```
tt()
```

Schedule

1. Scales - recap and examples

2. Axes and Ticks

3. Hands-on

4. Show and tell

5. Let's talk about code

Schedule

1. **Scales - recap and examples**

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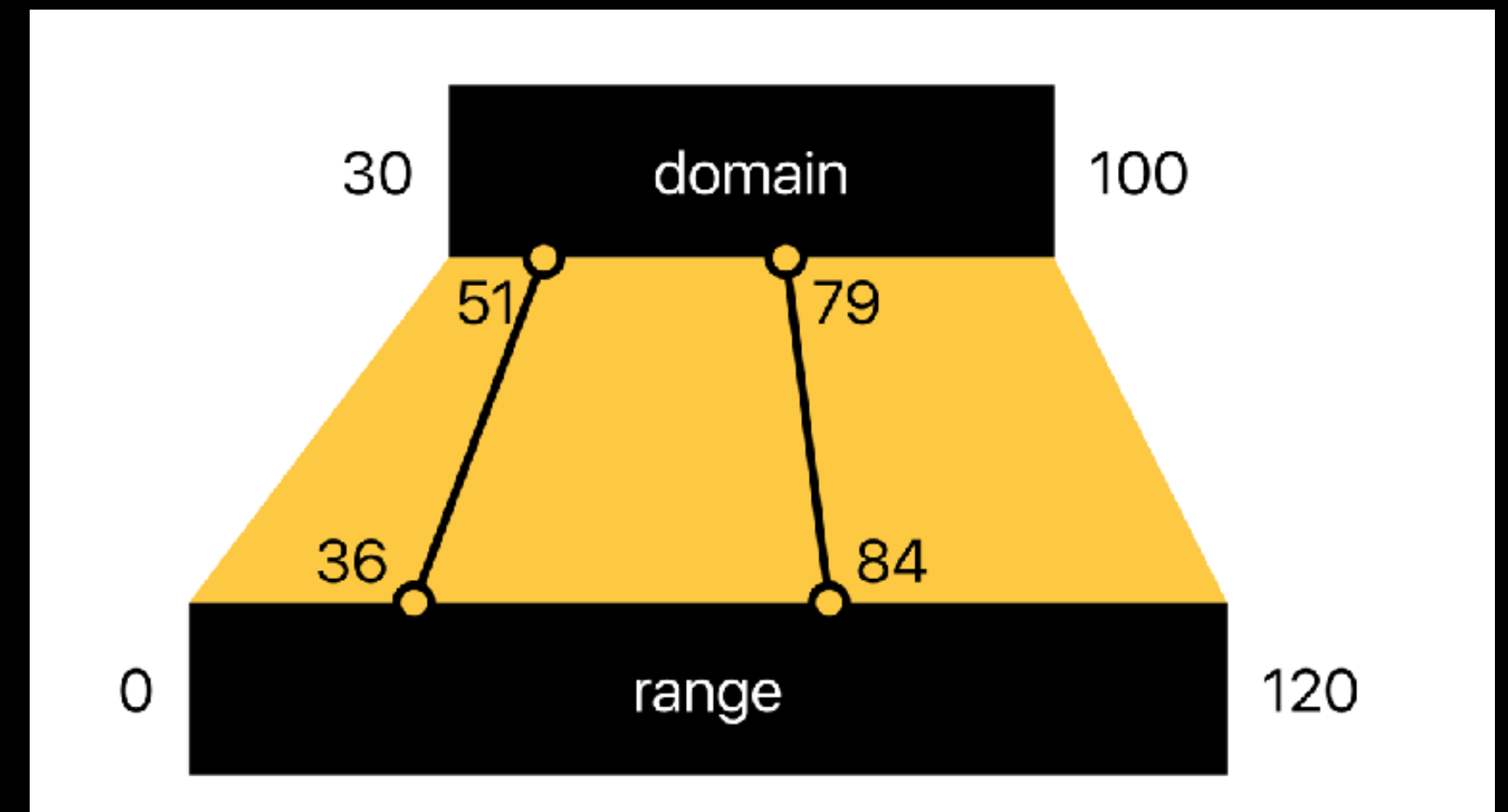5. Let's talk about code

