



UNIVERSITY OF
MICHIGAN

Introduction to Inference Methods: Oh the Things you will see!

Brenda Gunderson



What's Ahead?

Learning how to use data to ...

- **estimate** parameters with *confidence*
- **test theories** about parameters

**Statistical
Inference**

Research Question:
What proportion
of all parents with toddlers
report they use a car seat
for all travel
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Estimate a Population Proportion
with Confidence

Research Question:
What is the average
cartwheel distance
for all adults?



Research Question:
What is the average
cartwheel distance
for all adults?

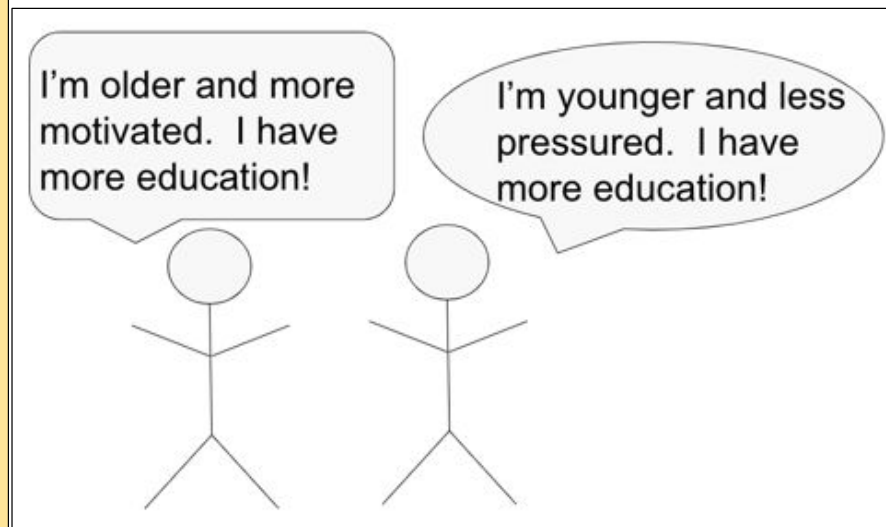


Research Question:
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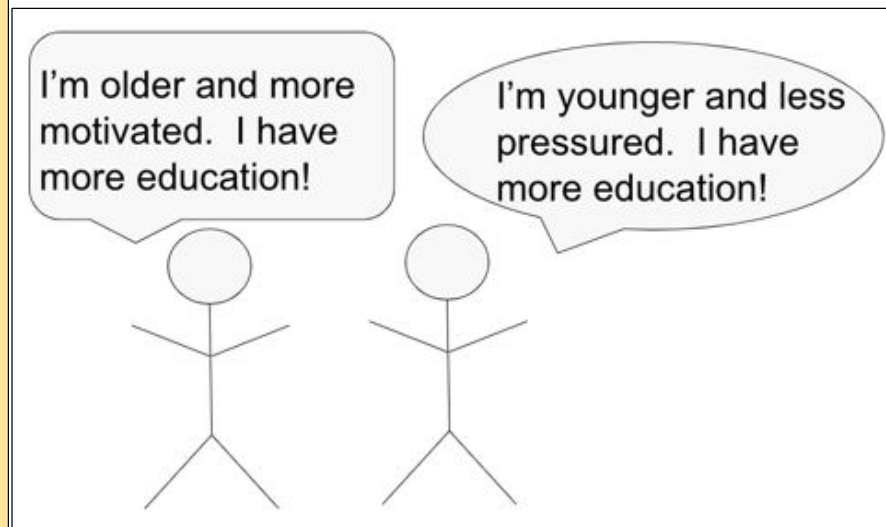


**Estimate a Population Mean
with Confidence**

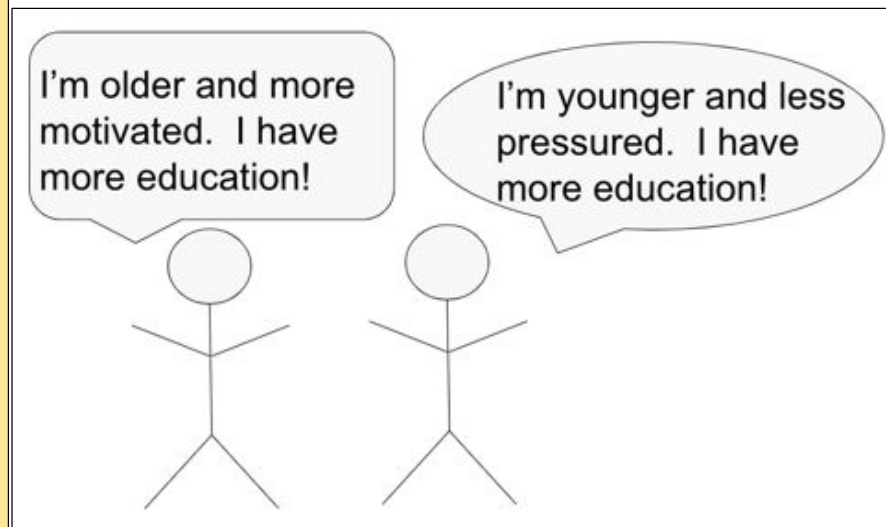
Research Question:
What is the
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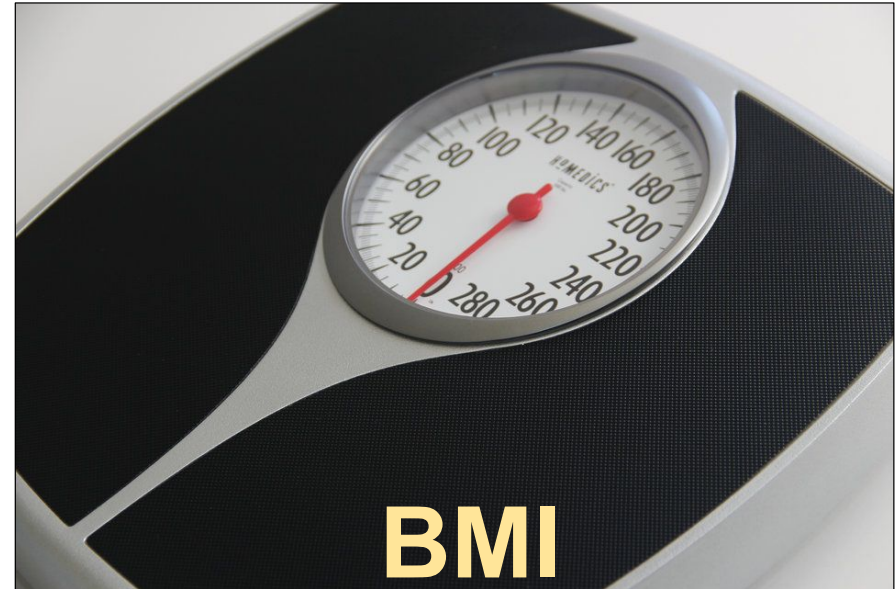


