INSTRUCTOR'S GUIDE

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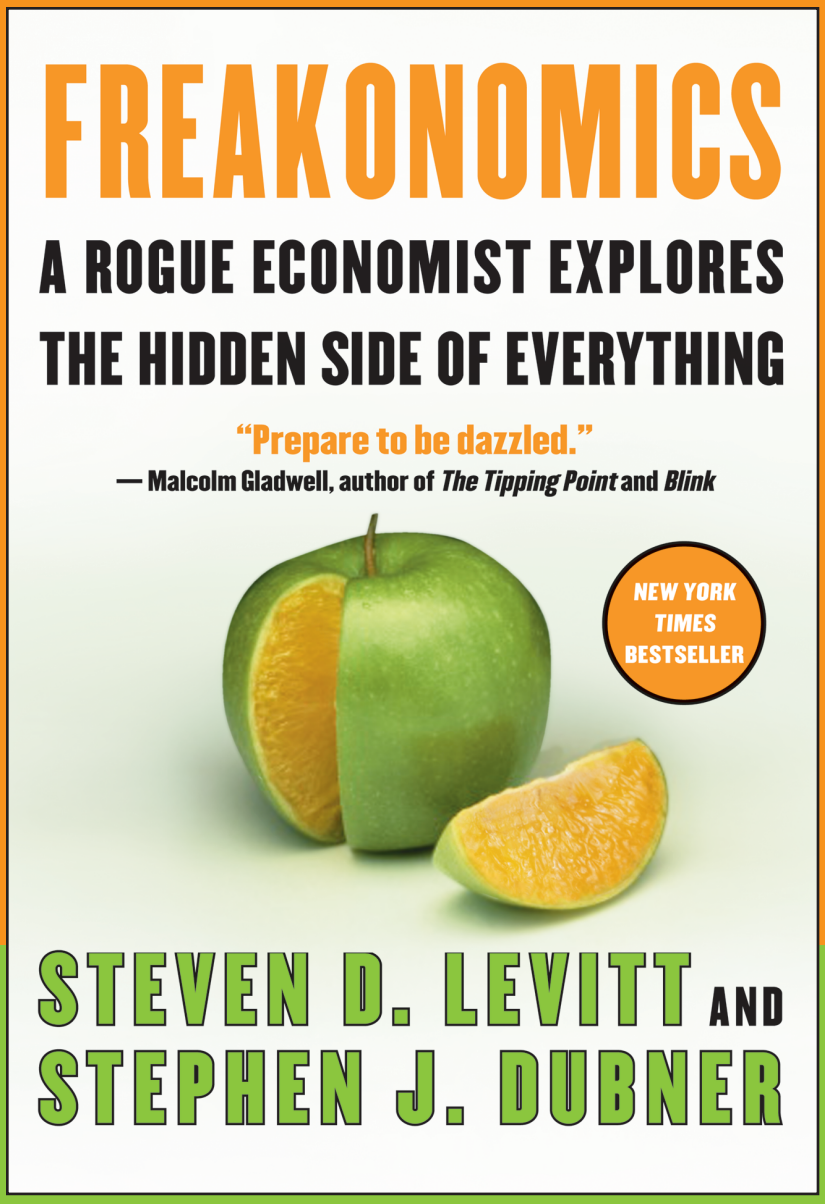

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Welcome to the Instructor's Guide to Freakonomics!

Instructors of economics principles classes are constantly searching for material that brings currency and relevance to what is frequently perceived by students as a dry textbook. In particular, we try to find ways to show students that economic principles can be used to answer the social questions students care about.

Freakonomics addresses current social questions; the questions that students argue about over coffee in the student union building. The book includes provocative chapter titles and often provides controversial answers, yet the analytical methods are purely quantitative and the social questions are addressed in a manner that illustrates the application of economic principles. Freakonomics provides clear illustrations of how an economist would approach a tricky social issue. Because most economists choose not to analyze these types of questions, the book is unique.

This guide has been prepared for instructors who have selected *Freakonomics* as a supplement to accompany the microeconomics text they chosen for their economic principles classes. The material presented here is intended to assist instructors in incorporating the interesting and amazing information found in *Freakonomics* into their class discussions. As authors Levitt and Dubner explain:

> *"Most books put forth a single theme, crisply expressed in a sentence or two and then tell the entire story of that theme: . . . this boasts no such unifying theme. We did consider . . .writing a book that would revolve around a single theme—the theory and practice of applied microeconomics anyone?—but opted instead for a sort of treasure-hunt approach."*

The "treasure hunt" approach appeals to the casual reader, i.e., the "here's-a-comfortable-couch," reader. This approach, and the subject matter chosen by Levitt and Dubner, make *Freakonomics* an excellent read for college students. This approach, however, makes it difficult to "line up" the tales in *Freakonomics* with the ordering of economic concepts in the typical text book. We've developed this guide as a "crosswalk" between *Freakonomics* and principles texts. In particular, we offer a brief summary and outline of the material in each chapter, and we identify the economic concepts that are illustrated by the stories in each chapter.

Did we leave anything out? Oh yes, the book's bizarre title. Well, we leave that to the authors to describe:

> *"This approach employs the best analytical tools that economics can offer, but it also allows us to follow whatever freakish curiosities may occur to us. Thus, our invented field of study: Freakonomics."*

Enjoy!

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Overview of Freakonomics: Themes and Fundamental Ideas

Although, as the authors note, there is no single unifying theme the book is built around, we have identified a number of concepts that recur throughout the book.

Positive vs. Normative Analysis

Many of the tales in *Freakonomics* are intended to challenge the prior beliefs (i.e., the conventional wisdom) of university students and others. The conclusions derived from various investigations described in each chapter will surprise the reader. They may even irritate the reader's sensitivities. The investigations in these chapters, perhaps like no other quantitatively-oriented book, bring home the differences between looking at the world from the point of view of a moralist and the world view of a scientist. If morality represents the way that people would like the world to work, economics represents how it actually does work.

