

The Principles of Economics Textbook:
An Analysis of Its Past, Present & Future
by

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Table of Contents

Abstract	4
Thank You	4
Introduction	5
Summary	5
Part I: Literature Review	6
David Colander – What Economists Do and What Economists Teach	6
David Colander – The Art of Teaching Economics	8
David Colander – What We Taught and What We Did: The Evolution of US Economic Textbooks (1830-1930)	10
Mark Skousen – The Perseverance of Paul Samuelson’s <i>Economics</i>	12
Part II: Methodology – Approach Taken and Books Used	15
Approach Taken	15
Books Used	16
Part III: Analysis	17
Textbook Size	17
Consensus Text	18
Microeconomics	19
Supply and Demand	20
Macroeconomics	21
Aggregate Supply and Aggregate Demand	22
Game Theory	23
Behavioral Economics	24
Labor Economics	26
Economics of the Family	27
Law and Economics	28
Public Economics	29
Health Economics	30
Industrial Organization	31
Environmental Economics	32

Urban Economics	33
Race and Gender	34
History of Economic Thought.....	35
Money and Banking	36
Fiscal Policy	37
Economic Growth	38
Development Economics.....	39
International Trade	40
Part IV: Concluding Thoughts and Future Outlook.....	41
Summary of Findings	41
The Future of Principles of Economics.....	43
Exhibit A.....	45
Exhibit B	46
Exhibit C	47
Exhibit D.....	48
Exhibit E	49
Exhibit F.....	50
Exhibit G	51
Exhibit H.....	52
Exhibit I	53
Exhibit J	54
Exhibit K.....	55
Exhibit L	56
Exhibit M	57
Exhibit N.....	58
Exhibit O.....	59
Exhibit P.....	60
Exhibit Q.....	61
Exhibit R.....	62
Exhibit S.....	63

Exhibit T	64
Exhibit U	65
Exhibit V	66
Exhibit W	67
Exhibit X	68
Works Cited	71

Abstract

Economics plays a large role in today's society, as it affects the majority of our decisions, as well as the decisions made by other individuals, corporations and governments. As a result, economics is one of the most popular college majors. The study of economics usually begins with a student taking a principles of economics course. The majority of the principles classes use textbooks, which is why these books play a large role in economics education. This paper examines the past, present and future of the principles of economics textbooks. 12 different textbooks were analyzed and a "consensus" textbook based on the amount of pages dedicated to 21 different topics was created. Following that, each of the 21 topics was further analyzed. The analysis included the maximum, minimum and average percentage of the textbook allocated to each topic, as well as the description of subtopics that were covered or not covered under each of the chosen 21 topics. This thesis arrived at four main conclusions. First, over the past 20 years, the average size of the principles of economics textbook decreased from 900+ to 757 pages. Second, the world is more global now than it was 20 years ago, yet there is actually less attention given to international trade in the textbooks. Third, there is very little attention given to very important topics, such as behavioral economics, development economics, game theory, economics of the family, and law and economics. Fourth, the change in principles of economics textbooks has been very slow.

Thank You

I would like to thank Professor Simon Bowmaker for his continuous support and guidance throughout the entire process of writing my thesis. I would also like to thank Professor Marti Subrahmanyam and Advisor Jessie Rosenzweig for organizing and facilitating such a wonderful program. Lastly, I would like to thank everyone in the 3rd floor leadership lounge for providing an amazing environment for working on this thesis.

Introduction

Economics is a science that examines the production, distribution, and consumption of goods and services, as well as the creation of wealth. The current studies of the economics field can be traced back to the study of the political economy in the 19th century. As the study of mathematics developed, the study of economics followed. The empirical approach has shaped today's economics and has helped to develop current economic models. Studying economics provides many valuable benefits, such as the knowledge that is needed to understand the impact of developments in business, society and the world economy. The study of economics aids individuals in understanding the decisions of households, businesses and governments based on beliefs, human behavior, structure, needs and constraints. It also provides one with many opportunities and benefits besides simply understanding the finance industry; it teaches us about choice, opportunity, scarcity and the impact of decision making on society. Principles of microeconomics and macroeconomics classes are taken by many students in thousands of different universities and colleges around the United States and the world. Students learn many practical theories in these classes, like how to use their money when buying new things by understanding the concepts of supply and demand. Since economics plays such a large role in the daily life of Americans, it is important to understand how it is taught to the younger generations.

Summary

This thesis is going to analyze the content of principles of economics classes with a focus on textbooks by performing a content examination of 12 principles of economics textbooks and evaluating the page allocation given to different topics. From this point, the thesis will be structured as follows:

- a) Part I: literature review of principles of economics textbooks, which will include writings on the way economics is currently taught, as well as an analysis of the history of principles of economics textbooks
- b) Part II: a description of the methodology used and the approach taken in writing this thesis, as well as an introduction of the twelve textbooks that were used
- c) Part III: an analysis of the research
- d) Part IV: concluding thoughts and analysis of the future of principles of economics textbooks

Part I – Literature Review

David Colander – What Economists Do and What Economists Teach

In this article, David Colander discusses the differences that exist today between what economists do in their day-to-day work and what they teach to their students. At one point in time, what economists did and taught were the same. However, the profession and the textbooks have evolved very differently. The changes in the work that economists do can be attributed to technological advances. These technological advances have made computers a crucial part of research and have made the research itself a lot more technical. These changes came with the understanding that the economy is a very complex system, and that a lot of the research is no longer possible without technology. However, what economists teach has not evolved the same way. Most economics lectures are a lot closer to story-telling than to mathematics. The teaching of economics has been very slow in adopting the technological advances in research into the curriculum. The current structure of principles of economics textbooks reflects Samuelson's

textbook from 1948, which was written before mathematics began to play as big of a role in research as it does today. However, Colander writes that increasing mathematics in principles of economics textbooks is not the solution to the problem, as only 1% of principles students go on to economic research. Microeconomics today focuses on what Colander calls the “efficiency theory” – the books discuss in detail how rational individuals make decisions and how results that are beneficial for the common good arise from rational individuals’ actions channeled by the markets. Principles classes and textbooks tend to focus on scarcity and constrained optimization. On the macroeconomics side, the focus is also on efficiency and on the idea that restrictions limit efficiency. Colander says that such an approach is good for entry level classes but that it has limitations, and these theories are expanded upon in higher level economics courses.

Samuelson wrote his first textbook more than 60 years ago. At the time that it was written, his microeconomic explanations were along the lines of what all cutting-edge economists thought. Today, what economists think has changed drastically, but the textbooks have not followed. Colander believes that eventually textbooks will reflect the changes in economists’ thinking, but at this point there is too much capital tied up for these changes to occur rapidly. Colander expects two main changes in the principles of economics textbook. The first one will be that the story currently told in principles of economics will evolve. Then, long in the future, there will be an entirely new type of textbook built on induction.

Colander sees five main ways that the current textbook can evolve to better reflect the work that economists around the world do. The first such change would be for the current models not to be depicted as the truth but rather as a logical exercise. Such models are very helpful for students to better understand the reality, but they should not be assumed to be the

actual reality. The second change Colander suggests is to deemphasize efficiency. Many current textbooks label efficiency as the goal of society, which is not necessarily the case. As a result, more attention should be dedicated to behavioral economics and failures of market outcomes. The third change should be in the way equilibrium is currently presented. Many books refer to the equilibrium as the state of the economy, while in reality it is just a state of the model. Another solution to this issue would be to present models with multiple equilibria. The fourth suggestion that Colander makes is to present rationality as reasonableness rather than rationality, and to integrate behavioral considerations into discussions. The fifth change mentioned would be to introduce to students non-linear dynamic models to allow them to understand issues that the efficiency theory often ignores.

Colander concludes this article by saying that overall, students learn a great deal in principles of economics classes and aligning the curriculum with what economists actually do is not a requirement for good teaching of economics.

David Colander – The Art of Teaching Economics

The main message that this article sends to its readers is that content and not form is central to teaching economics. There are two main responsibilities that a professor has – teaching and research. Many of the best researchers find teaching an annoying task that comes with their jobs as researchers at universities. Colander's paper wasn't directed at those faculty members but rather at the ones who like to teach and who like to research different teaching methods and techniques. According to Colander, there are many people today that wrongly believe that good delivery skills are the most important ability for a professor. However, it is content that

determines whether one is a good teacher or not. Even though this is a bigger problem in high schools than universities, it is still a problem in higher level education as well.

The new paradigm in teaching is that there isn't enough focus on content. Professors worry a lot about how they deliver their content. They want to be funny and liked, which are all important things, as long as content doesn't suffer as a result. However, it often does. Colander does not think that a teacher should be on a voyage of discovery. The teachers shouldn't try to learn from the students nor have the students learn from each other. Professors are there to share their knowledge to the class, and that's what they should be doing.

Colander writes that good teachers get their students to learn through motivating and not through trying to relate to them. This does not mean that the tone of the lecture shouldn't be conversational. As a matter of fact, that's definitely recommended, because it's more likely to keep students engaged in the issues that are being discussed. Faculty members often make the mistake of falsely assuming that all the students in their classes are motivated to learn. Colander realizes that such is not true, and he thus gives students five minute quizzes at the beginning of every lecture to make sure they're staying on top of the lectures and the homework readings. He doesn't even let his students take notes in his class because he feels that listening carefully to what he is saying is too important. Colander highly values student-faculty interaction and notes that availability of faculty for such interactions is crucial to successful learning. He does note that professors do not need to empower their students, they just need to make sure that they are taught well and that they learn.

Colander then gives his recommendations for assessment in principles of economics classes. Firstly, he notes that the best method of assessment varies with the size of the class.

Colander does believe in grading on a curve – he does not believe that students should need to know 95% of the material to get an A. Lastly, Colander shares his opinion on the use of technology in classrooms. He believes that some technology should have a place in the classroom, such as e-mail, and that others are not as important, such as multimedia.

David Colander – What We Taught and What We Did: The Evolution of US Economic Textbooks (1830-1930)

This article begins with a claim that today there is a much larger gap between what economists do and what economics professors teach than ever before, specifically between 1830 and 1930. There is one main reason that explains this – there has been a drastic shift from qualitative research to mathematical economic research.

Historically, economics has been taught as a single class to seniors. Today, for many students, the principles of economics classes are a beginning of the journey of studying economics. In the 1800s, the principles class was the entire study. Over time, economics became a more established field. A look at the textbooks of that time period shows that economics resembled moral philosophy much more than it resembled a science.

The largest selling textbook during this time period was *Political Economy* by Francis Wayland. The first edition was published in 1837. The book had very little technical economic analysis. Instead, as Colander writes, it “philosophized.” The book had a large emphasis on the idea of good versus bad and the morality of actions. The largest emphasis in the book was placed on “exchange” – a theological harmony of the way the economy works. Labor was divided into productive and unproductive labor. The connection between the Church and the financiers was

described, which established the connection between the financial sector and the real economy at the time. This book labeled economics as a branch of social science.

Another important textbook of this time period was Francis Walker's *Political Economy*, first published in 1883. This book symbolizes the development of Marxian economics and the beginning of graduate study in economics. This book also showed that mathematics was slowly beginning to be included in principles of economics textbooks. This book had no graphs, charts, tables or entries for Marx, Edgeworth or Walras. The book was divided into five sections: method, production, exchange, distribution and consumption, and a final part on applications.

The next important book of the time period was Maffeo Pantalonì's *Pure Economics*, which has been labeled by many the beginning of modern economics, since the book included theorems and theories. First edition was published in 1905, and the book's focus was on economics itself and not on political economy, unlike the majority of its predecessors. This textbook had graphs, as well as chapters on supply and demand, the theory of utility and the theory of value.

There was also the text *Economics* written by Edwin Seligman in 1907. Pantalonì's textbook did not catch on in the United States, and the books remained focused on political economy rather than on economics. Seligman was a generalist and not a pure economist, but was closer to being one than most previous authors. Although there aren't any graphs in the book, there are charts and tables. This book provided more historical discussion than the previous textbooks, and it also provided different views on free trade than ever before.

The tradition formed by these books ended in 1960 with the publishing of Samuelson's *Economics*. The book was structured around more theoretical and mathematical approaches.

Mark Skousen – The Perseverance of Paul Samuelson's *Economics*

This book is the foundation of today's economics pedagogy. Samuelson's textbook went through 15 editions and sold over one million copies. Samuelson introduced Keynes to students. He is also credited with introducing many terms to the economics language that are widely used today: the multiplier, propensity to consume, the paradox of thrift, and countercyclical fiscal policy just to name a few. By the 4th edition, Samuelson declared that 90% of the economists have stopped being Keynesian or anti-Keynesian. In the 12th edition, Samuelson introduced the concepts of aggregate demand and aggregate supply. Samuelson's earlier editions made it seem like Keynesian was the only school of thought, while in reality it was heavily debated in the 1940s and 1950s.

Samuelson had very strong anti-saving views. This bias was found in most of his versions until the recent editions. His view was that greater consumption, not greater saving, was the key to prosperity. However, his views on saving changed in the later versions of the textbook. His views on government budget deficits changed as well. Originally, he believed that such deficits were a good thing. As you can imagine, few economists today think that way about the current budget deficit of the United States. Samuelson caught on as well, stating in his last book that large public debt can clearly be detrimental to long-term economic growth.

Samuelson's views on monetary policy have evolved as well. In the earlier versions, fiscal policy was emphasized more than monetary policy. In the later versions, the opposite was

true. Milton Friedman and Irving Fisher both were not mentioned in some of the editions of the book, although the later editions did mention both of their names.

Samuelson was an avid defender of an activist government. Through 15 editions of the textbook, he clearly favored a significant role of the state. He argued that increasing taxes were just a by-product of economic and social development. He was against supply-side tax cuts, but supported the Keynesian-oriented ones. He was in favor of welfare and anti-poverty programs. After the 5th edition, the chapter on personal finance was removed. There are several reasons why social security deserved more attention. Today, more than 50% of Americans pay more in payroll taxes than income taxes, social security is in the middle of a conflict about intergenerational equity, and there exist several possibilities of revamping the system, such as privatization. Samuelson's texts did not give enough attention to the significance of government failures in making decisions. Since the 12th edition, there are numerous listings under market failures but none under government failures. Samuelson even said that harmful government policies are probably rare.

Samuelson wanted to homogenize mainstream economics. To do that, he created a genealogical diagram of economic thought from the Greeks to the present day. According to this chart, in the 20th century only two schools of economic thought remained: Marxist-Leninist socialism and Marshall-Keynes neoclassical synthesis. More space was dedicated to non-Keynesian economic thought in the later editions. Beginning in the 9th edition, the references of Marx and Engels increased. However, with the fall of the Soviet Union, the discussion of Marx decreased significantly.

At first, Samuelson was very skeptical about socialism. By the middle editions, Samuelson included statistics showing that the Soviet Union was narrowing, or even closing, its gap with the United States. In the 13th edition, Samuelson wrote that, contrary to what many people believe, the Soviet economy is proof that a command economy can function and even thrive. The word “thrive” was deleted in the next version, which was published during the fall of the Soviet Union. Question marks were placed next to the statistics regarding the USSR. Samuelson did admit that his textbooks failed to anticipate the collapse of the Soviet Union.

Samuelson overplayed the economic success of the Soviet Union, but he underplayed the success of the economies of Germany and Japan. The one paragraph he dedicated to the recovery of West Germany’s economy did not do it justice. Japan, which went from a starving nation to a superpower in 25 years, was also barely mentioned. Even when other economics textbooks began giving more emphasis to global issues, Samuelson did not. Only in the 13th edition, the high performing economies of East Asia were mentioned. In that edition, a total of two paragraphs were given to *all* of East Asia’s economic miracles. The economic successes of countries in Latin America did not even get mentioned.

On the positive side, Samuelson was very optimistic about the US economy, he was willing to update the textbooks with new theories and events, and he gave more emphasis to monetary policy, saving and markets in the latest editions of his textbooks. Samuelson had a laissez-faire approach to microeconomic issues, but favored heavy involvement in stabilizing the economy as a whole. Samuelson was very critical of Marx; he weighed in on the burdens of national debt, denied that war and price controls were good for the economy, and questioned whether labor unions can raise wages. Even though some of his advice and opinions are

questionable in light of today's knowledge, his influence on modern principles of economics courses, and economics education in general, is unquestionable.

Part II – Methodology: Approach Taken and Books Used

Approach Taken

This thesis analyzed twelve current principles of economics textbooks. The first step was to outline the chapter breakdown of each textbook and to calculate the number of pages that were devoted to each chapter. Then, 21 topics were selected for further analysis. These topics are: microeconomics, supply and demand, macroeconomics, aggregate supply and aggregate demand, monetary policy and banking, fiscal policy, economic growth, development economics, game theory, international trade, labor economics, economics of the family, behavioral economics, law and economics, history of economic thought, public economics, health economics, urban economics, race and gender, environmental economics and industrial organization. I then went through all 12 textbooks to count how many pages were devoted to each of the 21 topics. When I was able to come up with a total number of pages for each of the topics in each of the textbooks, I calculated the percentage of the book that each topic represented. The next step was to compile all of this information into one chart and to evaluate the calculated statistics. This allowed me to create a “consensus” textbook. Following that, I analyzed the content for each topic in a couple of the textbooks, usually the ones with the highest and lowest percentage of the book dedicated to that topic. I described what exactly was written about, and which subtopics were covered or not covered.