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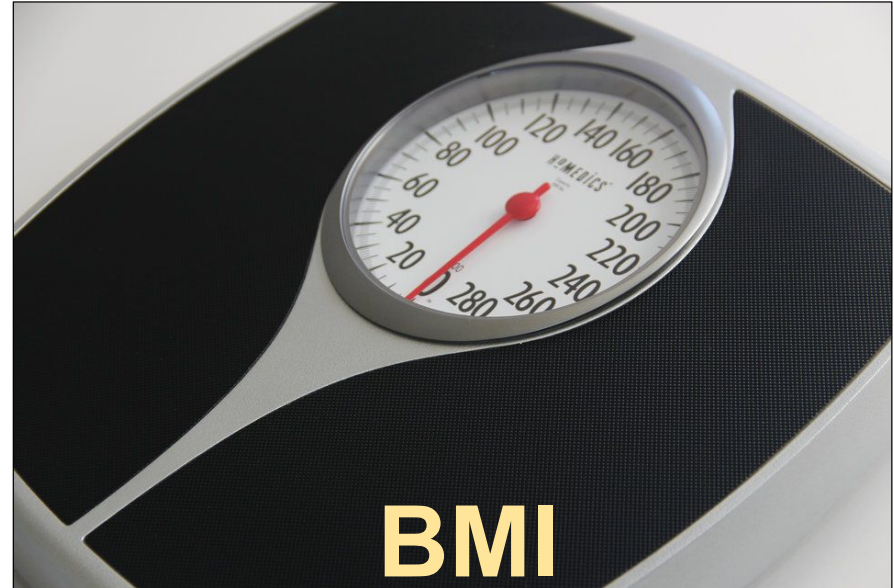


Estimate a Population Mean Difference
with Confidence

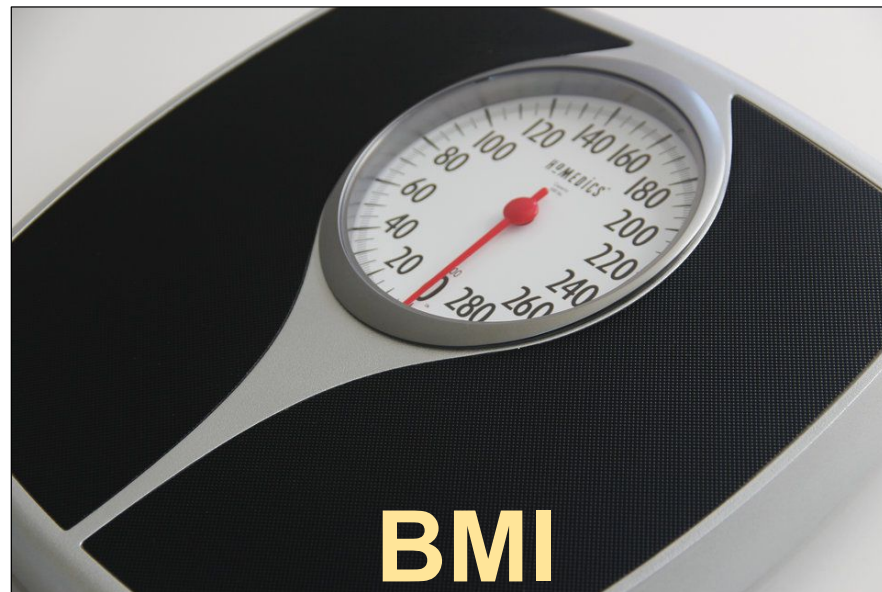
Research Question:
Considering Mexican-American
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do males have a significantly
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Test a Theory
about Two Population Means

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Do more parents today believe that their teenager's lack of sleep is caused due to electronics and social media?



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**Test a Theory
about a Population Proportion**

Get Excited for What is Ahead!

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