According to the authors:

"it is well and good to opine or theorize about a subject, as humankind is wont to do, but when moral posturing is replaced by an honest assessment of the data, the result is often a new, surprising insight."

The Nature of Scientific Inquiry

Freakonomics provides new insights into the scientific process. The investigations in *Freakonomics* universally address economic and social issues that are frequently difficult, but not impossible, to quantify. The means of formulating testable hypotheses, the difficulties involved in gathering useful data and the utilization of those data are testament to the discipline and creative mental processes of true scientific inquiry.

Freakonomics provides concrete illustrations of how unconventional methods of data gathering and "stand-on-your-head" ways of looking at data are often necessary to make sense of the world. Knowing what to measure and how to measure it makes a complicated world less so.

Incentives are the cornerstone of modern life

Indeed, incentives have been the cornerstone of human existence. Economics is the study of human behavior as it manifests itself in the sometimes foggy mist of incentives. An understanding of incentives is the key to clearly understanding any human behavior.

A related theme of *Freakonomics* is this: "Subject matter experts" of every color and stripe, from criminologists to real-estate agents, use the informational advantage they have acquired to serve their own agenda.

The conventional wisdom is often wrong

Freakonomics takes pleasure in using the powerful quantitative tools of economic inquiry to turn conventional wisdom on its head. The authors do not argue that conventional wisdom is always wrong, but they do conclude that the conventional wisdom that is used as an explanation for many social issues is unexamined, unquestioned and often not correct.

Dramatic effects often have distant, even subtle, causes

As the authors state: "the answer to a given riddle is not always right in front of you." Of course, positive economic inquiry and gathering and interpreting the data that are necessary to solve a sticky social riddle is often hard. But it is the hard that makes it good! If it were easy, everyone would do it.

Chapter 1 What Do Schoolteachers and Sumo Wrestlers Have in Common?

Summary

In this chapter, Levitt and Dubner describe how many people in different cultures and walks of life, who are otherwise inclined to be honest, find subtle ways of cheating to advance their position or increase monetary awards when incentives are strong enough. The authors define an incentive as "a means of urging people to do more of a good thing or less of a bad thing," and identify three varieties of incentives. Economic incentives are those which a person responds to in the market place (broadly speaking). Social incentives motivate people to respond in a certain way because they care (or are worried) about how they will be viewed by others (think "Scarlet Letter"). Moral incentives appeal to a person's sense of right versus wrong. Three case studies of the effects of incentives dominate the chapter; public school teachers in Chicago, sumo wrestling in Japan, and Paul Feldman's bagel business.

The first case considers a group of ordinary people, school teachers, performing an ordinary task, testing their students. Recently, standardized testing has become mandatory in public schools. The No Child Left Behind law awards schools that make progress on these standardized tests and punishes schools that chronically lag behind. Levitt and a coauthor developed a computer algorithm to look for strings of suspicious answers on standardized tests. An analysis of data on the test scores of children in public schools in the Chicago Public School system reveals evidence that teachers cheat by substituting the right answers on students tests in about five percent of classes taught.

Sumo wrestling in Japan, which is synonymous with Japanese national pride, is practiced by only the most honorable of men. Yet the data analysis described is this chapter provide evidence that a significant number of sumo wrestling bouts are actually "rigged" when it really counts.

Finally, data collected by Paul Feldman, an entrepreneur who decided to start a bagel business in the Washington, D.C. area shows that people are not above cheating, even the gain is very low (95 cents for a bagel). Even more interesting is the observation that cheating appears to be more likely as the income level of customers increases.

Chapter Outline

I. The power, intrigue, and complication of incentives

- A. A day-care center learns a lesson in incentives
- B. Definition of an incentive and how incentives relate to the science of economics
  - 1. Incentives are moral, social or economic
  - 2. Trading a social incentive for an economic one–the day-care example
- C. How homicide rates have declined over the centuries–incentive induced?
- D. The power of incentives: the American Revolution

II. Cheating as a fallout of a set of incentives

A. Who cheats?

1. Examples of CEOs, managers and tax-payers

B. The example of Chicago public school teachers

1. Federal and state laws introduce "high stakes" standardized tests
2. Chicago Public School system embraces high stakes testing in 1996
   a. The rewards a teacher reaps if students do better on tests
   b. Ways for a teacher to "pump up" his/her student test scores
3. Detecting cheating teachers
   a. Writing an algorithm to detect unusual answer patterns in students' test scores
   b. Examining the data to detect cheating teachers
      i. identical strings of answers
      ii. comparing a student's performance in one year against the previous year or the next year
      iii. comparing a student's performance early in a test against the student's answers later in the test
   c. Strong evidence of cheating teachers in five percent of classrooms

C. An example from the University of Georgia

1. Easy tests for basketball players

III. Japanese sumo wrestling cheaters

A. Incentive schemes in sumo wrestling

1. The organization of sumo wresting tournaments
   a. When a wrestler is "on the bubble"

B. How to organize sumo wresting data to detect cheating

1. Developing a model to predict a wrestler's probability of winning a match when he's "on the bubble"
2. Comparing the actual win/loss data against the model's predictions

C. Do the data show that some sumo wrestlers are cheaters?

1. Quid pro quo agreements: "I'll let you win this time, you let me win the next"
2. Comparing the win/loss record of pairs of wrestlers each time they meet in a tournament

D. Sumo wrestling "whistle blowers"

1. Data confirm that wrestlers identified as cheaters by the whistle blowers look like cheaters
2. When the media spotlight is one, cheating is rare

