



The Course

Syllabus

GOV/PUB/STS/WGS 373
Public Health Research:
Pregnancy Outcomes in American Women
Tuesday/Thursday 3:00-4:20 p.m. Hac-412

Course Syllabus
January, 2008

This seminar will explore women's health and pregnancy outcomes from the perspectives of science, social analysis, and policy. We will read and discuss materials on pregnancy outcomes, and we will examine results of surveys of all women of child-bearing age in central Pennsylvania, of Amish women in Lancaster County, and of African-American and Hispanic women in Lancaster City. Students will be responsible for preparing for, participating in, and leading discussions and will also explore a topic in depth in a research project. This course is supported by funds from the Pennsylvania Department of Health.

Poor pregnancy outcomes are linked to personal behavior, environmental effects, sociological influences, and genetics, among many other factors, and these factors interact with each other. Our intention is to understand different factors affecting pregnancy outcomes, to compare pregnancy outcomes among different groups of women, to comprehend in depth and from multiple perspectives a pressing health crisis and the interactions of factors that affect it, and to assess scientific data.

Sean Flaherty, Department of Economics

- office Sta-331; office hours by appointment, call #3940 or email Sean.Flaherty@fandm.edu

Alison Kibler, Department of American Studies and Program in Women and Gender Studies

- office Sta-312; office hours Mon. 3-5 p.m., Thu. 1-3 p.m., or by appointment, call #4248 or email Alison.Kibler@fandm.edu

Kirk Miller, Department of Biology

- office Lsp-232C; office hours Mon. 2-3 p.m., Tue. 9-10 a.m., Fri. 2-4 p.m., or by appointment, call #3974 or email Kirk.Miller@fandm.edu

Berwood Yost, Floyd Institute for Public Policy Analysis

- office App-7; office hours by appointment, call #3922 or email Berwood.Yost@fandm.edu

The course is composed of modules. A typical module encompasses two classes. Typically, on Tuesdays we will hear a presentation by a faculty member, guest faculty, or guest speaker. These presentations will cover various aspects of pregnancy and pregnancy outcomes, broadly defined. On Thursdays we will discuss the presentation and the readings assigned to accompany it. Unless otherwise noted, readings are in pdf format in the edisk folder for the course or are provided as a Web url. (The course syllabus is on edisk for access to these urls.) Discussions will be based on questions provided in advance. Also on Thursdays, students working in pairs will lead us in data analysis using survey results; some questions for this will also be provided.

In addition, we asked that you read, prior to the beginning of the semester, *Having Faith, An ecologist's journey to motherhood* by Sandra Steingraber and *Random Family, Love, drugs, trouble, and coming of age in the Bronx* by Adrian Nicole LeBlanc. We will begin our semester's work with a discussion of these two books, so we can set the stage for our next work and so we can make our expectations clear for the quality of your participation in discussions.

course schedule and reading

[Disclaimer: You will find the citations of readings in various formats. We copied the citations provided to us and our participants used various styles, which depended on their background. Using various citation styles in a paper is very, very bad.]

Module 1: What the course is about

January 22/24

Tuesday

Introduction to the course

grant project website

(<http://www.womenshealthcoe.psu.edu/>)

the focus of the course

our expectations for discussions

Thursday

Prof. Kirk Miller
The epidemiology of poor pregnancy outcomes

reading:

Barker, D. J. P. 1995. Fetal origins of coronary heart disease. *British Medical Journal* 311:171-174.

<http://www.bmj.com/cgi/content/full/311/6998/171>

Eckholm, Erik. In turnabout, infant deaths climb in the South. *New York Times* 4/22/07

http://www.nytimes.com/2007/04/22/health/22infant.html?_r=1&oref=slogin

Goldenberg, R. J., et al. 2008. Epidemiology and causes of preterm birth. *Lancet* 371:75-84.

Sanghavi, Darshak. Baby Gap. *Slate* posted 3/16/07

<http://www.slate.com/id/2161899/>

Module 2: Setting the stage

January 29/31
Tuesday

Discussion of Steingraber and LeBlanc issues surrounding pregnancy and its outcomes: culture, race, and class and environmental concerns and nutrition

questions for discussion

1. Compare Steingraber's pregnancy to that of one of the mothers in *Random Family*. Is Steingraber a better mother?
2. What is the most important factor in a positive pregnancy outcome—the mother's social status, the mother's personal health (and behavior), or the environmental risks surrounding the mother? Use your understanding of *Having Faith* and *Random Family* to make your case.

for Thursday, a short essay on one question (see below)

Thursday

first short essay due on one question (below)

Steingraber and LeBlanc discussion continued
questions for discussion; choose one for your essay topic

1. Who or what is to blame for the "random families" in LeBlanc's account?
2. Support or refute the following: LeBlanc's book is not useful for the class because she does not pay detailed enough attention to young women's pregnancies.