Books Used

The following twelve principles of economics textbooks have been analyzed in this thesis:

1. *Economics* by William Boyes and Michael Melvin, Seventh Edition, 855 pages
2. *Essentials of Economics* by Bradley R. Schiller, Seventh Edition, 378 pages
3. *Microeconomics and Macroeconomics* by Paul Krugman and Robin Wells, Second Edition, 937 pages
4. *Principles of Economics* by Karl Case, Ray Fair and Sharon Oster, Ninth Edition, 732 pages
5. *Microeconomics and Macroeconomics Principles & Application* by Robert Hall and Marc Lieberman, Fifth Edition, 918 pages
6. *Principles of Economics* by N. Gregory Mankiw, Fifth Edition, 845 pages
7. *Economics Today* by Roger LeRoy Miller, Fifteenth Edition, 876 pages
8. *Economics* by Campbell McConnell, Stanley Brue and Sean Flynn, Eighteenth Edition, 783 pages
9. *Essentials of Economics* by Paul Krugman, Robin Wells and Martha Olney, First Edition, 472 pages
10. *Principles of Economics* by Robert Frank and Ben Bernanke, Fourth Edition, 833 pages
11. *Essentials of Economics* by N. Gregory Mankiw, Fifth Edition, 564 pages

12. *Economics* by Joseph Stiglitz and Carl Walsh, Fourth Edition, 895 pages

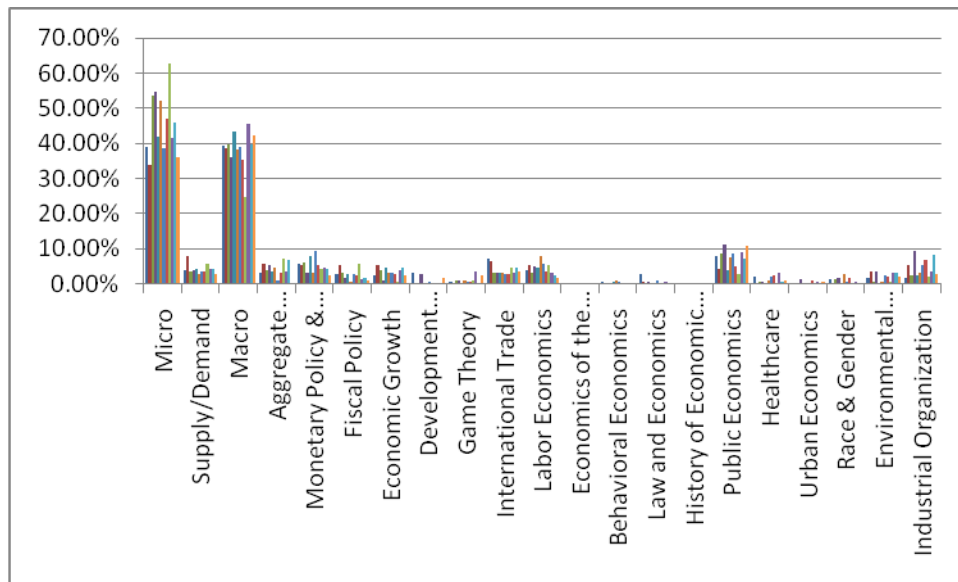
Part III: Analysis

Textbook Size

In *The Principles of Economics Course – A Handbook for Instructors*, a book that was written in 1990, Phillip Saunders and William Walstad state that “the average size of the leading texts has grown from about 600 pages to over 900 pages in the past 30 years” (Saunders and Walstad, 1990). However, it appears as if the size of the average textbook has decreased over the last 20 years. The twelve principles of economics textbooks that were analyzed in this paper had an average length of 757 pages, almost 150 pages less than the 900 figure given in the article.

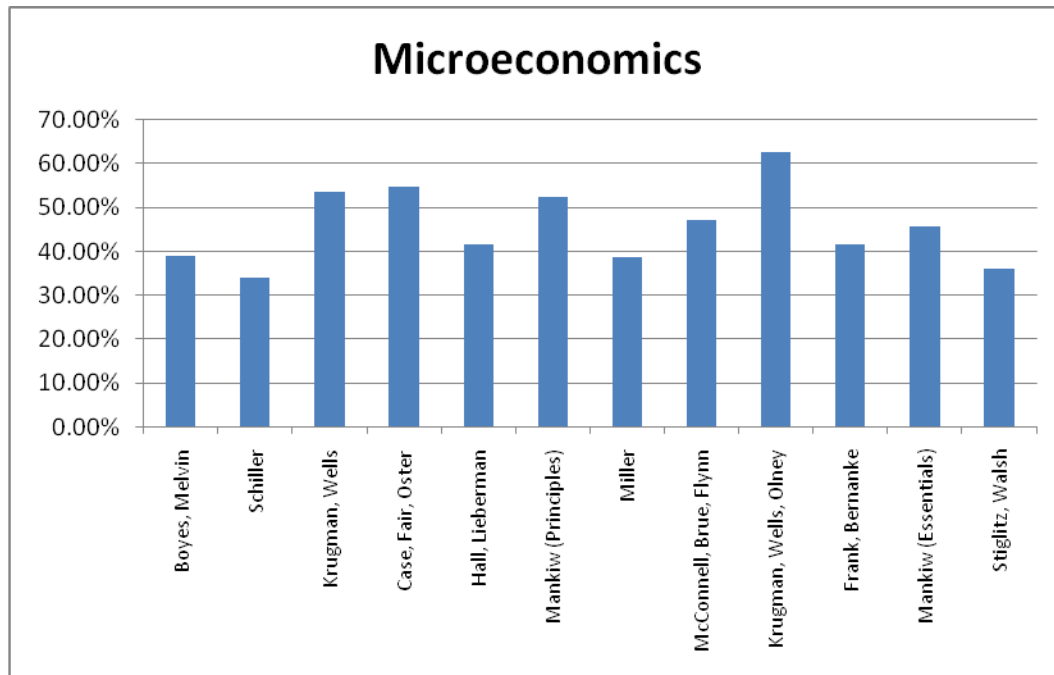
Saunders and Walstad wrote about the different reasons about why the size of the textbooks keeps increasing. They quoted Michael Baskin, the T. M. Friedman Professor of Economics and Senior Fellow at Stanford University, who said that “encyclopedia-like structure of most principles textbooks tends to almost *de facto* to underemphasize basic economics concepts such as scarcity, opportunity cost, and marginality (Saunders and Walstad, 1990). One of the explanations is that professors don’t dedicate as much time to basic concepts as they used to, and therefore textbooks had to grow to include new topics that professors now do want to cover. The importance of adding additional topics to textbooks is that it bridges the gap between what economists do and what they teach. Since Chapter 12 (The Principles of Economics Textbook: History and Content) of Saunders and Walstad’s book places a large emphasis on the growth of the principles of economics textbook, it is important to note the size has decreased since this book was published.

The “Consensus” Text



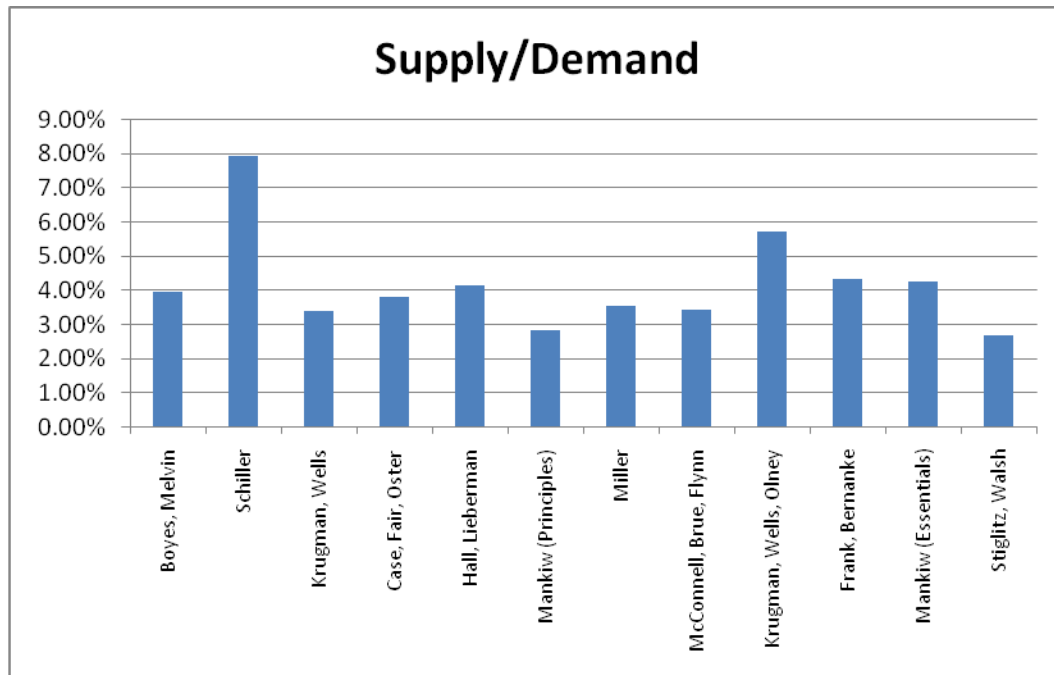
This section summarizes the findings of step one of my research. Out of the twelve books that were examined in this paper, the average one has 45.6% of its pages dedicated to microeconomics, 4.2% to supply and demand, 38.5% to macroeconomics, 4% to aggregate supply and aggregate demand, 5.2% to monetary policy and banking, 2.6% to fiscal policy, 3.1% to economic growth, 0.7% to development economics, 0.9% to game theory, 4.0% to international trade, 4.2% to labor economics, 0.1% to economics of the family, 0.3% to behavioral economics, 0.4% to law and economics, 0.01% to history of economic thought, 7.2% to public economics, 1.1% to health economics, 0.4% to urban economics, 0.9% to race and gender, 1.9% to environmental economics, and 4.4% to industrial organization.

Microeconomics



Microeconomics is the branch of economics that studies the economy of consumers, households, and individual firms. The range for percentage of each textbook that was dedicated to microeconomics was a low of 33.86% in Schiller's book to a high of 62.71% in Krugman, Wells and Olney's book. The average of 45.56% shows that almost half of the principles textbooks cover microeconomic topics. This is approximately the number I expected to see, and once you take away the outliers (the maximum and the minimum), the remaining ten textbooks have a relatively small distribution.

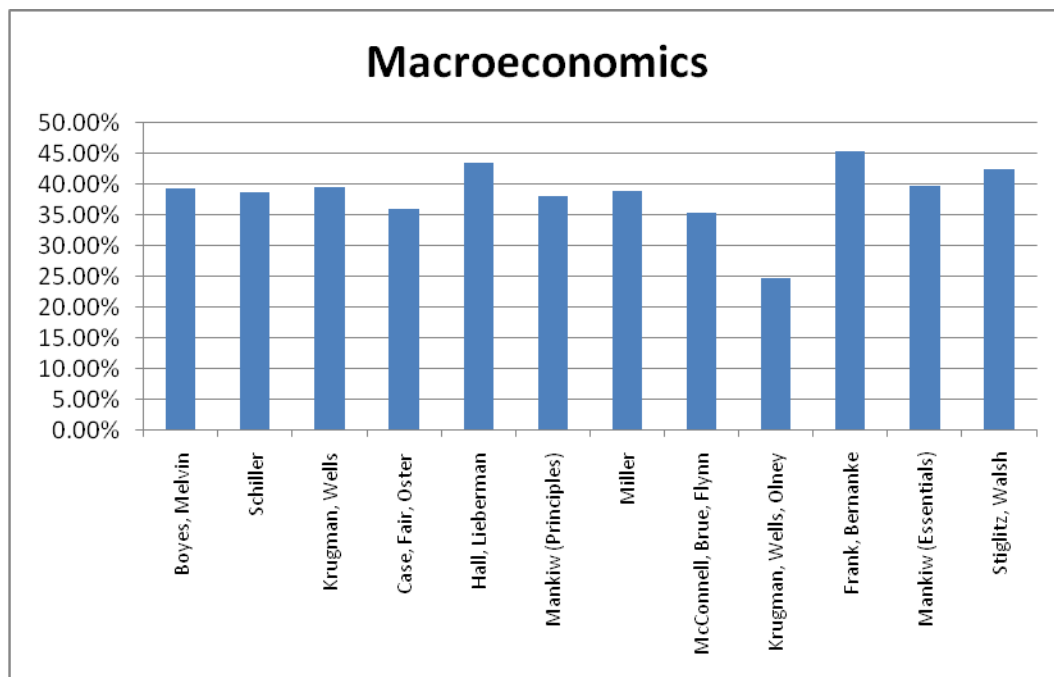
Supply and Demand



The range for supply and demand topics was a low of 2.68% in Stiglitz and Walsh's book to a high of 7.94% in Schiller's book. Schiller's book covers topics such as market participants, goals, constraints, specialization and exchange, market interactions, the two markets, dollars and exchange, supply and demand, demand, individual demand, determinants of demand, shifts in demand, movements versus shifts, market demand, the market demand curve, the use of demand curves, supply, determinants of supply, the market supply curve, shifts in supply, equilibrium, market clearing, surplus and shortage, changes in equilibrium, disequilibrium, pricing, price ceilings, price floors and laissez faire. The topics covered in Stiglitz and Walsh's book are very similar to the ones listed above, even though the percentage difference is large. Therefore, my conclusion about supply and demand is that the material covered in all of the books is similar.

The difference arises from the total number of pages in the book. For example, Schiller's textbook is significantly shorter than Stiglitz and Walsh's, yet the topic of supply and demand is given almost identical attention.

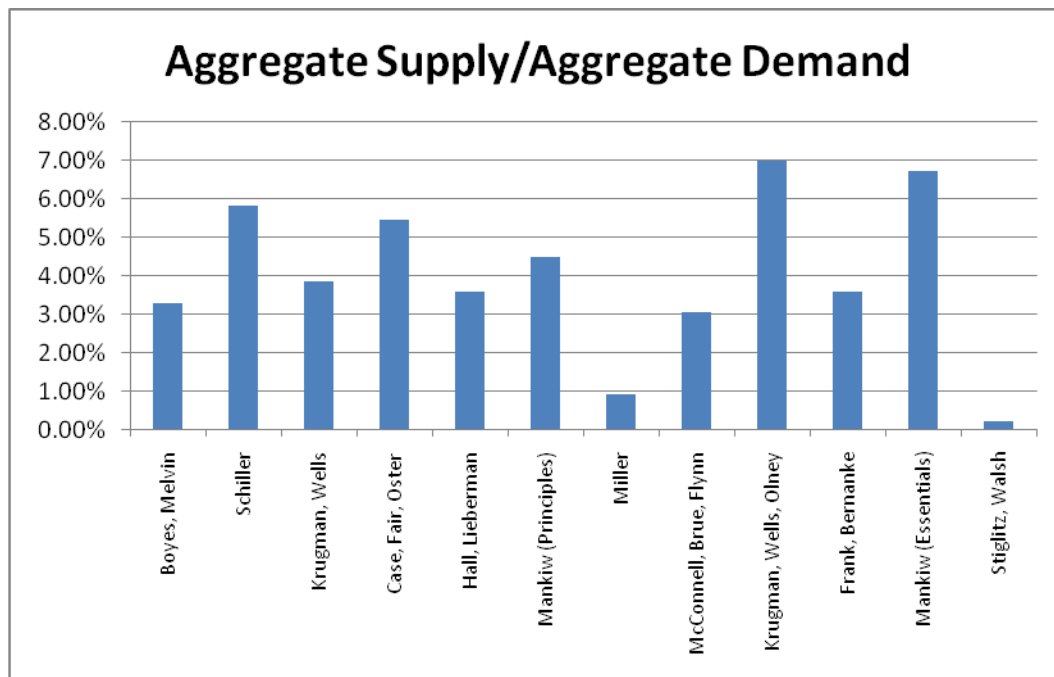
Macroeconomics



Macroeconomics is the branch of economics that studies performance and decision-making of the entire economy. The range for macroeconomics in the 12 principles of economics textbooks was a low of 24.79% in Krugman, Wells and Olney's book to a high of 45.38% in Frank and Bernanke's book. It was not surprising that Bernanke is the author of the book with the highest percentage attributed to macroeconomics. Neither was it surprising that Krugman, Wells and Olney, the authors of the textbook with the highest percentage attributed to microeconomics, had the lowest percentage of the book covering macroeconomic topics. Lastly, it is important to note that macroeconomics is on average given 7% less pages than

microeconomics. Yet, six out of twelve textbooks analyzed in this thesis have more pages on macroeconomics than microeconomics.