IV. Paul Feldman's bagel business

A. A bagel business is started on the honor system

B. The social calculus of theft

1. Some people steal bagels, but not the money box
2. Holidays and weather are good predictors of bagel stealing
3. Smaller communities exert shame as a social incentive against stealing

C. Adam Smith, Socrates, and the morals of men

Basic Economic Concepts

The material presented in this chapter can be used to illustrate a number of basic concepts that are routinely addressed in principles classes, including

1. *Incentives matter.* Incentives, and how people respond to them, is a recurring theme in Freakonomics. Levitt and Dubner claim that "economists love incentives. . . . The typical economist believes the world has not yet invented a problem that he cannot fix if given a free hand to design the proper incentive scheme." The authors use a variety of examples in this chapter to illustrate their point. Once a price is attached to being late to pick up one's child at a daycare facility, parents react in an unexpected way, i.e., they show up late more often. The reason: apparently, before the fine was levied, most parents picked up their kids on time out of a sense of guilt, what could be construed as a response to a social or moral incentive. Once the fine was levied, parents faced only an economic incentive; this, instead of a sense of guilt, was now the price for being late. Parents subsequently reassessed the benefits and costs and decided that the price was worth the extra free time. Some teachers faced with possible sanctions if their students don't perform well on a standardized test react in a way one would never think a teacher never would, i.e., they cheat. Here the incentive is the possible cut in funding for the school, or worse yet, the loss of their job. There is compelling evidence that sumo wrestlers, whose craft is associated directly with honor in Japanese culture, appear to cheat as well. To be specific, the data suggest that a wrestler might throw a match to help his opponent maintain his current ranking. Here the incentive is the possibility that the wrestler who is throwing the match might need a similar favor in the future. And the list goes on.

2. *Consumer Behavior and Cheating*. In order to maximize utility will the ordinary person cheat? Apparently so, if the examples in this chapter say anything about consumer behavior. As W.C. Fields once said: "a thing worth having is a thing worth cheating for." Considering the experiences of Paul Feldman, the bagel entrepreneur, apparently even a bagel is worth cheating for in some situations.

3. Government Regulation and Unforeseen Consequences. This chapter also illustrates the unintended consequences of seemingly benign government regulation. Since the implementation of state laws that require "high stakes testing:" standardized testing with rewards for schools that show improvement and punish schools that don't, some teachers have invented creative ways to show improvement without really adding to the education of their students. According to the data cited in this chapter, 35 percent of schoolteacher respondents to a survey in North Carolina said they witnessed their colleagues cheating in some fashion.

Government policies and regulations, whether federal, state, or local are ubiquitous. The actions of private firms, institutions and individuals to the incentives created by government regulations may be unintended and unimagined. They may evoke actions that are contrary to the original goal or they may evoke actions that frustrate a goal of an entirely different government policy or regulation.

Chapter 2 How Is the Ku Klux Klan Like a Group of Real-Estate Agents?

Summary

This chapter is all about information: the advantages it grants to those who have it, the disadvantages it imposes on those who do not, the ways it can be misused, and the ways it can be abused. The first part of the chapter describes how the Ku Klux Klan first came into being and, how, over time, it was able to exert considerable influence over the lives of those it considered the "enemy," e.g., blacks, Jews, Catholics. What the discussion also shows very clearly is how the acquisition and dissemination of information that had been known only to members of the Klan–secret coded greetings, the Klan's organizational structure–took away much of the power the Klan had previously enjoyed. Once the "secret" was out, much of the membership was no longer willing to participate for fear of being exposed to the public.

The remainder of the chapter explores how specific individuals can capitalize on an informational advantage by exploiting informational asymmetries, as well as human emotions such as fear and sorrow. Real estate agents have a much better sense of the current condition of local housing markets than do buyers and sellers. They can combine this superior knowledge with the buyer's (seller's) fear that he/she won't be able to find a house (sell his/her house) to achieve a deal which is in the agent's best interest but not necessarily the best interests of the buyer or seller. The same can be said of funeral directors, and car salesmen. The chapter also considers the effects of misinformation, e.g., misrepresentation on corporation balance sheets, and the potentially discriminatory behavior that can flow from incorrect or biased information. The chapter concludes with a discussion of the misinformation people post on Internet dating sites, and how voters respond to polls.

Chapter Outline

I. The rise and fall of the Ku Klux Klan (Klan)

A. From midnight pranksters to terrorists

1. Military and legal intervention almost extinguished the Klan in the late 1800s
2. Revival in the early 1900s
3. Post WWII resurgence

B. Stetson Kennedy: Klan fighter

1. What made the Klan powerful? Information the Klan had that its victims didn't
   a. Who were its members?
   b. Where would they strike next?
2. The Klan's undoing

a. Kennedy infiltrates and gathers information

b. Information is made public via Adventures of Superman radio program

c. The Klan's information advantage disappears and so does, to a large extent, its power

II. Information and the internet

A. Information asymmetries

1. Term life insurance rates

a. Access to competitors' rates forces the competitive equilibrium

2. Almost new cars: lemons?

3. Funeral costs

a. Access to the Internet can facilitate more rational purchases by avoiding face-to-face transactions in which the seller can play on the buyer's emotions

B. The Internet's effect on information asymmetries

1. In many situations, the existence of the Internet has substantially reduced the costs of obtaining information and, consequently, the advantage possessed by those who have information

III. Manipulation of information

A. Misrepresentation

1. Corporate scandals

B. Exploiting fear

1. Doctors: Would a physician sell you a service you don't really need? (Maybe!)

C. Real estate agents and information asymmetries

1. Lack of experience on the part of buyers and sellers

2. Informational advantage of agents

3. Seller's fear of selling too low; buyer's fear of paying too much

4. Asymmetric incentives: the agent only loses a small percentage of what the seller does when price is lowered

5. What's in a word? The information actually conveyed by terms in real estate ads

IV. Additional forms of information abuse

A. Discrimination and The Weakest Link

1. Taste-based versus information-based discrimination

B. Internet dating and misrepresentation

1. Personal characteristics

a. Based on self-reported information, Internet daters are richer, taller, skinnier, and better-looking (70 percent for women, 67 percent for men) than average

2. What matters most? Income for men, looks for women
3. Racial preferences: 80 percent of white men say race doesn't matter but send 90 percent of their inquiries to white women. 50 percent of white women say race doesn't matter but send 97 percent of their inquiries to white men.