February 5/7
Tuesday

Module 3: research and data analysis

Prof. Berwood Yost
Survey Research, Data Analysis, and Health-Related Surveys

Introduction to the surveys

reading:

Luann Aday. *Designing and Conducting Health Surveys*. Jossey-Bass Inc., Publishers. 1989. Chapters 3, 4, and 9.

Miller, K., B. Yost, S. Flaherty, et al. 2007. Health status, health conditions, and health behaviors among Amish women results from the Central Pennsylvania Women's Health Study (CePAWHS). *Women's Health Issues* 17:162-171.

Penn State University. Excerpt from Department of Health Grant Application, Research Design and Methods.

Carol Weisman, et al. 2006. Preconceptional Health: Risks of Adverse Pregnancy Outcomes by Reproductive Life Stage in the Central Pennsylvania Women's Health Study (CePAWHS). *Women's Health Issues* 16:216-224..

Charles Weijer, Gary Goldsand, and Ezekiel J. Emanuel. Protecting communities in research: current guidelines and limits of extrapolation. *Nature Genetics* (23). 1999.

Berwood Yost, Christina Abbott, Jennifer Harding, and Angela Knittle. Among the Amish: Interviewing Unique Populations on Sensitive Topics. *Public Opinion Pros.* 2005. June.

Thursday

short essay due on one question for discussion
data analysis led by: Alam and Augsberger and Boyer

questions for data analysis

1. What are the demographic characteristics of the three study groups? What are the most important differences between them?
2. What proportion of each sample group is in each reproductive stage and age group? What are the pregnancy histories for each group?

questions for discussion

1. Does the instrument used to collect data for the CePAWHS survey appear to be well-designed?
2. Based on Weisman's data, what interventions would you propose be put into place to improve pregnancy outcomes among Central Pennsylvania women?

February 12/14
Tuesday

Module 4: Social influences

Prof. Sean Flaherty
Disparities in maternal health and pregnancy outcomes across race, ethnicity, and class

research paper topics due

reading:

James Collins et al., "Very Low Birthweight in African American Infants: The Role of Maternal Exposure to

Interpersonal Racial Discrimination," *American Journal of Public Health*, Vol. 94, No. 12 (December 2004), 2132-38.

Arline Geronimus, "Black-White Differences in the Relationship of Maternal Age to Birthweight: A Population-Based Test of the Weathering Hypothesis," in Thomas LaVeist, ed., *Race, Ethnicity and Health*, 2002, 213-30.

Sarah Mustillo et al., Self-Reported Experiences of Racial Discrimination and Black-White Differences in Preterm and Low-Birthweight Deliveries: The CARDIA Study," *American Journal of Public Health*, Vol. 94, No. 12 (December 2004), 2125-31.

Diane Lauderdale, "Birth Outcomes for Arabic-Named Women in California Before and After September 11," *Demography*, Vol. 43, No. 1 (February 2006), 185-201.

[National Center for Health Statistics, *Health, United States, 2007: With Chartbook on Trends in the Health of Americans*]

Thursday

short essay due on one question for discussion
data analysis led by: Carney, Carson and Cassidy

questions for discussion

1. Outline the evidence in the readings by Collins et al., Mustillo et al., and Lauderdale supporting claims that 'discrimination' is responsible for some part of the higher incidence of adverse pregnancy outcomes among minorities; then evaluate the strengths and weaknesses of that evidence (i.e., are there some aspects of 'discrimination' not captured by this evidence; might the results apparent from this evidence be explained by something other than 'discrimination'?).
2. What do you think are the principal factors behind racial and ethnic disparities in pregnancy outcomes and what if any public health initiatives might be undertaken to close the gaps?

questions for data analysis

1. Among women surveyed, are there differences in pregnancy outcomes associated with race or ethnicity?
2. If there are differences, do they remain after adjusting for age and income?

February 19/21
Tuesday

Module 5: Social influences (cont.)

