POLS 503: RESEARCH METHODS FOR PUBLIC ADMINISTRATORS

Spring 2016
3135 Faner Hall

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Course Description and Objectives

Public administrators and policy makers increasingly demand data driven decision making to enhance the effectiveness, performance, and accountability of public organizations. Thus, understanding how research design and statistical analyses assess the effectiveness of management interventions and public policies facilitates effective decision making in the public sector. Given these trends, public managers must possess two critical data related competencies. First, the ability to collect useful data represents a skill that provides the information necessary to inform decision making. Second, the ability to effectively analyze data provides the public manager the tools necessary to turn information into knowledge. This course is designed to provide a foundation for those two competencies by surveying research methods and statistical analysis techniques. However, our attention will be directed toward the practical application of these concepts. Course topics include sampling, data collection and measurement, descriptive statistics, hypothesis testing, processes for selecting statistical tests, and interpreting statistical output. We will also acknowledge that the social, political, and economic context in which public organizations are embedded influence data collection, analysis, and reporting practices. Finally, we will explore the ethical dimensions of data analysis and reporting. Though the focus of this course is broad we will seek primarily to build competencies that foster one’s ability to:

1. To participate in the policy process.
2. To analyze, synthesize, think critically, solve problems, and make decisions.

The primary learning objectives for this course attached to these competencies include the following:
1. The student demonstrates the ability to analyze outcomes and how they affect organizations and/or communities (1).

2. The students exhibits the ability to apply appropriate research methodology and/or quality of life techniques to better understand public needs (1).

3. The student applies appropriate analytical techniques that promote the public interest (1).

4. The student is able to use data analysis software to conduct an analysis of policy and/or management outcomes (2).

5. The student is able to critically analyze documents (e.g. budgets, citizen surveys, etc.) relevant for public organizations (2).

6. The student is able to build and defend solutions to policy and/or management problems based on available data (2).

**Myths and Tips about Research Methods and Statistics**

**Myths**

- Research methods and statistics are the same thing.

  In this course we treat research methods and statistics as distinct concepts. Research methods involve the processes associated with collecting useful data. Statistical analysis, on the other hand, refers to the techniques used to identify patterns in quantitative data. While statistical analysis involves examining data, research methods focuses primarily on the collection of that data.

- People who understand statistics have a natural gift for mathematics.

  While a natural ability in mathematics will not harm one’s ability to conduct statistical analyses it is not an absolute necessity. Most people skilled in quantitative analysis have cultivated that ability through practice, honest feedback, making mistakes and a lot of patience. While some may have to invest more time learning this skill, I believe everyone can build some degree of statistical competency.

- There is a “correct” way to conduct a statistical analysis.

  There is no single best way to conduct a statistical analysis. Many times the choice of analytical technique is based on the data available and the goals of the researcher. The question you are trying to answer should drive the methods you use to answer it.
Answering questions through statistics requires tough choices and tradeoffs in the research process. These choices are not incorrect, but they must be adequately justified by the researcher.

**Tips for Success**

- Familiarize yourself with the logic of research design and methods.

  The language of research methods is often foreign to the amateur. The logic of research methods addresses the philosophical issue of how we can accumulate knowledge. Data that is inappropriately collected cannot generate knowledge. The logic associated with drafting high quality questions, selecting the appropriate respondents, and effective measurement ensure that knowledge can be generated from the data you collect.

- Invest the time it takes to understand the technique and its application.

  I believe it is a common misconception that statistics is something that requires less time to learn and digest as compared to other topics. This is untrue. In fact, for many people learning statistics is a much more time consuming practice that requires a fair amount of trial, error, and practice. Make sure that you invest adequate time in practicing and understanding the underlying ideas behind statistics.

- Discard the idea that applied statistics is math.

  Applied statistics is not mathematics. Although you will be asked to interpret numbers even those with limited to no mathematical foundation can successfully complete this course. Try to recognize that these numbers are telling a story, once you learn how to read the story you can become fluent in statistics.

- Instead of searching for the “correct” answer think about why you are using the approach you chose.

  Rarely is there ever a single correct answer. However, there are statistical approaches that are better suited to address the questions you choose to ask. Invest time in understanding how to ask appropriate questions and learning about the techniques that best address those questions. Once you choose a technique there is a correct way to interpret what you find, but there is likely no predetermined single correct answer.

**Required Readings**


There will also be required reading posted in the online course environment.
Each student is also expected to subscribe to Government Management Daily, a service in partnership with ASPA that collects news feeds related to management in public sector organizations. These stories convey some of the most pressing issues public managers currently face, and they provide us an opportunity to assess the accuracy of the perspectives of public managers. Students are required to follow @GovManagement on Twitter and establish an email subscription to Government Management Daily.

