Instructor: Robert R. (Bob) Keller, Ph.D.
Professor of Economics

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Email: Robert.Keller@Colostate.Edu. Please contact me if you want to make an appointment outside scheduled office hours, or if you want to visit, or if you have questions or problems.

Office Hours: T & R, 2-3; W, 2-3; and by appointment (email me with possible meeting times).

Classes: Section 1, 9:30-10:45 TR in room C 364 Clark; Section 2, 12:30-1:45 TR in room C 364 Clark. Please attend the section time you registered for.

Learning Objectives

Content
1. To comprehend the power of historical perspectives and economic analyses for understanding the past and present, and for making informed conjectures about the future.
2. To understand the sources of U. S. economic growth from colonial times to the present.
3. To compare and contrast the First, Second, and Third Industrial Revolutions.
4. To examine the transformation of the U. S. economy from an agrarian society to an industrial economy and to a service economy.
5. To understand peoples’ reactions and responses to the problems of market forces, industrialization, and transformation of the economy and society.
6. To explore the co-evolution of institutions such as Big Business and Big Government and their roles in promoting or decreasing economic growth and increasing or decreasing monopoly power.
7. To explore the relationship between economic growth, the standard of living, shared prosperity, and the concentration of income and wealth among the rich.
8. To examine the hypotheses of sluggish growth and secular stagnation in the 21st century.

Skills
1. To develop communication skills.
2. To enhance reading comprehension.
3. To develop analytical and reasoning skills.
4. To encourage learning communities by having common readings, class discussion, distributing study questions before the exams, and by having a common final project.

Contact Hours and Workload

1. Attend lecture: 2.5 hours/week
2. Read presentation outlines before lecture: 1.0 hours/week
3. Read required readings and presentation outlines in depth before quizzes, and exams: 2.5 hours/week
4. Study for essay questions on exams: 2.0 hours/week
5. Research and write final project: 1.0 hours/week
TOTAL 9.0 hours/week
Weights for Evaluation of Performance

1. Six multiple choice quizzes and drop lowest score: 100 points
2. Two essay exams, 100 points each: 200 points
3. Final Project: Three-page paper that explains the role of “new technology” on productivity and economic growth in the 21st century: 100 points
   TOTAL 400 points
4. Extra points for excellent participation in class discussion: 20 points

Grading

1. An absolute grading scale is used:
   A- to A+, ~90% to 100%; B- to B+ = ~80% to 89%; C to C+ = ~70% to 79%; D = ~60% to 69%; F = ~59% and below.
   Grades on the border will be given a plus or a minus. The cut-off will be determined by the end of the semester.
2. Absences: Please note this is NOT an on-line course. It is an in-residence course and attendance during every class period is expected. Your final course grade may be reduced up to one full grade for excessive unexcused absences—missing 5 classes or more. If your schedule interferes with attending class, please consider taking an on-line course. If you miss class for legitimate reasons such as illness or University-sanctioned extra curricular/co-curricular activities please provide written documentation (in advance, if known). Make-ups for missed assignments will be given only if written documentation for an excused absence is presented to me.

Academic Integrity
This course will adhere to the Academic Integrity Policy of the Colorado State University General Catalog and the Student Conduct Code. You will be asked to sign an Honor Pledge such as: “I will not give, receive, or use any unauthorized assistance” on course assignments. Please refer to Academic Integrity in the General Catalog: http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/

Disabilities
If you have any diagnosed or suspected physical or learning disability which may require a reasonable accommodation, please contact Resources for Disabled Students, to request a reasonable accommodation http://rds.colostate.edu/accommodation-process. If you receive (or have received) a reasonable accommodation, please notify me.

Required Readings
I am not using a text because the price is prohibitive, $300. I am requiring Robert J. Gordon, The Rise and Fall of American Growth (Princeton University Press, 2016)—a New York Times best seller. Please purchase the book immediately. The book costs $32 at the CSU bookstore and you may want to check online prices. The course is organized around required readings from Gordon, and chapters from other books, journal articles, and my class presentations. The assigned book chapters and articles are on the course syllabus. Book chapters are on electronic reserve [E-Reserve] at: https://reserve.colostate.edu/ares/ares.dll Log-in and click on 379 and your section number. And this syllabus has electronic links to journal, newspaper and magazine articles.
Reading Assignments
Please read my presentation outlines and peruse the required readings before class, and thoroughly read and comprehend the reading assignments after my presentations and before quizzes and exams.

Class Discussion
All students are expected to engage, at least occasionally, in informal class discussion such as asking questions and responding to student questions and my questions. Outstanding participation may contribute up to 5 percent of your final course grade.