Prof. Alison Kibler
Race, Personal Responsibility and State
Intervention

reading:

Susan Bordo, "Are Mothers Persons?" in *Unbearable Weight: Feminism, Western Culture and the Body* (Berkeley: University of California Press, 1993)

Dorothy Roberts, *Killing the Black Body: Race, Reproduction and the Meaning of Liberty* (New York: Pantheon Books, 1997), introduction, chapter 4 ("Making Reproduction a Crime") and chapter 7 ("The Meaning of Liberty").

Dana Page, "Homicide by Child Abuse Conviction of Regina McKnight" Howard University Law Jrnl (Winter 2003)
Available on Lexis Nexis (library database)

Thursday

short essay due on one question for discussion
data analysis led by: Darnell and Diamond

questions for discussion

1. Consider the cases discussed by Bordo, Page, and Roberts. What is the primary motivation for regulating pregnant women's behavior—saving babies or preventing "bad" mothers from having babies?
2. Should a fetus be protected from a mother who will not or cannot take care of it properly?

questions for data analysis

1. How do African-American women differ from whites in their health status, health care access, physical health, mental health, socioeconomic status, health behaviors, and pregnancy outcomes?
2. How do the three study groups compare on psychological distress and self-esteem?

February 26/28
Tuesday

Module 6: Choices

Profs. Flaherty, Kibler, Miller
Alcohol and tobacco

reading:

Miller

The biology of smoking and drinking during pregnancy
'No alcohol in pregnancy' advised. BBC News posted 5/25/07
<http://news.bbc.co.uk/1/hi/health/6687761.stm>

Nathanson, Vivienne. 2007. Is it all right for women to drink small amounts of alcohol in pregnancy? No. British Medical Journal 335:857.

O'Brien, Pat. 2007. Is it all right for women to drink small amounts of alcohol in pregnancy? Yes. British Medical Journal 335:856.

Roan, Shari. Living for two. Los Angeles Times 11/12/07

Flaherty

Who smokes and drinks during pregnancy?

Office of Applied Statistics, Substance Abuse and Mental Health Services Administration, U.S. Department of Health & Human Services, "Substance Use During Pregnancy: 2002 and 2003 Update," *The National Survey on Drug Use and Health Report*, 2005.
<http://www.oas.samhsa.gov/2k5/pregnancy/pregnancy.pdf>

T. J. Mathews and C. C. Rivera, "Smoking During Pregnancy--United States, 1990-2002," *Morbidity and Mortality Weekly Review*, Vol. 53, No. 39 (October 8, 2004), 911-915.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5339a1.htm>

G. Leonardson, R. Loudenburg, and J. Struck, "Factors

Predictive of Alcohol Use during Pregnancy in Three Rural States," *Behavioral and Brain Functions*, Vol. 3 (2007).
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1803793>

Kibler

Moral policing: How has the treatment of pregnant women's behavior changed over time

Janet Golder, "Tempest in a Cocktail Glass: Pregnancy Policing and the Media" in *Message in a Bottle: the Making of Fetal Alcohol Syndrome* (Harvard 2005)

Laury Oaks, "Cigarette Smoking as Fetal Abuse" and "From Smoke-Free Wombs to a Tobacco-Free Society" 171-209 in *Smoking and Pregnancy: The Politics of Fetal Protection* (Rutgers, 2001)

Thursday

short essay due on one question for discussion
data analysis led by: Ewanichak and Felice

questions for discussion

1. Should U. S. public health policy involve more expansive and/or more intrusive programs to reduce 'substance (ab)use' by women of child-bearing age/pregnant women/ all Americans?

questions for data analysis

1. Describe alcohol and tobacco use in women in each reproductive life stage in the three study groups.

March 4/6
Tuesday

Module 7: The Amish

Kevin Strauss M.D.

Pediatrician, Clinic for Special Children,
Strasburg, PA

Amish health and health care and Amish pregnancy,
birth, and child care

reading:

Morton D. H. 1994. Through My Window - Remarks at the 125th Year Celebration of Children's Hospital of Boston.
Pediatrics 94:785-791.

Morton, D. H. et al. 2003. Pediatric medicine and the genetic disorders of the Amish and Mennonite people of Pennsylvania. *Am. J. Med. Genetics* 121C:5-17.

Thursday

short essay due on one question for discussion
data analysis led by: Goldberg and Hauff

questions for discussion; choose one for your essay topic

1. TBA

questions for data analysis

1. How common is low birth weight in the three study groups? Are groups the same or do they differ significantly? Are the results different than expected?

