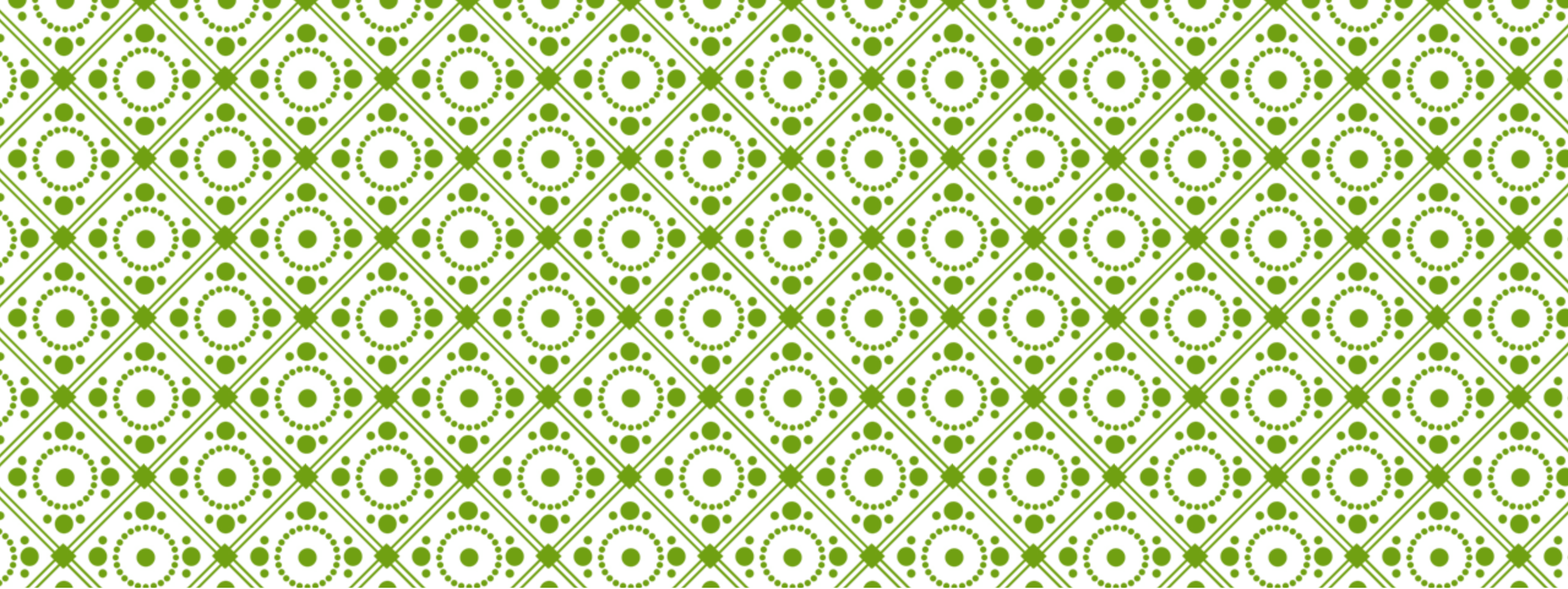


Interactive On-Demand Interface

That was hard, wasn't it?

Sometimes, data masking can hide data that might be essential for record linkage.
What if **you could open up the masked data as you need to see more?**

Over the next few pages, we will walk you through an interactive on-demand interface for record linkage.

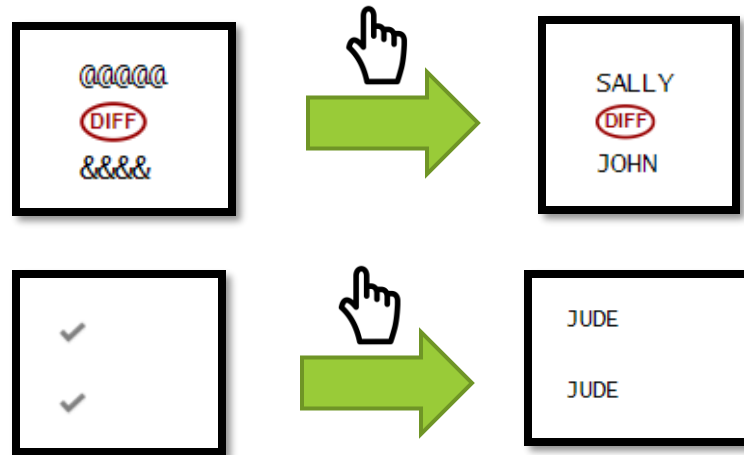


Video on clickable interface

More Information with One Click

Did you pay attention to how cells were clicked open?