I also require students to follow me on Twitter (@SIU_PAProf). I will periodically share stories that I feel are relevant to class material.

**Teaching Philosophy**

It is my goal to assist students in developing the ability to think critically about the major topics and issues related to public management. The format of a class on research methods and data analysis, however, entails a different mode of instruction as compared to the seminar format. While I will focus on delivering the major content I still expect meaningful class participation. Participation best facilitates the student’s ability to think critically.

**Grading and Requirements**

Final Grades will be based on the following activities:

<table>
<thead>
<tr>
<th>Activity:</th>
<th>Points</th>
<th>Percentage</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Subjects Training</td>
<td>50</td>
<td>5%</td>
<td>Due Feb. 8th by 5:00 p.m.</td>
</tr>
<tr>
<td>Questionnaire and Implementation Plan</td>
<td>400</td>
<td>40%</td>
<td>Due Mar. 7th by 5:00 p.m.</td>
</tr>
<tr>
<td>Memorandum 1 – Descriptive Statistics</td>
<td>150</td>
<td>15%</td>
<td>Due Apr. 4th by 5:00 p.m.</td>
</tr>
<tr>
<td>Memorandum 2 – Group Differences</td>
<td>200</td>
<td>20%</td>
<td>Due May 13th by 7:00 p.m.</td>
</tr>
<tr>
<td>Attendance and Participation</td>
<td>200</td>
<td>20%</td>
<td>Ongoing</td>
</tr>
</tbody>
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**Human Subjects Training Completion**

ALL STUDENTS ARE REQUIRED TO COMPLETE HUMAN SUBJECTS TRAINING.
The protection of human subjects is a critical element of conducting research and collecting data. Any individual involved in collecting data is required to participate in training on protecting human subjects from harm in the research and data collection process. In this course it is possible that you will be involved in collecting data from human subjects via mail, the internet, or in person. Moreover, throughout the course of your careers you may be required to engage in data collection from human subjects. To comply with federal law you must participate in, and pass, this training. Upon completion you will be provided a certificate you can download and print. Please generate an electronic copy of your completion certificate and turn it in via D2L. If I do not have this certificate you will not be able to participate in any possible data collection, and you could potentially miss the opportunity for graded components of the class.

**Questionnaire Implementation Plan**

**EACH STUDENT WILL TURN IN A QUESTIONNAIRE IMPLEMENTATION PLAN THAT DESCRIBES THE PROCESSES RELATED TO QUESTIONNAIRE DISSEMINATION.**

Each student will be responsible for carefully constructing a questionnaire implementation plan with all necessary information and documentation. Disseminating a questionnaire is a time consuming and labor intensive process. To successfully complete this project the student should turn in the following elements:

- Recruitment scripts and copies of all potential correspondence to potential respondents.
- Informed consent and cover letter.
- Statement of purpose for the study.
- Description of the population to be examined and the potential subject pool.
- A statement of how the subjects will be recruited and the location of the research.
- A timeline that includes when, and how often, respondents will be contacted.

Examples of each of these elements will be distributed in class.

**Questionnaire Construction**

**EACH STUDENT WILL TURN IN A 10-15 ITEM QUESTIONNAIRE DESIGNED TO MEASURE A POLICY/MANAGEMENT PROBLEM AND A QUESTION JUSTIFICATION.**

Each student will be responsible for developing a 10-15 question survey instrument designed to collect data for a management/policy problem. However, developing a useful survey requires
much more than simply writing questions. This project is designed to illustrate all the necessary elements of collecting useful data. Successful completion of this project requires three elements. First, the student will construct a short survey based on the principles of questionnaire construction discussed in class. This includes constructing high quality questions and constructing a visually appropriate survey based on best practices. Second, to accompany the questionnaire, the student will turn in a justification for the questions they developed. The description will include the following elements:

- A reflection on the most important pitfalls to avoid during question development. This may include a discussion of the biggest challenges you faced while writing questions and/or a discussion of what you noticed about your ability to write effective questions as you progressed.

- A summary discussing how the questions were developed. This should clearly identify what resources the student used to generate the questions and how those resources were adapted.

- A discussion of the measurement level and question attributes. The student should clearly describe the measurement choices they make in this section.

- A statement on why you believe this questionnaire effectively assesses the topics you chose to examine.

Third, the student should present a clear justification of why data collection and analysis are relevant to the practicing public manager. These justifications can reflect not only the importance of data in general, but also collecting useful data specifically. They should also reflect on the need for data driven decision making in the political environment of public management. In total this project should be combined with the survey implementation plan and used as a component of your MPA portfolio. The ability to effectively collect and analyze data is a highly marketable skill, and can showcase your value to an organization. Put your best work forward!

