Hi, I'm Professor Navarro here.
In this first lecture I will try to
illustrate just how
important microeconomics can be in both
your personal and professional lives.
And also give you a sample of some of the
more important concepts in economics like
opportunity costs and market failure.
Perhaps most importantly I will lay out a
road map of the major areas of
microeconomics that
you will be studying.
The goal here is to help you see the
forest
before we start looking closely at each of
the trees.
[MUSIC]
>> At a business and professional level,
microeconomics can help answer questions
like, how can my firm minimize its costs
and increase its profits?
What prices should I charge for my
products?
Should I invest in new plant and
equipment?
And how should I respond to an aggressive
strategic move by one of my competitors?
At a personal level, microeconomics is
equally practical.
It can help
answer questions like how can I maximize
my grade point average given my time
constraints?
Will I really be better off financially if
I quit
my job now and go back for an MBA degree?
What kind of career should I be preparing
myself for?
And what about that new refrigerator or
automobile I want to buy?
Should I get the new energy-efficient one
with a
higher price tag or settle for a cheaper
model?
Most broadly, microeconomics can also help
you come to understand
why the government is so involved in our
economic lives.
It can do so by answering questions like,
why does the government
regulate prices in some industries like
electricity and gas but not in others?
Why are there laws requiring seat belts
and motorcycle helmets?
Why do we have a federal environmental
protection agency and thousands
of rules about workplace safety?
And why does the government provide some
goods, like our national defense and
lighthouses, and let the free market
provide
other goods, like hot dogs and computers?
Microeconomics can help answer questions
like these because it arms
us with a very powerful set of conceptual
and problem-solving tools.
As you study this challenging subject many
ideas and words
that may be quite foreign to you now like,
opportunity cost, the time value of
money price elasticities And oligopoly
will become your friends for life.
Let me show you how powerful and helpful
these friends can be,
by telling you several stories about some
fictional people in very real situations.
Let's start close to home with that
refrigerator problem.
Priscilla Sanchez wants
to buy a new one and her choice's between
a very energy-efficient model that cost
$750 or the identical refrigerator without
the energy saving features for only $500.
Since Priscilla just finished her course
of microeconomics,
she knows about the time value of money.
So, after calculating the net present
value of the
energy savings on an electricity bill over
the life of
the investment, she realizes that the
seemingly
more expensive refrigerator is actually
much cheaper.
In fact, Priscilla helped her husband Phil
come
to a similar conclusion on a completely
different topic.
Phil was thinking about entering an
executive MBA program, but
the tuition is very expensive, over
$100,000 for the two-year program.
Phil's problem in thinking
through his decision was that he didn't
know how
to compare his up front cost of going to
school with the future benefits that would

come in
the form of a higher salary and better
promotional opportunities.
>> So Priscilla once again got out her
hand calculator and made
some assumptions about Phil's future
stream of income after he got his MBA.
And it became pretty clear to both of them
that
the family would be better off financially
over the long run
with Phil in school now.
And that's where Phil is.
He sits right next to Stuart Applegate in
his Microeconomics class.
Before losing his job and going back to
school, Stuart
was the chief executive officer of a
high-flying computer software company.
However, when his company started to lose
money, Stuart's solution was
to raise prices in the hopes of boosting
revenues and profits.
Unfortunately,
Stuart came from an engineering
background, and
as he hadn't studied microeconomics,
Stuart didn't
understand that the demand for his
company's
product was what economists call highly
elastic.
In such a case, raising prices actually
reduces both total revenue and profits.
The result was that Stuart's pricing
strategy bankrupted the company.
Forunately, Jean Twilley was a lot smarter
when confronted with a similar situation
in her job as a financial
analyst in the operations department for
the transit authority in Paradise
California.
Facing a revenue shortfall, Jean ordered
an analysis
of the elasticity of demand for bus
services.
When she found that bus demand was also
highly elastic, she
recommended to her supervisor that the
transit authority lower bus fares.
This pricing strategy did indeed increase
ridership and boost total revenues.
It also earned Jean a nice promotion.
It was a totally different set of
microeconomic tools that helped Jong
Chan get a different kind of promotion -
one into medical school.
Jong's problem was that at the end of his
freshman
year in college, his grade point average
was only 2.9.
However after taking
a course in microecononics Jong used the
concept of opportunity costs and the tool
of the possibilities frontier to more
efficiently
allocate his studying time across various
subjects.
The result?
By the end of his senior year Jong had
raised his grade point average to 3.8.
It's too bad that Jong's father, Nai-fu,
didn't
receive the same training in
microeconomics as his son.
Which isn't to say that Nai-fu Chan isn't
a success himself.
After all, he's a newly elected member of
Congress from the Los Angeles area.
However, in his first term last year,
Congressman Chan tries to pass some
legislation
that would have forever eliminated any
kind
of price regulation in the entire
transportation industry.
While such price deregulation makes a lot
of sense in an industry like trucking
which is highly competitive, it makes very
little
sense for the railroad industry, which is
in
essence a natural monopoly that will gouge
consumers
with high prices in the absence of
government regulations.
Fortunately, Congressman Chan's bill
didn't pass.
Of course I can go on and on with these
kind of stories.
But I think you already get the point.
When you learn microeconmics, you will
learn a skill that will
help you enormously in both your personal
and professional life.