Examinations
There are two essay examinations in the course. The exams are scheduled for Thursday, March 1 and Thursday, April 19. Please place these dates on your calendar and re-arrange your schedule, if necessary, to take the exams on these dates. Study questions for the exam will be distributed at least one week before the exam date and I hope having the questions encourages you to study with other students in the class.

Final Project
The final project asks you to explain Robert Gordon’s arguments and conclusions about why real GDP per capita growth will be sluggish at best from 2014 to 2045. Please look at the last page of the syllabus for a more detailed description of the project.

My Class Presentations
Please take notes on my presentations during lectures. The presentations are a road map to organizing the material, a short-cut to identifying the most important material from the readings, and they contain information not found in the required readings. Helpful Hint: I will do my best to send presentation outlines via Canvas to you before class. I suggest you make paper copies and bring them to class. You may want larger margins and you may not want to print pages back to back so you have space for note-taking. Please read the article below which explains the effectiveness of writing notes for class presentations.


Electronic Devices
Please turn off all electronic devices during class period. If you have special needs that require electronic devices, please let me know in the first week of class.

Office Hours
Office hours are an integral part of the course because they provide opportunities for one-on-one discussion, asking questions, and answering questions. Further, office hours contribute to the distinct advantage of in-residence courses over on-line courses, namely non-electronic face-to-face communication where we can get to know one another better and personalize the educational process. If you cannot attend scheduled office hours, please email me for an appointment and give me days and send me days and times you can meet.
COURSE OUTLINE AND REQUIRED READING ASSIGNMENTS

Introduction [January 16 & 18]

1. Economic history uses historical and economic analysis to understand the past and the present, and to make informed conjectures about the future. And current research informs the past so, for example, there is a fuller understanding of the Great Depression today than in the 1960s.

     *The special century” [1870 to 1970]: non-repeatable inventions were hugely impactful on economic growth and the standard of living.
     *The post-1970s economy: inventions were more narrowly focused on entertainment, communication, and information and less impactful on economic growth.
   • Gordon’s conjecture about the future: economic growth is sluggish, income inequality is rising, and foreseeable inventions are less impactful than the great inventions of the past.

3. The relationship between economic growth (Gross Domestic Product—GDP), the standard of living (GDP per person), and the quality of life/living.
   • Gordon, The Rise... (pages 8-13).

4. What are the shortcomings of GDP?

Sources of U. S. Economic Growth: The Interplay of Competitive Markets and Government Policy [January 23 to February 1]
The sources of U. S. growth include incentives for private property owners, expanding markets, government policies, innovations and technical change, entrepreneurs and workers (including immigrants), and a pool of varied and abundant natural resources. The focus in this section is on competitive markets and government and how an optimal combination of both can promote efficiency, economic growth, and shared prosperity. It is impossible to have private property and competitive markets without government providing and enforcing the “rules of the game.” The use of my property may result in external benefits to you and society or it may impose external costs to you and society. In these cases, the door opens for government intervention to decide, for example, whose property rights shall prevail.

1. The role of human capital, physical capital, natural resources, and technical change that increased productivity and the standard of living.

2. Private property, law, markets, and economic growth.
3. The ideology of laissez-faire competitive markets and a minimalist role for government.
   • Jeff Madrick, Part I, “Government and Change in America,” The Case for Big Government, skim
     pages 1-30. [E-Reserve https://reserve.colostate.edu/ares/ares.dll]
4. A positive role for state and federal governments in promoting U. S. economic growth and development.
   • Madrick, Ibid. Read in-depth pages 31-63. [E-Reserve https://reserve.colostate.edu/ares/ares.dll]
5. The contributions of entrepreneurs.

The First Industrial Revolution (IR 1): Technological Change, Natural Resources, and the Expansion of Markets, 1800 to 1914. [February 6 to February 15]

Industrial Revolution 1 (IR 1) is based on water power (textiles), steam power (steam engines), and the railroad. In the beginning, the U. S. economy was characterized by a small (tiny!) population and an immense pool of potential natural resources such as agricultural land, rivers, lakes, oceans, forests, and industrial minerals. The scarcest economic input was people (labor) and labor was economized through new production techniques that substituted water power, animal power, and machine power for labor. In the South before the Civil War, slavery was an institution that enabled owners to force more production from slaves. Techniques in the North and the South were natural resource using and so the American system of production can aptly be characterized as ripping through abundant resources (sod, forests, minerals, etc.) and creating environmental decay, pollution, and congestion. Transportation improvements were vital because they brought people to resources and resources to people, and they expanded markets which led to greater specialization and higher productivity.

