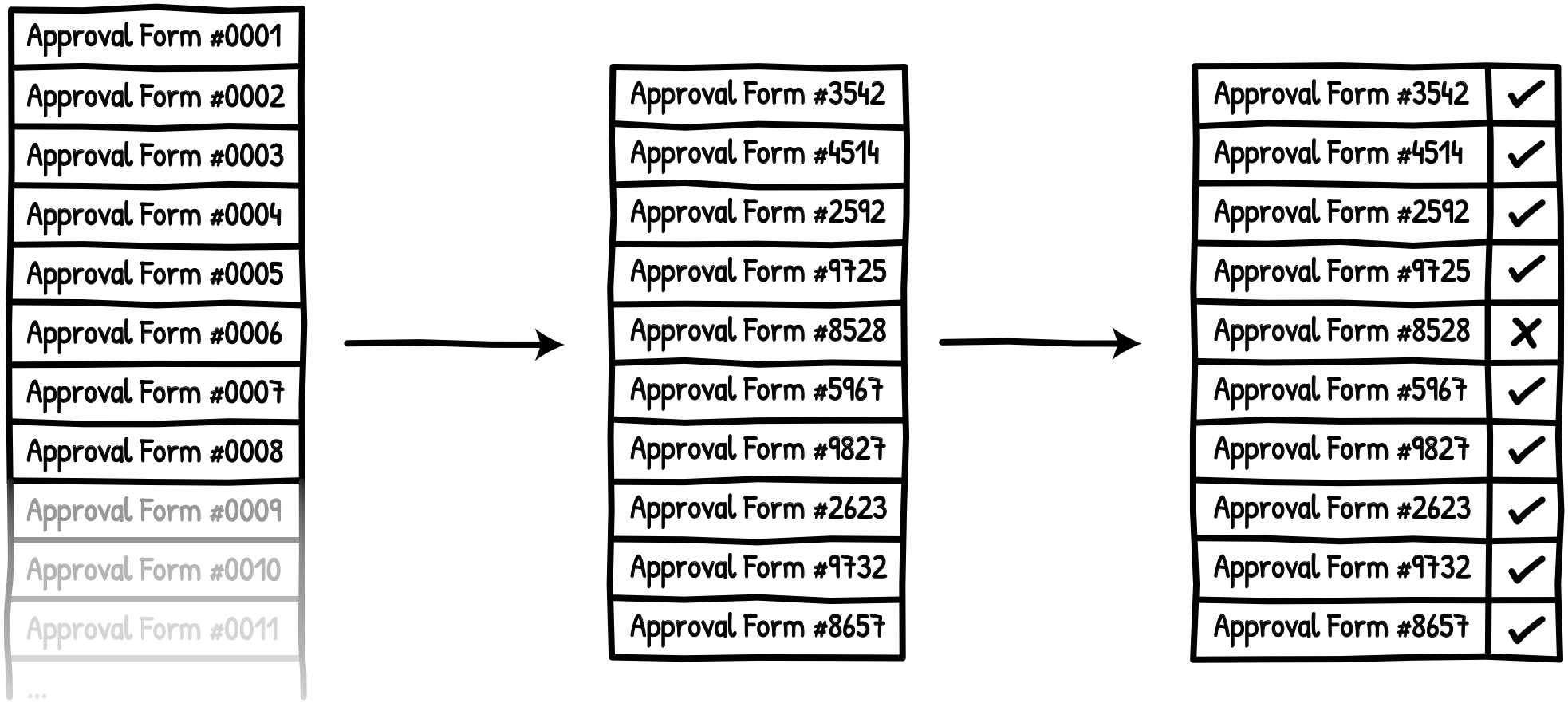
CISA Sampling Methods

Method	Description
Attribute	Tests the rate of occurrence of a specific trait or error (how many)
Variable	Estimates the amount of misstatement in a population (how much)
Discovery	Tests for at least one occurrence of a fraud, irregularity or error
Stop-or-Go	Allows testing to stop early when few or no errors are found
Stratifed	Divides the population into groups, then samples each group

Attribute

We took a sample of approval forms from the full population and checked <u>how many</u> had a signature. Based on the sample, we estimated that 90% of approval forms have a signature.