C. Voting, Polls, and Misinformation

1. Polls showed a black mayoral candidate would win by 15 percentage points. He won by only a few

2. David Duke, Grand Wizard of the Klan, received 20 percent more of the vote in a senate race than polls predicted

Basic Economic Concepts

The material presented in this chapter can be used to illustrate a number of basic concepts that are routinely addressed in principles classes, including

1. *The economic value of information*. When constructing the basic model of supply and demand, we assume perfect information on the part of both buyers and sellers. As such, the demand curve represents the buyer's true willingness and ability to pay. However, as this chapter clearly demonstrates, imperfect information limits the ability of buyers to determine their true willingness to pay. It also inhibits sellers, e.g., people selling a home, who fear they are not receiving the maximum possible price. The result is that, in certain situations, the item in question may not in fact go to the party who values it most. A less than efficient outcome results.

2. *Incentives matter*. This basic tenet of economic theory is apparent throughout the chapter. At one level it is what we would expect and readily accept; buyers and sellers act in their own self interest. However, information asymmetries can create incentives for certain individuals to act in a manner inconsistent with another party's best interests. Funeral directors sell a family a casket they can ill afford and don't really need. Real estate agents don't work to achieve the highest price for a property (which is in the seller's best interest) because they find an increase in sales volume to be more profitable. Ku Klux Klan members were willing to participate in the Klan's activities so long as they thought their actions would be anonymous. Once that anonymity was threatened, the incentive to participate in the Klan's activities declined, or disappeared.

3. *Technological change*. The advent of the Internet and consequent increase in the availability of information has had a tremendous effect on the relative bargaining strength of buyers and sellers. This technological innovation has substantially increased the supply of information relative to demand. The resulting decrease in price and increase in quantity of information consumed has done a great deal to level the playing field among buyers and sellers in markets for a variety of goods and services.

4. *Competition and efficiency*. Many of the examples in this chapter also illustrate the benefits consumers realize as a result of increased price competition among sellers. Term life insurance policies used to vary considerably in price, even though the different policies were quiete similar. Once information was made available on the relative prices of policies, firms were forced to compete primarily on that basis with the result that consumers gained in the form of lower prices and more efficient

market outcome (price is closer to marginal cost). The same has happened to some extent in real estate markets. As a result of the internet, home buyers are able to gather much more information than they could previously and thus are able to estimate, much more accurately, the true market price of a particular house.

Chapter 3 Why Do Drug Dealers Still Live with Their Moms?

Summary

One of the themes of this book is that the conventional wisdom is often wrong. In this chapter, Levitt and Dubner quote from the economist and diplomat John Kenneth Galbraith, who asserts that social behavior is complex and "to comprehend [its] character is mentally tiring." So, according to Galbraith, conventional wisdom must be simple, convenient, comfortable, and comforting, though not necessarily true. Levitt and Dubner cite several examples of conventional wisdom which is demonstrably in error. They go to note that even though the conventional wisdom may be wrong, it nonetheless may be hard to correct. Conventional wisdom is often created by experts in a field. They make observations and draw conclusions without resorting to the facts. Their conclusions get repeated by the media and by other experts who refer to the previously stated error and thus give credibility to it. Repeated often enough, an error can begin to ring true and thus becomes accepted by society as an unquestionable answer to a tricky social problem.

The chapter then goes on to address, and dispel, the conventional wisdom regarding drug dealers, i.e., they are all rich. They do this by describing how Sudhir Venkatesh, a graduate student in Sociology, acquired detailed financial records from a Chicago "crack" gang. Through these records, a significant amount of information was been compiled on the operations, organizational structure and financial dealings of an extra-legal American business. Several economic themes emerge from this chapter's astounding tale.

Many students will find that the tale of the Black Nation Disciples appeals to their voyeuristic nature. This is precisely what is intended. Along this sordid path, students can acquire an understanding of the economic concepts described below.

Chapter Outline

I. Questioning the conventional wisdom regarding a complex social question

A. Asking a "good" question

B. How conventional wisdom comes to be

C. Recent examples of errant conventional wisdom

1. Homelessness in the United States
2. Which came first: Listerine or halitosis?
3. George W. Bush's "plainspoken" image
4. The incidence of rape

D. The durability of the conventional wisdom

II. The economics of dealing crack

A. Getting useful financial data regarding crack dealing

1. The image of a crack dealer
2. Sudhir Venkatesh, infiltrates the Black Gangster Disciple Nation
   a. Begins by trying to administer a survey in a poor Chicago neighborhood
   b. Sudhir is embedded in the gang
   c. "Booty" gives Sudhir four years of the gang's financial records

B. An insight into the gang's finances

1. Organizational structure of the Black Gangster Disciple Nation
2. Monthly revenue picture: drug sales, dues, extortion
3. Monthly expenses: drugs, weapons, wages etc.
4. Profit to leader(s)

C. Risks and rewards for gang members

1. Rewards are small, except for the top leadership
2. Risks of arrest and death are high

III. A "tournament" labor market

A. A labor market is characterized by four variables: supply or laborers, demand for the services provided, the skills required and the unpleasantness of the work