   • Atack & Passell, “The Transportation Revolution.” Chapter 6, pp. 143-174 [E-Reserve https://reserve.colostate.edu/ares/ares.dll]

2. Early industrialization.

3. Industrialization from the Civil War to World War I.

4. The U. S. advantage of large pools of varied, non-renewable mineral resources in industrial production.
   • Gavin Wright, “Where America’s Industrial Monopoly went,” Wall Street Journal, December 20, 1990. [This one-page article will be posted on Canvas]

5. Describing the standard of living in 1870

The Consequences of Growth, Industrialization, and Transformation [February 20 to March 8]

The latter third of the 19th century to World War I was characterized by rapid economic growth and increasing levels of average per capita income. When the substrata of economic growth and the average standard of living are exposed, there are many adverse consequences that accompanied the rise of the U. S. to the world’s leading economic power. There were colossal fortunes for the wealthy, conspicuous consumption, the rise of capitalist power (monopolies), workers and farmers felt oppressed.
by monopoly capital (Big Business), corruption was rampant, and democracy was threatened. Biometric data show people were getting shorter and that may reflect declining nutrition. And there is environmental decay, congestion, and pollution in big cities. Mark Twain referred to the period as the “Gilded Age” because the period was glittering on surface like a thin veneer of gold and it masked social problems, corruption, tremendous income and wealth disparities, pollution, and congestion. The rich were getting richer and the poor were becoming poorer. Some say, me included, the U. S. is currently experiencing another Gilded Age.

1. The rise of Big Business.

   Question and answer session Tuesday in class on February 27

   FIRST EXAM, THURSDAY, MARCH 1

2. The rise of federal government intervention. U. S. capitalism changed because of the evolution toward Big Business and the evolution of Big Government as a countervailing force to Big Business and its excesses. The result is a “mixed economy” of markets and government intervention.

SPRING RECESS, MARCH 10 THROUGH MARCH 18
[Note the last day to “W” from classes is Monday, March 19]

The Second Industrial Revolution (IR 2) begins in the latter stages of IR 1. The extension of mechanization and mass production was accompanied by new technologies that brought water and electricity inside homes and factories, the internal combustion engine, and so forth. It was these new technologies that radically improved the standard of living, and transformed homes, industry, and cities. Robert Gordon argues that these new technologies could only happen once and that they were more transformational than the new technologies of IR 1 and Industrial Revolution 3 (IR 3--information and communication technologies). He also explains how people lived from 1870 to 1920 as the economy was transformed by industrialization and urbanization.

1. The transformation of the American home.
2. The transformation of transportation, cities, and industry.
3. The age of mass communication.
   •Gordon, The Rise..., Chapter 6, “From Telegraph to Talkies…,” pp. 203-205.
   • Gordon, Chapter 4, pp. 127-8, Chapter 5, pp. 168-171 and Chapter 6, pp. 203-5.
Twentieth Century Economic History: Prosperity, Depression, and the New Deal, 1920-1940

This period was sandwiched between World War I and World War II. These two decades are examined in chronological order because although the 1920s is interesting in its own right, historians have claimed that the seeds of destruction that caused the Great Depression were sown in the 1920s. The New Deal is primarily a response to structural changes in the 1920s and to the depths of the Great Depression, 1929 to 1933. The 1920s was a period where government instituted pro-business policies and it was an era of rapid labor productivity growth and increases in real GDP per capita. The gains in productivity were captured by corporations and income and wealth distributions were skewed toward the rich. The decade ended with the Great Crash in the stock market that triggered a world-wide financial crisis and economic collapse. It is important to realize that the stock market by itself would not have caused the Great Contraction between 1929 and 1933. Government policies of action and inaction contributed to the downfall. Beginning with the new Roosevelt administration in March, 1933, a set of policies known as the New Deal greatly expanded the scope and scale of the federal government to promote economic relief and recovery, to reform of institutions to improve the economy, and to provide more assistance for those who lacked power (e.g., workers and unions) or whose economic security was tenuous (e.g., the poor, unemployed and the elderly).

1. The “Prosperous” Decade of the 1920s.

2. The Great Depression.
   • Peter Fearon, “Is there an Explanation for 1929-1933?” Chapter 9. [E-Reserve https://reserve.colostate.edu/ares/ares.dll]

3. The New Deal.

The Post-World War II Economy: Rapid Growth and Shared Prosperity, 1947 to 1973 and Sluggish Growth and Rising Inequality from 1974 to 2016  [April 10 to April 19]

This era is composed of a period of rapid economic growth with shared prosperity from 1947 to 1973. Although income is distributed unequally, the growth of income among rich, middle class, and poor families increased at almost the same rate.