For cells that are **completely identical** or **completely different**, all the contents will be **fully opened in one click**.

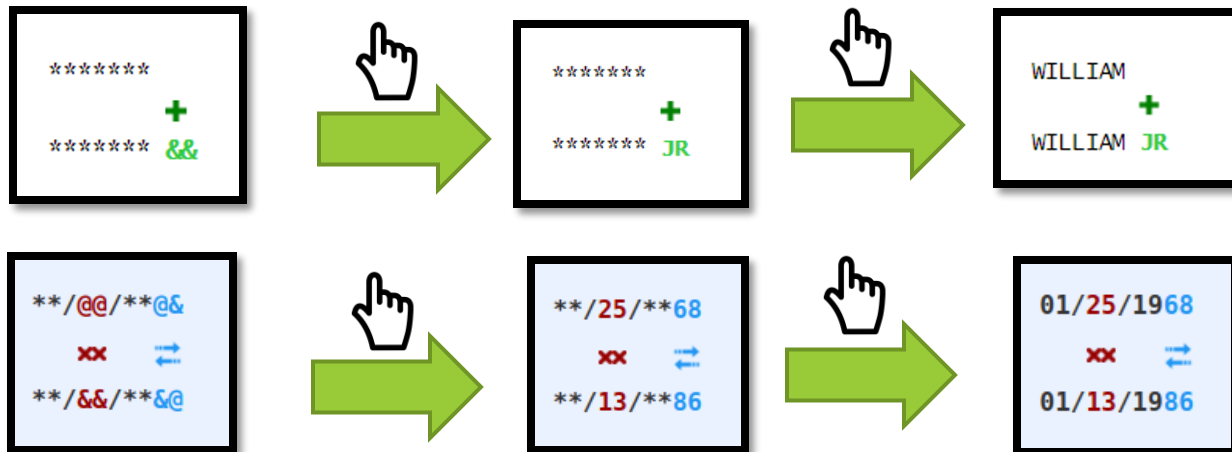


More Information with Two Clicks

For cells that are partly different, one click will only show details for the different parts. A second click will show the full information.

That means **partially different cells can be clicked twice to open them fully**
Remember, you might not need to see it all.

In the first example, you probably only need to see the JR and not William



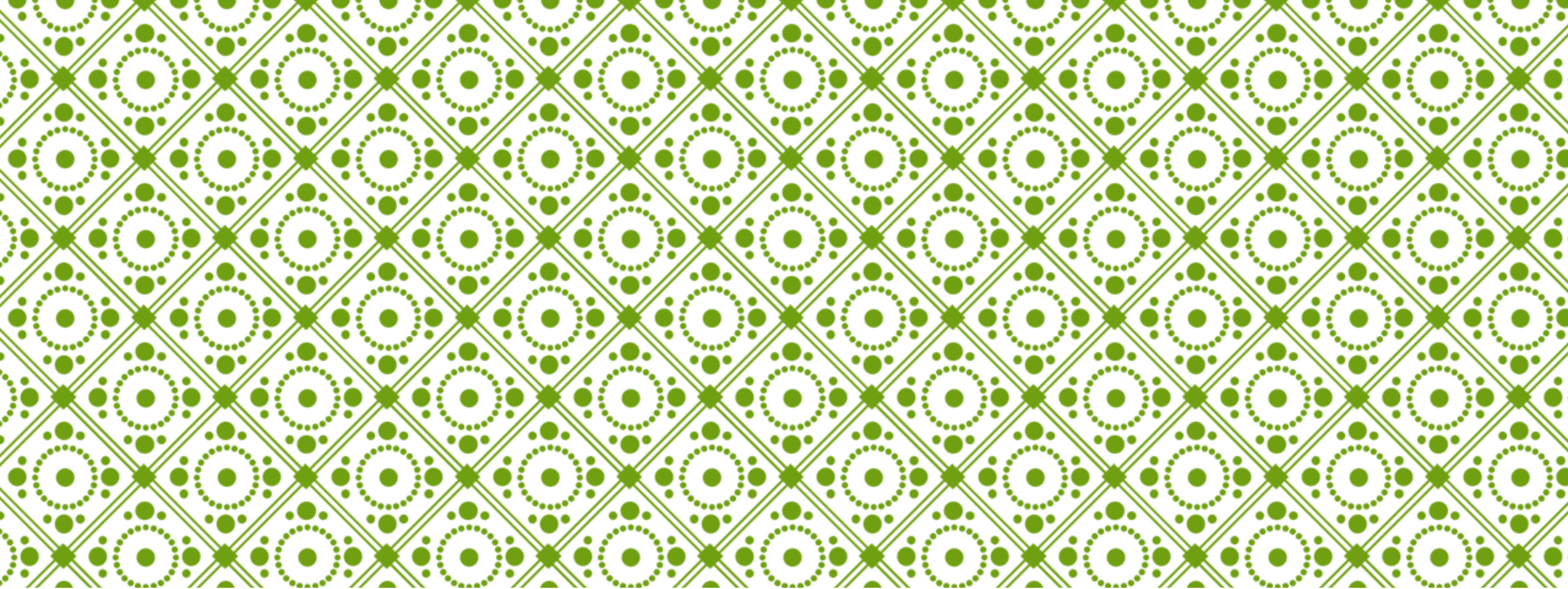
What to open?

