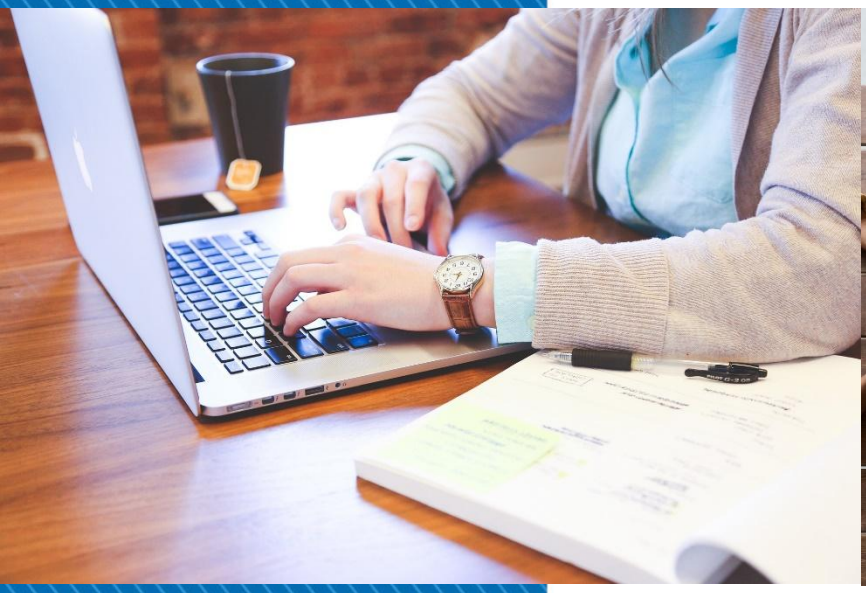
Getting the Full Picture: A Practical Guide to Sample Size and Response Rates for the Settlement Sector

PROSPECTS





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TABLE OF CONTENTS

HOW MANY OBSERVATIONS DO WE NEED? 1

REALISTIC CHALLENGES IN DATA COLLECTION 3

IMPLICATIONS OF A LOW RESPONSE RATE / HIGH ATTRITION 7

PRACTICAL STRATEGIES FOR SERVICE PROVIDERS TO INCREASE SURVEY RESPONSES 10

SUMMARY: DOS AND DON'TS FOR YOUR NEXT EVALUATION 12

APPENDIX A: THE TECHNICAL DETAILS OF RANDOM SAMPLING 13

HOW MANY OBSERVATIONS DO WE NEED?

One of the most common questions we hear from settlement organizations is: "*How many survey responses do we actually need?*" or "*Is our response rate high enough?*".

Before jumping to a specific number, the first step is to look at why you are collecting data. For example, are you trying to:

- Describe the demographics of the clients using your services?
- Track program participation and progress (e.g. attendance and program completion rates)?
- Gather feedback on how to improve a specific workshop?
- Measure outcomes, such as whether clients found employment or improved their language skills?
- Compare the experiences of different client groups within the same program?

In all of these everyday scenarios, your organization's goal is to capture the full picture of everyone who participated in a particular program or service during a specific time frame. In research terms, we call this entire group of clients your **population**.

Good to know: Population vs Sample
***Population**: The entire group of clients you want to learn about (e.g., everyone who took your language class this year).*
***Sample**: A subset of that total group (e.g., some of the clients who attended the last class and filled out the feedback form).*

Before starting any data collection, the very first step is to be clear about exactly who makes up your target population (for example, "all youth who attended the summer leadership camp in 2026").

Ideally, if you can gather information from every single client in that group, you get the complete picture. In a perfect world, reaching everyone is always the goal!

Here is how that usually plays out in practice:

- **When using existing records**: If you are looking at administrative data you already collect (like registration forms, iCARE data, or attendance sheets), simply use the records for all the target clients. You don't need to worry about "sample sizes" at all here, because you already have the data for your whole population.

- **When collecting new data is easy**: If asking for additional feedback doesn't take much staff time or client effort—such as handing out a quick feedback form at the end of a workshop—try to collect it from everyone.

- **When to actually use a sample**: So, when do you need to worry about taking a "sample"? You really only need to select a smaller sample when reaching everyone is simply unmanageable. This usually happens when your program has hundreds or thousands of clients, making it too costly or time-consuming for your staff to survey everyone (see the Appendix for more information about sampling).

But even when your goal is to gather information from every single client, real-world data collection rarely goes perfectly.

