SYLLABUS

ECON 6060 and HBSC 5999:Section 001
Federal Statistical Data for Health Research and Policy
University of Colorado Denver

Spring 2021 – 1 Credit
Fridays 9am-10am

All class meetings will be conducted remotely through Zoom. If CU Denver authorizes in-person instruction, students may prefer to come to the designated meeting lab. This will be scheduled so that attendance does not surpass capacity.

In-person Meeting Lab	North Classroom 1009, 1200 Larimer St. CU Denver | Downtown Campus
Instructors	Jani Little, PhD, MA Jani.little@colorado.edu Director, Rocky Mountain Federal Statistical Research Data Center (RMRDC) Institute of Behavioral Science, Rm 127 University of Colorado Boulder 303-492-4179
	Philip Pendergast, PhD Philip.m.pendergast@census.gov Administrator, RMRDC Institute of Behavioral Science University of Colorado Boulder
	Kas McLean, MA Kas.mclean@colorado.edu Graduate Research Assistant, RMRDC Institute of Behavioral Science University of Colorado Boulder
Office Hours	By appointment.

Overview—1 Credit

Students will learn about a variety of federal statistical data sets and how they are used for health research and policy analysis. Each week is devoted to one or two federal statistical datasets--how the data are collected; why they are collected and what health issues they are designed to address; what population they represent and at what geographic scale. Most critically, students will learn to distinguish between questions that can be addressed with a public version of the data and questions that require restricted versions of the data that are protected by federal law and guidelines. Toward the end of the course, the subject matter will become more focused on how to gain

access to restricted data and how to protect individual anonymity with best practice disclosure avoidance techniques. Throughout the semester, students will develop a Restricted Data Project Proposal that will take the place of a final exam.

Optional Lab Sessions for 1-Credit Students: Typically, between 10am and 12noon students taking the course for 3 credit hours will have "hands on" exercises using SAS to analyze public versions of the federal data sets. The exercises are designed to use the data to reproduce the findings of papers published in top public health journals. Students taking the course for 3 credits are required to complete assigned SAS exercises relevant to each data source covered in the syllabus. Lab attendance and assignments are optional for 1-credit students.

Objectives
Upon completion of this course, students will be able to:
1. Differentiate the features of major federal statistical data collection efforts and how they benefit health research and policy evaluation.
2. Understand the differences between restricted and non-restricted data as well as the constraints and procedures that apply to using restricted data.
3. Develop, write, and present a proposal to use restricted data.
4. Understand and contribute to the discussion of a variety of restricted data projects.

Course Format
Several strategies will be used to build the students understanding and skills in using large federal statistical datasets. These include required readings, suggested readings, lectures, guest presentations, class presentations and discussions, and independent research necessary for developing a restricted data project proposal.

Restricted Data Project Proposal: There is no exam in this course. However, there is a Restricted Data Project Proposal that students will create over the semester. It is described on the last page of this document. Students will receive additional instructions throughout the course, and they will present and turn in progressively detailed proposals in three parts over the semester. The complete Restricted Data Project Proposal will be **due on May 14 at midnight** (finals week). Students will use the required and recommended readings, significant amounts of independent research, class lectures, and consultation sessions to create individual Restricted Data Project Proposals. The proposal should be written in a professional style and include references and citations.

Workload: Expect to spend 3 or more hours per week *outside of class*, conducting research, reading the required and suggested readings, and working on your Restricted Data Project Proposal.

Readings
There is no textbook for the course. Keeping up with readings is critical for understanding the lectures. Required and suggested readings will be listed in the class syllabus and posted on the google drive for the class. Students are expected to be familiar with the content of the required readings and apply this knowledge in their Restricted Data Project Proposal. All required readings are stored on the Google Drive (see link below) in pdf format.

Class Preparation and Participation
When required readings are assigned, there will be a single question asked about the assigned readings at the beginning of the lecture. These will be referred to as "readings prompts." The answers will be graded on a 5-point basis. The purpose is to motivate students to prepare for each class by reading the articles. Class preparation and participation grades will be based on responses to the prompts as well as contributions to the discussions of other student's Restricted Data Project Proposals on 2/19 and 3/12.