Remember, you should open the relevant cells you need to make the correct linkage decision.

Do not open cells unless you think it will help you make better decisions but at the same time, if you need information to make good linkage decisions, go ahead and open it!

You will be given the most credit for correctly answering the most questions while opening up only the relevant cells.

Let's look at an example next.

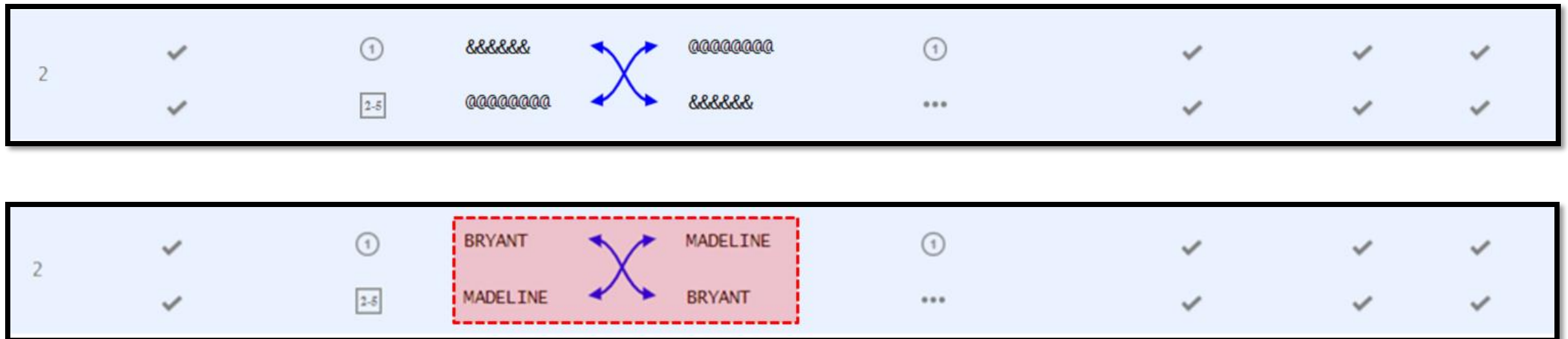


Video

What NOT to open?

If you don't need to see the details to make a decision, DO NOT open it.

You may not need to open anything to make a decision, as in the example below.
Opening up the swapped name does not give you more information to make a decision.



When you might want to open identical values?

Sometimes you might need to see the full items even when you know the values are the same:

- Often females change their last name but males do not

| Pair | ID | FFreq | First Name | Last Name | LFreq | DoB(M/D/Y) | Sex | Race | Choice Panel |
|------|---------------------|-------|------------|--------------------|-------|------------|-----|------|---|
| 1 | *****@*** ✗ | ① | ✓ | @@@@@@@@ (DIFF) | ∞ | ✓ | ✓ | ✓ | <div>H M L L M H</div> <div>←○—○—○+○—○—○→</div> <div>Different Same</div> |
| | *****&*** | ① | ✓ | &&&&&&& | ∞ | ✓ | ✓ | ✓ | |
| 2 | @@@@@@@@@ (DIFF) | ∞ | ✓ | @@@@@ (DIFF) | 25 | ✓ | ✓ | * | <div>H M L L M H</div> <div>←○—○—○+○—○—○→</div> <div>Different Same</div> |
| | &&&&&&&&& | ∞ | ✓ | &&&&&&& | ∞ | ✓ | ✓ | ? | |