B. In a "tournament" labor market, only the top managers earn large rewards

C. Examples of a "tournament" type labor pool: acting, professional football

D. Rules of "tournament" play are straightforward

1. Start at the bottom
2. Distinguish yourself in order to advance

IV. Conflict of incentives: management versus labor

A. Rank and file gang members start a business suffocating turf war

B. Gang leader is always trying to keep members in check

V. Crack Cocaine

A. Similarities between nylons and crack cocaine

1. The invention of nylons brought "class to the masses"
2. In the 1970s cocaine was a "classy" drug, used by rock stars and wanna bees
3. The invention of "crack" did for cocaine what the invention of nylon did for silk stockings (i.e., made "class" affordable)

B. Crack cocaine gets a distribution system

1. American prisons in the 1980s help cocaine growers get to know potential dealers
2. Urban street gangs are an ideal distribution system
3. The invention of crack cocaine coincided with a "glut" in cocaine production

C. The effects of crack cocaine on the progress of black society

1. Reversal of gains of the black society
2. Quadrupling of the homicide rate among blacks

Basic Economic Concepts

The material presented in this chapter can be used to illustrate a number of basic concepts that are routinely addressed in principles classes, including:

1. *Fixed and variable costs of production.* This chapter provides an intriguing and simple example of the costs and revenues of a firm. The revenues of J.T.'s chapter of the Black Disciples come from the sales of drugs, dues paid to the gang, and extortion. Expenses include the cost of the drugs, fees paid to the directors, weapons, mercenary fighters, and the salaries of the chapter officers, dealers, and foot soldiers.

   An instructor-led discussion considering which of the Black Disciples expenses go into which category will help bring home the concepts of fixed and variable costs. For example, are payments to the directors a fixed or variable cost? Are death benefits paid to the families of murdered Black Disciple drug dealers a fixed or variable cost?

2. *A "winner take all" labor market.* Economic textbooks often refer to a concept called the "winner take all" labor market. This describes a situation in which many laborers compete for a position in the market, but few actually succeed in finding employment. Those few who do are paid extraordinarily large salaries. An excellent example is professional basketball, a specialized labor market in which a handful of excellent players are paid annual salaries in the millions of dollars. Meanwhile, thousands of young adults devote endless hours and considerable ambition in a vain attempt to find a paying position in this very specialized field.

   The market for crack cocaine is another example of the "winner take all" labor market. Levitt and Dubner refer to this labor market as a "tournament." A tournament, of course, refers to a situation in which many players compete against each other and, one by one, are eliminated. Finally, a victor emerges who takes home the prize.

   The "Winner-Take-All" variety of labor market is more common that one might think. An instructor-led discussion with the students about this will reveal that the acting profession is another example. Also, paid political figures who are elected to representative office is another good example of many volunteers and few rewarding positions. Are there others?

3. *Supply, demand and equilibrium price.* The example of the Black Disciples street vendors demonstrates an immutable law of economics: that whenever there are a lot of people willing and able to perform a job, that job doesn't pay well. Three dollars and thirty cents an hour to be exact. In a capitalist society, intense competition will drive prices down. If many laborers are able and willing to sell drugs for a gang, each laborer ends up competing with everyone else. This drives wages down.

4. *Incentives matter.* Given the low wages and the fact that the chance of being violently and ignominiously murdered is one in four, why are so many willing and able to perform the job of dealing crack? The answer is that those who succeed in this tournament labor market are handsomely rewarded, and each budding drug dealer believes he can succeed. According to the data obtained by Ventakesh, the top 120 managers in the Black Disciples gang represented just 2.2 percent of the full-fledged gang membership but took home well more than half the money.

5. *The effect of technological change on the market for goods and services.* This chapter also reveals that technological change can cause significant changes in markets. Prior to the 1980s, cocaine was a "classy" recreational drug. However, cocaine was expensive and alas, the "high" from cocaine was fleeting, so recreational users invented ways to increase the drug's potency. The latent demand for a cheap and potent form of cocaine sent growers to the laboratory to concoct a better drug. Eventually, "crack" was invented. It was potent. Its invention coincided with a cocaine glut and so, when it hit the street, it was also cheap.

   So, crack cocaine hit the market as a cheap way to get a good high. This invention constituted a significant technological change in the supply of cocaine. In describing the determinants of supply, economics text books note that technological improvements are supply "shifters." When change occurs, it shifts the supply curve to the right. All other things equal, this lowers the price of a good and increases the quantity demanded. Another illustration used in this chapter of an outward shift in supply caused by technological improvement was the invention of nylon stockings.

6. *Conflicting incentives: owners versus labor.* This chapter provides a unique insight into the long-standing issue of the divergence of incentives between owners and workers. Owners seek to maximize profits. Workers may not have the same motivation. For example, a worker may seek to maximize his pay, maximize his influence in the company or maximize his responsibility. Seeking these goals may be not complement the maximization of profit. In fact, the goals of workers may be contrary to the profit maximization goal.

   In the example of the Black Disciples, the conflict arises between the franchise owner, J.T., and the street dealer. The franchise owner is interested in maintaining a stable and safe market environment for customers who repeatedly make drug purchases. These conditions contribute to achieving maximum sales and profits. The street dealer's goals, however, are in conflict with those of the franchise owner. The dealer wishes to distinguish himself from competing laborers and bring his hard to the attention of the franchise owner to move up in the tournament and earn higher pay. A sure way to distinguish yourself as a crack dealer is to establish a dark reputation by proving to the other members of the gang that you have a proclivity to violent ways. A killer is respected, feared, and noticed. A street dealer's incentive is to make a name for himself, even if that means starting a gang war.

Chapter 4 Where Have All the Criminals Gone?

Summary

This chapter considers a variety of possible explanations for the significant drop in crime and crime rates that occurred in the 1990s. Based on articles that appeared in the country's largest newspapers, the authors compile a list of the leading, commonly offered explanations. The next step is to systematically examine each explanation and consider whether available data support the explanation. What the authors, in fact, demonstrate is that in all but three cases–increased reliance on prisons, increased number of police, and changes in illegal drug markets–correlation was erroneously interpreted as causation (and in some cases, the correlation wasn't even that strong).