[SOUND]
So what is microeconomics?
The word micro means small and
microeconomics focuses on the behavior of
individual markets and the smaller
individual
units that make up the broader economy.
Businesses, consumers, investors, and
workers.
Microeconomics is distinguished from
macroeconomics which
focuses on problems in the broader economy
like inflation and unemployment and the
rate of economic growth.
Adam Smith is usually considered the
intellectual forefather of microeconomics.
In his classic book, The Wealth of
Nations, published in 1776.
Smith considered how individual prices are
set,
study the determination of prices for
land,
labor, and capital and examined the
strengths
and weaknesses of the free market
mechanism.
Most importantly he identified the
remarkable
efficiency properties of perfectly
competitive markets.
Using his now famous invisible hand
analogy,
Smith argued that the self interested
actions
of individuals actually guide market
outcomes to
yield great econmic benefits for the
broader society.
While Adam Smith's keen insights will
provide an important foundation for many
discussions
in our study of microeconomics.
It is also true that in America, as well
as
virtually all other nations of the world
very few sectors of
the economy fulfill Adam Smith's vision of
a perfectly competitive
marketplace delivering goods and services
at lowest price and highest quality.
In fact, the US as well as most other
modern industrialized nations, has what is
called a mixed economy.
At one end of this mixed economy, we have
industries like farming and mining.
These industries are characterized by many
buyers and sellers and
come closest to approximating Adam Smith's
model of perfect competition.
At the other end of this mixed economy, we
have pure monopolies
like the Post Office, characterized by one
seller and run by the government.
In between these two poles of perfect
competition and monopoly, there are
numerous oligopolies.
From the tobacco and chewing gum
industries to automobiles and oil.
Oligopolies are industries which typically
have a small number of large firms.
And many of America's largest industries
are oligopolies
much more likely to engage in collusive
practices such
as price fixing than the type of fierce
competition envisioned by Adam Smith and
his invisible hand.
In contrast to Adam Smith's free market
economy and America's mixed economy, a
command economy
is one in which the government makes
all the important decisions about
production and distribution.
In a command economy such as the one which
operated in the Soviet
Union, the government owns most of the
means of production, land and capital.
It also owns and directs the operations of
enterprises in most industries.
It is the employer of most workers and
tells them how to do their jobs.
And it decides how the output of society
is to be divided among different goods and
services.
Regardless of whether a country has a
command or
mixed economy it still must answer three
basic questions.
What shall be produced, how shall it be
produced, and for whom shall it be
produced for?
In answering these three basic questions,
a country must address three basic
facets of economic and political life,
scarcity, efficiency, and equity.
Take scarcity first.
If infinite quantities of every good could

