

Statistical Assistant interview questions

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What to expect

The interview for a statistical assistant typically blends technical checks with behavioural questions to assess your accuracy, software skills and ability to work with data under deadlines.

- **Technical:** Questions about data cleaning, coding and statistical software such as Excel, R, Python or SPSS.
- **Behavioural:** Questions that ask you to describe past experiences, often using the STAR method, to show attention to detail and problem solving.
- **Scenario:** Hypothetical situations, such as handling a messy dataset or a tight deadline, to see how you prioritise and communicate.
- **Process:** Questions about your step-by-step approach to tasks like validating data or coding survey responses.
- **Client-facing:** Questions about explaining findings to non-technical colleagues or stakeholders.

A typical process starts with a phone screen with a recruiter or hiring manager, followed by a technical exercise or test, then a panel interview with a statistician and a team leader. Some organisations combine all stages into one session with both behavioural and technical questions.

1. Walk me through how you would clean a messy dataset from a survey.

Why they ask

To assess your practical data cleaning skills and familiarity with tools like Excel or R.

How to structure your answer

Step-by-step walkthrough: describe your initial assessment, validation checks, handling missing values, coding inconsistencies, and how you document changes.

Example answer

"First, I would load the dataset and get a sense of its size and structure. I'd check for duplicate records, missing values, and out-of-range entries. In Excel, I might use filters and conditional formatting to spot anomalies; in R, I'd use functions like summary() and is.na(). For missing values, I'd decide whether to exclude or impute based on the survey design. For inconsistent coding, I'd create a coding frame and recode responses. I'd keep a log of every change so the process is reproducible. Finally, I'd run a few checks to confirm the cleaned data matches the expected counts."

2. Tell me about a time you identified a significant error in a dataset. What did you do?

Why they ask

To see how you handle data quality issues and communicate with others.

How to structure your answer

STAR: Situation, Task, Action, Result. Describe the context, what you found, how you fixed it, and the outcome.

Example answer

"In a previous role, I was compiling survey data for a health study. I noticed that a batch of responses had been coded with an incorrect category. I flagged it to my supervisor, then worked through the affected records to correct the codes. I also added a validation rule to catch similar errors in future. As a result, the final dataset was accurate, and the research team avoided rework."

3. You are asked to produce summary tables by the end of the day, but you discover the dataset has missing values and inconsistent formats. How do you proceed?

Why they ask

To test your judgement under deadline pressure and your ability to prioritise.

How to structure your answer

Judgement under pressure: assess the severity, communicate with the requester, decide on a short-term fix, and plan a proper solution.

Example answer

"I would first assess how many records are affected and whether the missing values are critical to the summary. If the missing data is minimal, I might note it in the table and proceed. If it's substantial, I'd speak to the requester to clarify priorities. I could produce a preliminary summary with the clean data and flag the issues for follow-up. I'd also start cleaning the remaining data and set up a validation check to prevent similar problems. The key is to be transparent about limitations and deliver something useful on time."

4. How do you ensure accuracy when coding open-ended survey responses?

Why they ask

To understand your method for classification and quality control.

How to structure your answer

Process explanation: describe your coding frame, how you handle ambiguous responses, and your checking routine.

Example answer

"I start by developing a coding frame based on the survey questions and a sample of responses. I code a batch, then review them for consistency. For ambiguous responses, I consult the codebook or ask a colleague. I also do a second pass on a random selection to check for errors. If I find a pattern of mistakes, I refine the coding frame and recode. I keep a record of coding decisions so the process is transparent."

5. How would you explain a complex statistical result to a non-technical stakeholder?

Why they ask

To see if you can communicate findings clearly.

How to structure your answer

Audience adaptation: focus on the main message, avoid jargon, use a visual or simple analogy, and check for understanding.

Example answer

"I would start with the headline: what the data shows and why it matters. I'd avoid technical terms and use a simple chart or example. For instance, if the data shows a change in response rates, I might say 'We heard from more people in this group than last time.' I'd then ask if they have questions and offer to provide more detail if needed. The goal is to make sure they can act on the information."

6. What is your experience with statistical software like R, Python or SPSS?

Why they ask

To gauge your tool proficiency.

How to structure your answer

Skills inventory: name the tools you use, describe a typical task you perform in each, and mention any training or projects.

Example answer

"I use R for data cleaning and basic analysis, like calculating summary statistics and creating plots. I've used Python with pandas for merging and reshaping datasets. I also have experience with SPSS for survey analysis, including cross-tabulations and chi-square tests. In my previous role, I used Excel daily for data entry and validation. I'm comfortable learning new software and often refer to documentation or online courses when I need to pick up a new function."