Scales

Scales calculate

- how big elements of a graph should be
- where their position

They are **functions**
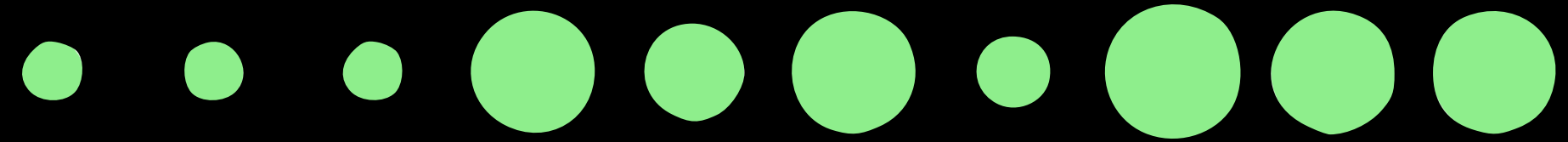
domain = what you need to show

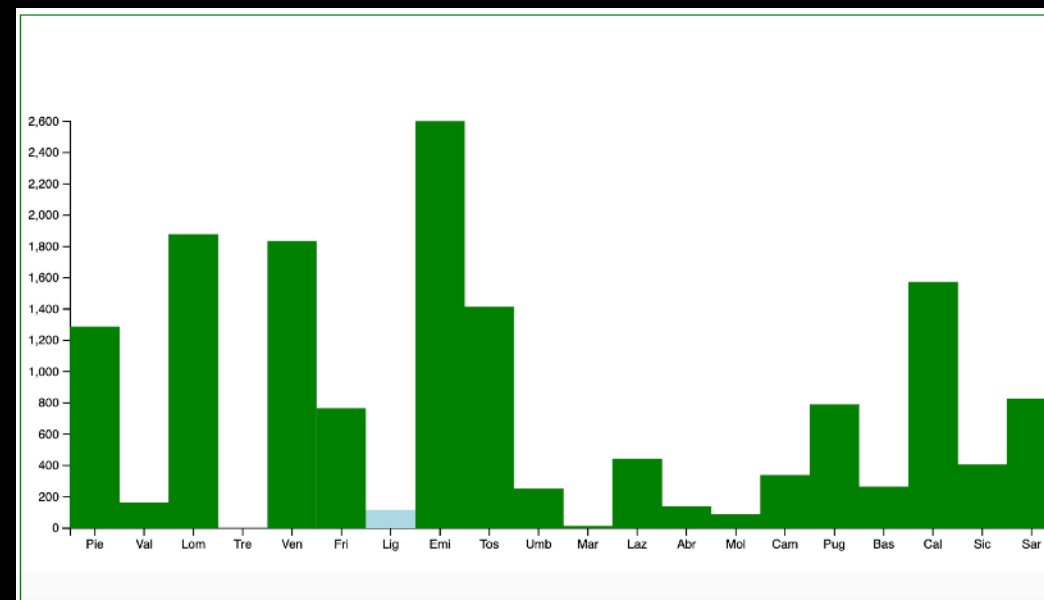range = how you want to show it

Scales - the purpose

Scales allow to visualize data through:

size

position

and **color**

Choosing scales - Laura's tip

Welke variabele	Wat wil ik afbeelden	Wat zijn mijn wensen
	Domain	Range
X-coördinaat	0..11 passagiers	0..800 px
(Point scale)		Equally spaced points
Oppervlakte cirkel	0..11 passagiers	0..45 px diameter (?)
(scale Sqr)		
Kleur auto	0..11 passagiers	['red', 'orange', 'green']
(Scale quantile)	Array of values	0..3 red, 4..6 orange enz.