March 11/13
Tuesday

Module 8: Environmental effects

Prof. Richard Pepino, Dept. Earth and Environment
Potential effects of air and water quality on
pregnancy outcomes (and general public health)

research paper list of sources due

reading:

March of Dimes website, "Medical References: Environmental Risks and Pregnancy"

http://www.marchofdimes.com/professionals/14332_9146.asp

NIH website, Manassaram, D. M. et al. 2005. A review of nitrates in drinking water: maternal exposure and adverse reproductive and developmental outcomes.

<http://www.epa.gov/safewater/dwh/t-ioc/nitrates.html>

Natural Resources Defense Council website, "Hidden Danger Environmental health threats in the Latino community"

<http://www.nrdc.org/health/effects/latino/english/execsum.asp>

Weitzman, M., and D. Glotzer. 1992. Lead poisoning. Pediatrics in Review 11(12):461-467.

KNAW Research Information. Project: Effects of environmental endocrine disruptors on male and female reproduction.

<http://www.onderzoekinformatie.nl/en/oi/nod/onderzoek/OND1298981/>

Thursday

short essay due on one question for discussion
data analysis led by: Hughes and John

questions for discussion

1. What is the proper balance between personal and collective responsibility for dealing with environmental hazards to a developing fetus?

questions for data analysis

1. Among women surveyed, do groups differ in their exposures to environmental chemicals? Do different levels of exposure relate to differences in pregnancy outcomes?

Spring Break

March 25/27
Tuesday

Module 9: Biological effects

Prof. Clara Moore, Dept. Biology
Pharmaceuticals as potential teratogens

reading:

review before class

Sandra Steingraber. Having Faith, An Ecologist's Journey to Motherhood Chapter 3, pgs. 29-55.

FDA Consumer Magazine "The Power of Accutane: The Benefits and Risks of a Breakthrough Acne Drug" by Michelle Meadows, March-April 2001.

http://www.fda.gov/fdac/features/2001/201_acne.html

Johns Hopkins Magazine "Pregnant Pause" by Joanne Cavanaugh Simpson, Sept 2001.

<http://www.jhu.edu/~jhumag/0901web/pregnant.html>

additional Website references:

<http://www.emedicine.com/med/topic3242.htm>

<http://www.fda.gov/womens/registries/>

<http://www.otispregnancy.org/>

<http://www.motherisk.org/>

<http://www.aimsusa.org/howsafe.htm>

Thursday

short essay due on one question for discussion
data analysis led by: Mehalick and Palmisano

questions for discussion

1. In regard to pharmaceutical use, how do 1) the timing of pregnancy, 2) the nature of embryonic development, and 3) the health issues that arise during pregnancy contribute to produce a high-risk situation?
2. Do FDA policies protect or discriminate against pregnant women?
3. Should there be more or fewer restrictions on pregnant women's access to the prescription drugs discussed?

questions for data analysis

1. What are the relationships, in the three groups of women surveyed, between prescription or non-prescription drug use and poor pregnancy outcomes?

April 1/3
Tuesday

Module 10: Midwifery

Lillie Rizack '87 CNM, MSN
Associate Program Director, Midwifery
Philadelphia University
<http://www.philau.edu/midwifery/>
Midwifery

reading:

Goodman, S. 2007. Piercing the veil: the marginalization of midwives in the United States. Soc. Sci. Med. 65:610-621.

Ickovics, J. R., et al. 2003. Group prenatal care and preterm birth weight: results from a matched cohort study at public clinics. Obstet. Gynecol. 102:1051-1057.

MacDorman, M. F., and G. K. Singh. 1998. Midwifery care, social and medical risk factors, and birth outcomes in the USA. J. Epidemiol. Community Health 52:310-317.

Sections 1, 8, and 9

Miller, A. R. 2006. The impact of midwifery-promoting public policies on medical interventions and health outcomes. Advances in Economic Analysis & Policy 6:1-34.

Sakala, C., and M. P. Corry. 2007. Listening to Mothers II reveals maternity care quality chasm. *J. Midwifery & Women's Health* 52:183-185.

Thursday

short essay due on one question for discussion
data analysis led by: Pavlos and Pierre

questions for discussion

1. Should lay midwives be permitted to practice and attend births in Pennsylvania?
2. Why do you think the positive effects of midwifery are observed?

questions for data analysis

1. Are there differences in pregnancy outcomes related to prenatal care and place of birth in the survey data?

April 8/10
Tuesday

Module 11: The Hispanic paradox

Prof. Sean Flaherty

An epidemiological paradox and the impact of maternal nativity on birth outcomes

research paper précis due

reading:

Luisa Franzini et al., "Understanding the Hispanic Paradox," in Thomas LaVeist, ed., *Race, Ethnicity and Health*, 2002, 280-331.