REALISTIC CHALLENGES IN DATA COLLECTION

Even when your goal is to include every single client, the reality of settlement work means that you will almost always have gaps. You will likely end up with fewer records than actual clients because:

- Intake details or administrative information were accidentally missed during busy periods.
- Clients simply do not reply to follow-up emails, surveys, or phone calls.
- You lose contact with clients because phone numbers change, contact info becomes outdated, or they relocate.

When you are missing information for these very normal reasons, researchers call it "non-response" or "attrition."

Good to Know: Two Ways You End Up with a Sample

Unintentional sampling: *You didn't plan to leave anyone out. You aimed to reach the whole population, but you ended up with a smaller group because of non-response or missing data. (In the settlement sector, this is the most common scenario!)*

Intentional sampling: *You made a strategic choice upfront to only collect data from a smaller, manageable subset of your clients. You might pick this group randomly, or based on specific criteria, to save time and resources.*

When faced with missing data, organizations naturally ask: "*So, what is the minimum response rate we need?*" or "*How many surveys are enough to show the full picture?*"

The frustratingly simple answer is: **As close to the whole population as possibl**e.

If you want to evaluate outcomes for the 100 clients you served in the past two months, you ideally want answers from all 100. If you served 1,000 clients over two years, you want answers from all 1,000.

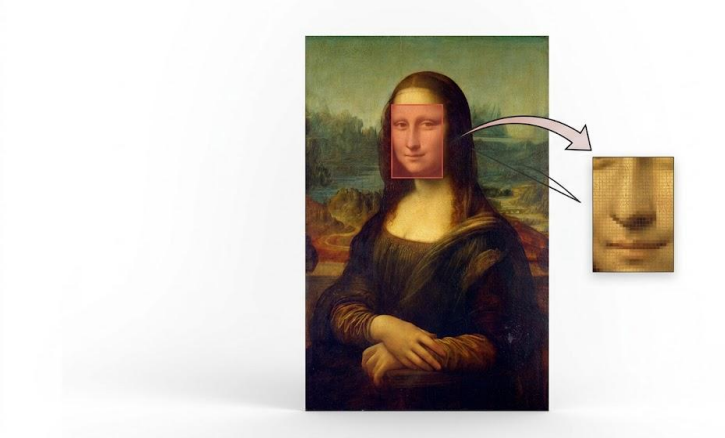
But as we know, reaching everyone is practically impossible. When people are left out, it usually happens in one of two ways, and they have very different impacts on your evaluation:

Non-Random Missing Data (The results are skewed)

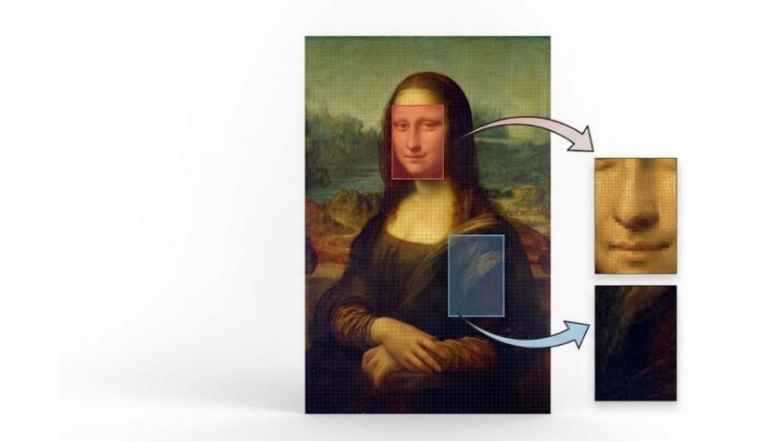
This happens when the reason a client didn't respond is directly related to their experience or characteristics. For example, maybe only the clients who are still looking for a job reply to your employment survey, while those who found employment successfully ignore it.

When this happens, your data no longer represents your whole population. And unfortunately, there is no statistical trick to fix it.

The Mona Lisa Analogy: Imagine we want to show someone a digital picture of the Mona Lisa, but the file gets corrupted during a transfer. If the data is missing non-randomly, it's like we only received the data for her nose and mouth.



Obviously, looking only at her nose and mouth doesn't give you a true picture of the painting. We just end up with an isolated piece, and math cannot magically draw the rest of the picture for us.

