

# Reuse and Recycle: Online Password Management

Shirley Gaw, Edward Felten  
Princeton University

## Introduction

In this survey, we are interested in quantifying password reuse and respondent's perceived threat from different attackers and types of attack. Participants were recruited with flyers placed around campus.

## Who would compromise your passwords?

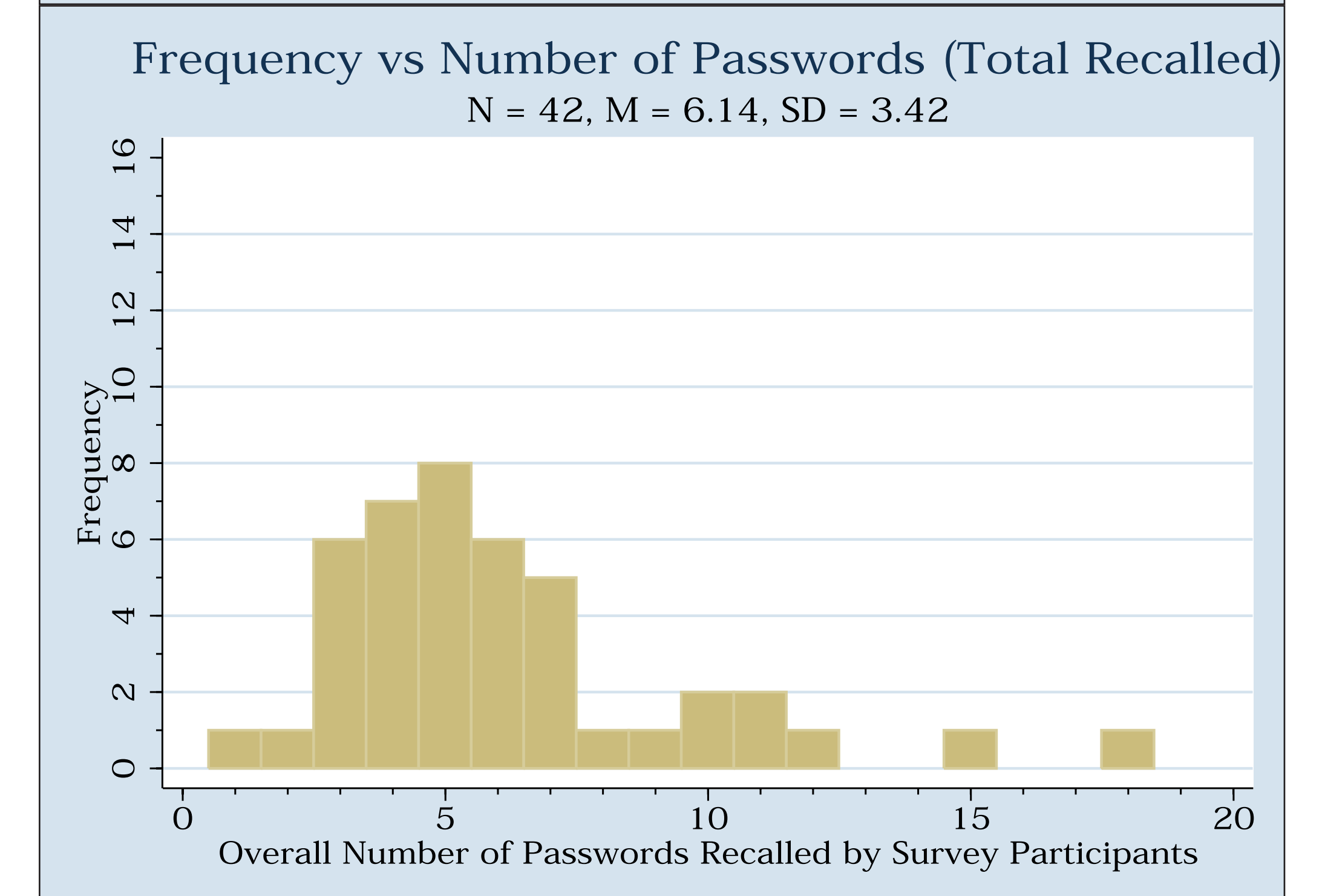
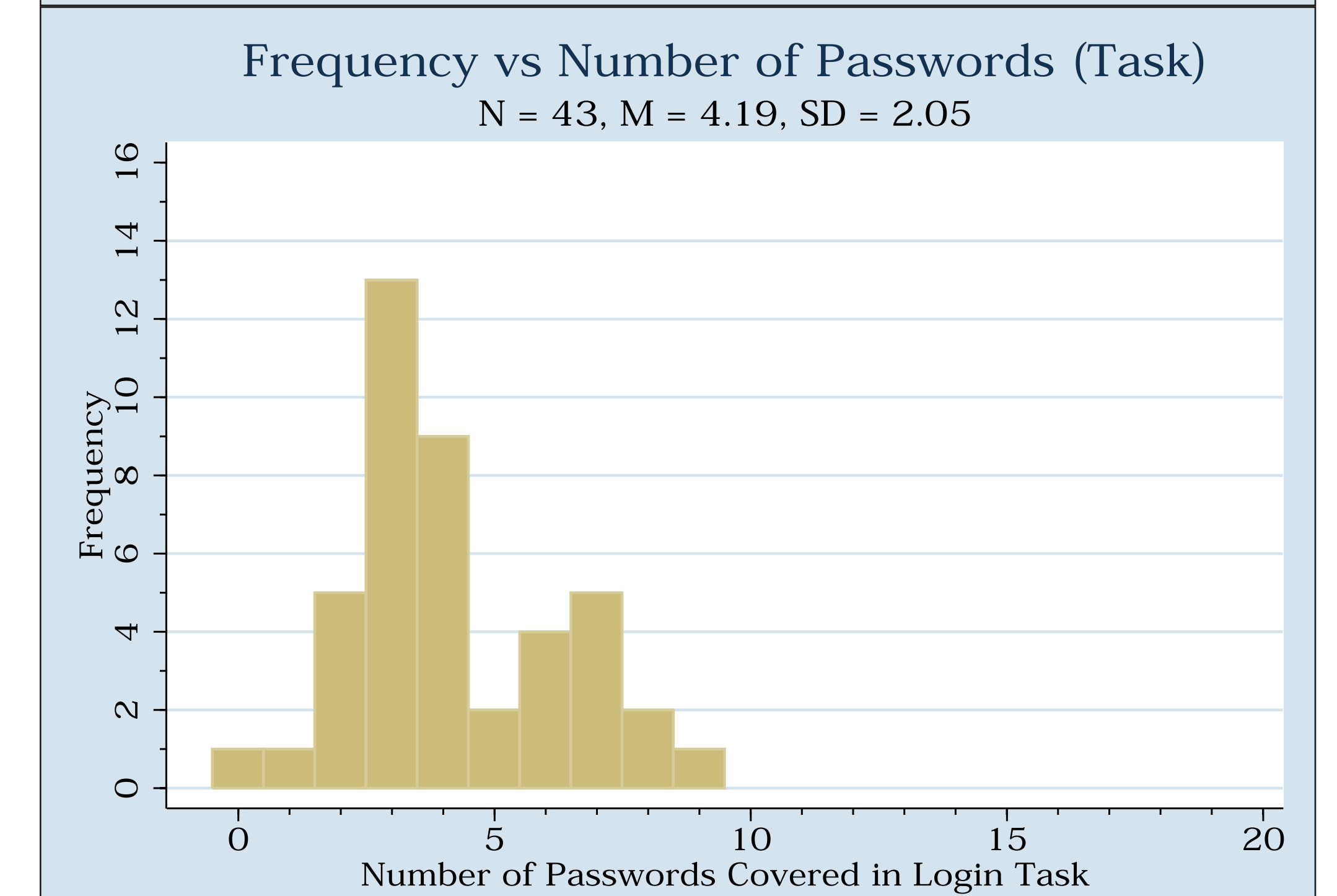
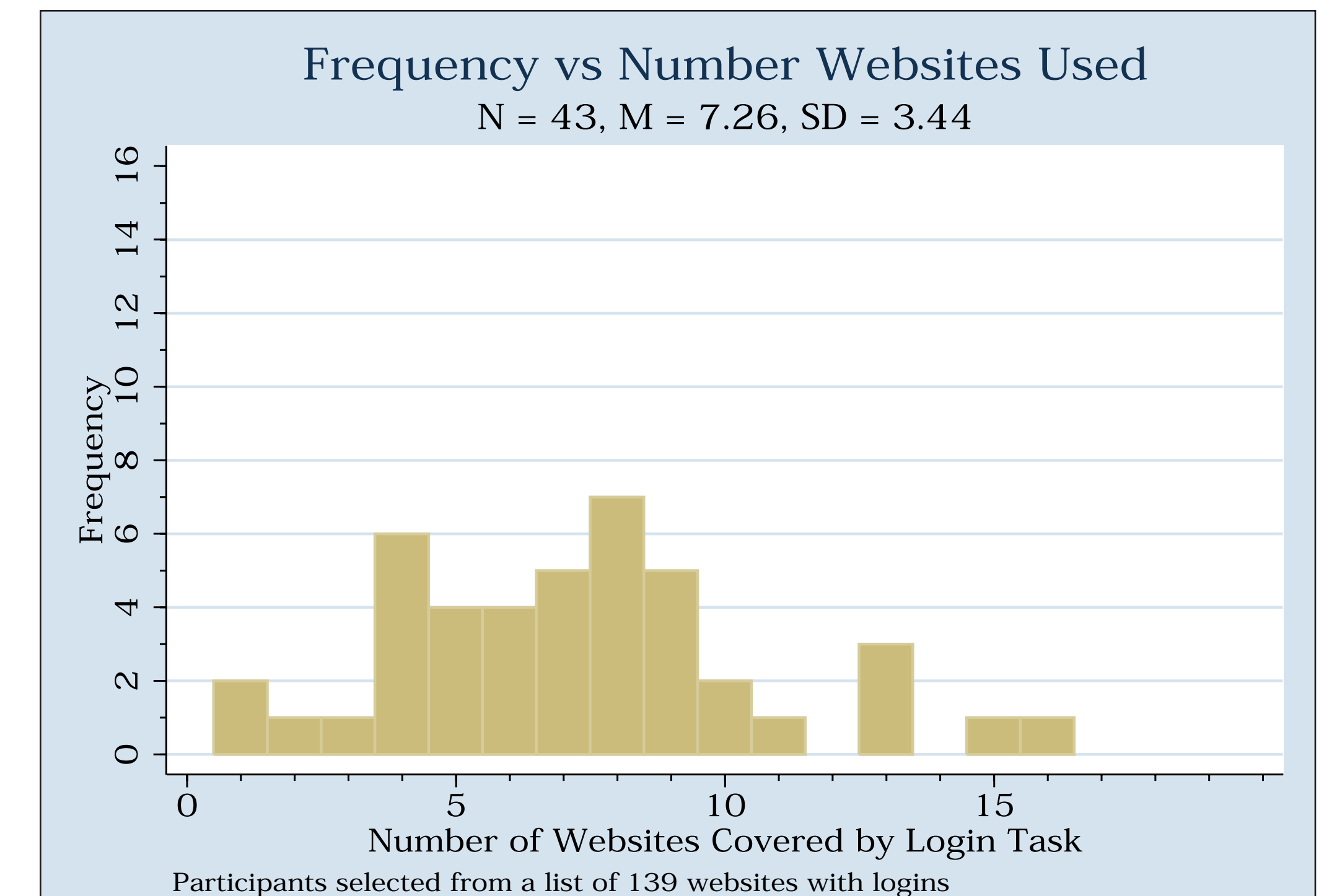
Participants were asked to rank six types of people by their likelihood of "to access information without permission from one of your web accounts". Respondents were asked to consider ability alone, motivation alone, and then both ability and motivation.

## How many passwords do you have?

Participants indicated which websites they used, logged into these websites, and then counted how many passwords they used during the login task. Participants were then instructed to recall all websites where they had accounts and all other passwords they used. They self-reported how many passwords they used in online accounts.

## Perceived Ability, Motivation, and Likelihood to Attack by Six Types of Suspects

|               | Ability |       | Motivation |       | Likelihood |       |
|---------------|---------|-------|------------|-------|------------|-------|
|               | Most    | Least | Most       | Least | Most       | Least |
| Friend/Family | 28      | 3     | 15         | 18    | 14         | 10    |
| Acquaintance  |         |       |            |       |            |       |
| Non Tech      | 0       | 18    | 1          | 13    | 1          | 0     |
| Tech Expert   | 14      | 1     | 2          | 1     | 14         | 21    |
| Stranger      |         |       |            |       |            |       |
| Insider       | 2       | 5     | 1          | 4     | 4          | 2     |
| Competitor    | 3       | 7     | 19         | 2     | 6          | 2     |
| Hacker        | 6       | 17    | 15         | 15    | 14         | 17    |
| N             | 53      | 51    | 53         | 53    | 53         | 52    |



## What makes a good password?