Michael McGlade et al., "The Latina Paradox: An Opportunity for Restructuring Prenatal Care Delivery," *American Journal of Public Health*, Vol. 94, No.12 (2004), 2062-65.

W. Parker Frisbie and Seung-eun Song, "Hispanic Pregnancy Outcomes: Differentials Over Time and Current Risk Factors," *The Policy Studies Journal*, Vol. 31 (2003), 237-51.

G.K. Singh & Stella Yu, "Adverse Pregnancy Outcomes: Differences Between U.S.- and Foreign-Born Women in Major U.S. Racial and Ethnic Groups," in LaVeist, ed., 265-79.

Thursday

short essay due on one question for discussion
data analysis led by: Dressel and Schimberg

questions for discussion

1. Explain the concept of the 'Hispanic paradox' and outline the evidence in the readings supporting the fact of its existence, particularly with respect to the issue of pregnancy outcomes; then discuss and analyze the theoretical explanations that have been offered for its existence.
2. Analyze the evidence as to the impact of maternal nativity on pregnancy outcomes as well as the possible reasons for what the evidence shows.
3. Do the causes of the Hispanic paradox suggest a solution for some poor pregnancy outcomes?

questions for data analysis

1. Does the Hispanic paradox and the factors related to it appear in the survey data?

April 15/17
Tuesday

Module 12: Underserved people

Dr. William Fife
Medical Director,
SouthEast Lancaster Health Services
<http://www.selhs.org/>
Providing prenatal and obstetrical care to
underserved populations, particularly Hispanic
women in Lancaster

reading:

Boo, Katherine. 2006. Swamp nurse. The New Yorker February
6:54-65.

Thursday

short essay due on one question for discussion
data analysis led by: Summers and Syed

questions for discussion

1. TBA

questions for data analysis

1. TBA

April 22/24
Tuesday

Module 13: Reproductive rights and fetal personhood

Prof. Alison Kibler
Fetal Rights/Women's Rights

reading:

Supreme Court cases:
Roe v. Wade (1973)
Planned Parenthood v. Casey (1992)
Gonzalez v. Carhart (2007)

Frances Kissling, "Is There Life After Roe?" Conscience
(Winter 2004/2005) available on line

responses to Kissling's essay, from the left and the right

Faye Ginsburg, "Pro-Choice Narratives" and "Pro-Life
Narratives" in Contested Lives (U Cal, 1998)

Thursday

short essay due on one question for discussion
data analysis led by: Wagner and Wiener

questions for discussion

1. Are Casey and Carhart consistent with Roe v. Wade?
2. To what extent do the abortion debates, including the
court cases assigned here, involve conflicting
interpretations of gender?

questions for data analysis

1. TBA

April 29/May 1 **Module 14: Summary and conclusion**
 Tuesday Prof. Flaherty, Kibler, Miller, Yost
 Pregnancy outcomes and public policy: What does
 it all mean?

 Thursday class does not meet

May 6
 Tuesday **final paper due**

course assignments and expectations

Your assignments for class are: to be prepared for and participate in discussions, to write 11 short essays that will help you prepare for discussions, to lead an analysis of data and the discussion of it with a partner, and to write a research paper that explores in depth a topic in pregnancy outcomes.

A typical class week will have a presentation on Tuesday and a discussion on Thursday. Presenters will provide us with readings that will help us prepare for their presentation and for the Thursday discussion. In addition, they will provide us with a short list of questions to help guide our discussion and data analysis, and as topics for your short essays.

- **expectations for discussions**

Students should come to class willing and able to help conduct a fruitful discussion by having done the appropriate reading and by having individually explored an idea or two that they think may—or ought to—come up in the discussion. Of course, we will only know if you have prepared for the discussion if you actually contribute to it. Your class participation grade, worth 20% of your overall course grade, will be based in large part on the quality of your participation in discussions.

To evaluate your class participation, we will use guidelines from the website of the Princeton University Dept. of History
http://www.princeton.edu/history/undergraduate/general_info/grading_practices/ We will provide you with feedback on your participation.

- **short essays**

To help prepare for discussions, students will write short essays, each answering a question for that day's discussion. There will be 11 of these, each corresponding to one of the discussions, each due at the beginning of class on the day of discussion, and each will answer one of the questions posed to help guide and focus our discussion. An essay should be one page, typed, double spaced, and approx. 300 words. We will grade them on a check-plus, check, check-minus, 0 scale. In these essays you do not need an introduction or conclusion; you should get straight to the point. An excellent essay will show an understanding of the assigned readings; make interesting connections, comparisons, or contrasts between readings; and provide original insights into the materials. Essays will not require any additional research. No late papers will be accepted. Your essays are worth 20% of your overall course grade. We will provide you with feedback on your essay promptly.