Memos

EACH STUDENT WILL TURN IN TWO 1,000 to 1,500 WORD MEMOS DESIGNED TO CARRY OUT A STATISTICAL ANALYSIS AND DESCRIBE FINDINGS RELATED TO PUBLIC SECTOR MANAGEMENT PROBLEMS.

Each student will be responsible for writing two memos responding to problems I present. I ask that students answer the problems in a word document. Please grow comfortable with building tables, charts, and graphs that present statistical findings in excel (or another program of your choice). Cutting and pasting tables from statistical software is not acceptable for the purposes of these assignments. They are often not legible, and they do not effectively present a visual display of your findings. You will be expected to draw from the textbook readings as well as
lecture material as you prepare each memo. Finally, I will not accept paper copies of memos. Each student is expected to submit memos via D2L. Memos not submitted on D2L by the dates specified in the syllabus will be graded according to the late assignment policy.

It is my intention to afford students time during class to work on their memos, but I do ask that students remain in the classroom while they work. I have scheduled in class lab time associated with each assignment to address the host of questions that always arise while working through the problems. Memos should be written in a specific format. For a thorough description of memo formatting please visit http://owl.english.purdue.edu/owl/resource/590/1/. This site provides an extensive set of guidelines that illustrate how to effectively write a memo. Note that memos do not follow the formatting of traditional academic papers. However, you are expected to draw from all course readings to formulate your recommendations. Any tables, graphs, or figures required to justify your recommendations must be referred to in the text and included as an enclosure.

To ensure that my expectations are clear I have uploaded a sample memo, and the rubric I will use to grade memos, on D2L. I recommend that you review these documents prior to writing each memo. Please come see me with any questions you might have, I am happy to help. I will distribute the information needed to complete the memos in class during lab sessions.

I encourage students to discuss the problems they confront in the memo scenarios, but students must write their own memo. Evidence that more than one student has turned in the same memo will be treated as academic dishonesty. Penalties for academic dishonesty potentially include a score of 0 for the assignment or failure of the course.

**Course Policies**

**Attendance** – Attendance is crucial for success in this course. The content covered during class will help you succeed on all course assignments, and students are expected to actively engage the learning environment. Attendance is required at all classes, and the professor will not distinguish between excused and unexcused absences. The final attendance and participation score will be calculated based on the percentage of classes attended and the quality of participation during class.

**Cell Phones and Laptops** – To ensure that all students receive the maximum benefit from the course please silence all cell phones and email alerts before class. Cell phone activity, including talking and text messaging, could result in the student being asked to leave the class. While the internet is a useful tool that enhances learning, it can also provide significant distractions during class time. The professor encourages internet use for class purposes; however, unauthorized use of the internet during class time can impede your progress in the class. This course is built on meaningful dialogue between the students and professor, and I will call on people at random. Please be ready to respond.

**Late Assignments** – All assignments are due on the date posted in the syllabus unless the
student can present documentation regarding a serious illness or family emergency. One-third letter grade will be deducted from the assignment for each day the assignment is late. Assignments more than five days late will not be accepted.

**Plagiarism/Citation** – Plagiarism occurs when an individual uses the exact words from another author without properly quoting or attributing the ideas to that author. All students are expected to properly cite the authors from whom they quote or paraphrase, in APA format, and all students are expected to write papers in their own words. Plagiarism is a serious offense. Evidence of plagiarism will result in a score of zero for that assignment, and could potentially result in failure of the course.

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

**Students with Disabilities** – The Americans with Disabilities Act (ADA) provides protection of civil liberties to those individuals with disabilities. Any student who believes they are entitled to protection under the ADA should contact the professor privately so reasonable accommodations can be made to create an environment conducive to student learning.
Schedule of Classes

*The schedule of classes and assignments listed below is tentative, and may change according to scheduled university holidays, elevated student interest in particular topics, necessary additional elaboration on a concept, or inclement weather cancellations.