be produced, there would not
be economic goods, that is goods that are scarce or limited in supply.
All goods would be free like sand in the desert or seawater at the beach.
In such an Eden of affluence, people wouldn't have to
worry about stretching out their limited incomes to fulfill their wants.
Businesses wouldn't worry about costs and profits when
they produce their products.
Governments wouldn't have to tax their citizens
to build things like roads and bridges.
And there would be no distinction or political and economic conflict between rich and poor.
Because everyone would have everything they needed and wanted.
Prices in markets would be irrelevant and economics would not be a useful subject.
Clearly no society has reached such a utopia of limitless possibilities.
Instead, while goods are limited, wants are seemingly limitless.
Indeed after two centuries of rapid economic growth, production in the United States is still not high enough to meet everyone's desires.
And outside the United States, particularly in Africa and Asia, hundreds of millions of people suffer from hunger and material deprivation every day.
Faced with the undeniable fact that goods are scarce relative to wants, an economy must decide how to cope with limited resources.
It must choose among different potential bundles of goods, the what.
Select from differing techniques of production, the how.
And decide in the end who will consume the goods, the for whom.
In a very real sense then the essence of economics is to acknowledge the reality of scarcity and
then figure out how to organize society in a
way that produces the most efficient use of resources.
Efficiency denotes the most effective use of a
society's resources in satisfying people's wants and needs.
As we shall see, allocating resources efficiently is all the more complicated because in pursuing efficiency there is almost always a very thorny trade-off between what is efficient from an economic point of view and what may
be viewed as fair or equitable from a social and political point of view.
In fact grappling with the trade-off between efficiency and equity is one of the most difficult tasks of economist and the political and business leaders they serve.
Consider the case of electricity prices. When we study
monopoly, we'll learn that from a microeconomic view,
the most efficient way to regulate electricity prices
would be to charge individual consumers much more
than businesses for the same unit of electricity.
However, such a pricing creates enormous political problems because it
is people rather than businesses that vote in our democratic system.
Moreover many would argue
that it simply wouldn't be fair to charge people especially the
poor and elderly more than big corporations for the same product.
In a similar vein, we will also see that almost any
time the government tries to raise taxes
to redistribute income from the
rich to the poor through mechanisms like food stamps or Medicare,
those taxes tend to interfere with the efficiency of the free market.

[MUSIC].
To further illustrate these concepts of
scarcity, efficiency and equity,
let's introduce one of the most important
tools in microeconomics.
The Production Possibilities Frontier.
The Production Possibilities Frontier or
PPF shows the maximum
amounts of production that can be obtained
by an economy.
Given its technological knowledge and
quantity of inputs or resources available.
It represents the menu of goods and
services available to society.
And if a country is operating on its PPF,
it is allocating resources efficiently.
The important idea behind the PPF is
that societies cannot have everything they
want.
They are limited, not just by their
resources,
but also by the technology available to
them.
Therefore, societies must choose
between goods, and one of the broadest
choices that virtually every
country is forced to make is between
producing guns vs butter.
In particular how much of a country's
resources should go to the military, the
guns.
And how much should go to civilian uses
like education and health care
and the production of consumer goods
like computers and automobiles, that's the
butter.
To illustrate this choice
take a look at this PPF diagram for the
mythical country of Tough Choice.
In the figure, butter production is
represented on the horizontal
axis and guns production is represented on
the vertical axis.
If the leaders of tough choice were to use
all the
country's resources to produce butter, it
would produce five million pounds.
And be at point F in the figure given its
current technology.
Alternatively, if Tough Choice were to
produce only guns,
it would be at point A, or 15,000 guns.
Now, between these two extremes of only
butter and only guns,
Tough Choice also can produce many
combinations of guns and butter.
As illustrated by points B, C, D, and E in
the figure.
For example by foregoing one million
pounds of butter
production, Tough Choice can increase its
guns from
9,000 at point D to 12,000 at point C.
In fact, such a movement along the PPF
illustrates one of the most important
concepts in microeconomics.
A concept known as opportunity costs.
On the most fundamental level, the
opportunity cost of moving from D
to C is the butter given up to produce the
extra guns.
In this example, the opportunity cost of
the 3,000
extra guns is one million pounds of butter
forgone.
In a world of scarcity choosing one thing
means giving up something else.
The opportunity cost of a decision is the
value of the good or service forgone.
Indeed because resources are scarce, we
must always
consider how to spend our limited incomes
or time.
Now let's put the PPF to work to
illustrate some other important ideas.
Take a look at this figure.
Voters can choose between private goods
like autos and houses, bought at
a price, and public goods like roads and
bridges, paid for by taxes.
For a frontier society, like that which is
depicted in
the figure, the country is likely to be at
point A.
Because the society lives from hand
to mouth with little left over for
public goods like super highways or public
health.
However, with economic growth and
technological
change, a modern urbanized and more
prosperous
economy will have a PPF shifted
significantly outward relevant to the
frontier society.
In this case, this society may choose to
be at point B, spending more