Google Drive: The course materials will be posted on the class google drive: https://drive.google.com/drive/folders/1_8vUQGaiDKKkrF93p5BwLb3J-JHI2oPO?usp=sharing

The syllabus, the restricted data project description, and required readings are stored on the google drive in pdf form along with the lectures in ppt form. The lectures will generally be posted by 10pm the night before the class session.

Grades and assignment submissions: These will be done via Canvas. If you have problems using Canvas, please notify kas.mclean@colorado.edu.

Class Etiquette: Please turn off cell phones and do not use them in class. You should not be checking email, watching Youtube videos, etc. during class. You should keep yourself muted except when speaking to minimize background noise.

Writing: No "first draft" writing should be turned in to the instructor – everything should be read over at least once and edited. Please pay attention to organization, grammar, spelling, punctuation, and other aspects of your writing. If you find that you have difficulty writing, ask someone else to read your work and give you advice. The Writing Center is also available to coach you in your writing skills: http://www.ucdenver.edu/academics/colleges/CLAS/Centers/writing/InfoforStudents/Pages/AMCinfo.aspx

Requirements and Grading for HSMP 6670: Section 001:

	Points	% of Grade	Due
Restricted Data Project Proposal	**150**	**75.0**	
Topic	25		
Class Presentation			2/19
Written Draft			2/26
Preliminary Proposal	25		
Class Presentation			3/12
Written Draft			3/19
Final Project	100		
Class Presentation			5/7
Written Proposal			5/14
Class preparation and participation	**50**	**25.0**	Ongoing
Readings prompts	40		
In class discussions	10		
Total Points	**200**	**100**	

200 total points. 150 for Restricted Data Project Proposal. 50 for Class Preparation and Participation.

Weekly Topics and Assignments

1/22	Overview of the Federal Statistical System; Course Objectives and Requirements; **OPTIONAL Intro to SAS Exercises due Friday, 1/29**
1/29	**OPTIONAL Intro to SAS Exercises due by 9am.**
1/29	National Vital Statistics System (NVSS) and National Violent Death Reporting System (NVDRS); **Required readings for this class:** **Public data article using NVSS**: (Masters, Tilstra and Simon 2017) Masters, Ryan K., Andrea M. Tilstra, and Daniel H. Simon. 2017. "Mortality from suicide, chronic liver disease, and drug poisonings among middle-aged U.S. white men and women, 1980-2013." *Biodemography and Social Biology* 63(1):31-37. **Restricted data article using NVSS**: (Lindo and Packham 2017) Lindo, Jason, and Analisa Packham. 2017. "How Much Can Expanding Access to Long-Acting Reversible Contraceptives Reduce Teen Birth Rates?" *American Economic Journal: Economic Policy* 9:348-76. **OPTIONAL SAS exercises using NVSS due Friday, 2/5**
2/5	**OPTIONAL SAS exercises using NVSS due by 9am.**
2/5	National Health and Nutrition Examination Survey (NHANES); **Required readings for this class**: **Public data article using NHANES**: (Schmeer and Tarrence 2018) Schmeer, Kammi K., and Jacob Tarrence. 2018. "Racial-ethnic Disparities in Inflammation: Evidence of Weathering in Childhood?" *Journal of Health and Social Behavior* 59(3):411-28. **Restricted data article using NHANES:** (Oliver et al. 2017) Oliver, Sara E., Elizabeth R. Unger, Rayleen Lewis, Darius McDaniel, Julia W. Gargano, Martin Steinau, and Lauri E. Markowitz. 2017. "Prevalence of Human Papillomavirus Among Females After Vaccine Introduction—National Health and Nutrition Examination Survey, United States, 2003–2014." *The Journal of Infectious Diseases* 216(5):594-603. **OPTIONAL SAS exercises using NHANES due Friday, 2/12**
2/12	**OPTIONAL SAS exercises using NHANES due by 9am.**