Variable

We took a sample of invoices from the full population, checked the amounts were correct, and estimated <u>how much</u> the invoices were misstated by. The sample was misstated by $7,000.

Invoice #0001	$10,000
Invoice #0002	$18,000
Invoice #0003	$25,000
Invoice #0004	$21,000
Invoice #0005	$15,000
Invoice #0006	$12,000
Invoice #0007	$30,000
Invoice #0008	$25,000
Invoice #0009	$38,000
Invoice #0010	$50,000
Invoice #0011	$42,000
...	...

→

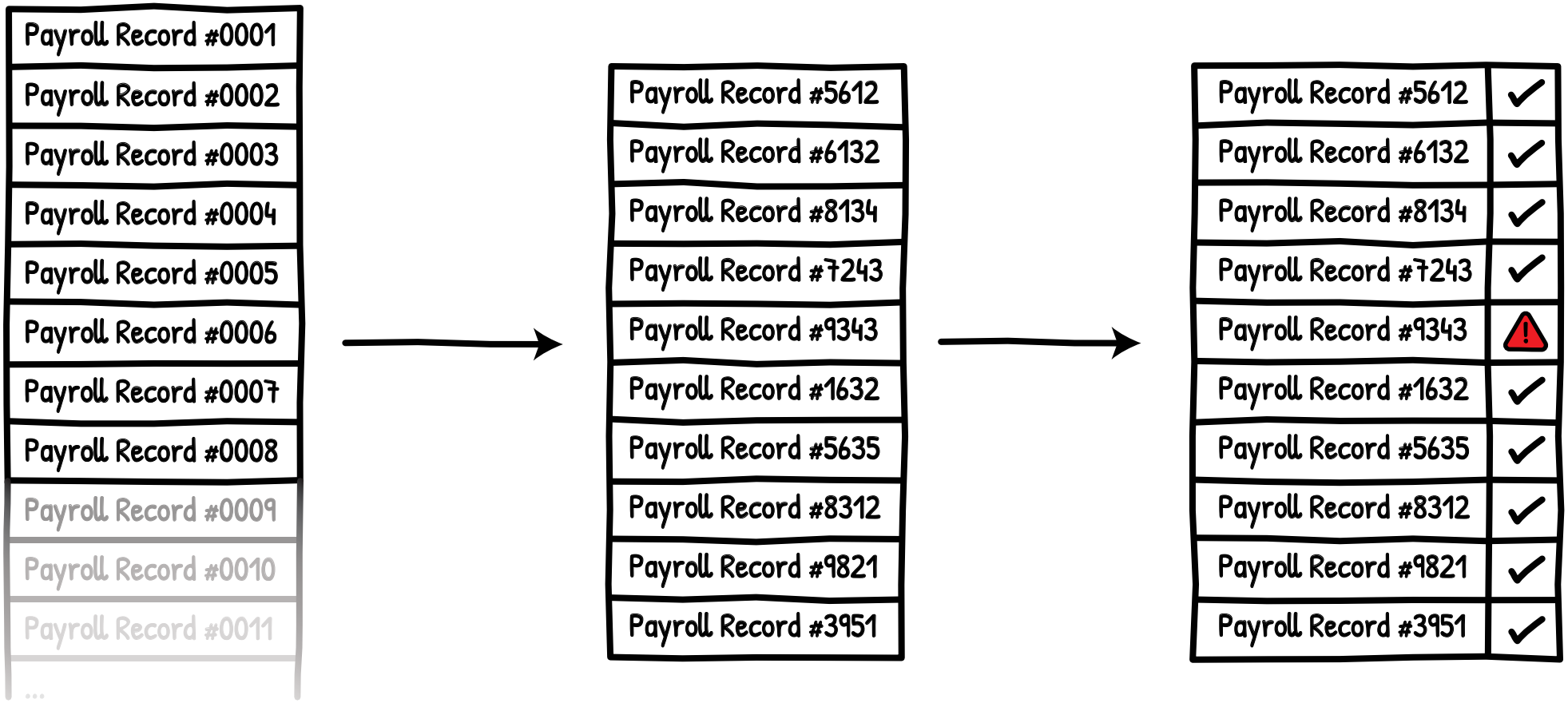
Invoice #5624	$20,000
Invoice #6131	$15,000
Invoice #4321	$28,000
Invoice #5683	$15,000
Invoice #9512	$20,000
Invoice #1604	$12,000
Invoice #4623	$35,000
Invoice #5975	$25,000
Invoice #8731	$10,000
Invoice #1951	$30,000