| Pair | ID | FFreq | First Name | Last Name | LFreq | DoB(M/D/Y) | Sex | Race | Choice Panel |
|------|---------------------|-------|------------|--------------------|-------|------------|-----|------|--|
| 1 | *****@*** ✗ | ① | ✓ | @@@@@@@@ (DIFF) | ∞ | ✓ | F | ✓ | <div>H M L L M H</div> <div>←○—○—○+○—●—○→</div> <div>Different Same</div> |
| | *****&*** | ① | ✓ | &&&&&&& | ∞ | ✓ | F | ✓ | |
| 2 | @@@@@@@@@ (DIFF) | ∞ | ✓ | @@@@@ (DIFF) | 25 | ✓ | M | * | <div>H M L L M H</div> <div>←○—●—○+○—○—○→</div> <div>Different Same</div> |
| | &&&&&&&&& | ∞ | ✓ | &&&&&&& | ∞ | ✓ | M | ? | |

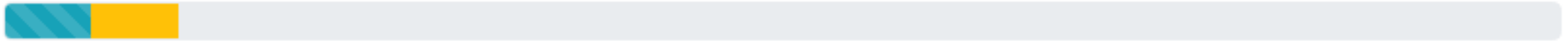
Practice

Now try to make record linkage decisions as best you can.

Be smart and try to only open cells you need to see to make a good decision.

Privacy Meter

Privacy risk: 5.6% + 4.68%



The meter will help you monitor how much you have opened up, and how much you have left.

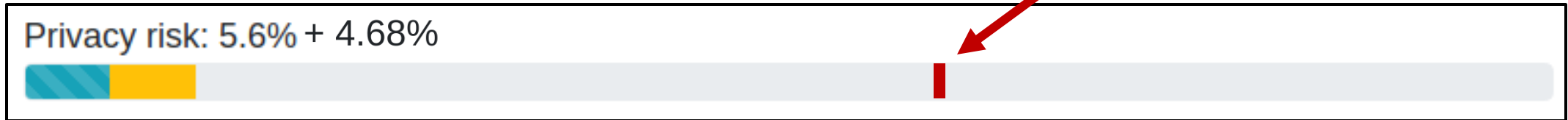
The blue bar indicates **how much you have opened so far**.

When you mouse over cells you want to open, the orange bar indicates how much the click would “cost”.

- If you do not click, it goes away
- If you click, it turns blue

Only for group that have a limit (everyone in pilot study)

Privacy Meter with Limit



100% (the full meter) is when all cells are fully open

What is the **solid red line on the meter**?

- This is the **maximum budget you have to spend (open up cells) per section**
 - You have multiple sections, and each section is given a budget
- You will not be able to open anything else after you reach the solid red line.
- If you reach the bar, then for the rest of the questions, you'll have to make the best choice you can without opening anything else.
- Be careful to only open cells that you need to make your decision.

How should you budget?

Privacy risk: 5.6% + 4.68%



You have a total up to the solid red line to spend on answering
all 36 questions over 6 pages that makes up one section.

So, try not to use all of it on the first page.

Instead, try to spend roughly $1/6$ on each page.

Now try doing the same practice question again, this time paying attention to the meter

Start of Section 1

Now you are ready for the main questions!

Don't be careless about opening cells, but don't be too cautious about it either. So long as you only open up what you need, you will be fine.

Remember the person who gets the MAXIMUM ANSWERS RIGHT WHILE OPENING UP RELEVANT CELLS WINS!

You will be linking pairs from two voter registry sources 4 years apart (April 2013 and March 2017) in one US county of **population size approximately 1 million**.

Click on the **Next** button when you are ready to start.

Start of Section 1

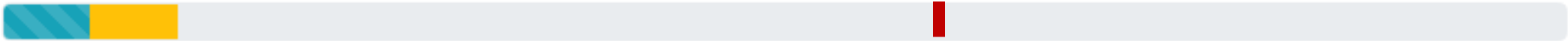
Now you are ready for the main questions!

You will be linking pairs from two voter registry sources 4 years apart (April 2013 and March 2017) in one US county of **population size approximately 1 million**.

Click on the **Next** button when you are ready to start.

SECTION 2

Privacy risk: 5.6% + 4.68%



In this section, you will go through an indefinite number of pages, thus the budget is limited per page.

Thus, the budget will not be accumulative.

You will get a fresh budget on each page.