2/12	National Health Interview Survey (NHIS) **Required readings for this class:** **Public data article using NHIS linked with NDI:** (Siahpush et al. 2019) Siahpush, Mohamamd, Paraskevi A. Farazi, Hongmei Wang, Regina E. Robbins, Gopal K. Singh, and Dejun Su. 2019. "Muscle-strengthening physical activity is associated with cancer mortality: results from the 1998–2011 National Health Interview Surveys, National Death Index record linkage." *Cancer Causes & Control* 30(6):663-70. **Restricted data article using NHIS:** (East and Friedson 2020) East, C. N., & Friedson, A. I. (2020). An Apple A Day? Adult Food Stamp Eligibility and Health-Care Utilization among Immigrants. *American Journal of Health Economics, 6*(3), 289-323. doi:10.1086/709368 **OPTIONAL SAS exercises using NHIS due Friday, 2/19**
2/19	**OPTIONAL SAS exercises using NHIS linked with NDI due by 9am.**
2/19	**Student Topic Presentations. Students should be prepared to talk for 5 minutes about a health topic of interest and has potential to benefit from restricted data. This should include major questions, hypotheses, and justification for using restricted data.** **1-page writeups are due 2/26.** **Possible presentation by restricted data researcher. TBA** **No required readings for this class.**
2/26	**Student Topic Presentations 1-page write ups due by 9am.**
2/26	Medical Expenditure Panel Survey (MEPS) Household Component. **Required readings for this class:** **Public data article using NHIS linked to MEPS**: (Bell et al., 2011) Bell, J. F., Zimmerman, F. J., Arterburn, D. E., & Maciejewski, M. L. (2011). Health-Care Expenditures of Overweight and Obese Males and Females in the Medical Expenditures Panel Survey by Age Cohort. *Obesity, 19*(1), 228-232. doi:https://doi.org/10.1038/oby.2010.104 **Restricted data article using NHIS linked to MEPS:** (Caldwell et al., 2016) Caldwell, J. T., Ford, C. L., Wallace, S. P., Wang, M. C., & Takahashi, L. M. (2017). Racial and ethnic residential segregation and access to health care in rural areas. *Health & Place, 43*, 104-112.

	doi:https://doi.org/10.1016/j.healthplace.2016.11.015
	OPTIONAL SAS exercises using MEPS extract due Friday, 3/5
3/5	**OPTIONAL SAS exercises using MEPS extract due by 9am.**
3/5	American Community Survey (ACS) and Current Population Survey (CPS) for Health Research
	Required readings for this class:
	Public data article using ACS: (Nanney et al. 2019)
	Nanney, Marilyn S., Samuel L. Myers, Jr., Man Xu, Kateryna Kent, Thomas Durfee, and Michele L. Allen. 2019. "The Economic Benefits of Reducing Racial Disparities in Health: The Case of Minnesota." *International journal of environmental research and public health* 16(5):742.
	Restricted data article using ACS: (Sevak et al. 2018)
	Sevak, Purvi, John O'Neill, Andrew Houtenville, and Debra Brucker. 2018. "State and Local Determinants of Employment Outcomes Among Individuals With Disabilities." *Journal of Disability Policy Studies* 29(2):119-28.
	OPTIONAL SAS exercises using ACS extracts due Friday, 3/12
3/12	**OPTIONAL SAS exercises using ACS/CPS extracts due by 9am.**
3/12	**Preliminary Student Presentations on Restricted Data Projects. Prepare to talk for 5 minutes about your Restricted Data Project. Prepare a 2-page written draft. You should build on your topic write-up due 2/26 by refining your research questions. By this point, you should have identified a federal dataset and the necessary outcome/dependent variable(s) as well as explanatory/control variables.**
	2-page written drafts are due 3/19.
	Possible presentation by restricted data researcher. TBA
	No required readings for this class.
3/19	**2-page written drafts of Preliminary Restricted Data Projects are due by 9am.**
3/19	National Crime Victimization Survey (NCVS) and Survey of Income and Program Participation (SIPP) for Health Research.
	Required readings for this class:
	Public data article using NCVS: (Bender and Lauritsen, 2020)
	Bender, A. K., & Lauritsen, J. L. (2020). Violent Victimization Among Lesbian, Gay, and Bisexual Populations in the United States: Findings from the National