The last few pages of the chapter focus on an explanation of the crime drop that had not been addressed until much more recently–the effect of legalized abortion. The discussion summarizes the results of a study conducted by Donahue and Levitt that appeared in the *Quarterly Journal of Economics* in 2001. The upshot of that analysis is that approximately one half of the drop in crime witnessed in the 1990s is attributable to the legalization of abortion in 1973. This conclusion is based on statistical and econometric analysis that focuses on, among other things, the characteristics of criminals, the increase in the number of abortions following its legalization and the characteristics of those women most likely to get an abortion.

Chapter Outline

I. The abortion ban in Romania: Unintended consequences?

A. Ceausescu made abortion illegal in 1966

1. Romanian birth rate doubled in one year
2. Average performance of children born after the ban declined in every measurable way
3. Teenagers and college students were a significant factor in Ceausescu's ultimate overthrow

B. The Romanian story as the reverse image of what happened in the United States

1. Decrease in abortions and rising misery in Romania
2. Increase in abortions and declining crime in the United States

II. Crime in the United States

A. Rising crime rates from the mid 1970s through 1990

1. 80 percent increase in violent crime
2. Forecasts of much worse things to come

B. Falling crime rates in the 1990s: Why?

1. Several explanations put forward: innovative policing strategies, increased reliance on prisons, changes in illegal drug markets, aging of the population, tougher gun control laws, strong economy, increased number of police, other (e.g., increased use of capital punishment).

2. Explanations the data do not support: strong economy, increased use of capital punishment, innovative policing strategies, tougher gun control laws, and aging of the population.
3. Explanations the data do support: increased reliance on prisons (accounts for one third of the drop in crime), increased number of police (accounts for 10 percent of the drop in crime), changes in illegal drug markets (accounts for 15 percent of the drop in crime), and the legalization of abortion.

III. Focus on legalized abortion and falling crime rates

A. Timing

1. Roe v. Wade legalized abortion in 1973 (in five states it had ready been legalized by 1970)
2. Crime rates began declining nationally in 1991, 18 years after Roe (earlier in the five states that had legalized abortion prior to 1973)

B. Affected population

1. Women most likely to get an abortion are more likely to give birth to boys who go on to become criminals
2. An average of 1.6 million abortions per year by 1980

C. Further evidence

1. States with higher abortion rates saw larger decreases in crime rates
2. States that legalized abortion before Roe saw their crime rates begin to decline in the late 1980s
3. Studies in Australia and Canada have found a similar link between abortion and crime rates

D. Conclusion

1. Approximately half of the decline in crime in the 1990s is attributable to the increase in abortion

E. Ethical and moral considerations

Basic Economic Concepts

The material presented in this chapter can be used to illustrate a number of basic concepts that are routinely addressed in principles classes, including

1. *Correlation versus causation*. Many principle texts like to address certain fallacies that must be avoided when conducting scientific inquiry. One of these is the problem of confusing correlation with causation. For example, drownings and ice cream sales are positively correlated to the extent that both tend to increase in the summer. However, we should not then conclude that the increase in ice cream sales causes an increase in drownings (or vice versa). In a similar manner much has made of the (usually negative) correlation between certain practices, such as the increased use of capital punishment and tougher gun laws, when attempting to explain the drop in crime in 1990s. However, as the authors show through a careful examination of the data, the fact that two things may appear to be correlated does not provide evidence of causation.

2. Supply and demand. Over the past 20 years, efforts have been made to reduce the number of guns in circulation either through legislation limiting gun sales or through gun-buyback programs. The motivating assumption is that fewer guns will translate into less crime. And these policies have been in turn touted as one of the explanations for the drop in crime. However, the effect of these policies on the number of guns in criminals' hands has been nil. This is because there are in fact, two markets for guns, one legal and the other illegal. The efforts described above have been focused on the legal market for guns and, even there, one could argue that the effects have been negligible. Nonetheless, when we look at the illegal market for guns (which is where most criminals obtain their guns) there likely has been little or no impact. Viewed in the supply-demand framework, supply and demand have not changed, so neither has equilibrium price or the quantity exchanged. Note that it is possible that both supply and demand have increased because some sellers and buyers have turned to the illegal market because of the restrictions imposed in legal market. In this case, equilibrium quantity has increased and there is an uncertain effect on price. And the conclusion is the same: guns are still available to those who want them.

3. *Competition and economic profit*. In their discussion of those factors that can be viewed as having contributed to the decrease in crime in the 1990s, in particular the bursting of the crack bubble, the authors note that "What did go away were the huge profits for selling crack. . . . Dealers began to under price one another; profits vanished." This example nicely illustrates how above-normal profits will attract entry into a market and how that entry will erode excess profits over time. It also illustrates the maxim that "incentives matter." Once the profits disappeared, so did the dealers' incentives to kill one another in pursuit of greater market share.

4. *Positive versus normative analysis*. Not surprisingly, many people, including students in our classes, find the argument that the legalization of abortion had a large, statistically significant effect on crime to be quite disturbing. Indeed many people find the argument to be morally reprehensible. Nonetheless, the evidence is overwhelming in support of the argument. This in turn highlights the important distinction between positive and normative analysis. The fact that the relationship exists does not then justify the argument that abortion ought to be made readily available, let alone that it should be legal (a normative question). It simply explains a phenomenon that has been observed (an application of positive analysis).

Chapter 5 What Makes a Perfect Parent?

Summary

This chapter summarizes the results of studies by Levitt and his coauthors, as well as other studies, that examine the influence demographic, cultural and other variables have on the performance of school-age children on standardized tests. In a now familiar theme, the results are plangently counterintuitive. Based on a mountain of school children's test scores, a successful child appears to be more "made" than nurtured, more mused than molded.

