

SPRING 2022

PA 606

*seminar in*

# QUANTITATIVE TECHNIQUES

*Professor: Burrel Vann Jr*

*Room: GC-2519*

*Zoom Room: <https://SDSU.zoom.us/j/84829764884>*

*Day & Time: Mondays: 4:00pm - 6:40pm*

*Schedule #: 22858*

# DESCRIPTION

Statistics is a “language” that can be used to describe social phenomena. When we talk about how things vary or relate to one another, we are talking about the relationship between two or more aspects of society. In quantitative (statistical) work, these aspects are known as variables. This course will provide students with the skills necessary for understanding, interpreting, and drawing conclusions from statistical analysis of data.

This class begins with a review of univariate statistics, including levels of measurement, central tendency, variability/dispersion, normal curve, z-scores, and confidence intervals. Next, we turn to bivariate techniques, including tests of independence (chi square) and odds ratios, comparing means for two groups (t-test); comparing means for more than two groups (ANOVA), comparing means for more than two groups across time (RMANOVA), and correlation. Finally, we turn to multivariate techniques, including regressions for interval-ratio outcomes (Ordinary Least Squares) and regressions for categorical outcomes (logistic regression). This class may also cover count regression models (Poisson and Negative Binomial).

# OBJECTIVES

- To apply statistics to quantitative data to answer social science questions
- To gain statistical analysis skills using R/RStudio
- To develop programming skills that are transferrable to other statistical software platforms (including STATA, Python, and SAS)
- To be able to interpret statistical results and clearly communicate conclusions

# CONTACT

Professor: Burrel Vann Jr

Email: [bvannjr@sdsu.edu](mailto:bvannjr@sdsu.edu)

Office: <https://sdsu.zoom.us/j/84007290267>

Office Hours: By appointment only, on Wednesdays: 1:00pm-3:00pm

## EMAIL POLICY:

*When emailing about the course, please provide the course number and time. I check email twice per day, Monday through Friday, between 9:00am and 5:00pm. Please allow 72 hours for a response.*

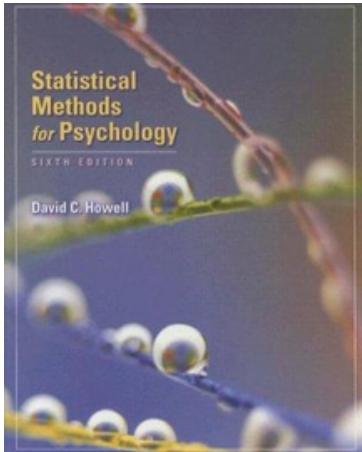
## Requesting Help:

*If you miss a class meeting, you should: First, look on the course website for material you missed. Second, if you need help understanding material, you should contact your classmates via Canvas (direct email or discussion board). Third, if you still find it difficult to understand the material, email me to schedule an appointment chat with me during Zoom office hours. For office hours, I require 3-days notice to schedule a meeting.*

## Requesting Non-Office-Hours Zoom Meetings:

*If you still need help but cannot attend office hours, you may email me to request a meeting. For Non-Office-Hours Zoom meetings, I require a minimum of one-week notice.*

# MATERIALS



## BOOK

### REQUIRED

David C. Howell. 2005.  
**Statistical Methods for Psychology.** Sixth Edition.  
 Boston, MA: Thomson-Wadsworth Publishing..

### TECHNOLOGY ACCESS:

To be successful in this class, students will be required to have access to a computer with an internet connection, Google Drive, R/RStudio, in addition to a calculator.

- **Computer/Laptop:**
  - Students need to become familiar using statistical software on their own laptops.
- **Calculator:**
  - Students will perform *some* statistical analyses by hand, and it is *recommended* that students use a calculator. This does not need to be a graphing calculator.
- **Google Drive:**
  - Students will submit their assignments via Google Docs.
  -
- **R/RStudio:**
  - Given the growing use of open-source programs, and the increasing demand for programming skills, students will conduct statistical analyses in RStudio.

**Tea Party Organizations,  
and Battles over Distributive  
Justice**

Association  
DOI: 10.1177/0001224413534065  
<http://as.sagepub.com>  


Rory McVeigh,<sup>a</sup> Kraig Beyerlein,<sup>a</sup>  
Burrel Vann Jr.,<sup>b</sup> and Priyamvada Trivedi<sup>c</sup>

**Abstract**  
 Competing visions of who is deserving of rewards and privileges, and different understandings of the fairness of reward allocation processes, are at the heart of political conflict. Indeed, social movements are often defined by the way they perceive the fairness of rewards. Political movements is a shared belief that existing conditions are unfair and subject to change (Gamson 1992; McAdams 1982; Snow et al. 1986; Turner and Killian 1987). In this article we consider the role that race and educational segregation play in shaping perceptions of distributive justice and, in turn, ideology. We contrast conservative attitudes toward political mobilization. We apply these ideas in an analysis of Tea Party activists and show that educational segregation is a strong predictor of the number of Tea Party organizations in U.S. counties. Tea Party activists are more likely than other Americans to believe that people with less education are more likely than people who do not have any college education to support the Tea Party; this relationship is strongest in counties with higher levels of educational segregation.