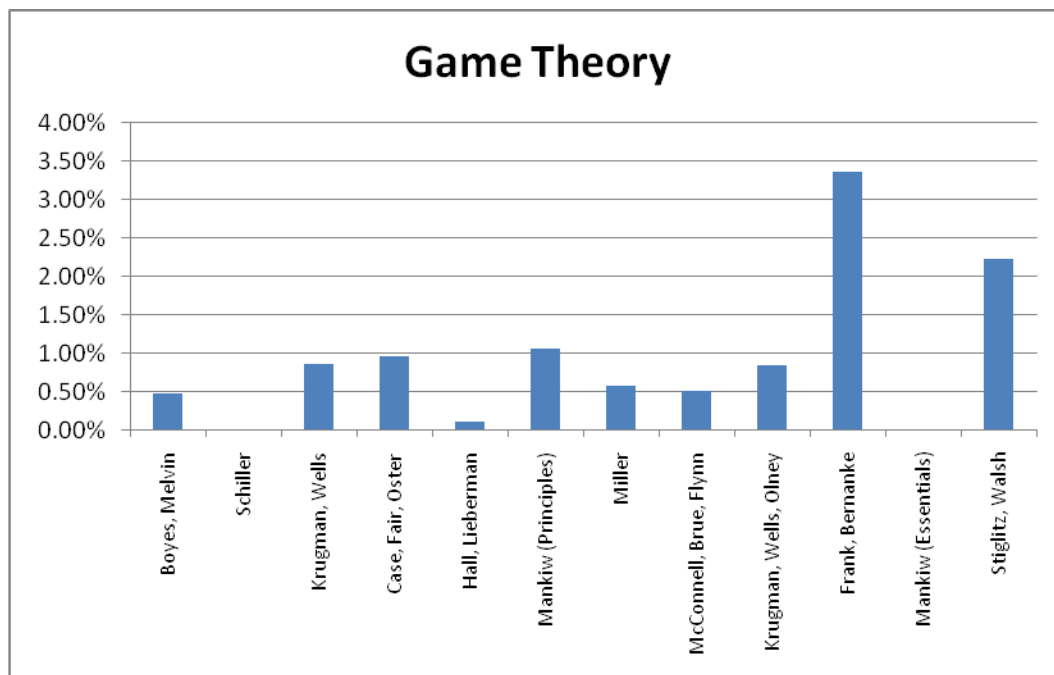
Aggregate Supply and Aggregate Demand



The range for aggregate supply and aggregate demand was from a low of 0.22% in Stiglitz and Walsh's book to a high of 6.99% in Krugman, Wells and Olney's book. Krugman, Wells and Olney cover topics such as aggregate supply, the short-run aggregate supply curve, shifts of the short-run aggregate supply curve, the long-run aggregate supply curve, changes from the short run to the long run, aggregate demand, reasons why the aggregate demand curve is downward-sloping, shifts of the aggregate demand curve, the multiplier, the aggregate supply – aggregate demand model, short-run macroeconomic equilibrium, shifts of the SRAS curve, shifts of aggregate demand: short-run effects, long-run macroeconomic equilibrium, policy in the face of demand shocks and responding to supply shocks. Stiglitz and Walsh do not even have a

subheading in their book dedicated to aggregate supply, or the aggregate demand and aggregate supply equilibrium. There are several sections on aggregate demand, but not nearly as many as in Krugman, Wells and Olney's textbook. As with the supply and demand topic analysis, the higher percentage of pages dedicated to aggregate supply and aggregate demand can be partially attributed to the total length of the textbook. Although there are a couple of exceptions, the topics covered do not vary tremendously from textbook to textbook.

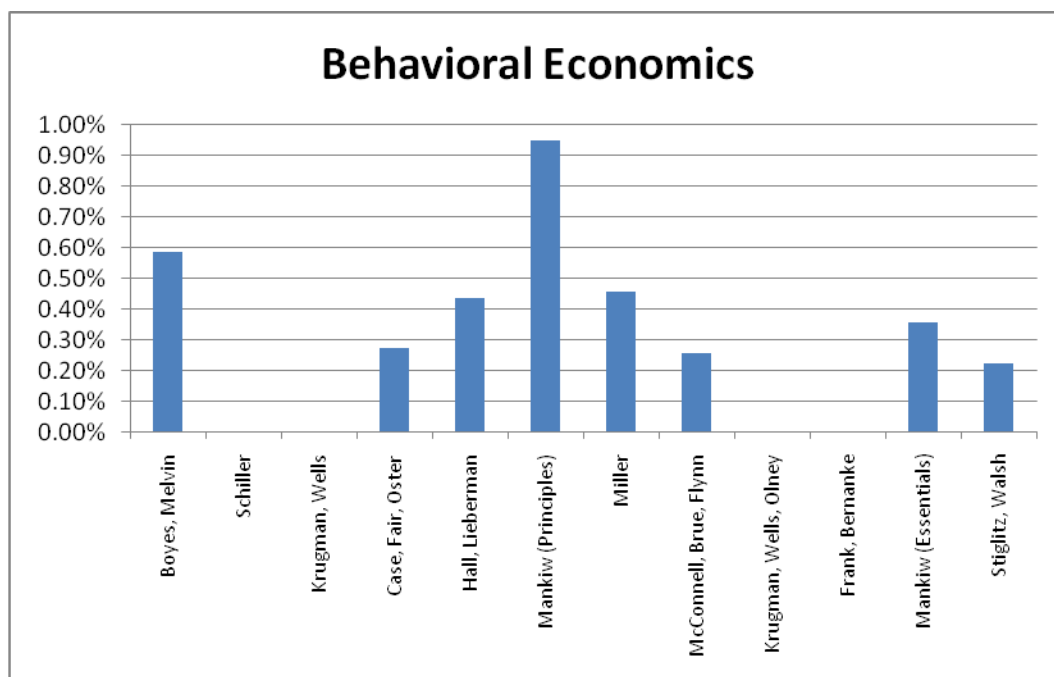
Game Theory



The range for game theory is from a low of 0% in Schiller's and Mankiw's *Essentials* books to a high of 3.36% in Frank and Bernanke's book. Game theory is used widely in economics, and there is an upperclassmen class on just game theory that is often taken by economics majors. Yet, two books do not mention game theory all together. Frank and Bernanke's textbook has a separate chapter on games and strategic behavior, which covers

payoff matrixes, Nash equilibrium, the prisoner's dilemma, commitment problems and the strategies role of preferences. As you can see on the chart above, Frank and Bernanke's book dedicates significantly more pages than any of the other textbooks, with the exception of Stiglitz and Walsh's book. What topics within game theory does an average textbook cover? I chose Krugman and Wells' book as an example. Within the *Market Structure: Beyond Perfect Competition* chapter, there is a subsection labeled *Games Oligopolists Play*. The section on game theory covers the payoff matrix and prisoners' dilemma. While it's certainly a step in the right direction that these topics were included, I would still like to see a more in depth analysis of game theory, such as the one in Frank and Bernanke's book.

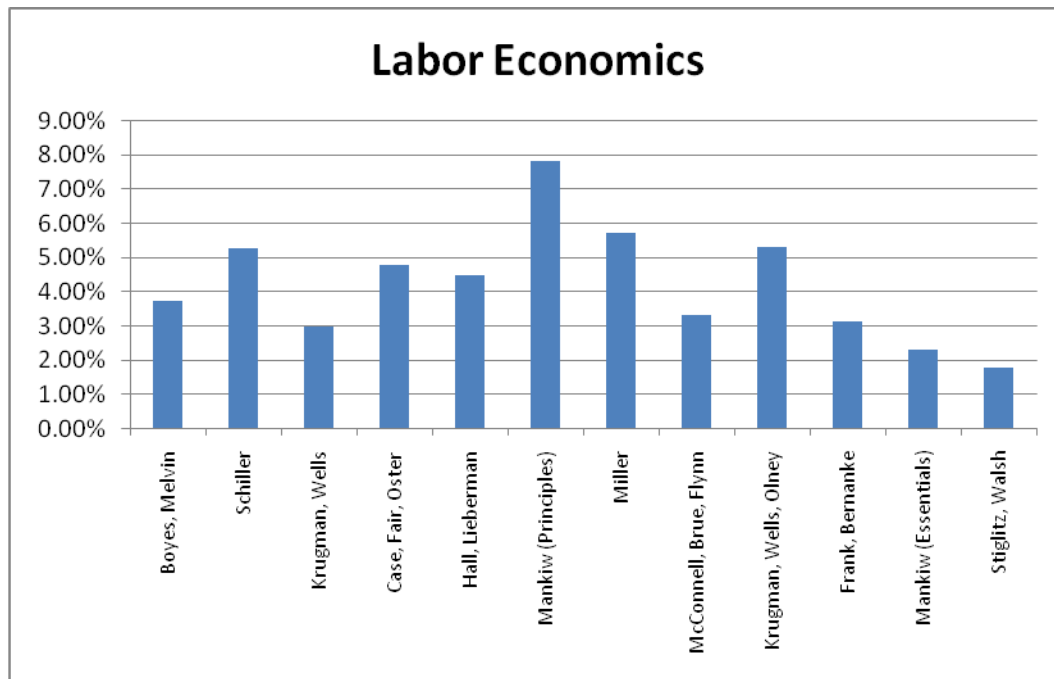
Behavioral Economics



Behavioral economics is an area of economics that uses the insights of psychology to better understand economic decisions that individuals and institutions make while performing

economic functions. This includes consumers, borrowers and investors, and their effects on market prices, returns and resource allocation. The range for behavioral economics is from a low of 0% in four of the twelve books to a high of 0.95% in Mankiw's *Principles* book. In his book, Mankiw includes a subsection called behavioral economics in the *Topics for Further Study* chapter. After the definition of behavioral economics, Mankiw splits up the section into two further subheadings – people aren't always rational and people are inconsistent over time. There is also a blurb about neurofinance which, along with neuroeconomics, is a field that grew out of behavioral economics. Boyes and Melvin in their *Economics* textbook dedicate the second highest percentage of pages to behavioral economics. The topics they cover in their book are overconfidence, mental accounting, status quo, loss aversion and framing, familiarity, anchoring, sunk costs, neuroeconomics and the emotional versus the logical brain. Miller's textbook has a section about behavioral economics as well. The topics covered include the predictability of consumer choices through behavioral economics, the consumer choice theory remaining alive, bounded rationality, and joy from shopping.

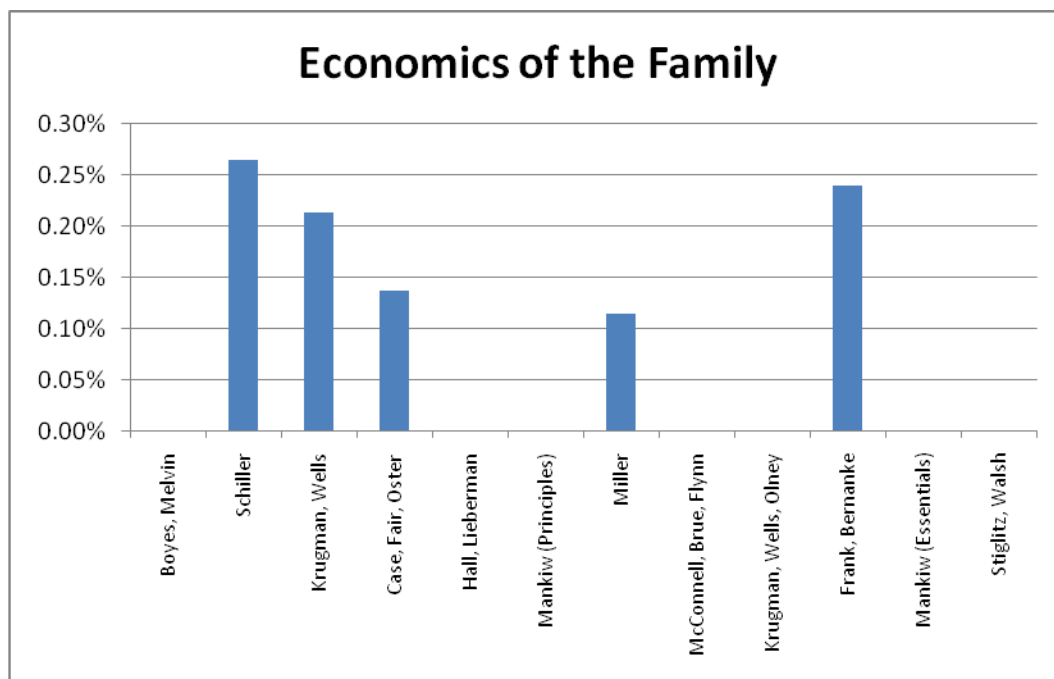
Labor Economics



The range for labor economics is from a low of 1.79% in Stiglitz and Walsh's book to a high of 7.81% in Mankiw's *Principles* book. Mankiw's textbook has one of the thirteen units dedicated to labor economics. The unit on labor markets contains three chapters: the markets for the factors of production, earnings and discrimination, and income inequality and poverty. The topics that these chapters cover include the competitive profit-maximizing firm, the production function and the marginal product of labor, the value of the marginal product and the demand for labor, the causes of labor-demand curve shifts, the trade-off between work and leisure, the causes of labor-supply curve shifts, shifts in labor supply, shifts in labor demand, equilibrium in the markets for land and capital, linkages among the factors of production, determinants of equilibrium wages, compensating differentials, human capital, the alternative view of education: signaling, the superstar phenomenon, above equilibrium wage laws, unions, measuring labor-market discrimination, discrimination by employers, discrimination by customers and

governments, the US income inequality, inequality around the world, the poverty rate, problems in measuring inequality, economic mobility, political philosophy in redistributing income, policies to reduce poverty, minimum-wage laws, welfare, negative income tax, in-kind transfers, and antipoverty programs and work incentives. Stiglitz and Walsh have a chapter on labor markets, with topics covered such as the labor supply decision, firms and the demand for labor, and labor supply, demand, and the equilibrium wage. As can be seen, the range of coverage for labor economics topics is very large, with some textbooks dedicating significantly more pages to this topic than others.

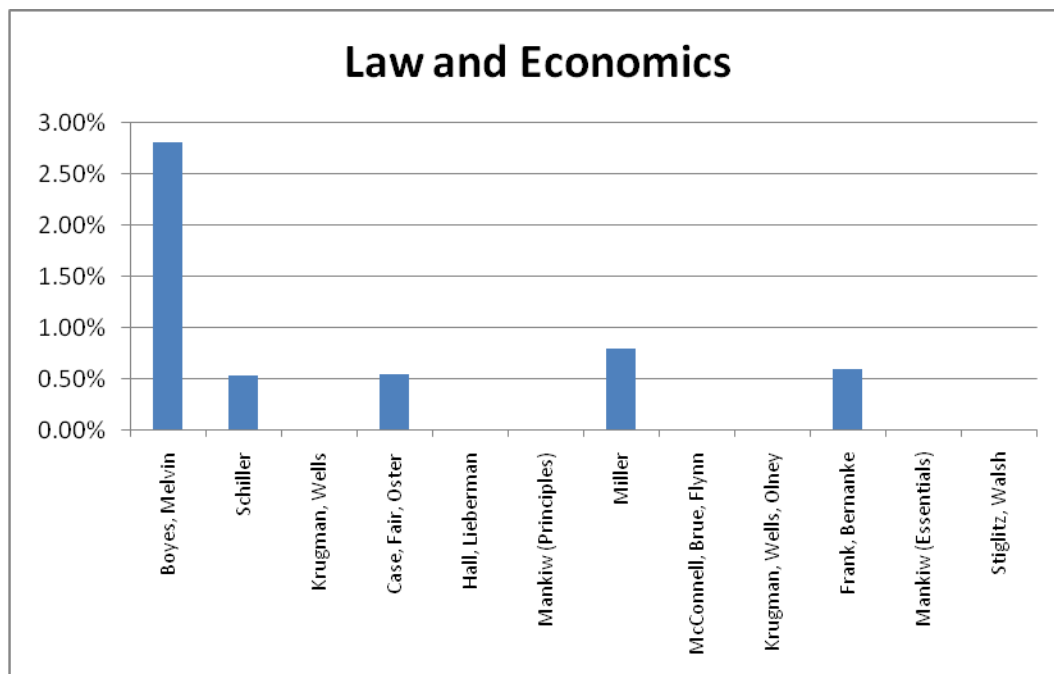
Economics of the Family



Adam Smith recognized the family as a fundamental economic concept. Even so, the topic received very little coverage prior to the 1950s. While my expectations weren't very high, I did not anticipate the average percent of the textbook dedicated to economics of the family to be

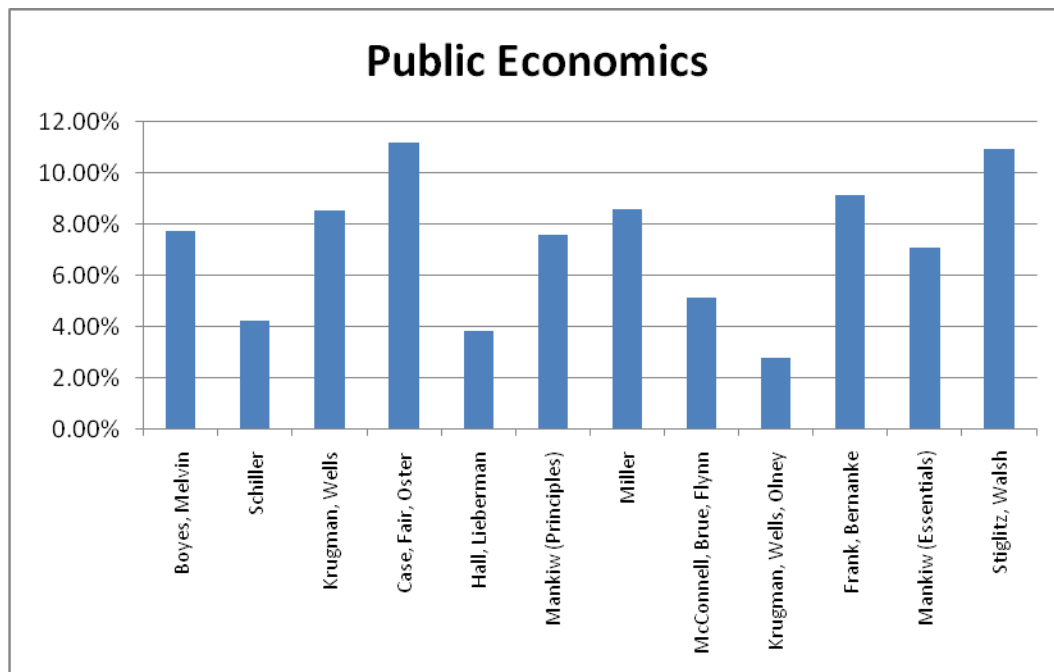
0.08%. The range for economics of the family is from a low of 0% in seven of the twelve books to a high of 0.26% in Schiller's book. The books that do mention economics of the family do so very briefly. For example, Krugman and Wells in their book discuss the correlation between family makeup and poverty. Frank and Bernanke discuss families as a source of labor discrimination and poor families as classification for the poverty threshold. While these are certainly important topics, I would have liked to see principles of economics textbooks discuss the economics of marriage and divorce, demand for children in developed and developing nations, the rise and fall of families, child health and other similar yet important topics. More importantly, however, is that I believe that every principles textbook should at least mention economics of the family.