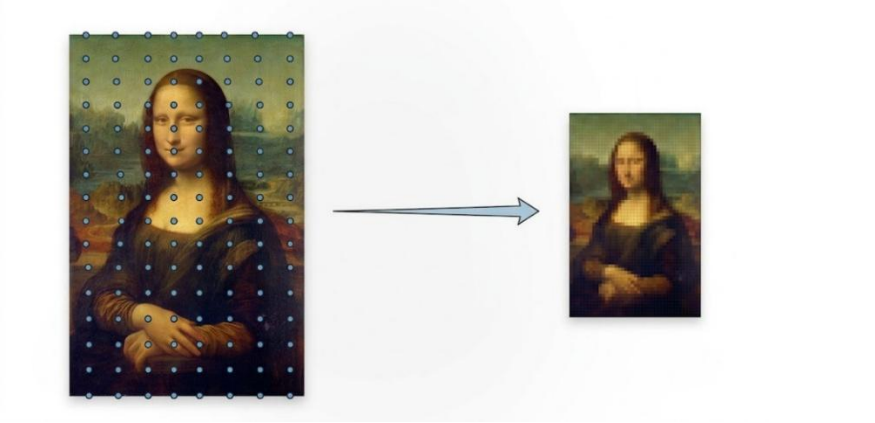


Random Missing Data (The results are representative)

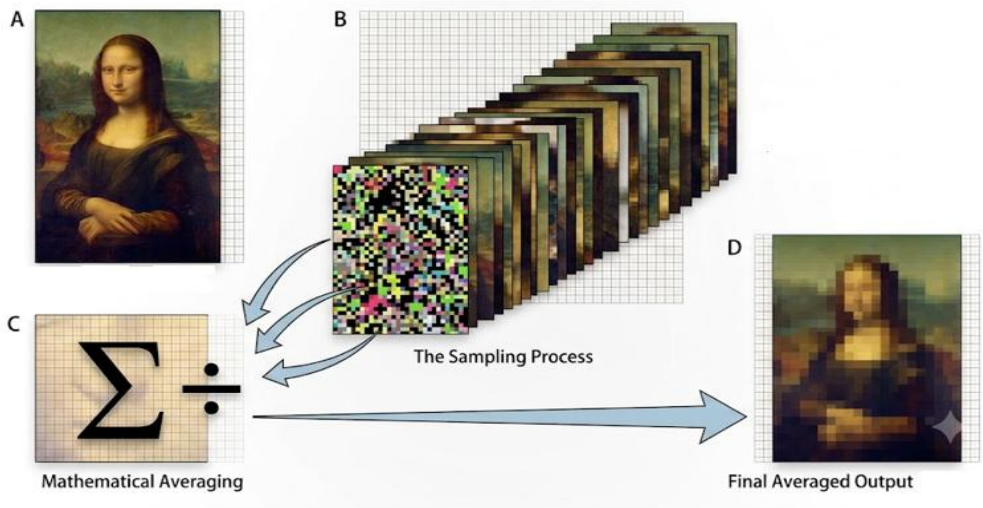
This happens when the reason clients didn't respond has nothing to do with their characteristics or program outcomes. Maybe they just missed the email, or they were too busy that day.

In this case, the clients who did respond are a pretty good mini-version of your total population.

***The Mona Lisa Analogy*:** If the data is missing *randomly*, it is like having random pixels deleted across the entire image. The picture might be a bit grainy or fuzzy, but you can still easily tell it is the Mona Lisa!



Because this "grainy picture" still represents the whole, we can use statistical rules (like the Central Limit Theorem) to confidently estimate the true results.



The Real-World Challenge

The catch in everyday settlement work is that we rarely know for sure why someone didn't respond. Because we can't observe the exact reason they didn’t respond, we can't always know if our missing data is random or non-random.

This is the exact reason why there is no universal "magic number" or "minimum response rate." A 30% response rate that is totally random can actually be much more accurate than an 80% response rate where all the missing people share a specific struggle.

IMPLICATIONS OF A LOW RESPONSE RATE / HIGH ATTRITION

Fortunately, if you are only missing a small percentage of your data, the risk of distorting the truth is low. Going back to our Mona Lisa example: if you are missing 10% of the pixels randomly across the picture, you can still easily tell it is a picture of the Mona Lisa.

But as the response rate drops, the picture gets harder to see. Missing half the picture (a 50% response rate) makes it tough to know what you are looking at, especially if the missing pieces aren't random. Put simply: a high response rate protects you from presenting a distorted picture.