**Keywords**  
 social movements, Tea Party, educational segregation, conservative mobilization

If politics is about "who gets what, when, and how" (Lasswell 1936), then those who engage in politics on behalf of the relatively prosperous have some explaining to do. Because democratic political institutions provide opportunities for the disadvantaged to fight for a greater share of economic resources, individuals seeking to protect their advantages have an incentive to try to convince others over distributive justice. Organizations representing the interests of oppressed or disadvantaged groups argue that their constituents are being treated unfairly (Gamson 1992; Snow et al. 1986); those who resist such efforts are typically defending a reward system that favors them.

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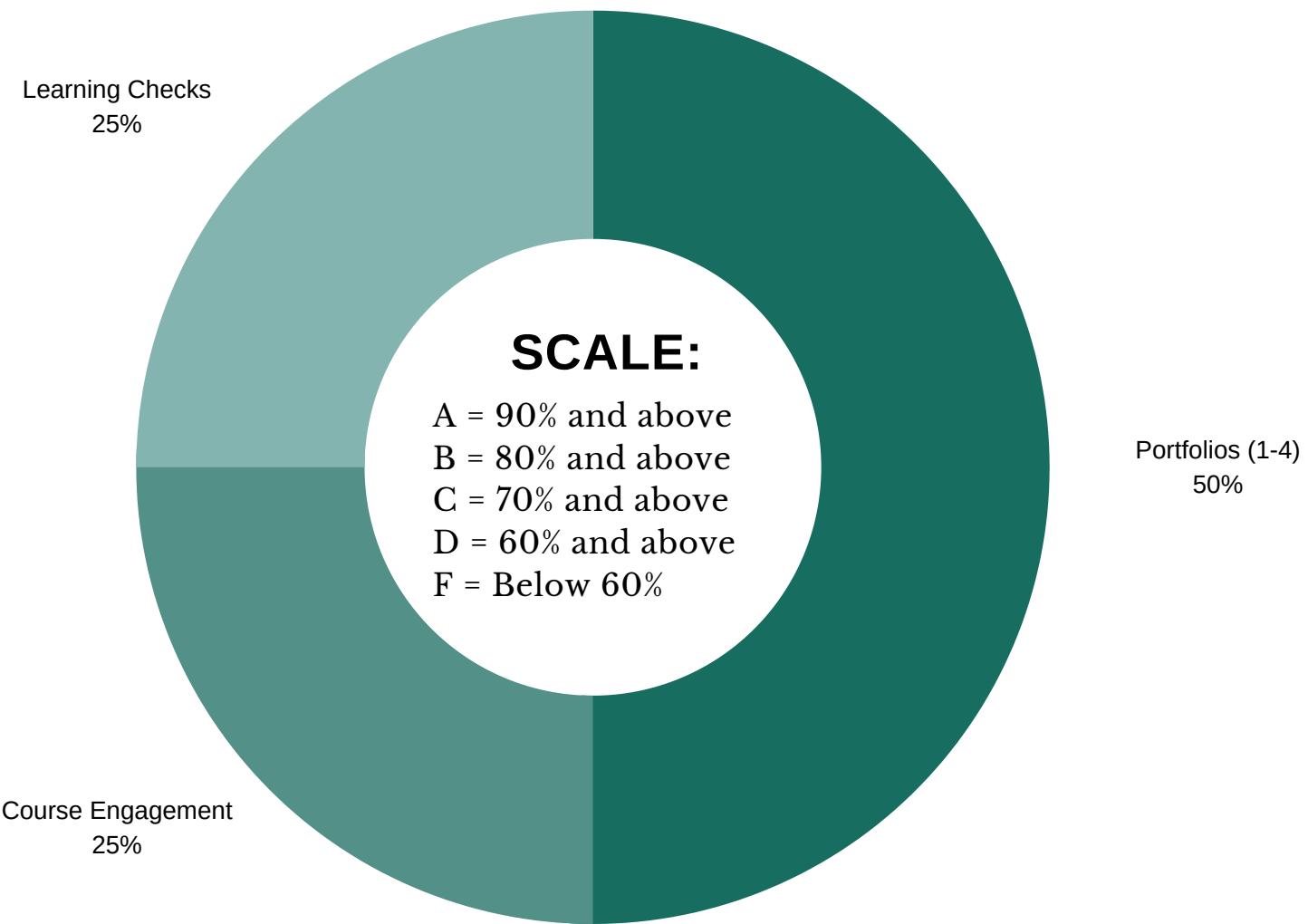
## ARTS

### RECOMMENDED

### Articles & Book Chapters

# GRADING

Final grades will be based on a seven (7) learning/completion checks, course engagement (e.g. participation, attendance), and four (4) statistics portfolios for a total of 200 points. This class does **NOT** use the +/- grading breakdown.