→

Invoice #5624	$20,000	+$0
Invoice #6131	$15,000	+$1,000
Invoice #4321	$28,000	+$0
Invoice #5683	$15,000	+$0
Invoice #9512	$20,000	+$1,000
Invoice #1604	$12,000	+$0
Invoice #4623	$35,000	+$2,000
Invoice #5975	$25,000	+$0
Invoice #8731	$10,000	+$3,000
Invoice #1951	$30,000	+$0
		+$7,000

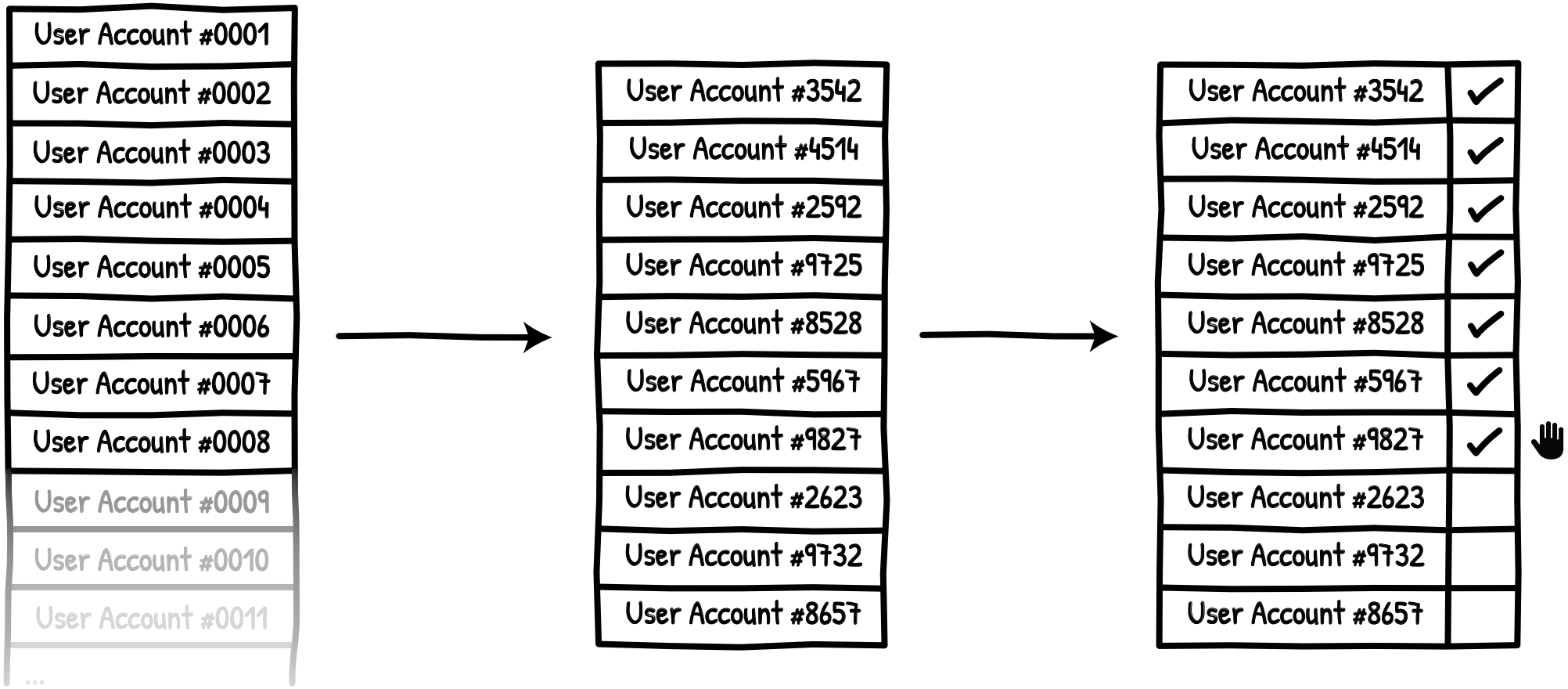
Discovery

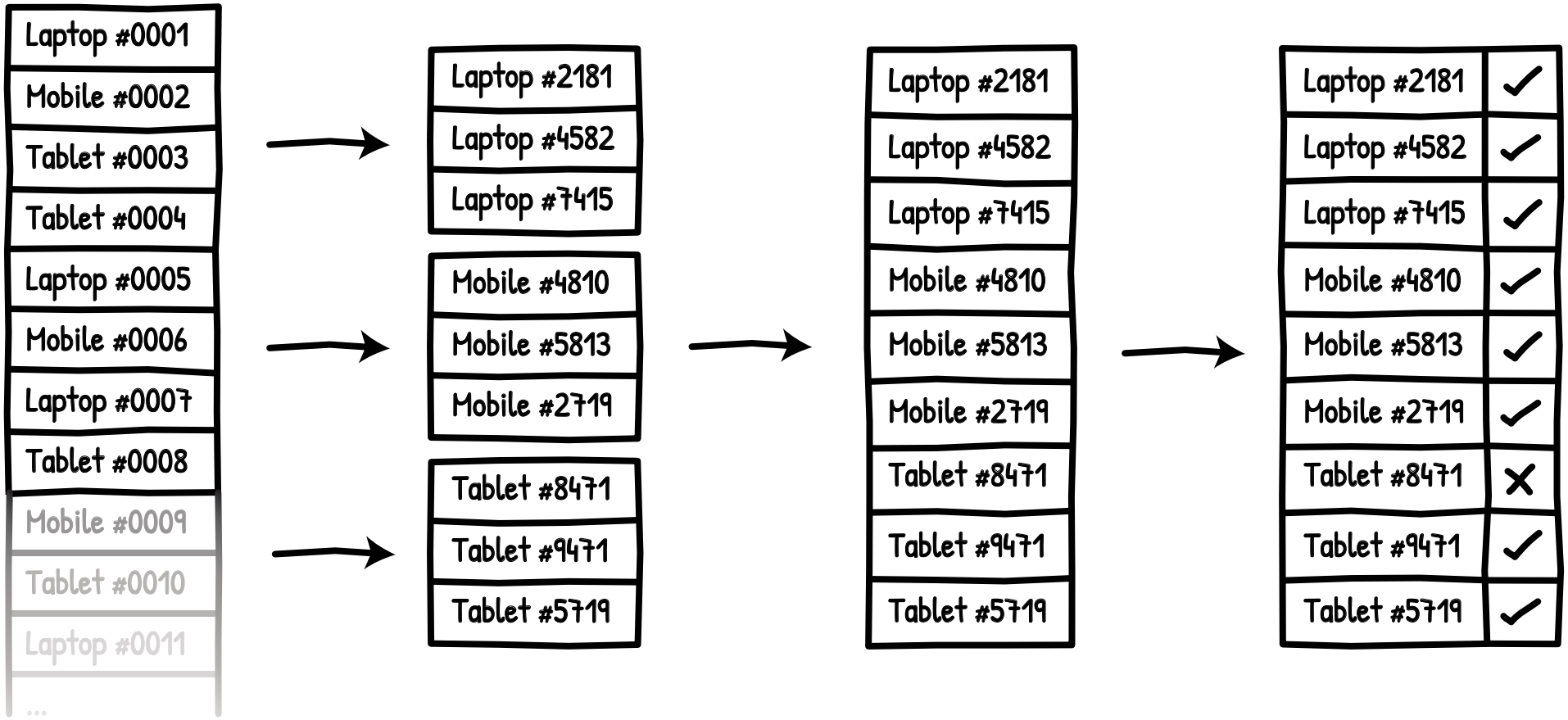
We took a sample of payroll records from the full population and checked whether any payments were made to fake employees. We found a payment to a fake employee, indicating fraud.



Stop-or-Go

We took a sample of user accounts from the full population and began checking that they followed the documented reset process. When the sample showed no problems, we stopped early.



Stratified

We grouped devices into laptops, mobiles, and tablets, sampled each group, and checked whether encryption was enabled. Based on the sample, we estimated that 90% of devices are encrypted.