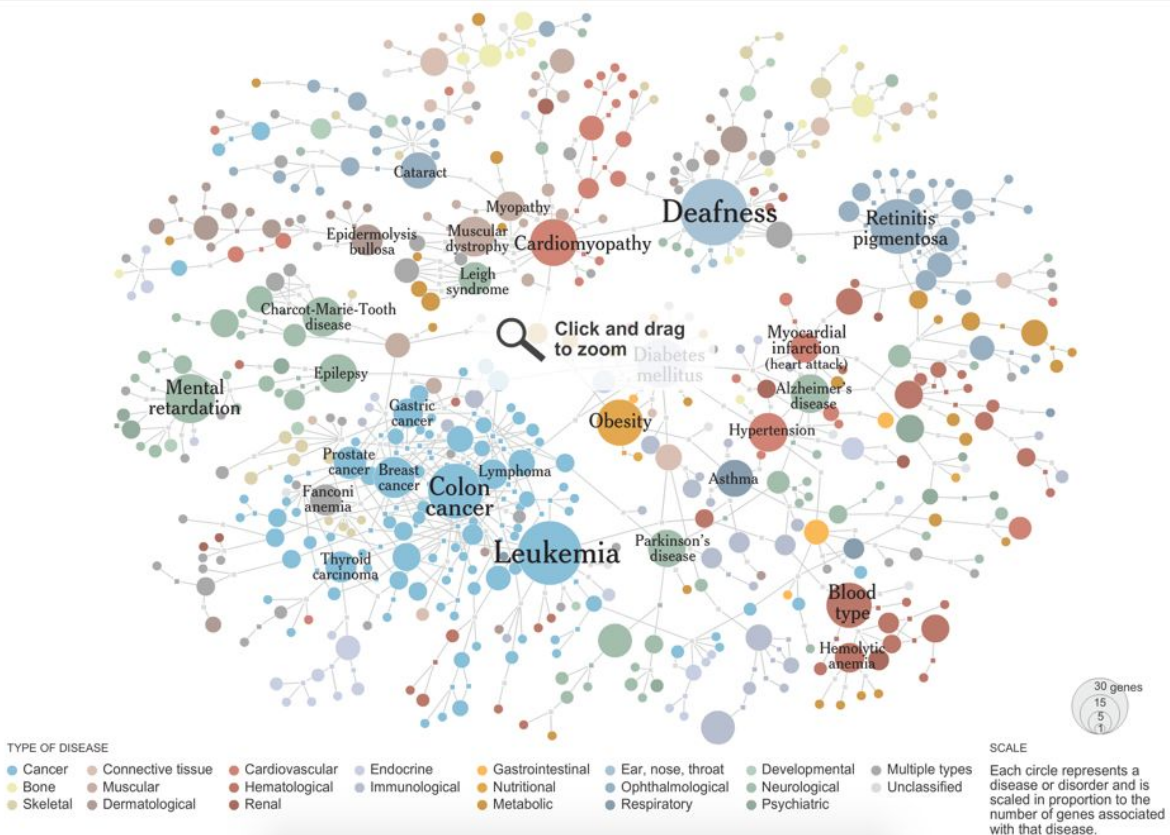
The Broncos quarterback set the all-time N.F.L. touchdown passing record — and is still going strong.



<http://www.nytimes.com/interactive/2014/10/19/upshot/peyton-manning-breaks-touchdown-passing-record.html>

- Data items represent:
- Mark used for data items are:
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...