1. The miracle of high growth from the 1920s through the 1950s.


3. Gilded Age 2. The period after the 1970s had disproportionate increases in income and wealth to the rich and super rich (the top 1/10 of one percent) while the incomes of the poor and middle class languished.


Question and Answer on Study Questions for Exam 2, Tuesday, April 17th

SECOND EXAM: THURSDAY, APRIL 19

The Third Industrial Revolution (IR 3): New Information and Communication Technologies [April 24 to May 3]

Robert Gordon says the impact of IR 3 is far less than the transformation caused by IR 2. As a result, productivity growth and increases in recent real GDP has and will continue to be sluggish. This problem is compounded by the “six headwinds” such as inequality and retirement of older workers. So real GDP per capita growth and Gordon’s concept of the overall standard of living will be stagnant. Beyond Gordon, there is a developing literature about the new technology of artificial intelligence, smart machines, robotics, software, and algorithms that are accompanied by fears that the new technology will cause technological unemployment and a “jobless” economy.

1. Robert Gordon’s pessimism about U. S. growth in the 21st century
   • Gordon, The Rise... Chapter 18, “Inequality and the other Headwinds: Long-run American economic growth Slows to a Crawl,” pp. 605-624, only.

2. Placing Technological Change in Broader Historical Contexts.

3. The technological optimists.
   • Robert Gordon, The Rise... Chapter 17, pp. 593-601. Gordon presents a summary of the optimists’ forecast of new technology’s impact on the future.
   • David Autor, “Why are there still so many Jobs?” TED talk, September, 2016. [http://www.ted.com/talks/david_autor_why_are_there_still_so_many_jobs#t-674131](http://www.ted.com/talks/david_autor_why_are_there_still_so_many_jobs#t-674131)

4. The technological pessimists.

6. The future is uncertain, “we simply do not know.” [Keynes] There are a wide range of forecasts about GDP per capita growth for the remainder in the next thirty years. My hope is you can appreciate that knowledge of history may lead to informed and conflicting conjectures about the future.


THE FINAL PROJECT

Robert Gordon argues that real GDP per capita growth from 2014 to 2045 will, at best, slow to a crawl. His argument is based, in large part, on the differential impact of inventions, innovations, and incremental improvements of new technology from Industrial Revolution 2 (IR2) and Industrial Revolution 3 (IR 3). He weaves together a narrative that leads him to the conclusion that (IR 2) had a much larger transformative impact than Industrial Revolution 3 (IR 3). He supports his narrative and conclusion by examining real GDP per capita, total factor productivity (TFP) growth, and a plethora of other elements not included in GDP and TFP that raise the standard of living.

The Final Project serves as the Final Exam for ECON/HIST 379. Your paper shall respond to the following three statements. First, fully explain Gordon’s arguments for the larger transformative impact of IR 2 over IR 3. Support your answer with data on real GDP per capita, total factor productivity, and other elements that increased the standard of living. Also, explain how the growth of income for the bottom 99% affects Gordon’s calculation for changes in the standard of living. Second, explain the single biggest weakness in Gordon’s analyses and conclusions. Third, the new technology literature is divided into two groups of “techno-optimists” and “techno-pessimist.” Explain to which group Gordon belongs.

The Final Project is a constrained research paper where your sources are the required readings on the syllabus, especially those after Exam 2. You may use my presentation outlines as a guide to find the relevant reading, but your citations must be from the required readings. Do not cite my presentation outlines. You are welcome to use one source that is not a required reading although it is not a requirement for the Final Project. For citations that are from the required readings, please cite ideas and quotations by the author’s last name and page number and please use full citations for your one, outside source (if you have one).

Your paper should be typed, have 1.5 spaces between lines, be limited to a maximum of three (3) pages, and have “moderate” margins and font size (11-12 font). The point distribution for your paper is:

- Explanation of Gordon’s analyses and arguments for sluggish growth (statement 1) 70 points
- Explanation of Gordon’s single biggest weakness in analyses: 20 points
- Explanation of whether Gordon is a “techno-optimist” or a techno-pessimist”: 10 points

You are expected to have excellent organization and clarity of expression and to cite all ideas or quotations from the required reading. The Final Project is due no later than:

- ECON/HIST 379, Section 1, 9:30-10:45 TR, due on Thursday, May 10, 2 p.m. C 364 Clark.
- ECON/HIST 379, Section 2, 12:30-1:45 TR, due on Wednesday, May 9, 10 a.m. C 364 Clark.