Law and Economics



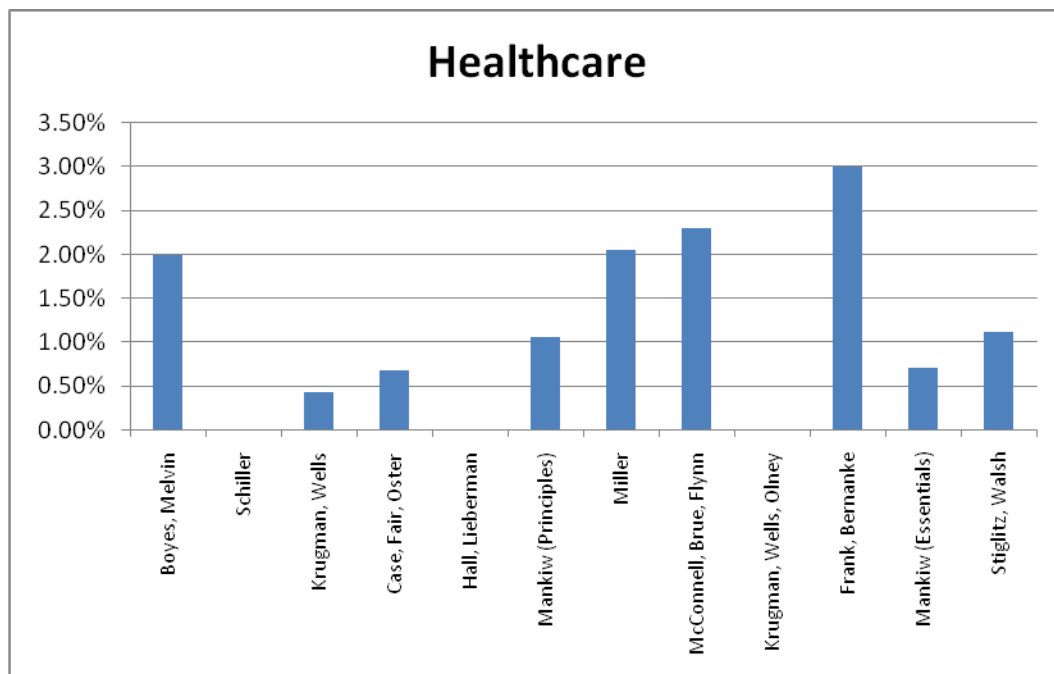
Law and economics is an analysis of law using concepts commonly used in economic analysis. This analysis helps to explain and understand the effect of laws on our society and to evaluate the efficiency of certain laws. The range for law and economics in the twelve principles of economics textbooks examined in this thesis is from a low of 0% in seven of the twelve books to a high of 2.81% in Boyes and Melvin's book. Boyes and Melvin dedicate a chapter of their book to law and economics, and topics such as antitrust, regulation, the Security and Exchange Commission, and intellectual property rights are covered. As you can see on the graph above, the majority of the textbooks cover significantly less than those topics, if they cover anything related to law and economics at all. I understand that covering law and economics is not a priority of principles of economics textbooks, nor do I think it should be, but I do believe that it could be beneficial for the students to at least be introduced to the discipline of law and economics. Also, a sample economic analysis of one or two basic laws would be very helpful.

Public Economics



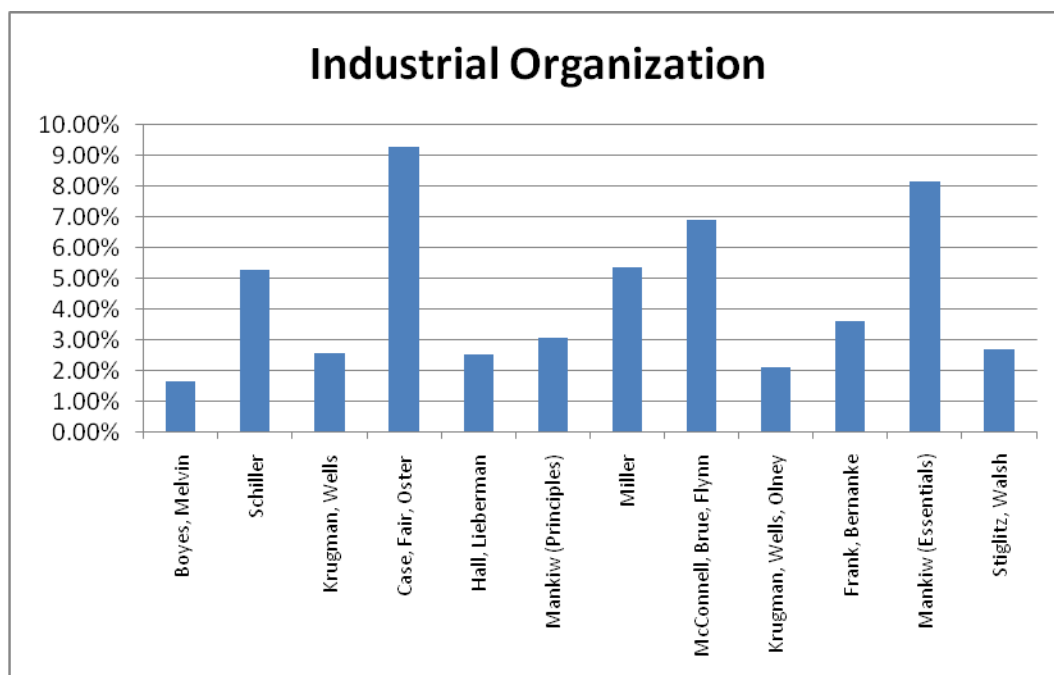
The range for public economics is from a low of 2.75% in Krugman, Wells and Olney's book to a high of 11.20% in Case, Fair and Oster's book. Case, Fair and Oster's textbook has four chapters on public economics topics, such as externalities, public goods and social choice, uncertainty and asymmetric information, income distribution and poverty, and public finance: the economics of taxation. There are many topics that are covered in those four chapters, which is why this textbook has the highest percentage dedicated to public economics. In Krugman, Wells and Olney's book, there is one subsection of a chapter that touches upon just one topic of public economics, the case of public goods and market failures associated with those goods. Thus, it can be concluded that some textbooks give significantly more attention to public economics topics than others.

Health Economics



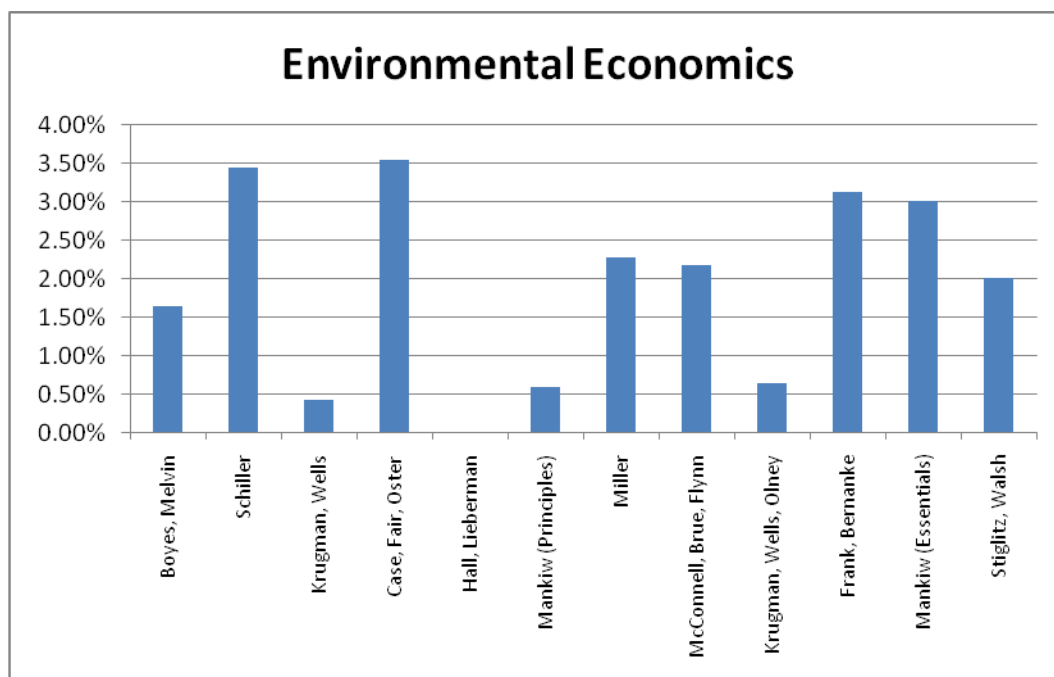
The range for health economics is from a low of 0% in three of the twelve books to a high of 3.00% in Frank and Bernanke's book. I was positively surprised to see that only three of the textbooks did not mention healthcare. Frank and Bernanke in their book analyze how the US healthcare system can be improved and how economic analysis is used in debates about health spending. Other topics include the economics of healthcare delivery, paying for health insurance and the waste resulting from full insurance coverage. Mankiw's *Principles* textbook has 1.07% of its pages allocated towards healthcare topics, slightly below the average of 1.11%. The topics mainly explore healthcare costs, the budget deficit and the issues surrounding medical health insurance. With all the issues surrounding healthcare in the United States today, I believe it is highly beneficial for students to get exposed to health economics in principles of economics classes. Thus, I would expect and hope for this percentage to increase in the future editions of the books.

Industrial Organization



The range for industrial organization is from 1.64% in Boyes and Melvin's book to a high of 9.29% in Case, Fair and Oster's book. While the definition of industrial organization can vary, it is important to note that the concepts I looked for when analyzing this topic's coverage in principles of economics textbooks was the theory of the firm and producer theory. As can be seen from the graph, the attention given to this topic varied largely from book to book, but unlike some other topics examined in this book, it was at least given some attention in each one of the textbooks.

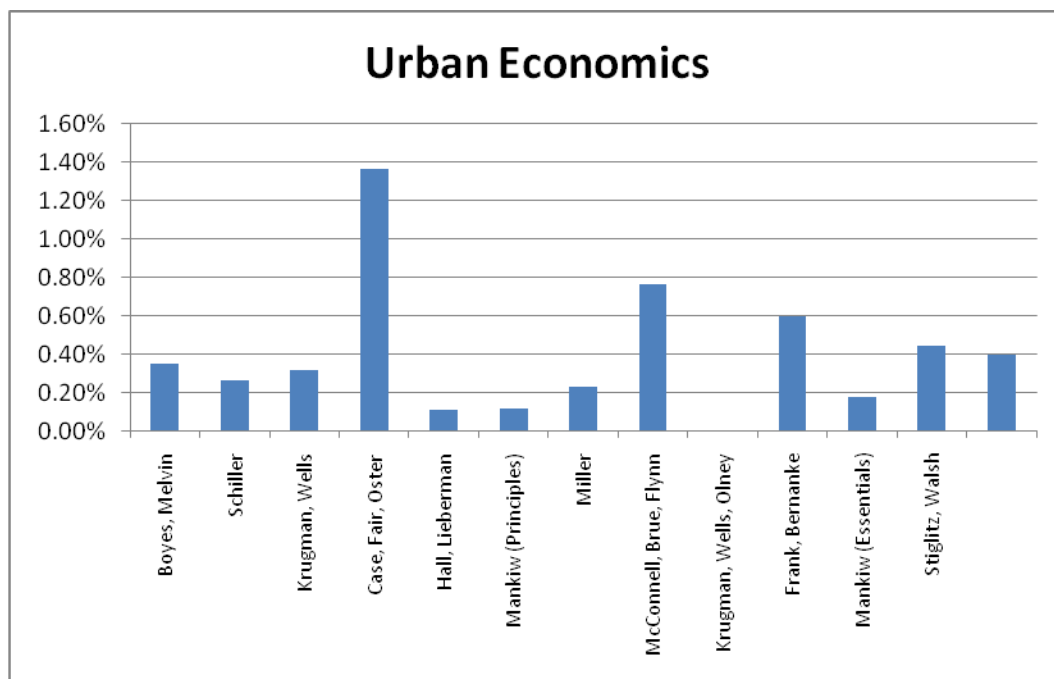
Environmental Economics



The range for environmental economics is from 0% in Hall and Lieberman's book to a high of 3.55% in Case, Fair and Oster's book. Case, Fair and Oster discuss environmental economics through three main topics: marginal social cost and marginal-cost pricing, private choices and external effects, and internalizing externalities. They also mention how the

environment is affected by economic growth and by protectionism. There also are several pages dedicated to pollution topics. Mankiw, the author of the textbook with the second highest percentage of pages dedicated to environmental economics, covers mostly topics related to pollution, including but not limited to the carbon tax, clean air and water as common resource, corrective taxes and pollution, pollution as a negative externality, regulation and pollution and tradable pollution permits. There is also a page dedicated to environmental economics in general, what it is, and why some economists are choosing to save the planet instead of working on Wall Street.

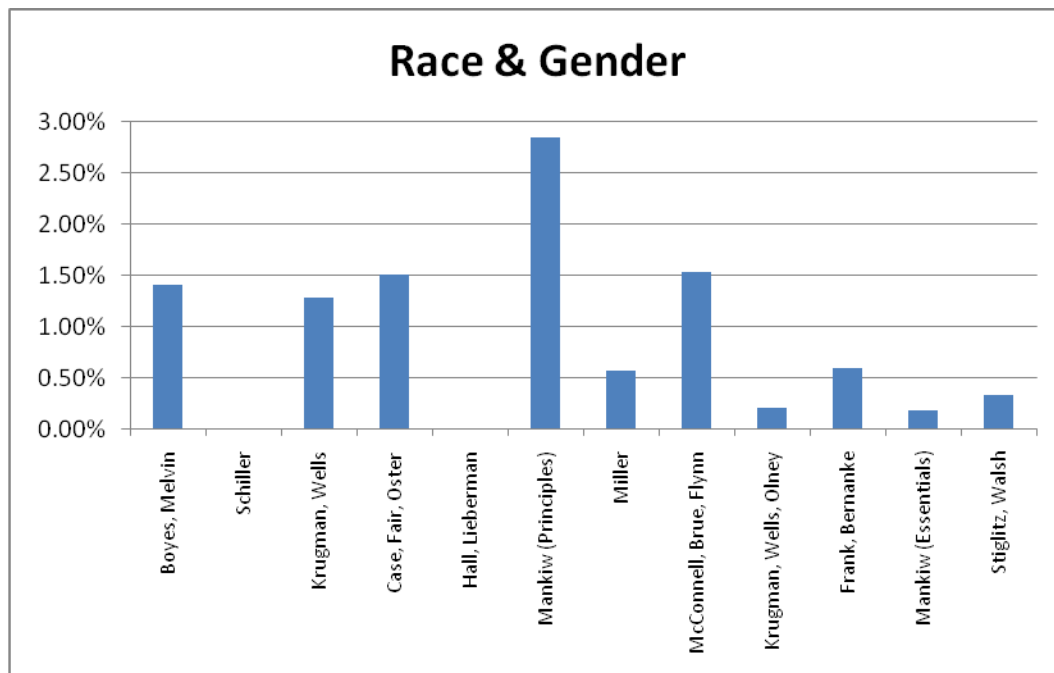
Urban Economics



The range for urban economics is from a low of 0% in Krugman, Wells and Olney's book to a high of 1.37% in Case, Fair and Oster's. Case, Fair and Oster's textbook has a section of one chapter dedicated to urban economics. More specifically, the majority of attention is given to

land markets. Krugman, Wells and Olney's textbook does not have any references under the words city or land. In general, I felt that the coverage of urban economics topics was lacking. Large cities play a vital role in economics and land use in metropolitan areas is a very big topic of economic study today. I found the attention given to this topic and the lack of entire chapters on urban economics both surprising and disappointing.

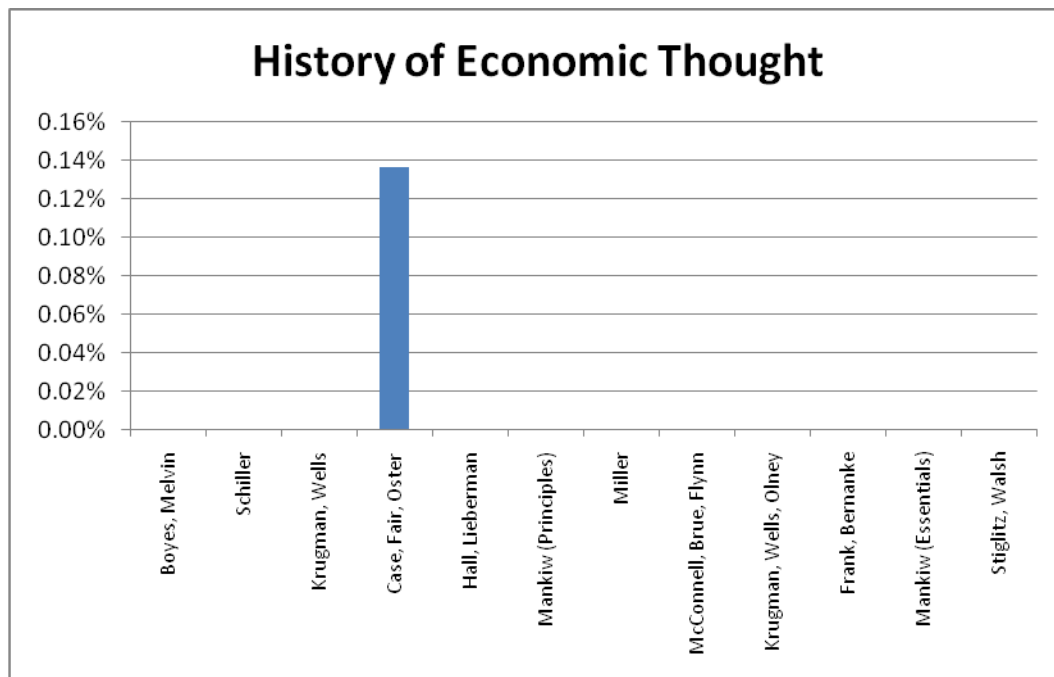
Race and Gender



The range for race and gender is from a low of 0% in Schiller's and Hall and Lieberman's books to a high of 2.84% in Mankiw's *Principles*. Mankiw's textbook has topics dedicated to race and gender throughout the book. The topics include race and discrimination in sports, labor-market discrimination based on race, race and poverty, race and streetcar segregation, labor-market discrimination based on gender, gender and competitive work

environments, women's education and wages, women's labor force participation rate, blacks labor-force participation rate, blacks poverty and Hispanic poverty rate.