Is there a minimum required response rate? There is no universally accepted "magic number," but, for context, here are a few common benchmarks:

- **Statistics Canada:** Often achieves a 60% or higher response rate on surveys (and they use complex math to adjust for the missing data).
- **Social Science Journals:** Generally expect at least a 50% response rate for mail or telephone surveys.
- **Government Policy Research:** The US Office of Management and Budget requires a special bias analysis if a survey falls below an 80% response rate.

The "Moderate" Zone (50% to 75% Response Rate)

If your response rate is in this middle ground, your data might be fine! But you need to play detective first to make sure your missing data isn't accidentally skewing the results.

Step 1: Look at *how* you collected the data. Are your collection methods systematically leaving certain voices out? The following examples show that the data collection process consistently misses a particular group and skews the results.

i. **The overwhelmed worker:** A caseworker is stretched too thin and falls behind on entering data for clients who need the most intensive support. *The risk:* Your collected data may not present the most accurate program outcomes because the most vulnerable clients are missing from the records.

ii. **The daytime phone survey:** You call clients on weekday afternoons to ask if they found a job. *The risk:* Many employed clients are at work and can't answer the phone. Your results will accidentally over-count the unemployed clients.

iii. **The exhausted workshop group:** You notice a low survey response rate, so you make clients fill it out during the last 15 minutes of a tiring 4-hour workshop. You get a 100% response rate, but clients just select "N/A" or check the first box to get it over with. *The risk:* You have lots of data, but it doesn't reflect their true experiences.

Step 2: Compare who answered vs. who didn't. Look at the characteristics of your respondents. Does this group look like your overall population? The following are some examples where a non-response analysis shows the potential issue:

i. **Language barriers:** You send a survey in English only. Clients with CLB 3 or lower don't respond. *The risk:* You completely miss the perspectives of newcomers with lower English fluency.

ii. **The spam call:** You do a phone survey but mask your caller ID. Younger clients assume it's spam and ignore it. *The risk:* Your youth demographic is totally missing.

iii. **Fear of complaining:** You have a 20% response rate on a satisfaction survey, but 100% of those respondents say they are "very satisfied." *The risk:* Unhappy clients might have ignored the survey because they were afraid staff would recognize their answers and treat them differently.

A 50% to 75% response rate is acceptable *if* you've done this detective work, found no obvious distortions, and feel confident the respondents look like your overall client group. However, you should still add a brief note of caution when sharing the results.

The "Low" Zone (Below 50% Response Rate)

If your response rate falls below 50%, treat your findings with substantial caution. At this level, the data may not reliably represent your target population. Before drawing any strong conclusions or making major program decisions, your top priority should be finding ways to increase responses and improve the reliability of your findings.

If you find yourself in this zone:

1. **Pause and problem-solve**: Look closely at who is not responding and investigate why. Where possible, make every effort to reach them using different methods (we will cover specific mitigation strategies in Section 4) to ensure your data truly reflects the people you serve.

2. **Adjust your language**: If the response rate stays low despite your best efforts, be completely transparent when sharing the results. Do not claim the data represents your program client population. Instead, say something like, "Among the 30% of clients who *responded*..."

3. **Pivot to stories**: Remember that even if the numbers aren't statistically representative, the open-ended comments and feedback you received are still incredibly valuable qualitative evidence for understanding client experiences and improving your services.

PRACTICAL STRATEGIES FOR SERVICE PROVIDERS TO INCREASE SURVEY RESPONSES

Good to know: Understanding Why People Complete Surveys

People are more likely to complete surveys when they (Dillman Tailored Design Method):

- *See value in participating*
- *Trust the organization asking*
- *Find the survey easy to complete*

Here are practical strategies you can use to boost your response rates, designed specifically for the realities of settlement work.

1. Build Trust and Reduce Concerns

    a. Leverage existing relationships: Clients are much more likely to respond when the request comes from a familiar face—like their settlement worker, language instructor, or case manager—rather than a generic admin email.

    b. Set clear expectations early: Use plain language right from the start (Informed Consent) to explain *why* you collect data, how you will reach out, and how their privacy is protected. If you offer a survey completion honorarium, mention it upfront!

    c. No surprises: Tell participants about future surveys at the beginning of the program and gently remind them as the program wraps up.

2. Make Surveys Easy to Complete

    a. Keep it short: Only ask what you truly need to know.

    b. Use plain language: Avoid sector jargon, acronyms, or complex phrasing.

    c. Remember that translation isn't a magic fix: A perfectly translated survey still needs to make cultural sense. Make sure the *concepts* translate, not just the words.

    d. Bridge the digital gap: If your survey is online, offer alternatives or hands-on help for clients who face reading or digital literacy barriers.