## GRADING/REGRADING POLICY:

*Students who wish for an assignment to be regraded are required to submit a written formal request, stating why the work warrants a higher grade, within seven (7) days of the date when the graded work is returned. Beyond these seven (7) days, assignment will not be regraded. A regrade may result in the same, a higher, or a lower grade - although students requesting a regrade on an assignment often receive a lower grade.*

*No late work will be accepted. In extreme circumstances, however, written documentation will be required before late work is accepted.*

# 100 PTS

## PORFOLIOS (1, 2, 3, & 4)

This class includes four (4) portfolios (worth 25 points each), one due every few weeks throughout the semester.

Portfolios are short projects. In portfolios, students are provided a dataset and asked to perform statistical techniques (by hand and/or in RStudio) and interpret their findings through extensive write-ups. Portfolios are designed to serve as a future resource for students.

Students are highly encouraged to work together on portfolios, in groups of no more than five (5) students, and submit one (1) portfolio for their group (although, in some circumstances, students will be allowed to submit individual portfolios). Submissions should list every student's name, portfolio number, and an interesting title, much like a research report.

# 50 PTS

## COURSE ENGAGEMENT

Attendance for this class is critical for your overall success in the course, as it allows you to participate in discussions about quantitative methodology.

# 50 PTS

## COURSE PREP & CHECKS

During Week 1, students will complete several "checks" to confirm their understanding of the email policy, Google Doc submissions, that they've installed of R/RStudio, that they've installed Zotero, updated their profile, and posted a video introduction about themselves on the class discussion board.

Midway through the course, students will complete a final learning check that assesses their comprehension of bivariate statistical tests.

### EXTRA CREDIT POLICY:

*Students may be given the opportunity for extra credit (in the form of a portfolio), worth a maximum of 10 points. If granted, extra credit is only accepted when it is due and will not be accepted late.*

# ENROLLMENT

## PREREQUISITES FOR COURSE:

Credit or concurrent registration with **PA 600**. Only graduate students from the following departments are allowed: city planning, criminal justice, criminology, and public administration.

## ADDING & DROPPING:

Students must make adjustments to their course schedule by the add/drop deadline indicated in the current term's **Academic Calendars**.

# STUDENT CONDUCT

Please be courteous to your classmates and me by remaining engaged and respectful. Students are expected to conduct themselves in a way that does not interfere with the educational experience of others. Additionally, turn cell phones and other electronic devices on silent during class time. Laptops may be used for taking notes while in class.

## ACADEMIC (DIS)HONESTY:

The University adheres to a strict policy regarding **cheating and plagiarism** (outlined in **Executive Order 1098**). These activities will not be tolerated in this class. Become familiar with the policy and what constitutes plagiarism. Any cheating or plagiarism will result in failing this class and a disciplinary review by the University. These actions may lead to probation, suspension, or expulsion.

Examples of plagiarism include but are not limited to:

- Using sources verbatim or paraphrasing without giving proper attribution (this can include phrases, sentences, paragraphs and/or pages of work)
  - Copying and pasting work from an online or offline source directly and calling it your own
  - Using information you find from an online or offline source without giving the author credit
  - Replacing words or phrases from another source and inserting your own words or phrases
  - Submitting a piece of work you did for one class to another class
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# RESOURCES

A complete list of all academic support services is available on the [Academic Success](#) section of the [Student Affairs](#) website.

## STUDENTS WITH SPECIAL NEEDS:

Please inform the instructor during the first week of classes about any special needs that require specific arrangements related to attending class sessions, carrying out class assignments, or writing papers or examinations. According to California State University policy, students with “disabilities” must document their special needs at the Student Ability Success Center (SASC) in order to receive accommodations for their courses. Additional information can be found at the [SASC website](#), by calling **619-594-6473**, or by email at [sascinfo@sdsu.edu](mailto:sascinfo@sdsu.edu).

## COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS):

[CAPS](#) offers confidential counseling services by licensed psychologists, counselors, and social workers. More info can be found at their website or by contacting **619-594-5220**. You can also [Live Chat](#) with a counselor between 4:00pm and 10:00pm, or call San Diego Access and Crisis 24-hour Hotline at **888-724-7240**.

