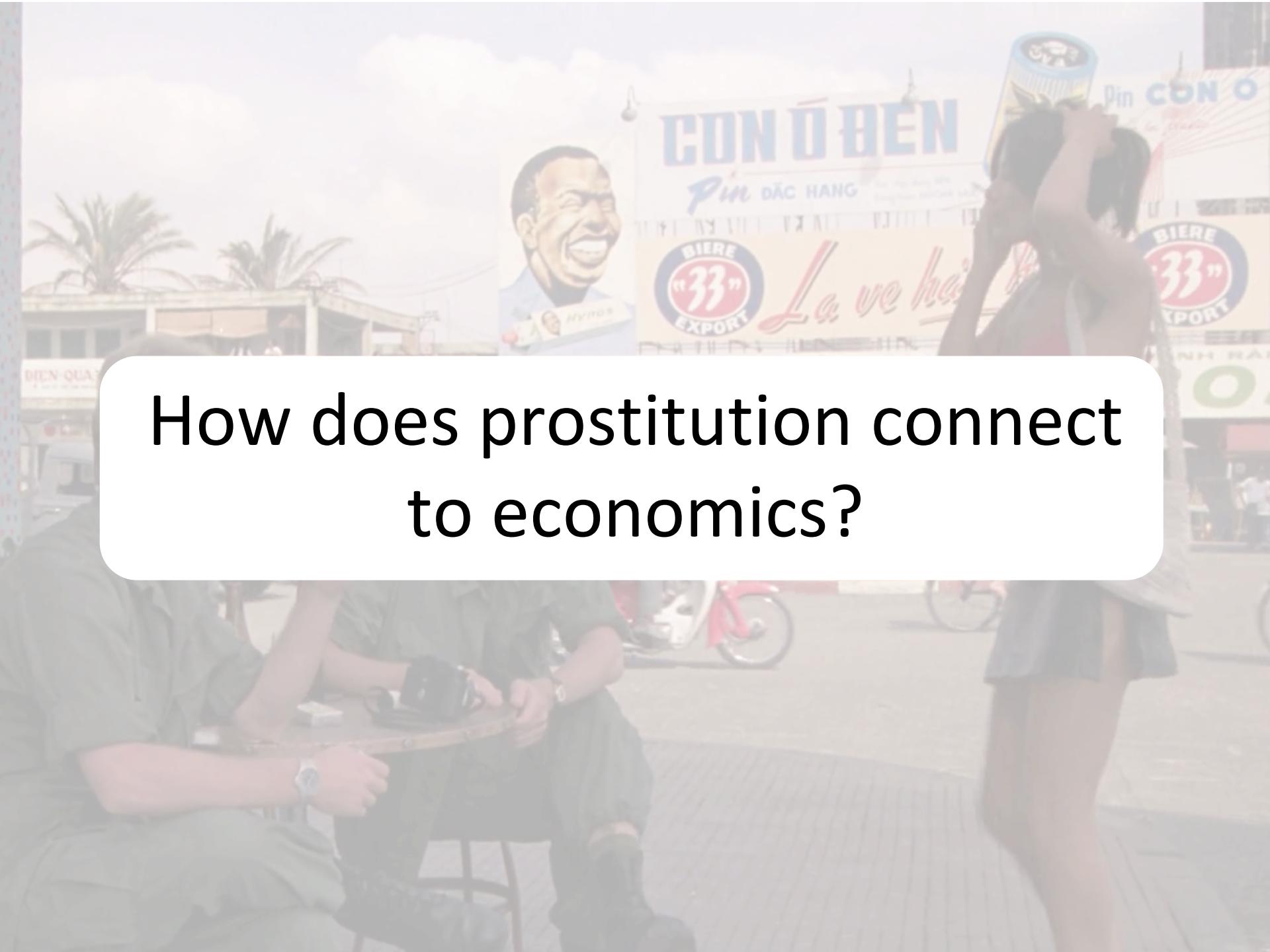