The chapter begins by reviewing how many parents get educated on raising their children and how parenting experts swing from one extreme position to another in an attempt to get the attention of risk-adverse parents. The authors then consider what motivates parents and others to worry more about certain risks than others, focusing on the effects of fear and a misinterpretation of available data.

The bulk of the chapter is spent exploring various factors most people would expect to be highly correlated with, as well as causes of, student performance on standardized exams. Broadly defined, attention is focused on what parents do versus what parents are. The results of the analyses considered are, to put it mildly, quite surprisingly. For example, having books in the home appears to have a positive effect on performance, while reading to the child does not. Other factors that do not appear to matter include whether the mother stayed at home when the child was an infant, whether the child frequently watches television, and whether the child attended Head Start. The chapter concludes by providing a logical explanation for the empirical results.

Chapter Outline

I. The conversion of parenting from an art to a science

- A. Parenting experts abound but offer contradictory information
  - 1. Experts, like those who specialize in parenting, get attention by strongly taking one side, rather than objectively describing various views
- B. Why parenting experts like to scare parents to death
  - 1. A parent is the temporary custodian of another life
  - 2. Do parents have the best information about risks to their children?

II. Risk and fear

- A. Which is more dangerous: a gun or a swimming pool?
- B. Risks that you control versus risks outside of your control
  - 1. It's the imminent possibility of death that drives one's fear
- C. The "risk = hazard + outrage" equation

III. Obsessive parents and the nature-nurture quagmire

- A. Genetics
  - 1. Account for 50 percent of a child's personality and abilities
  - 2. What accounts for the other 50 percent?
- B. Judith Harris offers an explanation
  - 1. Top down influence of parents is overwhelmed by the grassroots effect of peer pressure
- C. A tale of two children

IV. What do test data reveal about parenting?

- A. Student test scores from Chicago public schools
  - 1. The data are useful because of size and longevity
  - 2. Entering a charter school did not increase a students test scores

V. The Early Childhood Longitudinal Study (ECLS)

A. The data includes detailed information about the family life of the students

B. Correlation versus causation

   1. The usefulness of regression analysis

C. What do the ECLS data reveal about the black-white test gap?

   1. The black/white test gap after controlling for other factors

D. What do the ECLS data reveal about good parenting?

   1. Eight things that appear to help a child do better in school and eight that don't

      a. It matters more that a child's parents are educated than that a child has an intact family

      b. A parent's socioeconomic status is more important than a good neighborhood

      c. A mother's decision to put off parenting until at least age thirty is more important than whether the mother works

      d. Low birth weight is more important than getting a child into a Head Start program

      e. Speaking English in the home is a more important indicator of test scores than is having a parent who takes a child to museums

      f. A "spanked" child does no better (or worse) than an "unspanked" child, but a "birthed" child does better than an adopted child

      g. A child with books in the home does well on tests, but a parent regularly reading to the child doesn't affect his or her test scores

   2. Who the parents are seems to matter more than what the parents do

      a. Most things that influence a child's test scores are decided early in a child's life

      b. Parents' actions have influence over a child's life as revealed by what a child does as her or she becomes an adult

Basic Economic Concepts

The material presented in this chapter can be used to illustrate a number of basic concepts that are routinely addressed in principles classes, including

1. *The Consequences of Imperfect Information*. Imperfect information is one of the economic conditions that gives rise to market failure. This chapter considers imperfect information as it relates to parenting. Parenting experts tout their latest conclusions in books, lectures and on morning news shows. Parents, however, are poorly equipped to critically examine the information presented and thus are prone to follow the latest trend in parenting not really knowing whether doing so is in the child's best interest.

   Another important challenge to parents is how to avoid activities that put their children at risk of death or serious injury. A parent is the caretaker of the lives of his/ her children. They must try to understand the risks faced by his/her offspring. This chapter's analysis of the risks faced by a child are Freakonomically typical: they are plangently counterintuitive. Which is more dangerous; sending your child to play with a neighbor's child who lives in a house where a gun is kept, or sending your

child to swim in the neighbor's pool? Overwhelmingly, the answer lies with the inherent danger of the swimming pool. In fact, children are 100 times more likely to die from drowning in a pool than a gunshot.

Many a childhood hazard which generates media noise and eye-catching crusades turns out to be far less risky to children than death by swimming pool. These data illustrate the consequences of asymmetric information. In this case, parents do not have access to, or the capability of, absorbing and critically examining the information available regarding risk, while the manufacturer of a new safety-enhancing product has an incentive to promote his product by "talking up" the risk being avoided.

2. Normative versus positive analysis. Chapter Four, on crime and abortion, challenged the reader to accept the conclusions wrought by data and to think about the world as it is, rather than pledging fidelity to notions of the way the world should be. Where Levitt disabused purveyors of the conventional wisdom on the causes of crime in that chapter, he brings the economists quantitative skills to the subject of parenting in this chapter.

   Using data from the U.S. Department of Education, Levitt and his coauthors examined the relationship between a child's academic success and a variety of personal circumstances related to the child's life. The personal circumstances and factors analyzed include a plethora of demographic, familial, and environmental variables that affect a child's school work. Race, the economic status of parents, whether a child visits museums and birth weight are among the variables measured.

   Levitt et al. conclude that the variables most correlated with academic success tend to be variables which are related more to what a parent is, than what that parent does for the child. This, of course, is counterintuitive. This is positive analysis and it differs from an analysis of how one thinks that the world should behave.

