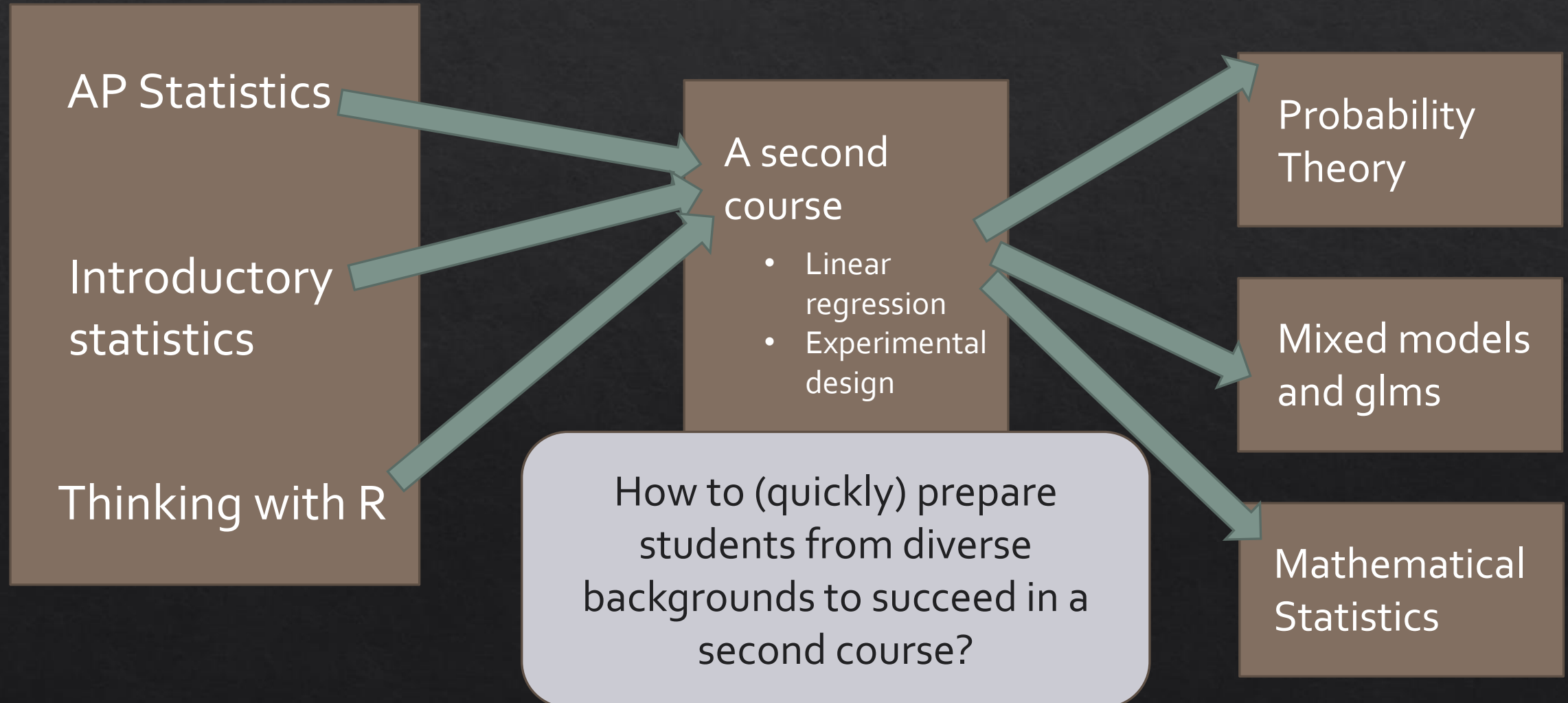


# Progressing through stations to begin a second course in statistics with students from diverse statistical backgrounds

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# "A second course in statistics"



# A week of stations

Pre-requisite self-assessment and many optional review videos

Station 1



Station 2

import

US States

Explore

Station 3

US States

Ask research question

Answer in context

# Station 2: Import and explore

State-level data  
mostly from census

State-level  
Presidential Election  
Totals 1976 -- 2020

State-level voter  
turnout data from  
2018, 2020

Current Covid-19  
data

An interesting dataset  
to explore

- .Rmd with scaffolding to import, explore, visualize data.
- Flexibility to choose and explore variables.
- Effective review of into stat

# Station 3:

## Ask and answer research questions

Complete example of:

- asking a research question
- presenting and discussing exploratory data analysis
- inference
- interpretation of results in context.



Students ask and answer their own research questions using the US States dataset.

Do a higher proportion of people eat enough vegetables in states that Trump won?

On average, is the statewide percentage of heavy drinkers larger than 5%

Is average household income different for states that Trump won?

# Results

- Excellent preparation for later projects.
- Students submit their work as a first homework assignment
- Students enjoy making discoveries about the US
- Interesting discussions about sample vs population