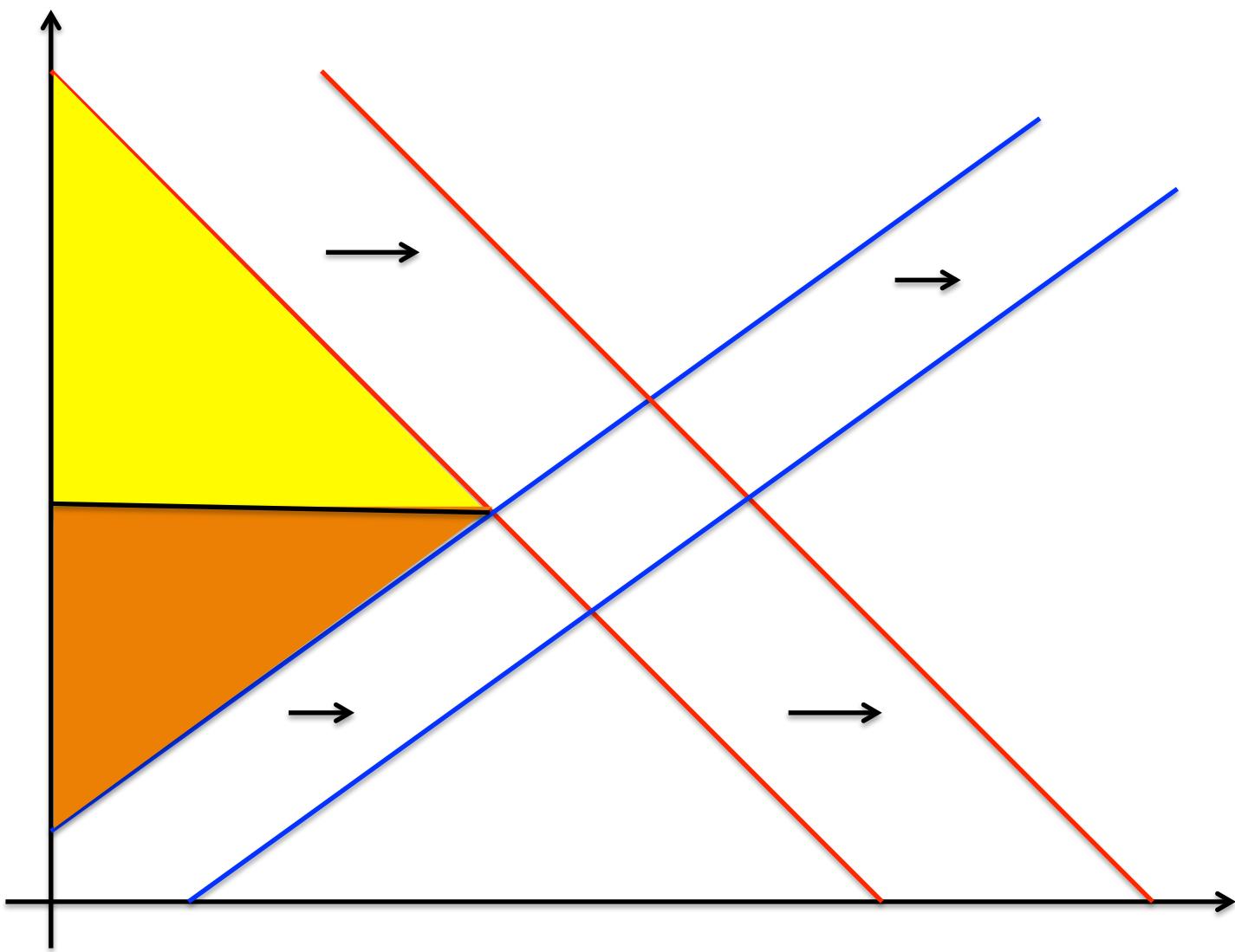