3. Make Participation Convenient

a. Think mobile-first: Most newcomers will open your survey on a smartphone. If it is hard to read on a small screen, they will likely abandon it.

b. Use natural touchpoints: Collect data when clients are already engaging with you—like during a final workshop, a graduation event, or a routine check-in—instead of giving them an extra "homework" task later.

4. Stay Connected

a. Keep contact info fresh: Make it a habit to regularly update phone numbers, emails, and their preferred contact method.

b. Send gentle reminders: People are busy settling into a new country; a polite follow-up often makes the difference.

c. Explain why it matters: Tell clients exactly how their feedback helps. Saying "Your answers help us secure funding to keep this program free" or "We use your feedback to choose better workshop times" shows them their voice has real impact.

5. Keep Cultural Context in Mind

a. Survey familiarity: In some countries, being asked to rate a government-funded service is uncommon. Clients might need reassurance that honest feedback is normal here.

b. Respect for authority: Some newcomers may feel they have to give 100% positive answers to avoid offending staff or risking their services. Constantly reassure them that constructive criticism is safe and welcomed.

c. Reciprocity: Recognize that answering surveys takes time and emotional energy. Whether through a small gift card or simply showing how their voice improves the community, ensure the exchange feels fair.

For a deeper dive into these tips, check out our full resource here: Practical Strategies to Increase Survey Participation in the Settlement Sector

SUMMARY: DOS AND DON'TS FOR YOUR NEXT EVALUATION

Dos

- **Define exactly who you are including in your evaluation (your "population").** Before you start, write down the specifics: Which program? Which clients? During what timeframe? At which location?
- **Aim to include everyone when feasible**. If your program size is manageable, trying to get feedback from every single participant is always your best starting point.
- **Use random sampling if your program is too large**. If you have hundreds or thousands of clients and surveying everyone is too costly or time-consuming, pick names randomly from your full list. *Tip: Remember to invite more people than your target number, because you know in advance that some will not respond.*
- **Always push for a high response rate**. No matter your method, prioritize the trust-building and accessibility strategies we covered to make participating as easy as possible for newcomers.

Don'ts

- **Don't rely on "convenience sampling."** It is tempting to only survey the clients who are currently in the office, the easiest to reach, or the most eager to help. But this leaves out quieter or harder-to-reach clients, giving you a distorted picture.
- **Don't assume "more responses" fixes a biased group.** If your survey method accidentally excludes people with lower language levels, getting a higher number of responses from the fluent clients won't fix the missing perspectives. A small, representative group is always better than a massive, biased one.
- **Don't worry about complex statistical tests.** Unless you used strict, randomized scientific sampling, you do not need to do formal statistical hypothesis testing (like calculating p-values) for population data. Keep your focus on practical, clear, and honest reporting instead.

APPENDIX A: THE TECHNICAL DETAILS OF RANDOM SAMPLING

This section is for those who need to look under the hood. If your evaluation requires random sampling—either because your program is too large to survey everyone, or because you need to statistically compare groups—here is how to approach the math.

When is Sampling Actually Needed?

You generally only need to worry about sampling in two scenarios:

1. **Resource constraints:** When surveying everyone is too costly or time-consuming, a random sample saves staff time while still giving you reliable insights.

2. **Comparing groups:** When you need to prove if a program actually made a difference (e.g., comparing outcomes of clients who took a specific workshop vs. those who didn't).

The Practical Decision Framework

- **Step 1:** Can you easily collect data from everyone? *If **yes**, do that. **Stop** here.*

- **Step 2:** Is collecting data from everyone too costly or burdensome? *If **yes**, use a random sample.*

Precision vs. Accuracy (The Tape Measure Analogy)

Even though a sample is just a slice of your population, we judge its quality using two different concepts: Precision and Accuracy.

Think of your data collection tool as a tape measure:

- **Accuracy (Are you biased?):** Imagine a tape measure that was manufactured incorrectly, so it always measures things a bit too short. It doesn't matter how many times you use it; your results will always be wrong. This is **bias** (inaccuracy). In evaluation, if your survey methods consistently leave out clients with low digital literacy, your results are inaccurate. *A larger sample size does not fix this.*

- **Precision (Are you exact?):** Now imagine a perfectly accurate tape measure, but it only has marks for every 10 centimeters, with no millimeter lines. If you measure something, you know it is between 120cm and 130cm, but you can't be more exact than that. This is your **margin of error**.