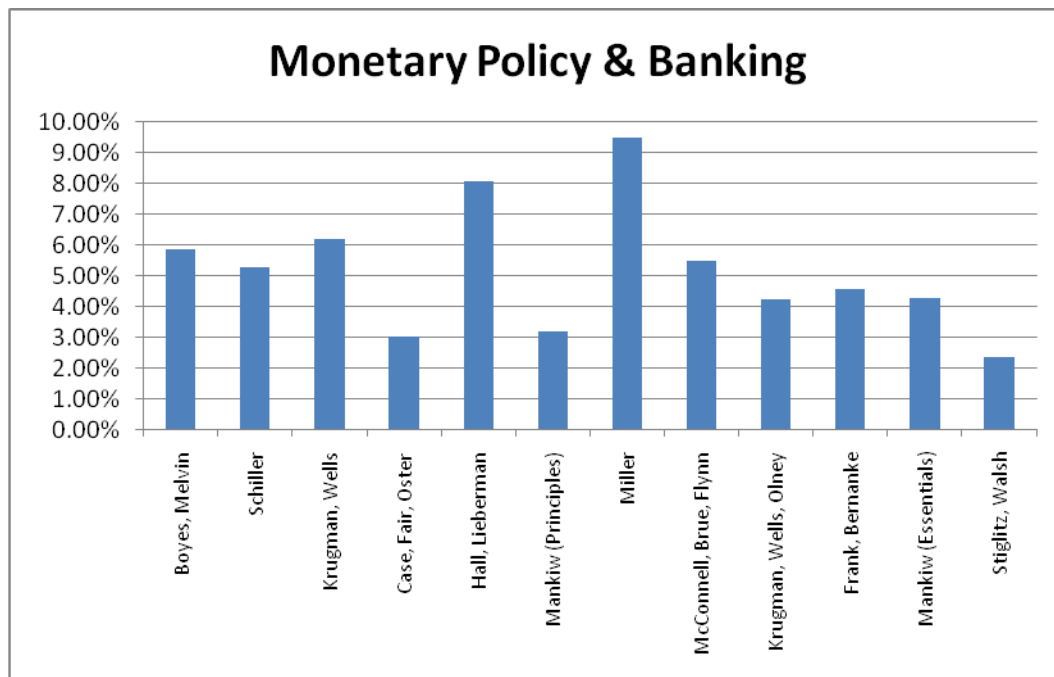
History of Economic Thought



The range for history of economic thought is from 0% in eleven of the twelve books to a high of 0.14% in Case, Fair and Oster's book. Their textbook defines history of economic thought as a science "grounded in philosophy, [which] studies the development of economic ideas and theories over time, from Adam Smith in the eighteenth century to the works of economists such as Thomas Malthus, Karl Marx, and John Maynard Keynes. Because economic theory is constantly developing and changing, studying the history of ideas helps give meaning to modern theory and puts it in perspective." While a lot of the textbooks discuss the individuals mentioned above, as well as their contributions to economics, no other textbook actually defined the field of economics known as history of economic thought. I believe that this is an important

area for principles of economics classes to cover; therefore it should at least be defined and touched upon.

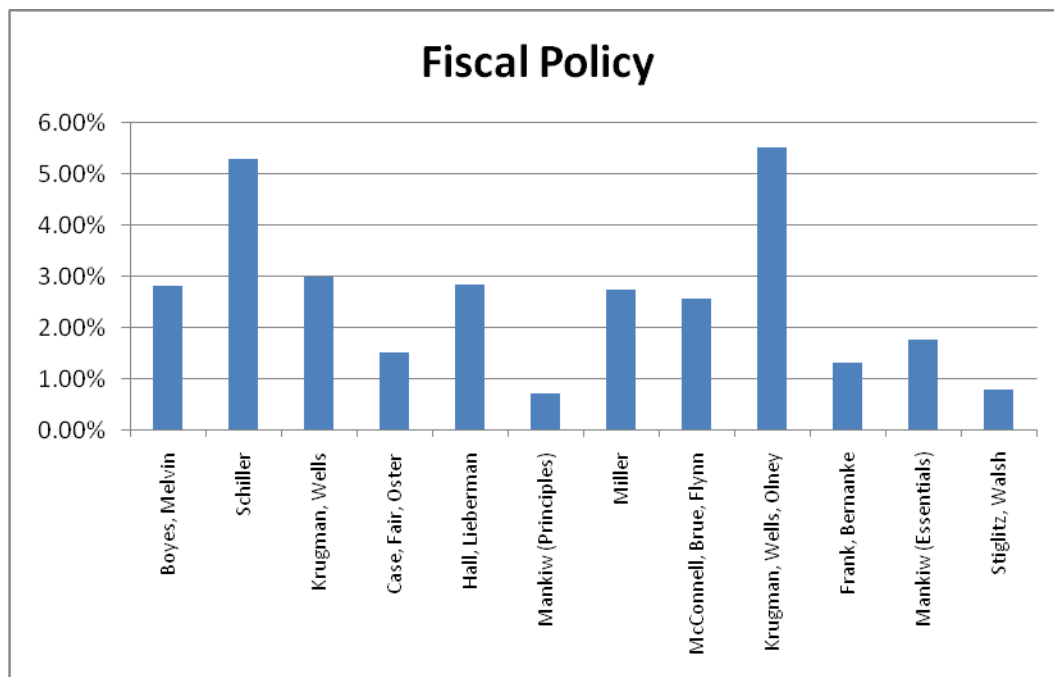
Monetary Policy and Banking



The range for monetary policy and banking was from a low of 2.35% in Stiglitz and Walsh's book to a high of 9.47% in Miller's book. Miller's textbook covers a wide array of topics, including the functions of money, properties of money, financial intermediation and banks, federal deposit insurance, the federal reserve system, the US central bank, the relationship between total reserves and total deposits, money expansion by the banking system, the money multiplier, the demand for money, the Fed's influence on interest rates, effects of an increase in money supply, open economy transmission of monetary policy, monetary policy and inflation, the way Fed policy is currently implemented, and selecting the Federal funds rate target. On the contrary, Stiglitz and Walsh's textbook just touches upon the federal reserve, the federal funds

market, and the monetary policy operating procedures, which include inflation, money supply and the nominal rate of interest. The other ten textbooks cover a range of topics; this range of topics falls in between the number of topics mentioned above.

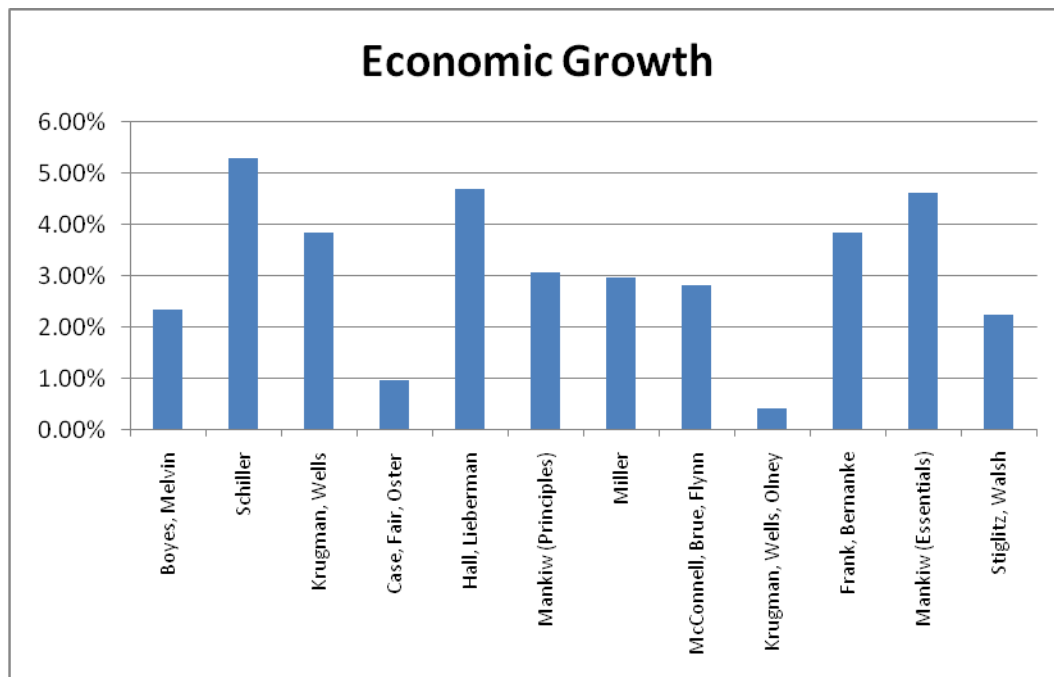
Fiscal Policy



The range for fiscal policy was a low of 0.71% in Mankiw's *Principles* book to a high of 5.51% in Krugman, Wells and Olney's book. In their textbook, Krugman, Wells and Olney discuss a wide range of topics related to fiscal policy, such as taxes, purchases of goods and services, government transfers, borrowing, expansionary and contractionary fiscal policy, lags in fiscal policy, the multiplier effect, the budget balance and the long-run implications of fiscal policy. Mankiw, in his book, covers the effect fiscal policy has on aggregate demand, changes in government purchases, the multiplier effect, a formula for the spending multiplier, other applications of the multiplier effect, the crowding-out effect and changes in taxes. While the

breadth of topics may be more or less similar between these two textbooks, the number of pages dedicated to fiscal policy varies greatly.

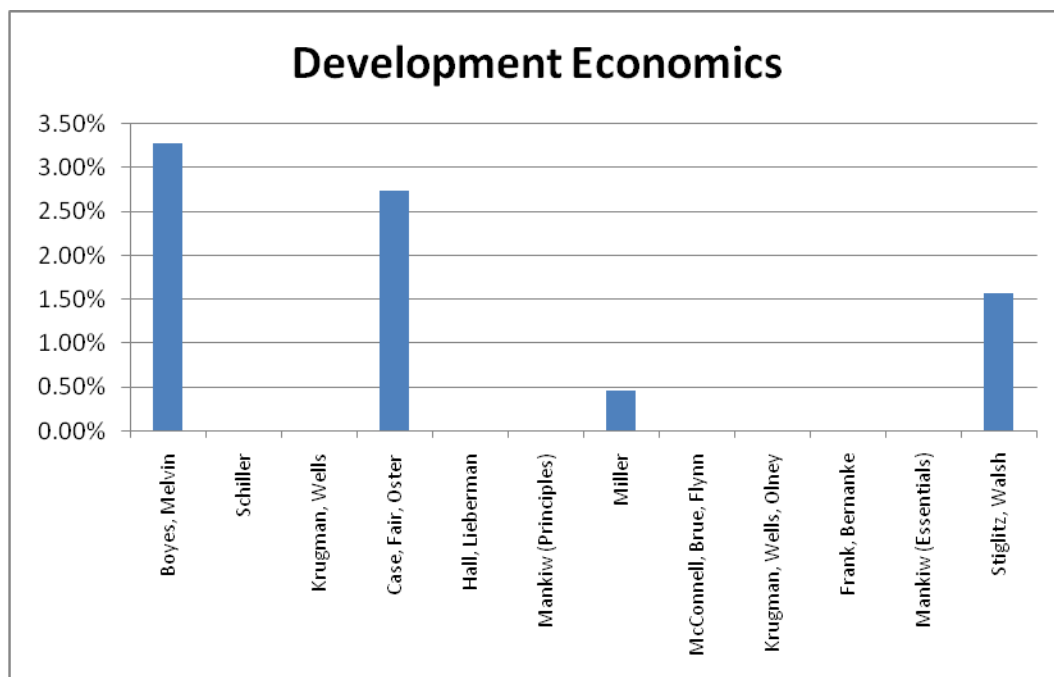
Economic Growth



The range for economic growth was from a low of 0.42% in Krugman, Wells and Olney's book to a high of 5.29% in Schiller's book. Schiller's textbook has a separate chapter on economic growth, with special attention given to the nature of growth, short-run changes in capacity use, long-run changes in capacity, nominal versus real GDP, growth indexes, the GDP growth rate, GDP per capita as a measure of productivity, sources of productivity growth, labor quality, capital investment, management, research and development, policy levers, education and training, immigration policy, investment incentives, savings incentives, government finances, deregulation, economic freedom, and policy perspectives. On the opposite end of the spectrum is the Krugman, Wells and Olney's textbook, which has a total of two pages that mention economic

growth. One of the pages explains what economic growth is and the other one describes some of its impact. I believe that economic growth is a very important topic in understanding principles of economics and introducing students to the study of economics, and the fact that two textbooks dedicate less than one percent of the content to this topic is very surprising to me.

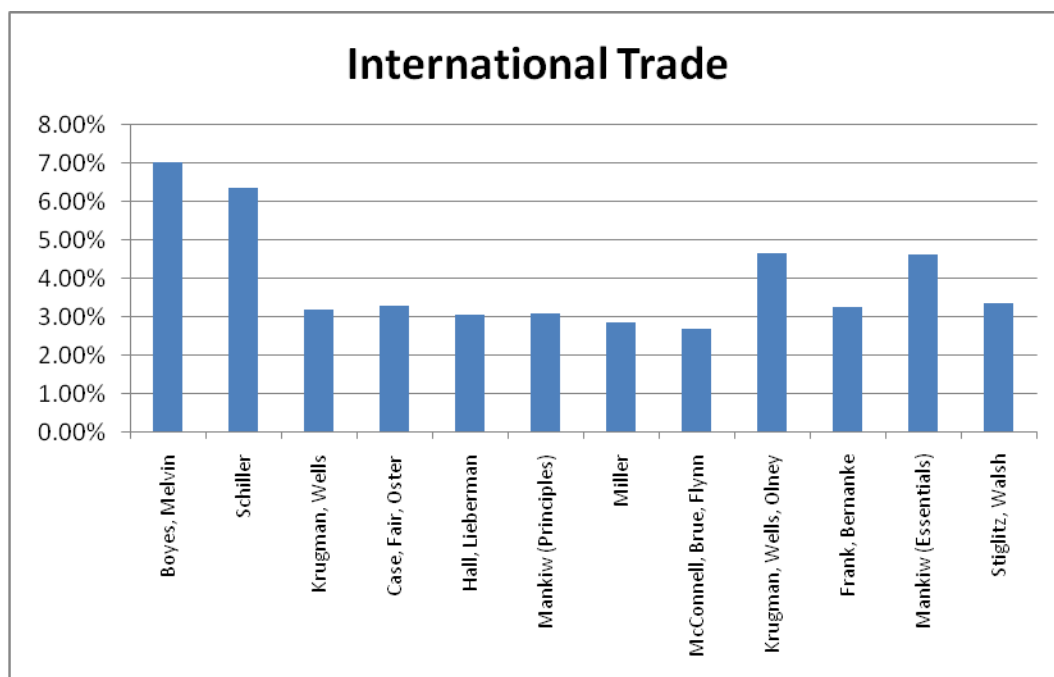
Development Economics



Development economics is a branch of economics that studies economic development of nations with a low level of material well-being. The range for development economics is from a low of 0% in eight of the twelve books to a high of 3.27% in Boyes and Melvin's book. The average is 0.67%, a very low number when you factor in the importance of developmental economics. I found it highly surprising that only four of twelve principles of economics textbooks have even a short section dedicated to this topic. Boyes and Melvin, the authors of the book with the highest percentage, have a chapter dedicated to development economics, with

subheadings of: measuring poverty, basic human needs, obstacles to growth, political obstacles, political instability and risk, corruption, good economics as bad politics, social obstacles, lack of entrepreneurs, rapid population growth, development strategies, inward-oriented strategies, outward-oriented strategies, comparing strategies, foreign investment and aid, foreign savings flows, benefits of foreign investment, foreign aid, economies in transition from socialism, microeconomic issues, and macroeconomic issues. I believe that this textbook satisfied the minimum attention I would expect to be given to development economics, but the majority of the textbooks does not even mention the word development, let alone go into the details that Boyes and Melvin's book did.

International Trade



The range for international trade is from a low of 2.68% in McConnell, Brue and Flynn's book to a high of 7.02% Boyes and Melvin's book. International trade is defined as an exchange

of capital, goods and services across international borders or territories. The United States alone accounted for close to 3.2 trillion dollars of imports and exports in 2010. Needless to say, international trade plays a crucial role in today's world. However, an average principles of economics textbook dedicates less than 4% of its pages to topics related to international trade. Out of those 4%, a large amount is dedicated to comparative advantage and the arguments for and against trade. While those are important topics, there are other topics which are as important yet are missing in a number of the textbooks analyzed. The Riccardian model is mentioned numerous times, yet the Heckscher-Ohlin and the new trade theory models are not given sufficient attention.