Data analysis leaders are not responsible for writing a short essay for the day they lead an analysis (see below).

- **expectations for analyses**

Students will work in groups of 2 or 3 to lead the class in an analysis of data using the results from the surveys of groups of Central Pennsylvania women. Questions relevant to that week's topics will be provided to help guide these analyses. Analyses will be done using the statistics program SPSS, which is available on the College Software Server. Surveys and survey results are on the course edisk.

The purpose of these analyses is to use data to make evidence-based decisions on questions related to pregnancy outcomes, decisions that may affect policy, treatment, or behavior towards women and their babies. Even more than that, the purpose is to show how to use data to help make decisions. Analysis leaders will be responsible for initiating and advancing our collective understanding of the material. We (especially Professor Yost, the class expert on surveys and survey analysis) will provide guidance on the logic of analysis and on using SPSS, but we leave the project relatively open-ended to make room for your creativity. Groups will be asked to show the class how they arrived at the conclusions they drew. Methods of analysis, and critical thinking using data, are the key elements of this. It is our expectation that the sophistication of these analyses will increase as the semester progresses. Our class meets in a room where we can display computer output so how analyses were done should be easy to show.

Analysis teams may wish to prepare introductory remarks that explore the connection between the readings and the previous presentation and how data might be used to ask and answer questions about them; they may wish to prepare handouts of salient points or questions for further discussion or tables and charts that are useful in informing our discussion of the issues. The form of the student-led analyses is up to the student leaders of them. These should take-up no more than 30 minutes of class time.

Profs. Yost and Miller will host a series of workshops on using SPSS in Lsp-143 (the Life Sciences and Philosophy Building Advanced Statistics Laboratory: just opposite the front door) every other Wednesday afternoon at 2:30 p.m. The first workshop will be on Wednesday January 30; others will be every other week thereafter (Feb. 13, Feb. 27, Mar. 12, Mar. 26, Apr. 9). We will have no particular agenda at these meetings; we will help you get started with your analysis and answer questions. We are also available to help you at other times by appointment.

Analysis leaders are not responsible for writing a short essay for the day they lead an analysis. Analysis leaders are responsible for keeping the class on schedule so all the day's work is accomplished.

Your performance as an analysis leader will count for 20% of your course grade. We will provide you with feedback on your performance as soon as possible after you have been an analysis leader. If you have prepared materials for your presentation, SPSS files, PowerPoint slides, or handouts, we ask that you turn them in to us after your presentation.

You are each assigned to one leadership team (see above). If you would prefer to be on an analysis leadership team to which you have not been assigned, you may negotiate a mutually agreeable swap. If you do so, please inform us as soon as you have made the arrangement.

- **research project**

Each student will produce a 4-5,000 word research paper that explores in depth a topic in pregnancy outcomes, broadly defined. The final paper will be due May 6. Each of you will work with one of us; we will help you decide which one of us is most appropriate based on the topic you choose (see below). If you wish, and one of our guests agrees, you may seek help from him or her. There are also alternatives to this project (see below). Intermediate due dates are:

topic: a one-paragraph description of the topic you wish to explore—due February 12

preliminary list of sources: a list of at least five sources you intend to read in preparation for writing your report, each annotated with a short paragraph describing the important content of the source—due March 11

précis: a 1-page summary of the essential arguments you intend to make in your report, in other words, an outline of how the paper will work—due April 8

final paper—due May 6

You will receive feedback on each part of your report from the one of us who is supervising your work. The final paper will be read by your supervisor and one other of us, and we will confer on its grade. We will, typically, deduct for late or sloppy work.

Alternatively, you may fulfill this part of the requirements of the course with service-learning or with an applied project or paper. The service-learning alternative may be through SouthEast Lancaster Health Services or another of the College partners. The College Ware Institute will be able to help you with this; see their *Guide to Service Learning*. This alternative will require written work or presentation to connect your service to the context of the course. The other alternative is to write a more applied or advocacy paper; this might involve data analysis and conclusion, possibly growing from your in-class analysis project, or using data to advocate a policy position or change.

- **grading**

Your final grade will be based on the following percentage distribution:

participation	20%
short essays	20%
data analysis	20%
research paper	40%