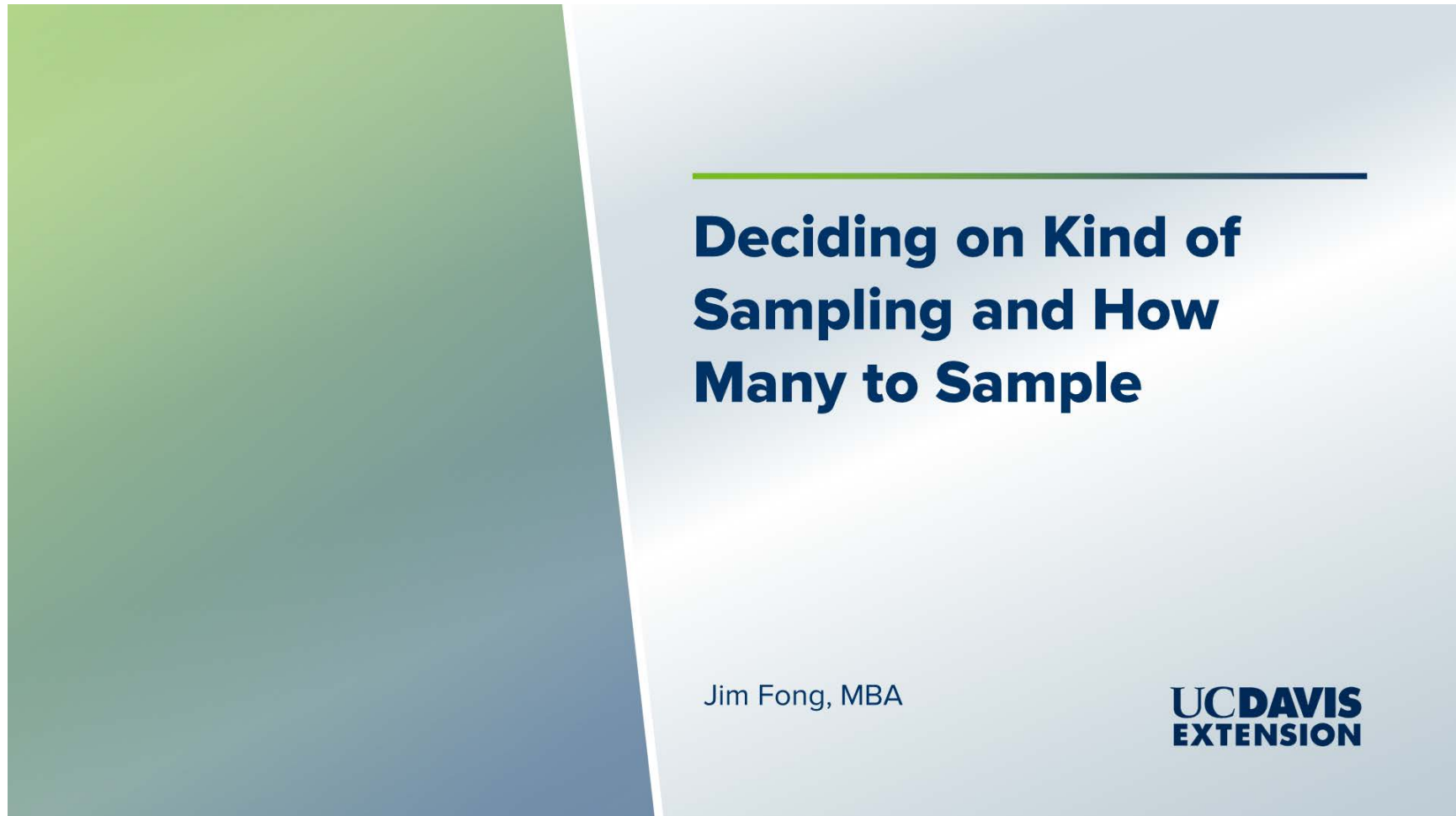


Lesson 3.4: Deciding on Kind of Sampling and How Many to Sample

Slide 1: Deciding on Kind of Sampling and How Many to Sample

The slide features a light blue background with a green-to-blue gradient on the left side. A horizontal line, colored green on the left and blue on the right, is positioned above the title. The title is in a large, bold, dark blue font. Below the title, the presenter's name is displayed in a smaller, dark blue font. In the bottom right corner, the UC Davis Extension logo is shown in dark blue.

# **Deciding on Kind of Sampling and How Many to Sample**

Jim Fong, MBA

**UC DAVIS  
EXTENSION**

Slide 2: Learning Objectives

## Learning Objectives

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Decide how many people  
you need to sample for your  
research project

Determine which kind of  
sampling you will use

Slide 3: Determining Needed Sample Size

# Determining Needed Sample Size



Depends on need for credibility

Depends on level of risk

First focus on purpose

Slide 4: Ever Hear “Sample 400 for an Internet Survey”?