Part IV – Concluding Thoughts and Future Outlook

Summary of Findings

There are four main findings that resulted from my analysis of 21 topics in 12 current principles of economics textbooks. The first one is that over the past 20 years, the average length of these textbooks decreased from 900+ pages to 757. Only one of the twelve textbooks was over 900 pages. There are two possible explanations that I see for this. The page decrease may be technologically-caused. The fonts used could have gotten smaller, the pages could have gotten wider and the formatting may have resulted in a lower page count. The other possibility is that the amount of words and topics covered since 1990 actually decreased. There has been a lot of criticism regarding the length of the principles of economics textbooks, and thus it is possible that the textbooks were changed as a result.

The second result that came out of my research is that despite the world becoming more and more global, the attention given to international trade has decreased. This lack of attention was viewed as a major concern 20 years ago, and I believe that this is an even bigger concern today. A possible explanation for this is that there are now more advanced international economics classes than before, and the detailed explanations and applications of these topics have been saved for those classes and for textbooks written specifically for international economics. While I see the validity of this argument and certainly support the increase of international economics courses, I do not believe that it is an excuse for the decrease of attention given to international trade in the principles textbooks.

The third conclusion of this thesis is that there is very little attention given to behavioral economics, development economics, economics of the family, game theory, and law and economics. These are very important topics and are all likely to encourage principles of economics students to continue their study in economics. These are topics that students want to learn about, but, on average, there isn't nearly enough exposure to them in the principles textbooks. I believe that this should change in the future editions of these textbooks, but the changes are not happening quickly enough.

Lastly, my thesis has shown that the change in principles of economics textbooks has been rather slow, and that the books are not giving enough attention to the topics that are important to students. After comparing the results of the study on principles textbooks from 20 years ago to the results of my own research, this conclusion was affirmed. I want to emphasize that I am not saying that the principles of economics textbooks are bad or that they do not do a good job of covering the majority of the topics. After looking at 12 different textbooks, I believe

that overall the books are very good. However, this thesis has shown that even the best of these textbooks have room for improvement.

The Future of Principles of Economics

There is a consensus that technology is a complement to teaching of principles of economics classes, not a substitute. This conclusion, for the purpose of this thesis, leads to a belief that the importance of the principles of economics textbooks is not likely to decrease in the near future. Since the textbooks will continue to be important, the way they transform will be crucial to the success of principles classes. William Easterly said that “Economics used to be able to exist in a parallel universe that just gave you a set of models. [...] Now it’s much more about explaining a lot of the real world and the things you see around you.” I completely agree with this quote, and I believe that Easterly would be disappointed by the lack of attention certain topics receive in principles of economics textbooks. These books have added more real world applications in each edition based on the information they provide, however there is a need for a lot more. This idea is further backed by the Freakonomics phenomenon – the book that took the United States by storm. Many young people in this country found themselves reading this book and wanting to learn more about economics as opposed to dedicating time to whatever other hobbies they had. This proved that students want more real world applications in their books and less formulas and explanations of theoretic concepts. If the textbooks increase their coverage of economic applications, then there will be even more interest in principles of economics courses.

David Colander offers a possible explanation for the lack of change in principles of economics textbooks. In Professor Bowmaker’s book, he mentions an unofficial 97% rule. This means that a publisher will not accept an author’s textbook unless 97% of the material is

repeated from a previous edition or version of the book. This explains why the content of the textbooks has not been changing quickly enough. The authors of the textbooks are not the only individuals to be blamed. The publishers have this rule because professors will not use textbooks that have changed drastically since that would mean that they have to revamp their own curriculums. Therefore, both authors and professors together have to accept the need for more applications in principles textbooks.

Robert Frank, an economist at Cornell University, believes that we will soon see a revolution in the principles course that will result in shorter textbooks and more analysis of real world applications. After the research conducted in this thesis, I hope that he is right.

Exhibit A

Economics			
William Boyes; Michael Melvin			
Chapter	Unit	Number of Pages	% of Book
Economics: The World Around You	Introduction to the Price System	22	2.57%
Choice, Opportunity Costs, and Specialization	Introduction to the Price System	16	1.87%
Markers, Demand and Supply, and the Price System	Introduction to the Price System	34	3.98%
The Market System and the Private Sector	Introduction to the Price System	24	2.81%
The Public Sector	Introduction to the Price System	22	2.57%
	<i>Unit Total:</i>	118	13.80%
National Income Accounting	Macroeconomic Basics	24	2.81%
An Introduction to the Foreign Exchange Market and the Balance of Payments	Macroeconomic Basics	14	1.64%
Unemployment and Inflation	Macroeconomic Basics	26	3.04%
Macroeconomic Equilibrium: Aggregate Supply and Demand	Macroeconomic Basics	28	3.27%
Aggregate Expenditures	Macroeconomic Basics	32	3.74%
Income and Expenditures Equilibrium	Macroeconomic Basics	24	2.81%
	<i>Unit Total:</i>	148	17.31%
Fiscal Policy	Macroeconomic Policy	26	3.04%
Money and Banking	Macroeconomic Policy	22	2.57%
Monetary Policy	Macroeconomic Policy	28	3.27%
Macroeconomic Policy: Tradeoffs, Expectations, Credibility, and Sources of Business	Macroeconomic Policy	28	3.27%
Macroeconomic Viewpoints: New Keynesian, Monetarist, and New Classical	Macroeconomic Policy	16	1.87%
	<i>Unit Total:</i>	120	14.04%
Economic Growth	Economic Growth and Development	20	2.34%
Development Economies	Economic Growth and Development	28	3.27%
Globalization	Economic Growth and Development	20	2.34%
	<i>Unit Total:</i>	68	7.95%
Elasticity: Demand and Supply	Product Market Basics	20	2.34%
Consumer Choice	Product Market Basics	30	3.51%
Supply: The Costs of Doing Business	Product Market Basics	24	2.81%
	<i>Unit Total:</i>	74	8.65%
Profit Maximization	Product Markets	16	1.87%
Perfect Competition	Product Markets	28	3.27%
Monopoly	Product Markets	20	2.34%
Monopolistic Competition and Oligopoly	Product Markets	26	3.04%
Antitrust and Regulation	Product Markets	24	2.81%
Government and Market Failure	Product Markets	24	2.81%
	<i>Unit Total:</i>	138	16.14%
Resource Markets	Resource Markets	14	1.64%
The Labor Market	Resource Markets	32	3.74%
Capital Markets	Resource Markets	26	3.04%
The Land Market and Natural Resources	Resource Markets	14	1.64%
	<i>Unit Total:</i>	86	10.06%
Aging, Social Security, and Health Care	Current Issues Involving the Public Sector and the Market Economic	22	2.57%
Income Distribution, Poverty, and Government Policy	Current Issues Involving the Public Sector and the Market Economic	22	2.57%
	<i>Unit Total:</i>	44	5.15%
World Trade Equilibrium	Issues in International Trade and Finance	20	2.34%
International Trade Restrictions	Issues in International Trade and Finance	20	2.34%
Exchange Rates and Financial Links Between Countries	Issues in International Trade and Finance	19	2.22%
	<i>Unit Total:</i>	59	6.90%
	Total	855	

Exhibit B*Economics* – William Boyes and Michael Melvin, Topics Breakdown

	# of Pages	% of Book
Micro	332	38.83%
Supply/Demand	34	3.98%
Macro	336	39.30%
Aggregate Supply/Aggregate Demand	28	3.27%
Monetary Policy & Banking	50	5.85%
Fiscal Policy	24	2.81%
Economic Growth	20	2.34%
Development Economics	28	3.27%
Game Theory	4	0.47%
International Trade	60	7.02%
Labor Economics	32	3.74%
Economics of the Family	0	0.00%
Behavioral Economics	5	0.58%
Law and Economics	24	2.81%
History of Economic Thought	0	0.00%
Public Economics	66	7.72%
Healthcare	17	1.99%
Urban Economics	3	0.35%
Race & Gender	12	1.40%
Environmental Economics	14	1.64%
Industrial Organization	14	1.64%

Exhibit C

Essentials of Economics			
Bradley R. Schiller			
Chapter	Unit	Number of Pages	% of Book
The Challenge of Economics	Basics	28	7.41%
The U.S. Economy	Basics	22	5.82%
Supply and Demand	Basics	30	7.94%
	<i>Unit Total:</i>	80	21.16%
Consumer Demand	Microeconomics	20	5.29%
Supply Decisions	Microeconomics	20	5.29%
Competition	Microeconomics	24	6.35%
Monopoly	Microeconomics	22	5.82%
The Labor Market	Microeconomics	20	5.29%
Government Intervention	Microeconomics	22	5.82%
	<i>Unit Total:</i>	128	33.86%
The Business Cycle	Macroeconomics	24	6.35%
Aggregate Supply and Demand	Macroeconomics	22	5.82%
Fiscal Policy	Macroeconomics	20	5.29%
Money and Banks	Macroeconomics	18	4.76%
Monetary Policy	Macroeconomics	20	5.29%
Economic Growth	Macroeconomics	20	5.29%
Theory and Reality	Macroeconomics	22	5.82%
	<i>Unit Total:</i>	146	38.62%
International Trade	International Trade	24	6.35%
	<i>Unit Total:</i>	24	6.35%
		378	

Exhibit D*Essentials of Economics* – Bradley R. Schiller, Topics Breakdown

	# of Pages	% of Book
Micro	128	33.86%
Supply/Demand	30	7.94%
Macro	146	38.62%
Aggregate Supply/Aggregate Demand	22	5.82%
Monetary Policy & Banking	20	5.29%
Fiscal Policy	20	5.29%
Economic Growth	20	5.29%
Development Economics	0	0.00%
Game Theory	0	0.00%
International Trade	24	6.35%
Labor Economics	20	5.29%
Economics of the Family	1	0.26%
Behavioral Economics	0	0.00%
Law and Economics	2	0.53%
History of Economic Thought	0	0.00%
Public Economics	16	4.23%
Healthcare	0	0.00%
Urban Economics	1	0.26%
Race & Gender	0	0.00%
Environmental Economics	13	3.44%
Industrial Organization	20	5.29%

Exhibit E

Microeconomics/Macroeconomics			
Paul Krugman, Robin Wells			
Chapter	Unit	# of Pages	% of Book
The Ordinary Business of Life	What Is Economics?	4	0.43%
First Principles	What Is Economics?	18	1.92%
Economic Models: Trade-offs and Trade	What Is Economics?	22	2.35%
Graphs in Economics	What Is Economics?	16	1.71%
	<i>Unit Total</i>	60	6.40%
Supply and Demand	Supply and Demand	32	3.42%
Consumer and Producer Surplus	Supply and Demand	24	2.56%
The Market Strikes Back	Supply and Demand	26	2.77%
Elasticity	Supply and Demand	24	2.56%
	<i>Unit Total</i>	106	11.31%
Taxes	Individuals and Markets	28	2.99%
International Trade	Individuals and Markets	30	3.20%
	<i>Unit Total</i>	58	6.19%
Making Decisions	Economics and Decision Making	24	2.56%
	<i>Unit Total</i>	24	2.56%
The Rational Consumer	The Consumer	22	2.35%
Consumer Preferences and Consumer Choice	The Consumer	32	3.42%
	<i>Unit Total</i>	54	5.76%
Behind the Supply Curve: Inputs and Costs	The Production Decision	26	2.77%
Perfect Competition and the Supply Curve	The Production Decision	26	2.77%
	<i>Unit Total</i>	52	5.55%
Monopoly	Market Structure: Beyond Perfect Competition	32	3.42%
Oligopoly	Market Structure: Beyond Perfect Competition	28	2.99%
Monopolistic Competition and Product Differentiation	Market Structure: Beyond Perfect Competition	18	1.92%
	<i>Unit Total</i>	78	8.32%
Externalities	Microeconomics and Public Policy	26	2.77%
Public Goods and common Resources	Microeconomics and Public Policy	20	2.13%
The Economics of the Welfare State	Microeconomics and Public Policy	30	3.20%
	<i>Unit Total</i>	76	8.11%
Factor Markets and the Distribution of Income	Factor Markets and Risk	28	2.99%
Indifference Curve Analysis of Labor Supply	Factor Markets and Risk	6	0.64%
Uncertainty, Risk, and Private Information	Factor Markets and Risk	24	2.56%
	<i>Unit Total</i>	58	6.19%
Macroeconomics: The Big Picture	Introduction to Macroeconomics	20	2.13%
Tracking the Macroeconomy	Introduction to Macroeconomics	26	2.77%
Unemployment and Inflation	Introduction to Macroeconomics	26	2.77%
	<i>Unit Total</i>	72	7.68%
Long-Run Economic Growth	Long-Run Economic Growth	32	3.42%
Savings, Investment Spending, and the Financial System	Long-Run Economic Growth	30	3.20%
	<i>Unit Total</i>	62	6.62%
Income and Expenditure	Short-Run Economic Fluctuations	27	2.88%
Deriving and Multiplier Algebraically	Short-Run Economic Fluctuations	1	0.11%
Aggregate Demand and Aggregate Supply	Short-Run Economic Fluctuations	36	3.84%
	<i>Unit Total</i>	64	6.83%
Fiscal Policy	Stabilization Policy	28	2.99%
Taxes and the Multiplier	Stabilization Policy	2	0.21%
Money, Banking, and the Federal Reserve	Stabilization Policy	34	3.63%
Monetary Policy	Stabilization Policy	24	2.56%
Reconciling the Two Models of the Interest Rate	Stabilization Policy	4	0.43%
Inflation, Disinflation, and Deflation	Stabilization Policy	26	2.77%
	<i>Unit Total</i>	118	12.59%
Macroeconomics: Events and Ideas	Events and Ideas	24	2.56%
	<i>Unit Total</i>	24	2.56%
Open-Economy Macroeconomics	The Open Economy	31	3.31%
	<i>Unit Total</i>	31	3.31%
		937	

Exhibit F*Microeconomics / Macroeconomics – Paul Krugman and Robin Wells, Topics Breakdown*

	# of Pages	
Micro	502	53.58%
Supply/Demand	32	3.42%
Macro	371	39.59%
Aggregate Supply/Aggregate Demand	36	3.84%
Monetary Policy & Banking	58	6.19%
Fiscal Policy	28	2.99%
Economic Growth	36	3.84%
Development Economics	0	0.00%
Game Theory	8	0.85%
International Trade	30	3.20%
Labor Economics	28	2.99%
Economics of the Family	2	0.21%
Behavioral Economics	0	0.00%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	80	8.54%
Healthcare	4	0.43%
Urban Economics	3	0.32%
Race & Gender	12	1.28%
Environmental Economics	4	0.43%
Industrial Organization	24	2.56%

Exhibit G

Principles of Economics			
Case, Fair, Oster			
Chapter	Unit	Number of Pages	% of Book
The Scope and Method of Economics	Introduction to Economics	24	3.28%
The Economic Problem: Scarcity and Choice	Introduction to Economics	20	2.73%
Demand, Supply, and Market Equilibrium	Introduction to Economics	28	3.83%
Demand and Supply Applications	Introduction to Economics	16	2.19%
Elasticity	Introduction to Economics	22	3.01%
	<i>Unit Total:</i>	110	15.03%
Household Behavior and Consumer Choice	The Market System: Choices Made by Households and Firms	24	3.28%
The Production Process: The Behavior of Profit-Maximizing Firms	The Market System: Choices Made by Households and Firms	20	2.73%
Short-Run Costs and Output Decisions	The Market System: Choices Made by Households and Firms	22	3.01%
Long-Run Costs and Output Decisions	The Market System: Choices Made by Households and Firms	26	3.55%
Input Demand: The Labor and Land Markets	The Market System: Choices Made by Households and Firms	18	2.46%
Input Demand: The Capital Market and the Investment Decision	The Market System: Choices Made by Households and Firms	20	2.73%
General Equilibrium and the Efficiency of Perfect Competition	The Market System: Choices Made by Households and Firms	20	2.73%
	<i>Unit Total:</i>	150	20.49%
Monopoly and Antitrust Policy	Market Imperfections and the Role of Government	22	3.01%
Oligopoly	Market Imperfections and the Role of Government	20	2.73%
Monopolistic Competition	Market Imperfections and the Role of Government	16	2.19%
Externalities, Public Goods, and Social Choice	Market Imperfections and the Role of Government	26	3.55%
Uncertainty and Asymmetric Information	Market Imperfections and the Role of Government	14	1.91%
Income Distribution and Poverty	Market Imperfections and the Role of Government	20	2.73%
Public Finance: The Economics of Taxation	Market Imperfections and the Role of Government	22	3.01%
	<i>Unit Total:</i>	140	19.13%
Introduction to Macroeconomics	Concepts and Problems in Macroeconomics	16	2.19%
Measuring National Output and National Income	Concepts and Problems in Macroeconomics	18	2.46%
Unemployment, Inflation, and Long-Run Growth	Concepts and Problems in Macroeconomics	18	2.46%
	<i>Unit Total:</i>	52	7.10%
Aggregate Expenditure and Equilibrium Output	The Core of Macroeconomic Theory	18	2.46%
The Government and Fiscal Policy	The Core of Macroeconomic Theory	22	3.01%
The Money Supply and the Federal Reserve System	The Core of Macroeconomic Theory	22	3.01%
Money Demand and the Equilibrium Interest Rate	The Core of Macroeconomic Theory	16	2.19%
Aggregate Demand in the Goods and Money Markets	The Core of Macroeconomic Theory	18	2.46%
Aggregate Supply and the Equilibrium Price Level	The Core of Macroeconomic Theory	22	3.01%
The Labor Market in the Macroeconomy	The Core of Macroeconomic Theory	18	2.46%
	<i>Unit Total:</i>	136	18.58%
Policy Timing, Deficit Targeting, and Stock Market Effects	Further Macroeconomics Issues	20	2.73%
Household and Firm Behavior in the Macroeconomy: A Further Look	Further Macroeconomics Issues	22	3.01%
Long-Run Growth	Further Macroeconomics Issues	20	2.73%
Debates in Macroeconomics: Monetarism, New Classical Theory, and Supply-Side Economics	Further Macroeconomics Issues	14	1.91%
	<i>Unit Total:</i>	76	10.38%
International Trade, Comparative Advantage, and Protectionism	The World Economy	24	3.28%
Open-Economy Macroeconomics: The Balance of Payments and Exchange Rates	The World Economy	24	3.28%
Economic Growth in Developing and Transitional Economies	The World Economy	20	2.73%
	<i>Unit Total:</i>	68	9.29%
	Total	732	