# An Economic Analysis of Prostitution

William, Rashi, Guo and Dasha



# How does prostitution connect to economics?





Specialization

Long-run

Cobra-effect

Elasticity

Competition

Opportunity cost

Short-run

Supply and Demand

Industrial Organization

Microeconomics

Economics

Regulations

Market Failure

Adverse Selection

Moral Hazard

Externalities

Assymmetric Information

Vertical and Horizontal Product Differentiation

Product Differentiation

Profit Maximizing

# The Philippines



# Norway



# The Netherlands



# The Philippines



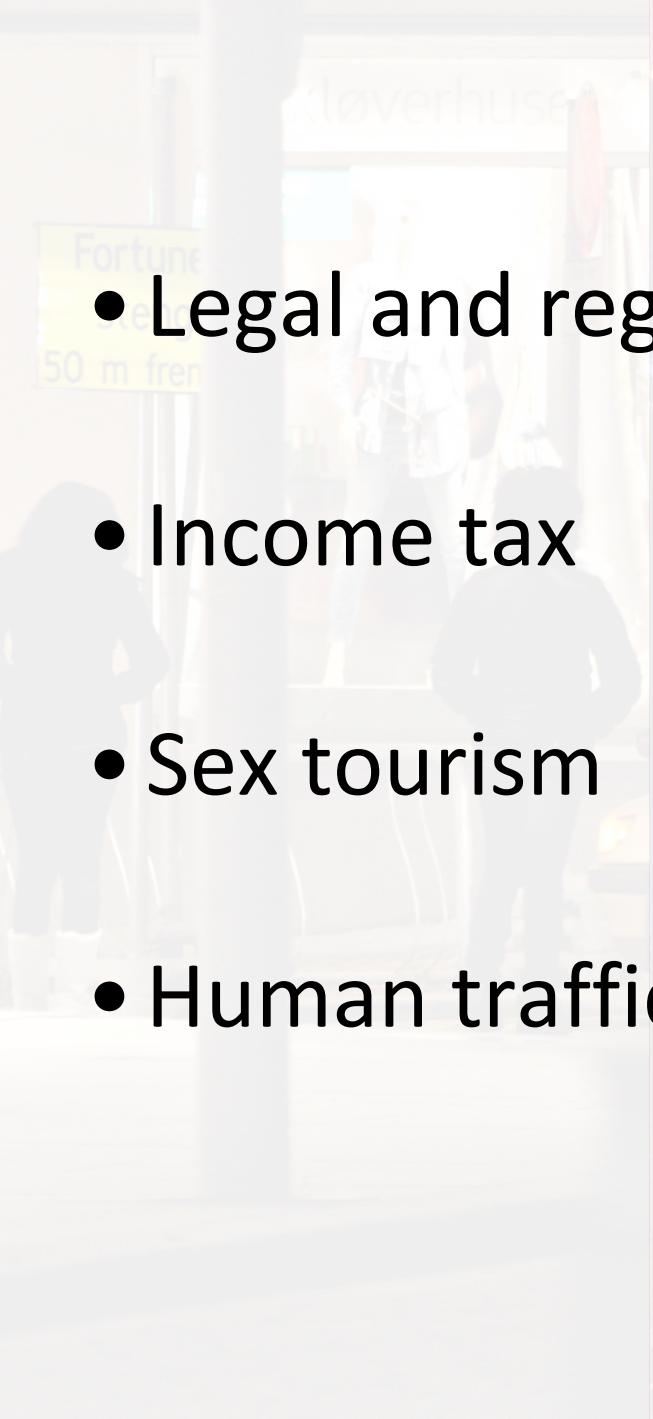
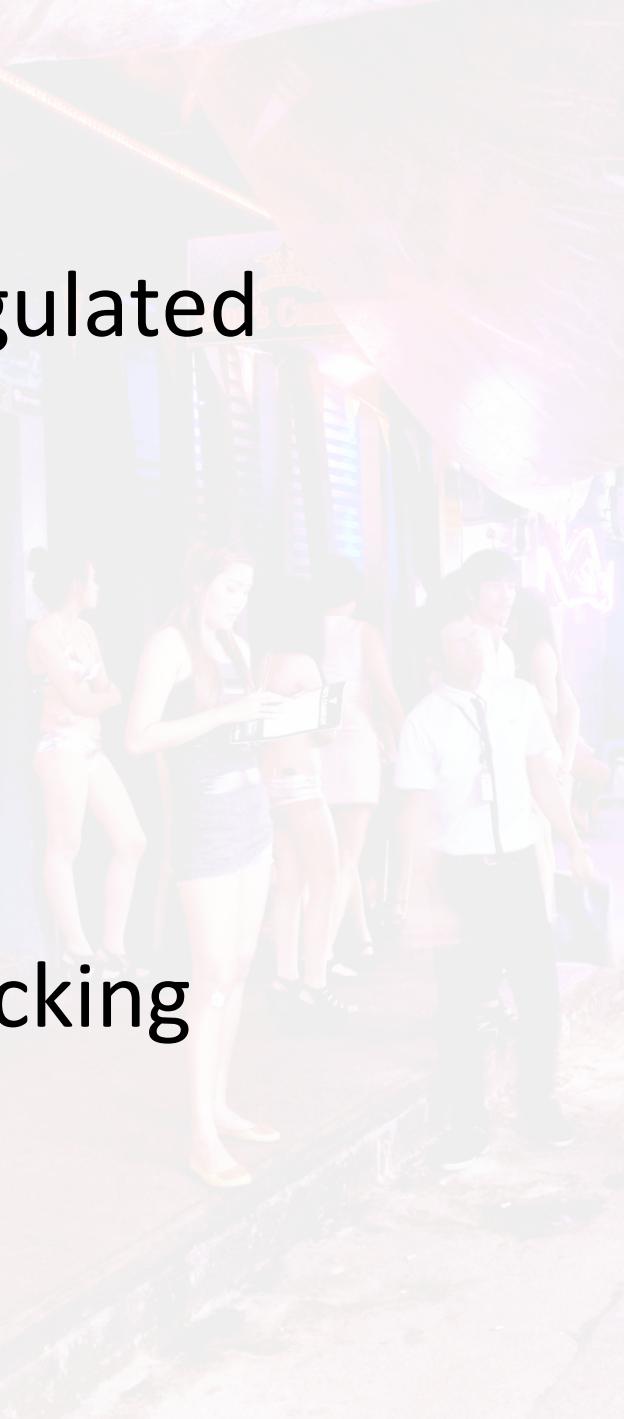
- Illegal
- Life imprisonment
- Offered Illegally
- Sex tourism