## **Ever Hear “Sample 400 for an Internet Survey”?**

Aim for error margin of + or – 5% at 96% confidence

Takes 387 people surveyed, rounds up to 400

Industry standard to be scientifically credible

Slide 5: Non-Scientific Reasons to Adjust Sample Size

## Non-Scientific Reasons to Adjust Sample Size

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Client can accept higher levels of error

Increase public **perception** of credibility

400 not “cool”

1000+ sounds credible on media



Slide 6: Aim for 5% of Margin of Error

# Aim for 5% Margin of Error

Use Margin of Error or  
Sample Size Calculators



American Research Group, Inc.

## Margin of Error Calculator

Enter a population size and a sample size to calculate the theoretical margin of error, plus or minus in percentage points, 95% of the time, on questions where opinion is evenly split.

Population size	<input type="text"/>	<input type="button" value="Calculate Error"/> <input type="button" value="Reset"/>
Sample size	<input type="text"/>	
Margin of error	<input type="text"/>	

Other calculators:

[Sample Size Calculator](#), [Ballot Lead Calculator](#)

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## Slide 7: Adjusting for Smaller Sample Size

# Adjusting for Smaller Sample Size

**SAMPLE-SIZE CALCULATOR**

Qualtrics offers a sample-size calculator that can help you determine your ideal sample size in seconds. Just put in the confidence level, population size and margin of error, and the perfect sample size is calculated for you.

**Confidence Level:****Population Size:****Margin of Error:****Ideal Sample Size:**

Sample customer base

Use Sample-Size  
Calculator

*Sample-Size Calculator courtesy of Qualtrics*

Slide 8: Consider Various Sampling Methods

## Consider Various Sampling Methods

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Random sample is  
most common

Used to exclude bias or  
systematic errors

Best for results that  
represent population, rigid





Slide 9: Convenience Sample

# Convenience Sample



Sample the first people you find

Major advantage is time

Use only in low-risk situations

Slide 10: Quota Sample

# Quota Sample

Set a quota

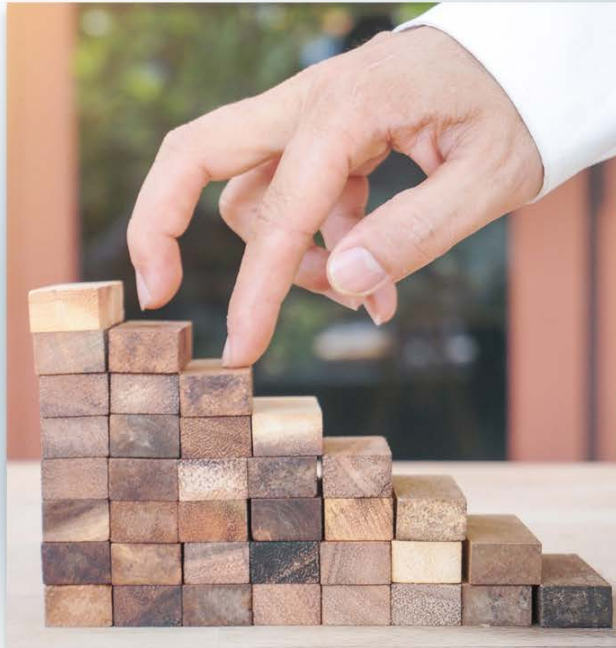
Sample until you fill  
that quota



Slide 11: Snowball Sample

# Snowball Sample

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Start with existing sample

Use when it's hard to find  
qualified participants

Used for in-depth or executive  
research (seeking key informants  
or key opinion leaders)

Slide 12: Sample Method Depends on Constraints and Goals

## Sample Method Depends on Constraints and Goals

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Many other ways to sample

Consider constraints  
and goals

Use what makes most  
sense for your situation





Slide 13: More on Quota Sampling

## More on Quota Sampling

Which do you prefer, talking pandas or rabbits?

Quota: first 50 people under age 25

Very different from a Random Sample



Slide 14: Compare and Contrast Sample Methods

## Compare and Contrast Sampling Methods



Quota Sample similar to  
Convenience Sample

Snowball Sample for  
different situation

Slide 15: Snowball Sample Example

## Snowball Sample Example

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Find people with osteoporosis

Osteoporosis support group  
gathers that target

Ask that targeted group for  
referrals and contacts of others  
with osteoporosis



Slide 16: Snowball Sampling Used with Business Leaders

## **Snowball Sampling Used with Business Leaders**

Business leaders know others in their field

Ask them to recommend peers

Purposely biased to get data from targeted niche