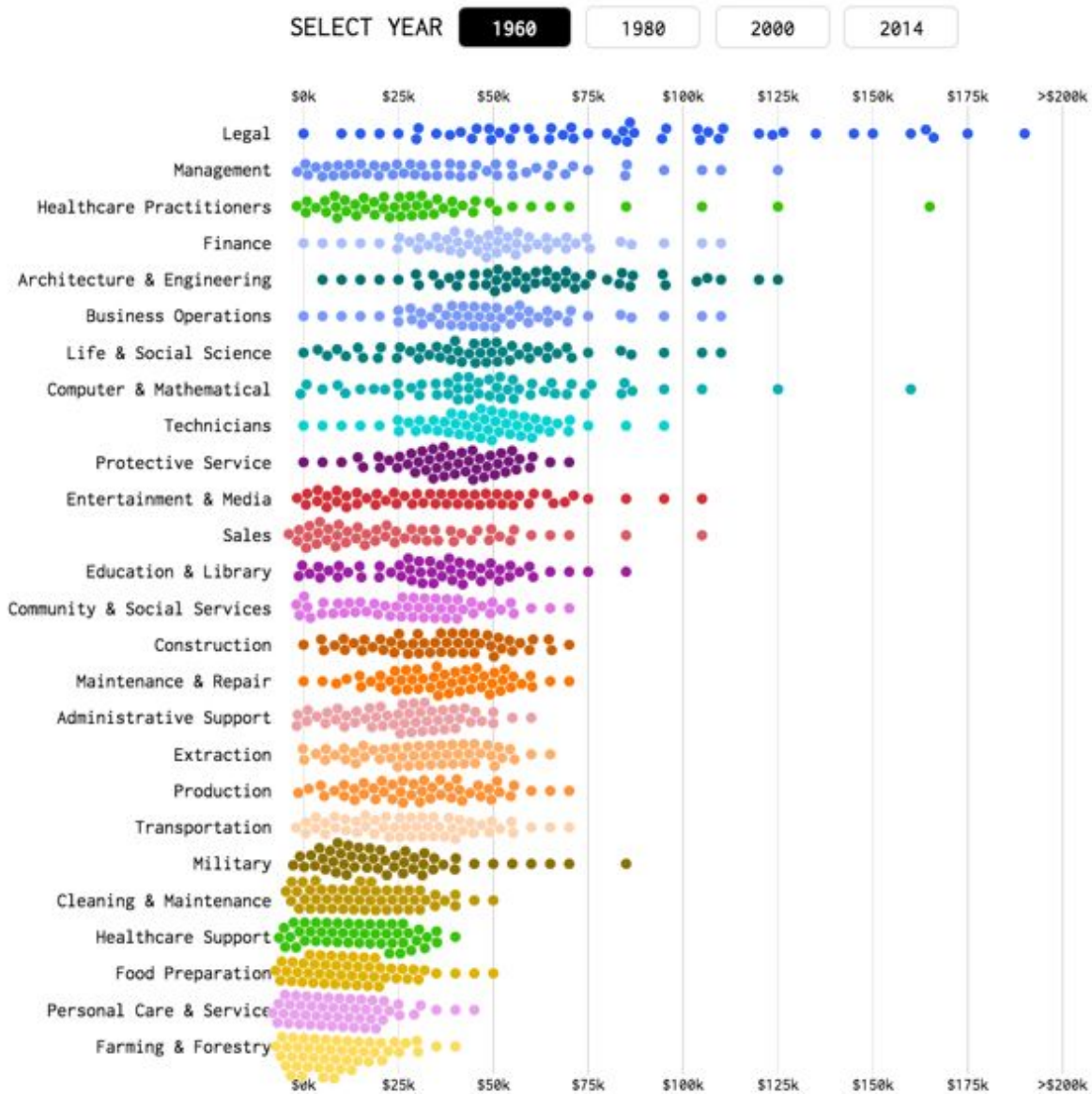
Chart 4



http://www.nytimes.com/interactive/2008/05/05/science/20080506_DISEASE.html

- Data items represent: ...
- Mark used for data items are: ...
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...

Chart 5



<https://flowingdata.com/2016/06/28/distributions-of-annual-income/>

- Data items represent: ...
- Mark used for data items are: ...
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...

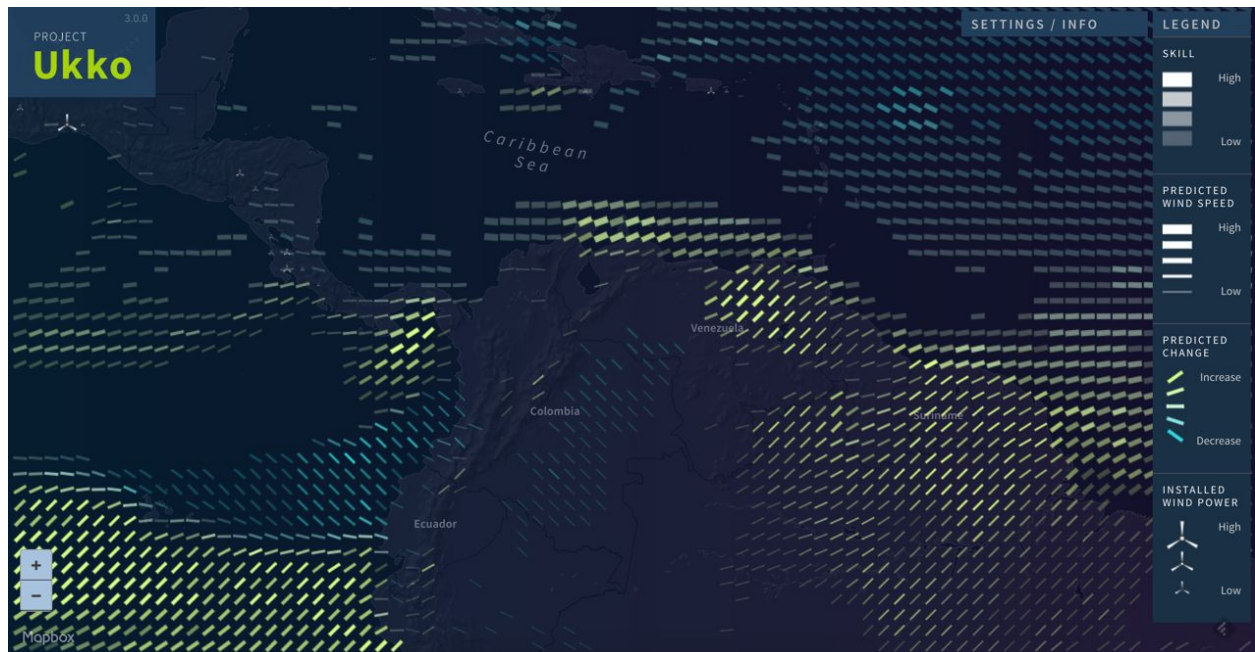
Chart 6



<http://polygraph.cool/redraft/>

- Data items represent: ...
- Mark used for data items are: ...
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - Attribute n is encoded with ...

Chart 7



<http://project-ukko.net/>

- Data items represent: ...
- Mark used for data items are: ...
- Data attributes are: ...
- Visual channels are: ...
- For each attribute:
 - Attribute 1 is encoded with ...
 - Attribute 2 is encoded with ...
 - ...
 - Attribute n is encoded with ...