## WRITING CENTER:

For help with improving your writing ability, the staff at the SDSU [Writing Center](#) is available in person and online.

## STUDENT TECHNICAL SUPPORT:

Student support for Canvas is provided by the Library Computing Hub, located on the 2nd floor of Love Library. They can be reached at **619-594-3189** or by emailing [hub@sdsu.edu](mailto:hub@sdsu.edu).

## EMERGENCY PREPAREDNESS:

Information about SDSU’s emergency preparedness policy can be found at [Campus Emergency Preparedness](#).

# D.E.I.

## DIVERSITY, EQUITY, AND INCLUSION

In this class, through readings, exercises, and activities, we are committed to honoring the diversity of experiences, including but not limited to race, ethnicity, culture, language, sex, gender identity and expression, sexual orientation, national origin, colonial status, immigration status, religion, age, ability, as well as underrepresented, first-generation, veteran, and non-traditional status. Through the inclusion and honoring of diversity, we hope to highlight the ways in which equity can be accomplished.

## CHANGES TO MATERIAL:

*I reserve the right to make changes to the syllabus, including the course outline, at any time, based on the pace of the class. This class may include hybrid format lectures, where there will be no class meeting, but students are expected to read online lecture materials.*

<b>1</b>	MODULE 1	<b>READ/WATCH</b> <i>Preparing for the Course Module</i>	<b>DUE</b> Email Policy Check, Google Doc Submission Check, RStudio Check, Zotero Check, Profile Check, Video Introduction, Join a Portfolio Group
JAN 24			
		<b>INTRODUCTION &amp; PREPARING FOR THE COURSE</b>	
<b>2</b>	MODULE 2	<b>READ/WATCH</b> Ch. 1 & 2 (Howell)	<b>DUE</b>
JAN 31			
		<b>REVIEW: CENTRAL TENDENCY, VARIABILITY</b>	
<b>3</b>	MODULE 2	<b>READ/WATCH</b> Ch. 3 (Howell)	<b>DUE</b>
FEB 7			
		<b>REVIEW: NORMAL CURVE, Z-SCORES</b>	
<b>4</b>	MODULE 3	<b>READ/WATCH</b> <i>Intro to R Video</i> Getting Started w/ RStudio Guide	<b>DUE</b>
FEB 14			
		<b>WORKING W/ DATA IN R (PART I)</b>	
<b>5</b>	MODULE 3	<b>READ/WATCH</b> Univariate & Normality Guide Explore Secondary Quant Data Sets	<b>DUE</b>
FEB 21			
		<b>WORKING W/ DATA IN R (PART II)</b>	
<b>6</b>	MODULE 4	<b>READ/WATCH</b> Ch. 4 (Howell)	<b>DUE</b> Portfolio #1
FEB 28			
		<b>BIVARIATE RELATIONSHIPS &amp; HYPOTHESIS TESTING (PART I)</b>	
<b>7</b>	MODULE 4	<b>READ/WATCH</b> Ch. 4 (Howell) Practical Guide to Bivariate Rel.	<b>DUE</b>
MAR 7			
		<b>BIVARIATE RELATIONSHIPS &amp; HYPOTHESIS TESTING (PART II)</b>	
<b>8</b>	MODULE 4	<b>READ/WATCH</b> Ch. 7 (Howell)	<b>DUE</b> Bivariate Relationships Check
MAR 14			
		<b>T-TEST</b>	

**9**

MODULE 5

**READ/WATCH**  
Ch. 11 & 12 (Howell)**DUE**

MAR 21

**ANALYSIS OF VARIANCE (ANOVA) & POST-HOC TESTS****10****READ/WATCH****DUE**

MAR 28

**SPRING BREAK (NO CLASS)****11**

MODULE 6

**READ/WATCH**  
Ch. 6 (Howell)**DUE**  
Portfolio #2

APR 4

**CHI-SQUARE, ODDS RATIOS****12**

MODULE 7

**READ/WATCH**  
Ch. 9 (Howell)**DUE**

APR 11

**CORRELATION****13**

MODULE 3

**READ/WATCH**  
*RStudio Walkthroughs***DUE**  
Portfolio #3

APR 18

**WORKING W/ DATA IN R (PART III)****14**

MODULE 8

**READ/WATCH**  
Ch. 9 & 15 (Howell)**DUE**

APR 25

**ORDINARY LEAST SQUARES REGRESSION****15**

MODULE 9

**READ/WATCH****DUE**  
Portfolio #4

MAY 2

**ADDITIONAL OLS REGRESSION TOPICS****16****READ/WATCH****DUE***Extra Credit: Portfolio #5*

MAY 9

**FINALS WEEK**