of its higher income on public goods
and services, like education,
environmental protection, and roads.
It's not just what a society chooses to
consume
that matters, it's also when it chooses to
consume it.
This figure portrays and economy's choice
between consuming goods like autos
and watches and tennis rackets now, or
investing in machinery and factories.
In the figure three countries start out
even with the same PPF.
However, the Kingdom of Jiminy Cricket,
as indicated by A1, does no investment for
the future, while the Aristotle Republic
invests modestly
at A2 And Thriftyland sacrifices a great
deal
of current consumption to invest heavily
at A3.
This figure shows what happens over time.
The PPF of Thriftyland has shifted
significantly
outwards, allowing the sons and daughters
of Thriftyland's
investors to live a more prosperous life.
Meanwhile the Kingdom of Jiminy Cricket
remains mired at
the same standard of living on its
original PPF.
The important point here, of course, is
that by sacrificing current consumption
and producing more capital goods, a
nation's economy can grow more rapidly.
Now let's use the PPF to shed
further light on the concept of economic
efficiency.
Take a look at this figure, which once
again
illustrates a country's trade off between
guns and butter.
Note that point D is unattainable given
the society's available technology,
resources, and labor force.
Note also, that point A is an inefficient
point, because there is a way to
produce more of guns or butter without
having to give up any of the other.
For a society, the idea
that is to stay on the PPF at points like
C and B, and that's where microeconomics
can be so helpful.

[MUSIC].
Let's conclude this lesson now with an
overview of the four major parts
of the microeconomics puzzle that you'll
be studying over the next few months.
In lectures two through four we'll take a
very good look at how
the forces of supply and demand reach an
equilibrium in the product market.
The market for consumer goods like autos
and shoes and computers.
This figure
shows just such an equilibrium.
Note that the price of the good in
this case, Corn Flakes, is on the vertical
axis.
And the quantity of the Corn Flakes is on
the horizontal axis.
Note also that the demand curve slopes
downward.
This reflects the idea that the lower the
price,
the more Corn Flakes the consumers will
want to buy.
Similarly, the supply curve slopes upward
indicating
that as prices rise, businesses will be
willing to provide more Corn Flakes.
The powerful idea behind this figure, is
that the price in the
market will tend to be set where the
supply and demand curves cross.
In order to understand exactly why this
equilibrium
happens, we're going to spend a lot of
time in the first part of our studies,
understanding each of the components of
these curves.
To understand
the downward slope and shape of the demand
curve, and indeed why that curve may also
shift.
We'll spend a whole lesson on the theory
of consumer of household behavior.
By the same token, to figure out why the
supply
curve slopes upward, we'll look at so
called production theory.
Which examines why firms price and produce
products the way they do.
Once we come to
understand these demand and supply curves,
we will become very apparent
why prices tend towards an equilibrium
where the two curves cross.
In lectures five, six and seven, we will
turn to
the broader issue of how markets are
organized and structured.
In this stage we'll see that when a market
meets
Adam Smith's test of being perfectly
competitive, it's invisible hand truly
is a wondrous mechanism.
It allocates resources in the most
efficient way
possible without any help or interference
of the government.
However, in this part of our studies we'll
also come to understand that markets are
prone
to various kinds of market failures, that
may
require the government to intervene to
correct these failures.
The three most important market failures
involve
imperfect competition, such as monopolies.
Externalities, such as pollution, and
public goods, such as national defense.
In each case, the market failure leads to
inefficient production or consumption,
and government can play a useful role in
solving or reducing the problem.
For example, when there is only one seller
in the marketplace, a monopoly.
That seller tends to set prices too high
and consumption is too low relative to the
most efficient outcome that would occur in
a market with numerous buyers and sellers.
In such a case, government intervention
into the market may be appropriate.
And such intervention may involve
regulating prices and
profits or prohibiting actions such as
price fixing.
A second type
of market failure involves negative
externalities and positive externalities.
In the case of a negative externality, a
company
may produce steel and sell it for the
market price.
In manufacturing the steel, the company
will incur
costs for its machinery and raw materials
and labor.