- Prostitution is legal
- Illegal to buy sexual services
  - Not regulated
- Organized prostitution
  - Street prostitution



# The Netherlands



- Legal and regulated
  - Income tax
  - Sex tourism
  - Human trafficking
- 
- 

# Overview



# Overview

Demand and Supply

Rashi Mittal

# Overview

Demand and Supply  
Labour Economics

Rashi Mittal  
Guo Zhang

# Overview

Demand and Supply

Rashi Mittal

Labour Economics

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Industrial Organization

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Information Economics

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# Overview

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Externalities

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# Overview

Demand and Supply

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Industrial Organization

Guo Zhang

Information Economics

Dasha Nikulina

Externalities

Dasha Nikulina

Conclusion

William Schmidt

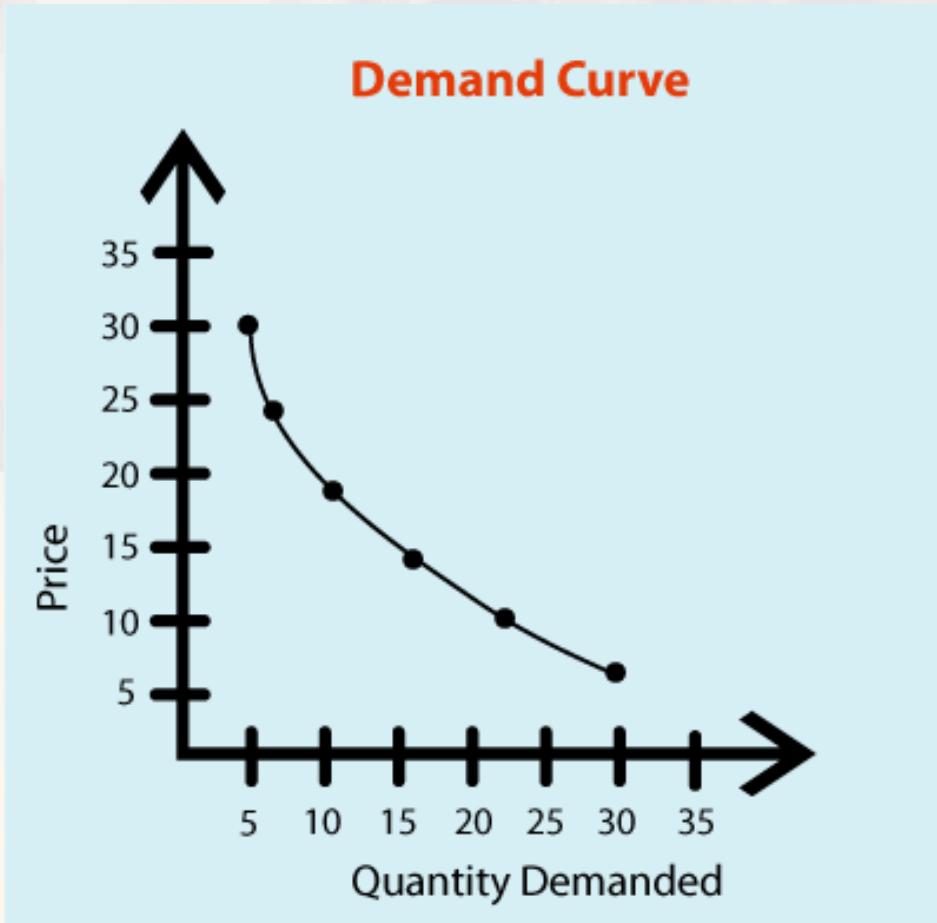
A photograph of a woman in a black bra standing behind a man who is sleeping in a bed. The woman is leaning over him. The scene is set in a bedroom with a patterned headboard, a lamp on a stand, and curtains in the background.