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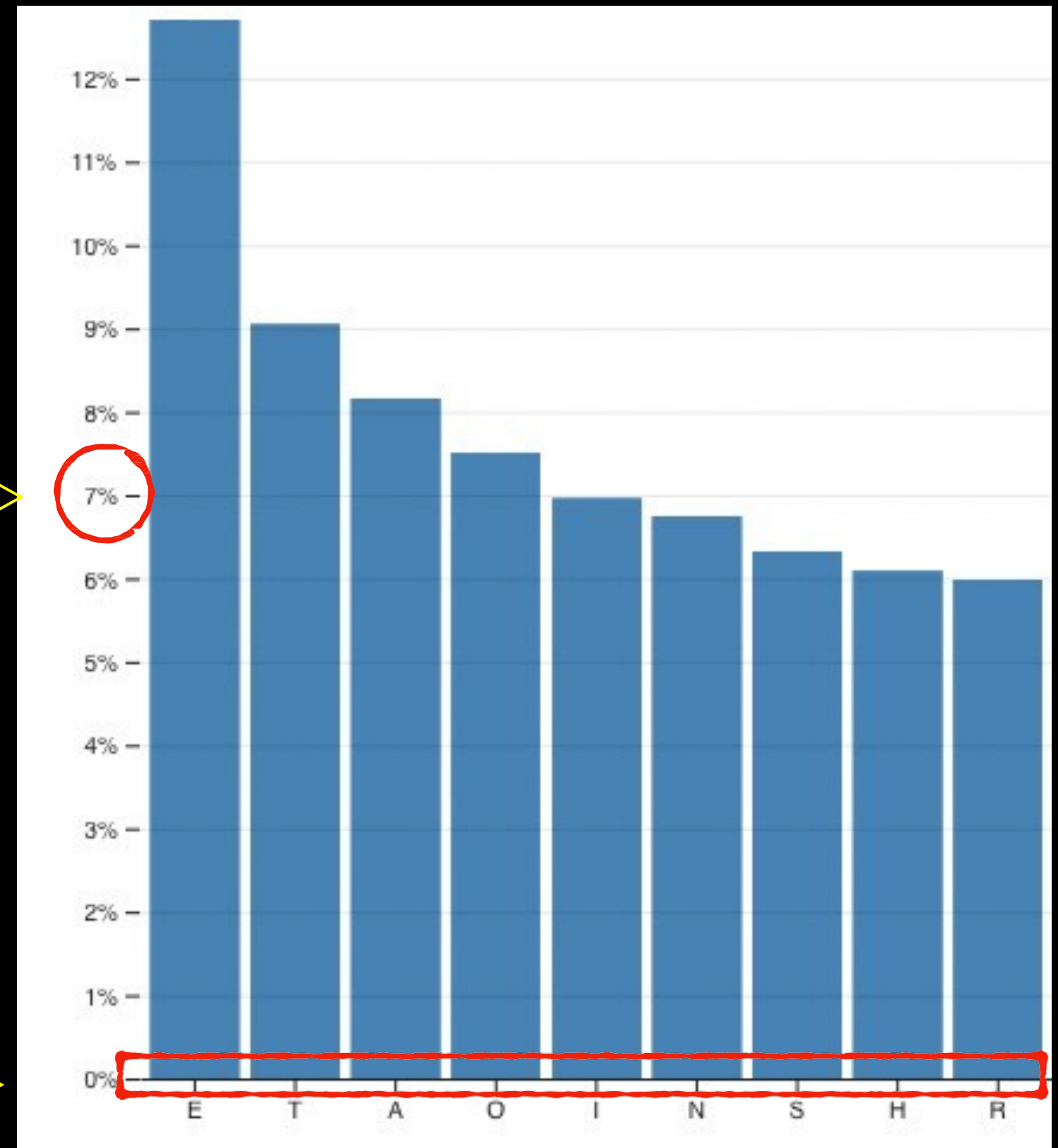
Axes & Ticks

4 different types of Axes:
axisLeft, axisRight, axisTop,
axisBottom

Axes refer to **scales**
that should have been
declared previously

```
24    const myAxisBottom = d3
25        .axisBottom(myScaleBand)
26        .tickFormat(d => d)
27
```