And those direct costs to the firm, will
be subtracted from its revenues to
calculate its profits.
However, in a free market, what the
company does not take into consideration
are, the
broader external costs it may impose on
society, in the process of making the
steel.
Such costs arise, for example, when a
company pollutes the river
adjacent to its plant or the air basin
over the nearby town.
We'll learn that in the presence of
negative externalities, like
pollution and congestion.
The free market produces too much of the
good,
steel in this example, at too low a price.
In such a case the government may want to
regulate or tax the polluters.
While in the presence of positive
externalities associated with goods like
education and vaccinations, government
subsidies may
be appropriate to internalize the
externality.
Still a third market failure involves
so-called
public goods like national defense and
lighthouses.
The problem with public goods, is that
they are non-rival in consumption.
Meaning that my use of, say, a lighthouse
doesn't interfere with your use of that
same lighthouse.
This is very different from goods that
are rival in consumption, like hamburgers
and shoes.
If I eat the burger,
or wear the shoes, you can't.
As we shall see, the typical solution to
the public goods
problem is for the government to step in
and provide it.
that is why it is the government that is
in charge in providing many public goods.
From national defense in the criminal
justice system, to parks, roads and
bridges.
The crucial importance of the concepts of
the
market failure, is that it helps us better
understand
the many reasons, good and bad, while the
government
may get involved in our businesses and our
lives.
And it is especially important for people
in
business to understand the economic role
of government.
Because government rules and regulations
have as much or more to do
with the bottom line profits of most
companies than any competitor's actions.

[MUSIC].
But even if there are no failures in the
market, there may be a political or
ethical problem with how wealth and income
are
distributed, that triggers government
intervention into the free market.
To see this, assume for the moment
that the economy is functioning with
complete efficiency.
Always on the production-possibility
frontier and never inside it.
Always choosing the right amount of public
versus private goods and so forth.
Even if the market system works perfectly,
it might still lead to a flawed outcome.
This may happen, because incomes are
determined by a wide
variety of factors including effort,
education, inheritance, factor prices, and
luck.
The resulting income distribution may not
correspond to a fair outcome.
A rich man's cat may drink the milk that a
poor boy needs
to remain healthy.
Is this happening because the market is
failing?
Not at all, for the market mechanism is
doing its job.
Putting goods in the hands of those who
have the dollar votes.
Put another way, If a country spends more
fertilizing its lawns than feeding
poor children, that is a defect of income
distribution, not of the market.
Indeed, even the most efficient market
system may generate
great inequality.
In this regard if a democratic society
does
not like the distribution of dollar votes
under
a free market or Laissez-faire market
system, it
can take steps to change the distribution
of income.
For example, it can engage in progressive
taxation, taxing
large incomes at a higher rate than small
incomes.
Or, impose heavy taxes on large
inheritances
to break the chain of privileged by the
same token.
Because low tax rates cannot help those
who have no income at
all, governments can make transfer
payments
which are money payments to people.
Such transfers today include aid for the
elderly,
blind and disabled and for those with
dependent children.
As well as unemployment insurance for the
jobless and food stamps and low cost
housing
subsidies for the poor.
This system of transfer payments provides
a
safety net to protect the unfortunate from
privation.
And they are paid for from taxes levied on
the more privileged.
It is usual to ask, at this point,
what can economics contribute to debates
about equality?
Economics, as a science, cannot answer
such normative or prescriptive questions
about how
much of our market incomes, if any, should
be transferred to poor families.
This is a political question that can be
answered only at the
ballot box, or in some countries, at the
point of a gun.
[SOUND].
This table summarizes the various reasons
for, and ways that the government
can intervene in the private marketplace.
Take a few minutes to study this table.
Note that the bottom half of the table
deals with issues in macroeconomics.
While it is the top half dealing with
inefficiency
and inequality that shall be our focus in
microeconomics.

[MUSIC]
In lectures eight, nine, and ten of our studies, we'll delve
further into the business side of the supply and demand equation.
By studying how firms use the three so called factors of production, land, labor and capital.
These factors are the three major inputs into the production process, where
the final goods and services that are produced are called the outputs.
A study of the labor market will help us come to understand how wages are determined.
While an analysis of the capital markets will help us come to better understand
how to evaluate the profitability of investments,
such as those in new planned equipment.
Studying land economics we'll also get a better grasp
of how rents are set in real estate markets.
Along the way, we'll acquire a number of very
important analytical tools.
Concepts like net present value and rate of return, that will
be of enormous use to us in our business and personal lives.
Lecture 11 looks much more closely at two particularly market failures.
Externalities and public goods both of which provide important
rationales for large scale government intervention into the private marketplace.
You can see then, from this overview, that we have a lot of work to
do but it will be very good work because it will serve you very well.
In economic terms, I can guarantee you that the time you put into the study
of this subject, will yield a very high return in both your personal and professional life.
[MUSIC].