Week 1 (Jan. 25th) – Introductions and Administrative Matters

Research Design, Measurement, and Data Collection

Week 2 (Feb. 1st): Part I – Designing the Research Project/Obtaining Approval

Reading
- Essential Statistics: Intro, Ch. 1-2

Class Guest: Wayne Glass, SIU HSC Chair

Week 3 (Feb. 8th): Part II – Writing Useful Questions

Reading
- Essential Statistics: Ch. 3
- Trochim: Ch. 4 (D2L)

Week 4 (Feb. 15th): Part III – Visual Display of a Questionnaire

Reading
- Dillman et al.: Ch. 6 (D2L)

Week 5 (Feb. 22nd): Survey Implementation and Data Collection

Reading
- Essential Statistics: Ch. 5
- Dillman et al.: Ch. 7 (D2L)

Week 6 (Feb. 29th): In Class Lab – Questionnaire Construction and Implementation Plan

Descriptive Statistics

Week 7 (Mar. 7th): Part I – Central Tendency and Dispersion

Reading
- Essential Statistics: Intro, Ch. 6-7

Week 8 (Mar. 14th): Spring Break

Week 9 (Mar. 21st): Part II – Contingency Tables and Getting Results
Reading
● Essential Statistics: Intro, Ch. 8-9

Week 10 (Mar. 28th): In Class Lab - Descriptive Statistics

Inferential Statistics

Week 11 (Apr. 4): Part I – Chi Square

Reading
● Essential Statistics: Intro, Ch. 10

Week 12 (Apr. 11th): Part II – T Tests

Reading
● Essential Statistics: Intro, Ch. 13

Week 13 (Apr. 18th): Part IV – ANOVA

Reading
● Essential Statistics: Intro, Ch. 13

Week 14 (Apr. 25th): Review and Catch Up

Week 15 (May 2nd): In Class Lab - Group Differences

Week 16 (Dec. 9th): Final Exam Week
IMPORTANT DATES *
Semester Class Begins: ..................................................01/19/2016
Last day to add a class (without instructor permission): ..........................01/24/2016
Last day to withdraw completely and receive a 100% refund: ..............01/31/2016
Last day to drop a course using SalukiNet: ...................................04/03/2016
Last day to file diploma application (for name to appear in Commencement program): .................................................................02/12/2016
Final examinations: .....................................................................05/09-05/13/2016

Note: For outreach, internet, and short course drop/add dates, visit Registrar’s Academic webpage at http://registrar.siu.edu/

SPRING SEMESTER HOLIDAYS
Martin Luther King, Jr.’s Birthday Holiday 01/18/2016
Spring Break 03/12—03/20/2016

WITHDRAWAL POLICY ~ Undergraduate only
Students who officially register for a session may not withdraw merely by the stopping of attendance. An official withdrawal form needs to be initiated by the student and processed by the University. For the proper procedures to follow when dropping courses and when withdrawing from the University, please visit http://registrar.siu.edu/catalog/undergraduatecatalog.html

INCOMPLETE POLICY ~ Undergraduate only
An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a completed grade within one semester following the term in which the course was taken, or graduation, whichever occurs first. Should the student fail to complete the course within the time period designated, that is, by no later than the end of the semester following the term in which the course was taken, or graduation, whichever occurs first, the incomplete will be converted to a grade of F and the grade will be computed in the student's grade point average. For more information please visit: http://registrar.siu.edu/grades/incomplete.html

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit no more than two times (two total enrollments) unless otherwise noted in the course description. For students receiving a letter grade of A,B,C,D, or F, the course repetition must occur at Southern Illinois University Carbondale. Only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. See full policy at http://registrar.siu.edu/catalog/undergraduatecatalog.html

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please visit http://gradschool.siu.edu/about-us/grad-catalog/index.html

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must come to the DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://disabilityservices.siu.edu/

INCOMPLETE POLICY
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GRADUATE POLICIES
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DISABILITY POLICY
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PLAGIARISM
Student Conduct Code http://srr.siu.edu/student_conduct_code/
MORRIS LIBRARY HOURS
http://www.lib.siu.edu/about

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://safe.siu.edu

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For Information on Saluki Cares: (618) 453-5714, or siucares@siu.edu, http://salukicares.siu.edu/index.html

EMERGENCY PROCEDURES
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. We ask that you become familiar with the SIU Emergency Response Plan and Building Emergency Response Team (BERT) programs. Emergency response information is available on posters in buildings on campus, available on BERT’s website at www.bert.siu.edu, Department of Safety’s website at www.dps.siu.edu (disaster drop down) and the Emergency Response Guideline pamphlet. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.

INCLUSIVE EXCELLENCE
SIU contains people from all walks of life, from many different cultures and subcultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well as an essential preparation for any career. For more information please visit: http://www.inclusiveexcellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:
Tutoring: http://tutoring.siu.edu/
Math Labs http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit http://write.siu.edu/

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office's main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: http://diversity.siu.edu/

Additional Resources Available:
SALUKINET: https://salukinet.siu.edu/cp/home/displaylogin

ADVICEMENT: http://advisement.siu.edu/
PROVOST & VICE CHANCELLOR: http://pvcaa.siu.edu/

SIU ONLINE: http://online.siu.edu/