	Crime Victimization Survey, 2017–2018. *American Journal of Public Health, 111*(2), 318-326. doi:10.2105/AJPH.2020.306017 **Restricted data article using NCVS:** (Xie and Baumer, 2019) Neighborhood immigrant concentration and violent crime reporting to the police: A multilevel analysis of data from the National Crime Victimization Survey*. *Criminology, 57*(2), 237-267. doi:https://doi.org/10.1111/1745-9125.12204 **OPTIONAL SAS exercises using NCVS extract due Friday, 3/26**
3/26	**OPTIONAL SAS exercises using NCVS extracts due by 9am.**
3/26	American Time Use Survey (ATUS); Survey of Occupational Injuries and Illnesses (SOII): Census of Fatal Occupational Injuries (CFOI) **Required readings for this class:** **Public data article using ATUS:** (Price and van Holm, 2020) Price, G., & van Holm, E. J. (2020). *The Effect of Social Distancing on the Spread of Novel Coronavirus: Estimates from Linked State-Level Infection And American Time Use Survey Data*. **Restricted data article using ATUS:** (Pabilonia and Song 2013) Pabilonia, Sabrina Wulff, and Younghwan Song. 2013. "Single mothers' time preference, smoking, and enriching childcare: Evidence from time diaries." *Eastern Economic Journal* 39:227–55. **OPTIONAL SAS exercises using ATUS extract due Friday, 4/2**
4/2	**OPTIONAL SAS exercises using ATUS due by 9am.**
4/2	Guest Presentation(s) by local restricted data researchers. **No required readings for this class or lab assignment.** During the lab time students are expected to work on preparing their student datasets for their Restricted Data Projects. Instructors will be available to assist.
4/9	The Proposal Process with Different Agencies; The Application Portal; Disclosure Avoidance Rules and Practices: Phil Pendergast **Required reading for this class**: Minimizing Disclosure Risk in HHS.pdf During the lab time students are expected to work on preparing their student datasets for their Restricted Data Projects. Instructors will be available to assist.
4/16	Difference in Differences Presentation: Kas McLean National Historic Geographic Information System (NHGIS): Jani Little

	No required readings for this class or lab assignment. During the lab time students are expected to work on preparing their student datasets for their Restricted Data Projects. Instructors will be available to assist.
4/23	**Spring Break, NO CLASS**
4/30	Census Longitudinal Infrastructure Project (CLIP) Presentation: Guest Speaker: Katie Genadek, U.S. Census Bureau **No required readings for this class or lab assignment.** During the lab time students are expected to work on preparing their student datasets for their Restricted Data Projects. Instructors will be available to assist.
5/7	**Student Presentations on Restricted Data Projects** **Make a 7-10 minute Powerpoint presentation about your Restricted Data Project and write a 7-10 page proposal.** **Final Written Restricted Data Project Proposals due Friday, 5/14.**
5/14	**Final Written Restricted Data Project Proposals due by midnight.**

Restricted Data Project Proposal
(7-10 pages double-spaced, 1-inch margins, including tables and references)
Outline

1. Introduction

Present your topic and central research questions in this section. Explain why it is important and how it would benefit public health. Explain why restricted data are necessary to address the questions.

2. Existing Literature/background

Present background information on your topic based on at least 5 references. Explain your hypotheses and how they are based on the literature.

3. Preliminary Analysis of Public Data (OPTIONAL for 1-credit students)

Analyze the public version of your chosen dataset(s) to get preliminary information about your research questions.

4. All Data Needed

Describe all data required for the project.
   a. Years and variables (public and restricted)
   b. Linkages required, merge variables, if needed
   c. External Data/User Provided Data, if needed

5. Research Design/Methods

Describe in detail how the data will be used to address the research questions. This section should include equations and a description of the methods, i.e., empirical techniques, you have chosen.

6. Expected Project Output

What kind of tables do you expect to generate? Include skeletal tables to demonstrate. Discuss your intentions and methods to avoid disclosure.

7. References

Use a consistent established citation style, e.g., APA.