Because missing data (non-response) is rarely random, a low response rate is an *accuracy* problem. A larger sample size only improves *precision*. It cannot fix the inaccuracy caused by missing a specific demographic of your clients.

Is there a "Standard" Margin of Error?

There is no single universal standard for an acceptable margin of error, but here is how different fields generally operate:

Research Type	Commonly Accepted Margin of Error / Rates
Political Opinion Polls	Up to ± 3 percentage points
Marketing Research	Up to ± 5 percentage points
Exploratory Research	Up to ± 10 percentage points
Scientific Hypothesis Testing	5% False Positive rate, 20% False Negative rate

Note: In reality, you must balance the cost of collecting more data against the risk of making a wrong conclusion.

How to Calculate Minimum Sample Sizes

Scenario: The Acceptable Margin of Error is Established

1. For a Percentage (e.g., Employment Rate)

If you want to know a simple percentage—like "what percentage of clients are employed at 6 months?"—you calculate the sample size (n) based on the margin of error (d) you can tolerate.

$$n > \left(\frac{98}{d}\right)^2$$

- *Example:* If you want a margin of error of ± 5 percentage points: $n > (98/5)^2 = 384.16$. You need a random sample of **385 clients**.
- *Example:* For a tighter margin of ± 3 percentage points: $n > (98/3)^2 = 1067.11$. You need **1,068 clients** (this is why national polls usually survey around 1,000 people).

2. For an Average (e.g., Age)

If you are calculating an average (a continuous number), you need to factor in how widely the numbers vary, known as the Standard Deviation (σ).

$$n > \left(\frac{1.96\sigma}{d}\right)^2$$

- *Example*: You are estimating the average age of clients. You guess the standard deviation is 20 years. You want to be accurate within ± 2.5 years. n > (1.96x 20 / 2.5)² = 245.8. You need 246 clients.

  (Tip: It is okay to guess the standard deviation based on past data; always guess a little higher just to be safe).

Scenario: For Comparing Two Groups (Detecting a Difference)

If you want to prove an employment service worked by comparing participants to non-participants, you need a sample large enough to detect the expected difference (Δ). We assume a standard 5% false positive rate and a 20% false negative rate.

1. For a Percentage (e.g., Employment Rate)

If the two groups are the same size ($n_1 = n_2 = n_g$), calculate the size for *each group* (n_g):

$$n_g > 2\left(\frac{140}{\Delta}\right)^2$$

- *Example:* You expect your program increases employment by 10 percentage points (Δ = 10). $n_g > 2(140/10)^2 = 392$.
- You need 392 clients in the program group AND 392 similar clients in the non-program (comparison) group (Total: 784). This ensures you have enough statistical power (4 out of 5 times) to prove the difference in employment rate is statistically significant.

If your groups are uneven (e.g., 40% program users, 60% non-users), the total sample size (n) uses the proportion (r):

$$n > \frac{1}{r(1-r)}\left(\frac{140}{\Delta}\right)^2$$

- Example: $n>(1/(0.4)(0.6))(140/10)^2 = 816.7$. You would need a total sample of 817 clients (327 program users and 490 non-users), which is slightly larger than if you had split the groups perfectly in half.

2. For an Average (e.g., Income)

If the two groups are the same size ($n_1 = n_2 = n_g$), calculate the size for *each group* (n_g) for a continuous variable:

$$n_g > 2\left(\frac{2.8\sigma}{\Delta}\right)^2$$

- *Example:* You expect your program increases annual income by $6,000 ($\Delta$ = 6,000). The standard deviation of annual income is σ=25,000. n_g > 2(2.8x25,000/6,000)² = 272.2.
- You need 273 clients in the program group AND 273 similar clients in the non-program (comparison) group (Total: 546). This ensures you have enough statistical power (4 out of 5 times) to prove the difference in income is statistically significant.

If your groups are uneven (e.g., 40% program users, 60% non-users), the total sample size (n) uses the proportion (r):

$$n > \frac{1}{r(1-r)}\left(\frac{2.8\sigma}{\Delta}\right)^2$$

- Example: $n>(1/(0.4)(0.6))(2.8x25,000/6,000)^2 = 567.1$. You would need a total sample of 568 clients (227 program users and 341 non-users), which is slightly larger than if you had split the groups perfectly in half.

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