Exhibit H*Principles of Economics* – Case, Fair, Oster, Topics Breakdown

	# of Pages	% of Book
Micro	401	54.78%
Supply/Demand	28	3.83%
Macro	264	36.07%
Aggregate Supply/Aggregate Demand	40	5.46%
Monetary Policy & Banking	22	3.01%
Fiscal Policy	11	1.50%
Economic Growth	7	0.96%
Development Economics	20	2.73%
Game Theory	7	0.96%
International Trade	24	3.28%
Labor Economics	35	4.78%
Economics of the Family	1	0.14%
Behavioral Economics	2	0.27%
Law and Economics	4	0.55%
History of Economic Thought	1	0.14%
Public Economics	82	11.20%
Healthcare	5	0.68%
Urban Economics	10	1.37%
Race & Gender	11	1.50%
Environmental Economics	26	3.55%
Industrial Organization	68	9.29%

Exhibit I

Principles and Applications - Microeconomics and Macroeconomics			
Robert Hall, Marc Lieberman			
Chapter	Unit	Number of Pages	% of Book
What is Economics?	Preliminaries	23	2.51%
Scarcity, Choice, and Economic Systems	Preliminaries	27	2.94%
	<i>Unit Total</i>	50	5.45%
Supply and Demand	Supply and Demand	38	4.14%
Workign with Supply and Demand	Supply and Demand	32	3.49%
Elasticity	Supply and Demand	27	2.94%
	<i>Unit Total</i>	97	10.57%
Consumer Choice	Microeconomic Decision Makers	41	4.47%
Production and Cost	Microeconomic Decision Makers	38	4.14%
How Firms Make Decisions: Profit Maximization	Microeconomic Decision Makers	23	2.51%
	<i>Unit Total</i>	102	11.11%
Perfect Competition	Product Markets	37	4.03%
Monopoly	Product Markets	38	4.14%
Monopolistic Competition and Oligopoly	Product Markets	30	3.27%
	<i>Unit Total</i>	105	11.44%
Labor Markets	Labor, Capital, and Financial Markets	41	4.47%
Capital and Financial Markets	Labor, Capital, and Financial Markets	38	4.14%
	<i>Unit Total</i>	79	8.61%
Economic Efficiency and the Competitive Ideal	Efficiency, Government, and the Global Economy	24	2.61%
Government's Role in Economic Efficiency	Efficiency, Government, and the Global Economy	35	3.81%
Comparative Advantage and the Gains from International Trade	Efficiency, Government, and the Global Economy	27	2.94%
	<i>Unit Total</i>	86	9.37%
What Macroeconomics Tries to Explain	Macroeconomics: Basic Concepts	13	1.42%
Production, Income, and Employment	Macroeconomics: Basic Concepts	38	4.14%
The Price Level and Inflation	Macroeconomics: Basic Concepts	26	2.83%
	<i>Unit Total</i>	77	8.39%
The Classical Long-Run Model	Long-Run Macroeconomics	32	3.49%
Economic Growth and Rising Living Standards	Long-Run Macroeconomics	39	4.25%
	<i>Unit Total</i>	71	7.73%
Economic Fluctuations	The Short-Run Model and Fiscal Policy	16	1.74%
The Short-Run Macro Model	The Short-Run Model and Fiscal Policy	41	4.47%
Fiscal Policy	The Short-Run Model and Fiscal Policy	26	2.83%
	<i>Unit Total</i>	83	9.04%
Money, Banks, and the Federal Reserve	Expanding the Model: Money, Prices and the Globa	36	3.92%
The Money Market and Monetary Policy	Expanding the Model: Money, Prices and the Globa	38	4.14%
Aggregate Demand and Aggregate Supply	Expanding the Model: Money, Prices and the Globa	33	3.59%
Inflation and Monetary Policy	Expanding the Model: Money, Prices and the Globa	28	3.05%
Exchange Rates and Macroeconomic Policy	Expanding the Model: Money, Prices and the Globa	33	3.59%
	<i>Unit Total</i>	168	18.30%
	Total	918	

Exhibit J

Principles and Applications: Microeconomics and Macroeconomics – Robert Hall and Marc

Lieberman, Topics Breakdown

	# of Pages	% of Book
Micro	383	41.72%
Supply/Demand	38	4.14%
Macro	399	43.46%
Aggregate Supply/Aggregate Demand	33	3.59%
Monetary Policy & Banking	74	8.06%
Fiscal Policy	26	2.83%
Economic Growth	43	4.68%
Development Economics	0	0.00%
Game Theory	1	0.11%
International Trade	28	3.05%
Labor Economics	41	4.47%
Economics of the Family	0	0.00%
Behavioral Economics	4	0.44%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	35	3.81%
Healthcare	0	0.00%
Urban Economics	1	0.11%
Race & Gender	0	0.00%
Environmental Economics	0	0.00%
Industrial Organization	23	2.51%

Exhibit K

Principles of Economics			
Gregory Mankiw			
Chapter	Unit	Number of Pages	% of Book
Ten Principles of Economics	Introduction	18	2.13%
Thinking Like an Economist	Introduction	28	3.31%
Interdependence and the Gains from Trade	Introduction	16	1.89%
	<i>Unit Total</i>	62	7.34%
The Market Forces of Supply and Demand	How Markets Work	24	2.84%
Elasticity and Its Application	How Markets Work	24	2.84%
Supply, demand, and Government Policies	How Markets Work	24	2.84%
	<i>Unit Total</i>	72	8.52%
Consumers, Producers, and the Efficiency of Markets	Markets and Welfare	22	2.60%
Application: The Costs of Taxation	Markets and Welfare	18	2.13%
Application: International Trade	Markets and Welfare	26	3.08%
	<i>Unit Total</i>	66	7.81%
Externalities	The Economics of the Public Sector	22	2.60%
Public Goods and Common Resources	The Economics of the Public Sector	16	1.89%
The Design of the Tax System	The Economics of the Public Sector	26	3.08%
	<i>Unit Total</i>	64	7.57%
The Costs of Production	Firm Behavior and the Organization of Industry	22	2.60%
Firms in Competitive Markets	Firm Behavior and the Organization of Industry	22	2.60%
Monopoly	Firm Behavior and the Organization of Industry	34	4.02%
Monopolistic Competition	Firm Behavior and the Organization of Industry	20	2.37%
Oligopoly	Firm Behavior and the Organization of Industry	26	3.08%
	<i>Unit Total</i>	124	14.67%
The Markets for the Factors of Production	The Economics of Labor Markets	22	2.60%
Earnings and Discrimination	The Economics of Labor Markets	20	2.37%
Income Inequality and Poverty	The Economics of Labor Markets	24	2.84%
	<i>Unit Total</i>	66	7.81%
The Theory of Consumer Choice	Topics for Further Study	26	3.08%
Frontiers of Microeconomics	Topics for Further Study	24	2.84%
	<i>Unit Total</i>	50	5.92%
Measuring a Nation's Income	The Data of Macroeconomics	22	2.60%
Measuring the Cost of Living	The Data of Macroeconomics	20	2.37%
	<i>Unit Total</i>	42	4.97%
Production and Growth	The Real Economy in the Long Run	26	3.08%
Saving, Investment, and the Financial System	The Real Economy in the Long Run	22	2.60%
The Basic Tools of Finance	The Real Economy in the Long Run	16	1.89%
Unemployment	The Real Economy in the Long Run	28	3.31%
	<i>Unit Total</i>	92	10.89%
The Monetary System	Money and Prices in the Long Run	22	2.60%
Money Growth and Inflation	Money and Prices in the Long Run	28	3.31%
	<i>Unit Total</i>	50	5.92%
Open-Economy Macroeconomics: Basic Concepts	The Macroeconomics of Open Economies	24	2.84%
A Macroeconomic Theory of the Open Economy	The Macroeconomics of Open Economies	24	2.84%
	<i>Unit Total</i>	48	5.68%
Aggregate Demand and Aggregate Supply	Short-Run Economic Fluctuations	38	4.50%
The Influence of Monetary and Fiscal Policy on Aggregate Demand	Short-Run Economic Fluctuations	24	2.84%
The Short-Run Trade-off between Inflation and Unemployment	Short-Run Economic Fluctuations	28	3.31%
	<i>Unit Total</i>	90	10.65%
Five Debates over Macroeconomic Policy	Final Thoughts	19	2.25%
	<i>Unit Total</i>	19	2.25%
		845	

Exhibit L*Principles of Economics* – Gregory Mankiw, Topics Breakdown

	# of Pages	% of Book
Micro	442	52.31%
Supply/Demand	24	2.84%
Macro	322	38.11%
Aggregate Supply/Aggregate Demand	38	4.50%
Monetary Policy & Banking	27	3.20%
Fiscal Policy	6	0.71%
Economic Growth	26	3.08%
Development Economics	0	0.00%
Game Theory	9	1.07%
International Trade	26	3.08%
Labor Economics	66	7.81%
Economics of the Family	0	0.00%
Behavioral Economics	8	0.95%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	64	7.57%
Healthcare	9	1.07%
Urban Economics	1	0.12%
Race & Gender	24	2.84%
Environmental Economics	5	0.59%
Industrial Organization	26	3.08%

Exhibit M

Economics Today			
Roger, LeRoy, Miller			
Chapter	Unit	Number of Pages	% of Book
The Nature of Economics	Introduction	26	2.97%
Scarcity and the World of Trade-Offs	Introduction	24	2.74%
Demand and Supply	Introduction	31	3.54%
Extensions of Demand and Supply Analysis	Introduction	25	2.85%
Public Spending and Public Choice	Introduction	24	2.74%
Funding the Public Sector	Introduction	25	2.85%
	<i>Unit Total</i>	155	17.69%
The Macroeconomy: Unemployment, Inflation, and Deflation	Introduction to Macroeconomics and Economic Growth	25	2.85%
Measuring the Economy's Performance	Introduction to Macroeconomics and Economic Growth	29	3.31%
Global Economic Growth and Development	Introduction to Macroeconomics and Economic Growth	26	2.97%
	<i>Unit Total</i>	80	9.13%
Real GDP and the Price Level in the Long Run	Real GDP Determination and Fiscal Policy	22	2.51%
Classical and Keynesian Macro Analyses	Real GDP Determination and Fiscal Policy	26	2.97%
Consumption, Real GDP, and the Multiplier	Real GDP Determination and Fiscal Policy	31	3.54%
Fiscal Policy	Real GDP Determination and Fiscal Policy	24	2.74%
Deficit Spending and the Public Debt	Real GDP Determination and Fiscal Policy	23	2.63%
	<i>Unit Total</i>	126	14.38%
Money, Banking, and Central Banking	Money, Stabilization, and Growth	29	3.31%
Money Creation, the Demand for Money, and Monetary Policy	Money, Stabilization, and Growth	28	3.20%
Domestic and International Dimensions of Monetary Policy	Money, Stabilization, and Growth	26	2.97%
Stabilization in an Integrated World Economy	Money, Stabilization, and Growth	29	3.31%
Policies and Prospects for Global Economic Growth	Money, Stabilization, and Growth	23	2.63%
	<i>Unit Total</i>	135	15.41%
Demand and Supply Elasticity	Dimensions of Microeconomics	25	2.85%
Consumer Choice	Dimensions of Microeconomics	33	3.77%
Rents, Profits, and the Financial Environment of Business	Dimensions of Microeconomics	25	2.85%
	<i>Unit Total</i>	83	9.47%
The Firm: Cost and Output Determination	Market Structure, Resource Allocation, and Regulation	27	3.08%
Perfect Competition	Market Structure, Resource Allocation, and Regulation	29	3.31%
Monopoly	Market Structure, Resource Allocation, and Regulation	29	3.31%
Monopolistic Competition	Market Structure, Resource Allocation, and Regulation	21	2.40%
Oligopoly and Strategic Behavior	Market Structure, Resource Allocation, and Regulation	25	2.85%
Regulation and Antitrust Policy in a Globalized Economy	Market Structure, Resource Allocation, and Regulation	17	1.94%
	<i>Unit Total</i>	148	16.89%
The Labor Market: Demand, Supply, and Outsourcing	Labor Resources and the Environment	27	3.08%
Unions and Labor Market Monopoly Power	Labor Resources and the Environment	23	2.63%
Income, Poverty, and Health Care	Labor Resources and the Environment	27	3.08%
Environmental Economics	Labor Resources and the Environment	20	2.28%
	<i>Unit Total</i>	97	11.07%
Comparative Advantage and the Open Economy	Global Economics	25	2.85%
Exchange Rates and the Balance of Payments	Global Economics	27	3.08%
	<i>Unit Total</i>	52	5.94%
	Total	876	

Exhibit N*Economics Today* – Roger LeRoy Miller, Topics Breakdown

	# of Pages	% of Book
Micro	338	38.58%
Supply/Demand	31	3.54%
Macro	341	38.93%
Aggregate Supply/Aggregate Demand	8	0.91%
Monetary Policy & Banking	83	9.47%
Fiscal Policy	24	2.74%
Economic Growth	26	2.97%
Development Economics	4	0.46%
Game Theory	5	0.57%
International Trade	25	2.85%
Labor Economics	50	5.71%
Economics of the Family	1	0.11%
Behavioral Economics	4	0.46%
Law and Economics	7	0.80%
History of Economic Thought	0	0.00%
Public Economics	75	8.56%
Healthcare	18	2.05%
Urban Economics	2	0.23%
Race & Gender	5	0.57%
Environmental Economics	20	2.28%
Industrial Organization	47	5.37%

Exhibit O

Economics			
McConnell, Brue, Flynn			
Chapter	Unit	Number of Pages	% of Book
Limits, Alternatives, and Choices	Introduction to Economics and the Economy	28	3.58%
The Market System and the Circular Flow	Introduction to Economics and the Economy	16	2.04%
Demand, Supply, and Market Equilibrium	Introduction to Economics and the Economy	27	3.45%
The U.S. Economy: Private and Public Sectors	Introduction to Economics and the Economy	19	2.43%
The United States in the Global Economy	Introduction to Economics and the Economy	22	2.81%
	<i>Unit Total</i>	112	14.30%
Elasticity, Consumer Surplus, and Producer Surplus	Microeconomics of Product Markets	22	2.81%
Consumer Behavior	Microeconomics of Product Markets	20	2.55%
The Costs of Production	Microeconomics of Product Markets	22	2.81%
Pure Competition	Microeconomics of Product Markets	25	3.19%
Pure Monopoly	Microeconomics of Product Markets	21	2.68%
Monopolistic Competition and Oligopoly	Microeconomics of Product Markets	29	3.70%
	<i>Unit Total</i>	139	17.75%
The Demand for Resources	Microeconomics of Resource Markets	17	2.17%
Wage Determination	Microeconomics of Resource Markets	26	3.32%
Rent, Interest, and Profit	Microeconomics of Resource Markets	16	2.04%
Natural Resource and Energy Economics	Microeconomics of Resource Markets	23	2.94%
	<i>Unit Total</i>	82	10.47%
Public Goods, Externalities, and Information Asymmetries	Microeconomics of Government	21	2.68%
Public Choice Theory and the Economics of Taxation	Microeconomics of Government	19	2.43%
	<i>Unit Total</i>	40	5.11%
Antitrust Policy and Regulation	Microeconomic Issues and Policies	16	2.04%
Agriculture: Economics and Policy	Microeconomic Issues and Policies	18	2.30%
Income Inequality, Poverty, and Discrimination	Microeconomic Issues and Policies	22	2.81%
Health Care	Microeconomic Issues and Policies	18	2.30%
Immigration	Microeconomic Issues and Policies	17	2.17%
	<i>Unit Total</i>	91	11.62%
An Introduction to Macroeconomics	GDP, Growth, and Instability	13	1.66%
Measuring Domestic Output and National Income	GDP, Growth, and Instability	19	2.43%
Economic Growth	GDP, Growth, and Instability	22	2.81%
Business Cycles, Unemployment, and Inflation	GDP, Growth, and Instability	21	2.68%
	<i>Unit Total</i>	75	9.58%
Basic Macroeconomic Relationships	Macroeconomic Models and Fiscal Policy	20	2.55%
The Aggregate Expenditures Model	Macroeconomic Models and Fiscal Policy	22	2.81%
Aggregate Demand and Aggregate Supply	Macroeconomic Models and Fiscal Policy	24	3.07%
Fiscal Policy, Deficits, and Debt	Macroeconomic Models and Fiscal Policy	22	2.81%
	<i>Unit Total</i>	88	11.24%
Money and Banking	Money, Banking, and Monetary Policy	16	2.04%
Money Creation	Money, Banking, and Monetary Policy	15	1.92%
Interest Rates and Monetary Policy	Money, Banking, and Monetary Policy	27	3.45%
Financial Economics	Money, Banking, and Monetary Policy	20	2.55%
	<i>Unit Total</i>	78	9.96%
Extending the Analysis of Aggregate Supply	Extensions and Issues	19	2.43%
Current Issues in Macro Theory and Policy	Extensions and Issues	17	2.17%
	<i>Unit Total</i>	36	4.60%
International Trade	International Economics	21	2.68%
The Balance of Payments, Exchange Rates and Trade Deficits	International Economics	21	2.68%
	<i>Unit Total</i>	42	5.36%
	Total	783	