3. *Correlation versus causation*. In order to better understand how one is capable of performing an analysis in which hundreds of variables are involved, Levitt and Dubner devote a bit of time in this chapter to describing one of the quantitative tools of the economic trade: "regression analysis." They also distinguish between correlation and causation: noting that finding that two variables move together in some systematic fashion (i.e., positively or inversely) does not describe causation, but only correlation. However, they also note that a "skilled practitioner can use it [regression analysis] to tell how meaningful a correlation is–and maybe even tell whether that correlation does indicate a causal relationship."

4. *The incentives of experts*. In Chapter Two, Levitt and Dubner demonstrate how subject-matter experts have incentives to withhold, massage, or even distort information to promote their self interests. In this chapter, parenting experts are spotlighted. Authors of books about successful parenting are not likely to be those who argue the various sides of issues or refrain from overselling a point of view. This type of parenting-skills expert gets too little attention to sell books. Thus, parenting experts contradict each other (and even themselves). The information on parenting experts in this chapter again illustrates two of the major themes of this book: 1) that incentives are a hallmark of modern society, giving rise to behavior commensurate with these incentives and 2) subject-matter experts often face incentives which may prod them to act in a less than socially desirable manner.

Chapter 6 Perfect Parenting, Part II; or: Would a Roshanda by Any Other Name Smell as Sweet?

Summary

This chapter continues to explore the question of what impacts parents have on their child's success by focusing on the effects, if any, of the child's name. Considering that baby naming has become big business the question becomes, Does the child's name matter when it comes to the child's potential for economic success? The short answer is no. The authors focus primarily on the very different names black and white parents choose for their children and explore whether those differences are a cause of the economic disparity between the two groups or rather a symptom (building on the work of Professor Roland Fryer Jr.). Citing a considerable amount of analysis of data on names from California, we learn at least three things: (1) the names chosen by black and white parents are extremely dissimilar, (2) a child's name is not a determinant of success but rather a predictor because of what it conveys about the child's parents (and what that means for the child's likely economic success), and (3) names tend to cycle through socio-economic strata over time, moving from higher to lower strata and eventually out of favor with most parents.

Chapter Outline

I. Introduction

A. Anecdotal evidence about the effects of a child's name

1. Loser Lane has succeeded, while his brother Winner has lost big
2. Did the fact that she was named Temptress cause a 15-year-old girl to invite men into her home?

II. The connection between names, culture and race

A. The work of Harvard economist Roland G. Fryer, Jr.

1. The focus of Fryer's work is on black underachievement
2. The fundamental question: is distinctive black culture a cause of the economic disparity between blacks and whites or merely a reflection of it?

B. What the data tells us: analyzing California birth-certificate data since 1961

1. First observation: substantial dissimilarity between names black parents and white parents give their children
2. Second observation: the black-white gap is a relatively recent phenomenon (since 1980)
   a. In a given year, 40 percent of black baby girls are given names not given to a single white baby girl. More than 40 percent of white babies are given names that are at least 4 times more common among whites
3. Does having a very "white" name or a very "black" name matter?
   a. The inability of "audit studies" to answer the question

b. Empirically, someone with a very black name is at a clear disadvantage, but why?

i. A name is a refection of the economic circumstances of the child's parents

ii. Strong causal link between those circumstances and the child's potential for success

III. Where do the names parents choose for their children come from?

A. Various sources

1. Traditional: the Bible, traditional European names
2. Brand names: Bacardi, Lexus
3. "Aspirational" names: Harvard, Yale, Princeton, Lawyer, Judge
4. Invented names: Orangejello, Lemonjello

B. Cycles

1. Many names associated with higher income-higher education families tend to be picked up by lower income-lower education parents over time. and eventually drop off the "most popular" list altogether
2. Maybe parents are hoping that a name associated with other "successful" children will benefit their child as well
3. Careful analysis suggests otherwise

Basic Economic Concepts

The material presented in this chapter can be used to illustrate a number of basic concepts that are routinely addressed in principles classes, including

1. *Correlation versus Causation.* As the chapter title suggests, a question one might consider in the context of the names parents give their children is whether a child's name has any effect on his/her prospects for success. Indeed, a casual examination of the relationship between names and the economic success of the people bearing those names would appear to offer evidence in support of the hypothesis that one's name matters. However, what's really being captured is the relationship between the child's prospects for success and the parent's socio-economic characteristics. Once again, we have to be careful to avoid confusing correlation with causation. On a related note, it is worth considering whether a person's name could contribute to discrimination against that person. Once again, the data fail to support such a connection.

2. *The "snob effect" in consumer purchasing.* Text books occasionally refer to the "snob effect," where a consumer may purchase a higher-priced brand of some item simply to demonstrate their social superiority over others. This is cited as an exception to the law of demand. In this chapter, it is revealed that highly successful parents tend to choose rather unusual names for their children. These children grow up to be successful, high socioeconomic status people. Subsequently, ordinary parents who reveal high expectations for their children through the names they choose often select names of those people who they see as successful. The unusual names chosen by highly successful parents then, overtime, come into common usage. Once this happens, the highly

successful parents of the next generation find new, unusual names to give to their children. Thus, the "snob effect" is often revealed in the choice of names by the parents of a high socioeconomic status.

3. *Incentives matter*. Careful inspection of the California data set reveals that names tend to cycle through the population, being adopted first by people in higher income groups and then filtering down to the lower socio-economic strata. One could argue that this is simply another illustration of the maxim that incentives matter. In this case, the argument is that people in lower income groups have an incentive to select certain names because they associate those names with economic success. As the authors note, how else can we explain the sudden growth in the number of parents who chose to name their daughters Madison?
4. *Relative scarcity*. Over time, names appear to become popular and then gradually fall into disfavor, if you will. Why? One argument could be that as the use of a name increases and, consequently, it becomes less scarce, its market value decreases, and with it, the willingness of parents to bestow it on their child.

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A Rogue Economist Explores the Hidden Side of Everything

Steven D. Levitt and Stephen J. Dubner

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