Ticks are gathered from data,
with accessor functions

Ticks ->

Axis ->

Axes & Ticks

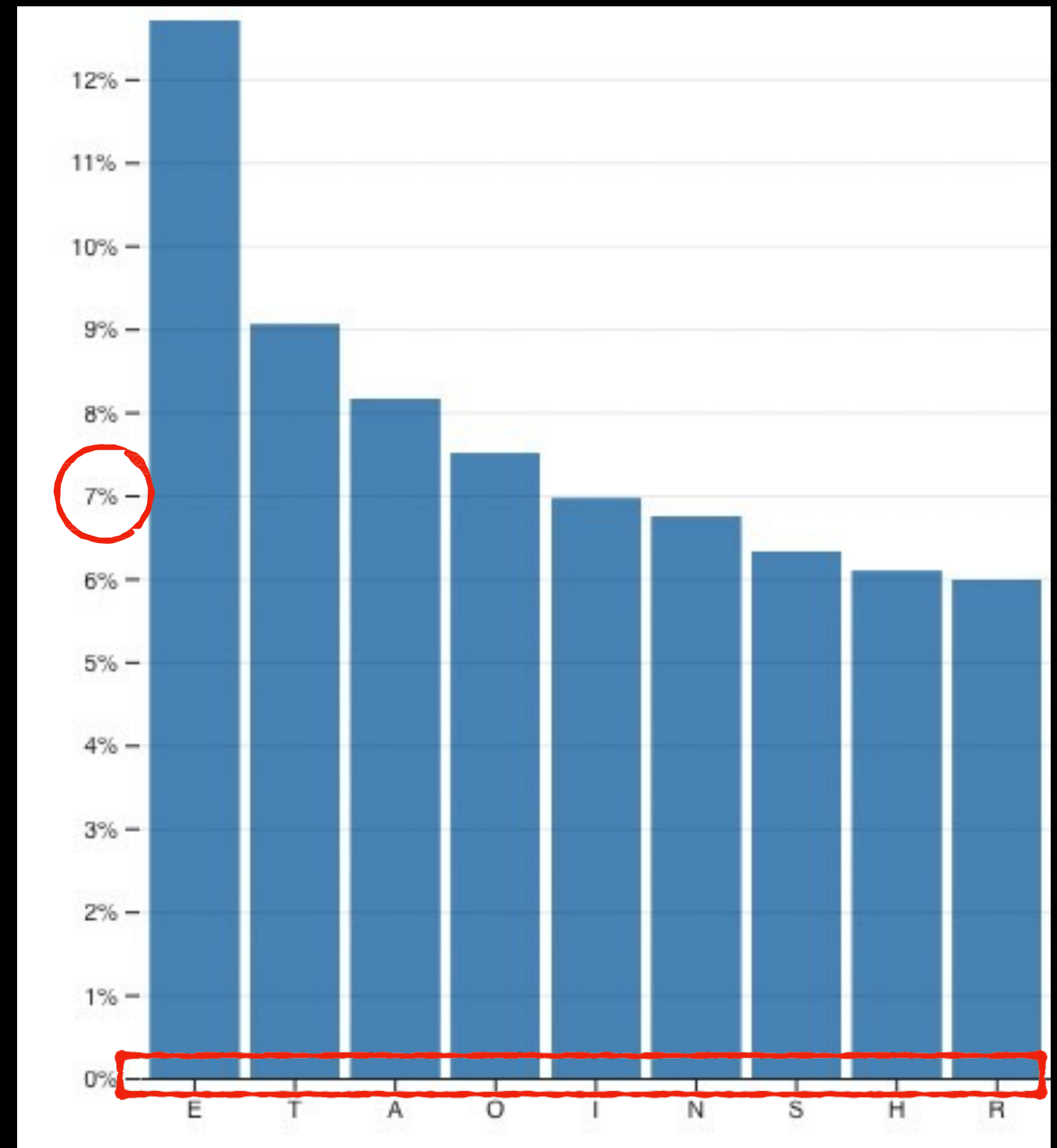**Axes** should be **positioned**

Different strategies:

```
27 ▾ <svg id="axis">
28     <g transform="translate(50,0)"></g>
29
30   </svg>
```

In **HTML:** SVG el. have a
transform attribute. Its
syntax looks like the CSS
property - but is different

In **d3:** using
.attr("transform",…)

Avoid **CSS**

Axis—>

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Hands - on

- https://codepen.io/Laura_B/pen/XJXQGLy

- Werk in tweetallen

- Maak een **point scale** die er voor zorgt dat, hoeveel ritten er ook worden afgebeeld door een auto, ze altijd passen in een rij van 800px

- Maak een **kleurscale** die de user laat zien hoe rendabel de rit is, bijvoorbeeld:

- **Zie: https://www.d3indepth.com/scales/**

Wij zijn benieuwd!!!!

Show and tell

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5. **Let's talk about code**

Code quality - readability

1. Code should be readable and understandable to your colleagues (and your teachers)

```
// kleurschaal, verdeelt de kleuren evenredig over
   het domein: 0-2 rood, 3-5 oranje etc.
const kleurScaleQuantile
```

Code quality - readability

1. Code should be readable and understandable to your colleagues (and your teachers)

2. Make sure your code is ES6
   and your style of coding is uniform

   => (arrow functions) or function() (anonymous functions)

   "Week" + d.week + ", " + d.day + ": " + d.passengers
   or `Week${d.week}, ${d.day}: ${d.passengers}`

Code quality - readability

1. Code should be readable and understandable to your colleagues (and your teachers)

2. Make sure your code is ES6
   and your style of coding is uniform

3. Make sure you understand the code - every single row

Uncaught SyntaxError
Unexpected end of input