Exhibit P*Economics – McConnell, Brue, Flynn, Topics Breakdown*

	# of Pages	% of Book
Micro	369	47.13%
Supply/Demand	27	3.45%
Macro	277	35.38%
Aggregate Supply/Aggregate Demand	24	3.07%
Monetary Policy & Banking	43	5.49%
Fiscal Policy	20	2.55%
Economic Growth	22	2.81%
Development Economics	0	0.00%
Game Theory	4	0.51%
International Trade	21	2.68%
Labor Economics	26	3.32%
Economics of the Family	0	0.00%
Behavioral Economics	2	0.26%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	40	5.11%
Healthcare	18	2.30%
Urban Economics	6	0.77%
Race & Gender	12	1.53%
Environmental Economics	17	2.17%
Industrial Organization	54	6.90%

Exhibit Q

Essentials of Economics			
Paul Krugman, Robin Wells, Mortha L. Olney			
Chapter	Unit	Number of Pages	% of Book
Introduction, The Ordinary Business of Life	What is Economics?	4	0.85%
First Principles	What is Economics?	15	3.18%
Economic Models: Trade-offs and trade	What is Economics?	21	4.45%
Graphs in Economics	What is Economics?	15	3.18%
	<i>Unit Total</i>	55	11.65%
Supply and Demand	Supply and Demand	27	5.72%
The Market Strikes Back	Supply and Demand	26	5.51%
Elasticity	Supply and Demand	26	5.51%
Consumer and Producer Surplus	Supply and Demand	25	5.30%
	<i>Unit Total</i>	104	22.03%
Behind the Supply Curve: Inputs and Costs	The Producer	26	5.51%
Perfect Competition and the Supply Curve	The Producer	27	5.72%
	<i>Unit Total</i>	53	11.23%
Factor Markets and the Distribution of Income	Markets and Efficiency	25	5.30%
Efficiency, Inefficiency, and Equity	Markets and Efficiency	33	6.99%
	<i>Unit Total</i>	58	12.29%
Monopoly	Market Structure: Beyond Perfect Competition	30	6.36%
Oligopoly, Monopolistic Competition, and Product Differentiation	Market Structure: Beyond Perfect Competition	29	6.14%
	<i>Unit Total</i>	59	12.50%
International Trade	Extending Market Boundaries	22	4.66%
	<i>Unit Total</i>	22	4.66%
Macroeconomics: The Big Picture	Introduction to Macroeconomics	15	3.18%
Tracking the Macroeconomy	Introduction to Macroeconomics	27	5.72%
	<i>Unit Total</i>	42	8.90%
Aggregate Supply and Aggregate Demand	Short-Run Economic Fluctuations	33	6.99%
Fiscal Policy	Short-Run Economic Fluctuations	26	5.51%
Money, the Federal Reserve System, and Monetary Policy	Short-Run Economic Fluctuations	20	4.24%
	<i>Unit Total</i>	79	16.74%
	Total	472	

Exhibit R*Economics – McConnell, Brue, Flynn, Topics Breakdown*

	# of Pages	% of Book
Micro	296	62.71%
Supply/Demand	27	5.72%
Macro	117	24.79%
Aggregate Supply/Aggregate Demand	33	6.99%
Monetary Policy & Banking	20	4.24%
Fiscal Policy	26	5.51%
Economic Growth	2	0.42%
Development Economics	0	0.00%
Game Theory	4	0.85%
International Trade	22	4.66%
Labor Economics	25	5.30%
Economics of the Family	0	0.00%
Behavioral Economics	0	0.00%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	13	2.75%
Healthcare	0	0.00%
Urban Economics	0	0.00%
Race & Gender	1	0.21%
Environmental Economics	3	0.64%
Industrial Organization	10	2.12%

Exhibit S

Principles of Economics			
Robert H. Frank, Ben. S. Bernanke			
Chapter	Unit	Number of Pages	% of Book
Thinking Like an Economist	Introduction	32	3.84%
Comparative Advtange	Introduction	26	3.12%
Supply and Demand	Introduction	36	4.32%
	<i>Unit Total</i>	94	11.28%
Elasticity	Competition and the Invisible Hand	28	3.36%
Demand	Competition and the Invisible Hand	25	3.00%
Perfect Competitive Supply	Competition and the Invisible Hand	25	3.00%
Efficiency and Exchange	Competition and the Invisible Hand	28	3.36%
The Invisible Hand in Action	Competition and the Invisible Hand	30	3.60%
	<i>Unit Total</i>	136	16.33%
Monopoly, Oligopoly, and Monopolistic Competition	Market Imperfections	36	4.32%
Games and Strategic Behavior	Market Imperfections	28	3.36%
Externalities and Property Rights	Market Imperfections	28	3.36%
The Economics of Information	Market Imperfections	24	2.88%
	<i>Unit Total</i>	116	13.93%
Labor Markets, Poverty, and Income Distribution	Economics of Public Policy	26	3.12%
The Environment, Health, and Safety	Economics of Public Policy	22	2.64%
Public Goods and Tax Policy	Economics of Public Policy	28	3.36%
	<i>Unit Total</i>	76	9.12%
Spending, Income and GDP	Macroeconomics: Data and Issues	28	3.36%
Inflation and the Price Level	Macroeconomics: Data and Issues	28	3.36%
Wages and Unemployment	Macroeconomics: Data and Issues	36	4.32%
	<i>Unit Total</i>	92	11.04%
Economic Growth	The Economy in the Long Run	32	3.84%
Saving, Capital Formation, and Financial Markets	The Economy in the Long Run	30	3.60%
The Financial System, Money and Prices	The Economy in the Long Run	32	3.84%
	<i>Unit Total</i>	94	11.28%
Short-Term Economic Fluctuations	The Economy in the Short Run	21	2.52%
Spending and Output in the Short Run	The Economy in the Short Run	41	4.92%
Stabilizing the Economy: The Role of the Federal Reserve	The Economy in the Short Run	38	4.56%
Aggregate Demand and Aggregate Supply	The Economy in the Short Run	30	3.60%
Macroeconomic Policy	The Economy in the Short Run	34	4.08%
	<i>Unit Total</i>	164	19.69%
Exchange Rates and the Open Economy	The International Economy	34	4.08%
International Trade and Capital Flows	The International Economy	27	3.24%
	<i>Unit Total</i>	61	7.32%
	Total	833	

Exhibit T*Principles of Economics* – Robert H. Frank and Ben S. Bernanke, Topics Breakdown

	# of Pages	% of Book
Micro	346	41.54%
Supply/Demand	36	4.32%
Macro	378	45.38%
Aggregate Supply/Aggregate Demand	30	3.60%
Monetary Policy & Banking	38	4.56%
Fiscal Policy	11	1.32%
Economic Growth	32	3.84%
Development Economics	0	0.00%
Game Theory	28	3.36%
International Trade	27	3.24%
Labor Economics	26	3.12%
Economics of the Family	2	0.24%
Behavioral Economics	0	0.00%
Law and Economics	5	0.60%
History of Economic Thought	0	0.00%
Public Economics	76	9.12%
Healthcare	25	3.00%
Urban Economics	5	0.60%
Race & Gender	5	0.60%
Environmental Economics	26	3.12%
Industrial Organization	30	3.60%

Exhibit U

Essentials of Economics			
Gregory Mankiw			
Chapter	Unit	Number of Pages	% of Book
Ten Principles of Economics	Introduction	18	3.19%
Thinking Like an Economist	Introduction	28	4.96%
Interdependence and the Gains from Trade	Introduction	16	2.84%
	<i>Unit Total</i>	62	10.99%
The Market Forces of Supply and Demand	How Markets Work	24	4.26%
Elasticity and Its Application	How Markets Work	24	4.26%
Supply, Demand, and Government Policies	How Markets Work	24	4.26%
	<i>Unit Total</i>	72	12.77%
Consumers, Producers, and the Efficiency of Markets	Markets and Welfare	22	3.90%
Application: The Costs of Taxation	Markets and Welfare	18	3.19%
Application: International Trade	Markets and Welfare	26	4.61%
	<i>Unit Total</i>	66	11.70%
Externalities	The Economics of the Public Sector	22	3.90%
Public Goods and Common Resources	The Economics of the Public Sector	18	3.19%
	<i>Unit Total</i>	40	7.09%
The Costs of Production	Firm Behavior and the Organization of Industry	22	3.90%
Firms in Competitive Markets	Firm Behavior and the Organization of Industry	22	3.90%
Monopoly	Firm Behavior and the Organization of Industry	36	6.38%
	<i>Unit Total</i>	80	14.18%
Measuring a Nation's Income	The Data of Macroeconomics	22	3.90%
Measuring the Cost of Living	The Data of Macroeconomics	20	3.55%
	<i>Unit Total</i>	42	7.45%
Production and Growth	The Real Economy in the Long Run	26	4.61%
Saving, Investment, and the Financial System	The Real Economy in the Long Run	22	3.90%
The Basic Tools of Finance	The Real Economy in the Long Run	16	2.84%
Unemployment	The Real Economy in the Long Run	28	4.96%
	<i>Unit Total</i>	92	16.31%
The Monetary System	Money and Prices in the Long Run	22	3.90%
Money Growth and Inflation	Money and Prices in the Long Run	28	4.96%
	<i>Unit Total</i>	50	8.87%
Aggregate Demand and Aggregate Supply	Short-Run Economic Fluctuations	38	6.74%
The Influence of Monetary and Fiscal Policy on Aggregate Demand	Short-Run Economic Fluctuations	22	3.90%
	<i>Unit Total</i>	60	10.64%
	Total	564	

Exhibit V*Essentials of Economics* – Gregory Mankiw, Topics Breakdown

	# of Pages	% of Book
Micro	258	45.74%
Supply/Demand	24	4.26%
Macro	224	39.72%
Aggregate Supply/Aggregate Demand	38	6.74%
Monetary Policy & Banking	24	4.26%
Fiscal Policy	10	1.77%
Economic Growth	26	4.61%
Development Economics	0	0.00%
Game Theory	0	0.00%
International Trade	26	4.61%
Labor Economics	13	2.30%
Economics of the Family	0	0.00%
Behavioral Economics	2	0.35%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	40	7.09%
Healthcare	4	0.71%
Urban Economics	1	0.18%
Race & Gender	1	0.18%
Environmental Economics	17	3.01%
Industrial Organization	46	8.16%

Exhibit W

Economics			
Joseph Stiglitz, Carl Walsh			
Chapter	Unit	Number of Pages	% of Book
Modern Economics	Introduction	22	2.46%
Thinking Like an Economist	Introduction	28	3.13%
	<i>Unit Total</i>	50	5.59%
Demand, Supply, and Price	Perfect Markets	24	2.68%
Using Demand and Supply	Perfect Markets	24	2.68%
The Consumption Decision	Perfect Markets	30	3.35%
The Firm's Costs	Perfect Markets	24	2.68%
The Competitive Firm	Perfect Markets	20	2.23%
Labor Markets	Perfect Markets	16	1.79%
Capital Markets	Perfect Markets	24	2.68%
The Efficiency of Competitive Markets	Perfect Markets	24	2.68%
	<i>Unit Total</i>	186	20.78%
Introduction to Imperfect Markets	Imperfect Markets	22	2.46%
Monopoly, Monopolistic Competition, and Oligopoly	Imperfect Markets	28	3.13%
Government Policies Toward Competition	Imperfect Markets	22	2.46%
Strategic Behavior	Imperfect Markets	22	2.46%
Imperfect Information in the Product Market	Imperfect Markets	22	2.46%
Imperfections in the Labor Market	Imperfect Markets	20	2.23%
	<i>Unit Total</i>	136	15.20%
The Public Sector	Issues in Public Policy	30	3.35%
Environmental Economics	Issues in Public Policy	18	2.01%
International Trade and Trade Policy	Issues in Public Policy	30	3.35%
Technological Change	Issues in Public Policy	20	2.23%
	<i>Unit Total</i>	98	10.95%
Macroeconomics and the Economic Perspective	Introduction to Macroeconomics	12	1.34%
Measuring Output and Unemployment	Introduction to Macroeconomics	24	2.68%
The Cost of Living and Inflation	Introduction to Macroeconomics	16	1.79%
	<i>Unit Total</i>	52	5.81%
The Full-Employment Model	Full-Employment Macroeconomics	22	2.46%
Government Finance at Full Employment	Full-Employment Macroeconomics	20	2.23%
The Open Economy at Full Employment	Full-Employment Macroeconomics	18	2.01%
Growth and Productivity	Full-Employment Macroeconomics	20	2.23%
Money, the Price Level, and the Federal Reserve	Full-Employment Macroeconomics	32	3.58%
	<i>Unit Total</i>	112	12.51%
Introduction to Macroeconomic Fluctuations	Macroeconomic Fluctuations	24	2.68%
Aggregate Expenditures and Income	Macroeconomic Fluctuations	28	3.13%
Aggregate Demand and Inflation	Macroeconomic Fluctuations	26	2.91%
The Federal Reserve and Interest Rates	Macroeconomic Fluctuations	12	1.34%
The Role of Macroeconomic Policy	Macroeconomic Fluctuations	30	3.35%
	<i>Unit Total</i>	120	13.41%
The International Financial System	The Global Economy	22	2.46%
Policy in the Open Economy	The Global Economy	24	2.68%
Development and Transition	The Global Economy	26	2.91%
	<i>Unit Total</i>	72	8.04%
Inflation and Unemployment	Further Topics in Macroeconomics	18	2.01%
Controversies in Macroeconomic Policy	Further Topics in Macroeconomics	28	3.13%
A Student's Guide to Investing	Further Topics in Macroeconomics	23	2.57%
	<i>Unit Total</i>	69	7.71%
	Total	895	

Exhibit X*Economics – Joseph Stiglitz and Carl Walsh, Topics Breakdown*

	# of Pages	% of Book
Micro	322	35.98%
Supply/Demand	24	2.68%
Macro	379	42.35%
Aggregate Supply/Aggregate Demand	2	0.22%
Monetary Policy & Banking	21	2.35%
Fiscal Policy	7	0.78%
Economic Growth	20	2.23%
Development Economics	14	1.56%
Game Theory	20	2.23%
International Trade	30	3.35%
Labor Economics	16	1.79%
Economics of the Family	0	0.00%
Behavioral Economics	2	0.22%
Law and Economics	0	0.00%
History of Economic Thought	0	0.00%
Public Economics	98	10.95%
Healthcare	10	1.12%
Urban Economics	4	0.45%
Race & Gender	3	0.34%
Environmental Economics	18	2.01%
Industrial Organization	24	2.68%

Works Cited

Boyes, William J., and Michael Melvin. *Economics*. 7th ed. Boston: Houghton Mifflin, 2008.

Print.

Case, Karl E., Ray C. Fair, and Sharon M. Oster. *Principles of Economics*. 9th ed. Upper Saddle

River, NJ: Prentice Hall, 2009. Print.

Colander, David. "The Art of Teaching Economics." Middlebury College. Web.

Colander, David. "What Economists Teach and What Economists Do." Middlebury College. Web.

Colander, David. "What We Taught and What We Did: The Evolution of the US Economic

Textbook (1830-1930)." Middlebury College. Web.

Frank, Robert H., and Ben Bernanke. *Principles of Economics*. 4th ed. Boston: McGraw-

Hill/Irwin, 2009. Print.

Hall, Robert Ernest, and Marc Lieberman. *Macroeconomics: Principles & Applications*. 5th ed.

Australia: South-Western Cengage Learning, 2010. Print.

Hall, Robert Ernest, and Marc Lieberman. *Microeconomics: Principles and Applications*. 5th ed.

Mason, OH: South-Western, Cengage Learning, 2010. Print.

Krugman, Paul, and Robin Wells. *Microeconomics*. 2nd ed. New York, NY: Worth, 2009. Print.

Krugman, Paul R., and Robin Wells. *Macroeconomics*. 2nd ed. New York, NY: Worth, 2009. Print.

Krugman, Paul R., Martha L. Olney, and Robin Wells. *Essentials of Economics*. 1st ed. New York, NY: Worth Publ., 2007. Print.

Mankiw, N. Gregory. *Essentials of Economics*. 5th ed. Print.

Mankiw, N. Gregory. *Principles of Economics*. 5th ed. Mason, OH: South-Western Cengage Learning, 2009. Print.

McConnell, Campbell R., Stanley L. Brue, and Sean Masaki. Flynn. *Economics: Principles, Problems, and Policies*. 18th ed. Boston: McGraw-Hill Irwin, 2009. Print.

Miller, Roger LeRoy. *Economics Today*. 15th ed. Boston: Addison-Wesley, 2011. Print.

Saunders, Phillip, and William B. Walstad. *The Principles of Economics Course: a Handbook for Instructors*. New York: McGraw-Hill, 1990. Print.

Schiller, Bradley R. *Essentials of Economics*. 7th ed. Boston: McGraw-Hill/Irwin, 2009. Print.

Skousen, Mark. "The Perseverance of Paul Samuelson's Economics." *Journal of Economic Perspectives*—Volume 11, Number 2—Spring 1997—Pages 137–152. Web.

Stiglitz, Joseph E., and Carl E. Walsh. *Economics*. 4th ed. New York, NY [u.a.: Norton, 2006. Print.