Demand and Supply

Rashi Mittal

# Demand

- Demand for a commodity refers to the desire to buy the commodity



# Who Constitutes the Demand for Prostitution?

Thailand - 75% of the male population has bought sexual services

Netherlands – 85% of the male population has bought sexual services

Philippines – 40-50% of the total male part of tourism buys sexual services

# Who Demands Prostitution

Local prostitute users

Travelling businessmen

Tourists

The military/UN peacekeepers

Aid workers

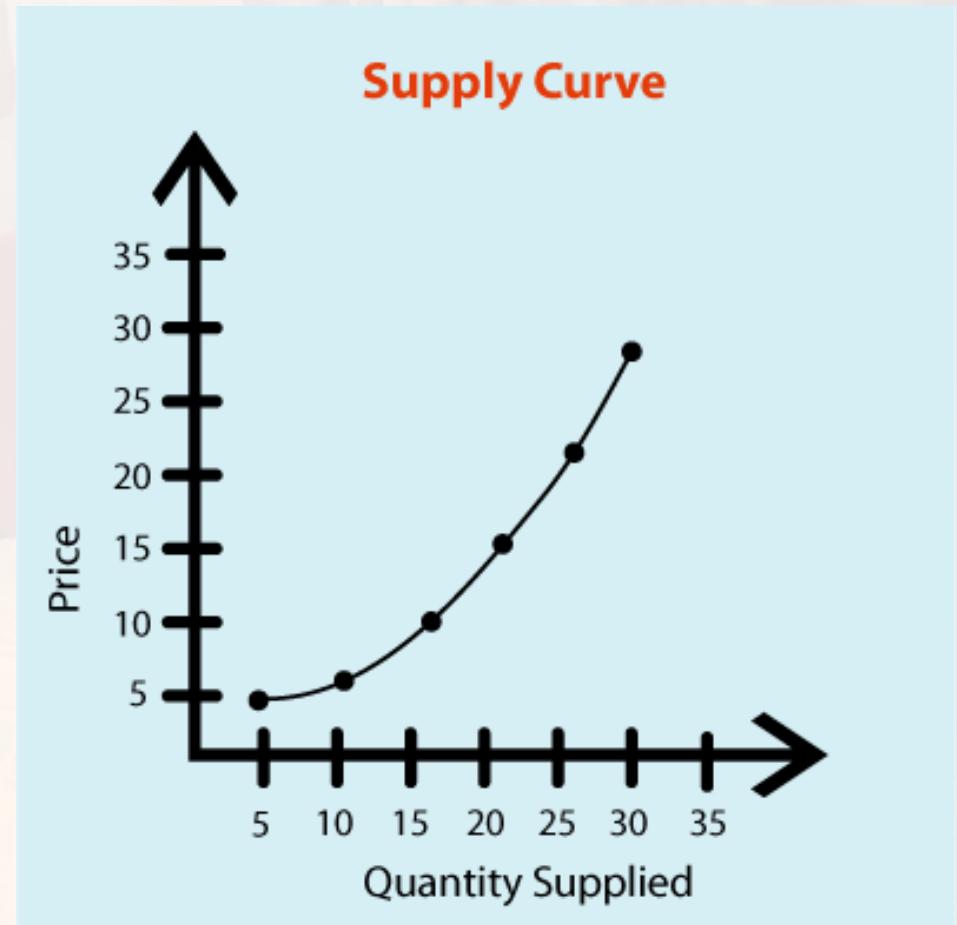
Employers of domestic workers

Migrant workers

Truckers

# Supply

- Supply of a commodity refers to the quantity of a commodity for sale at a particular price and time



# Who Supplies Prostitution

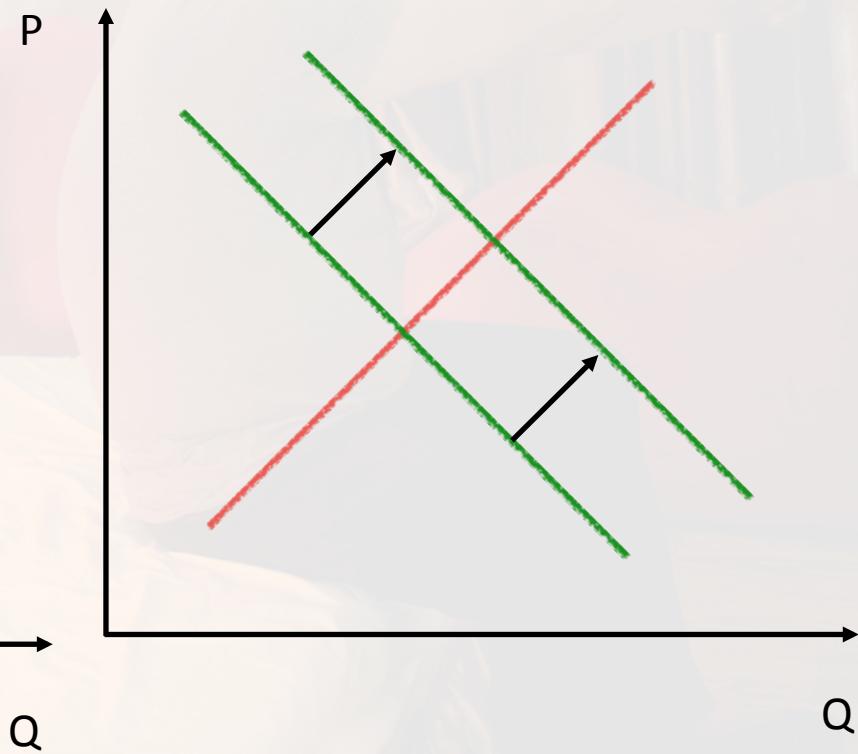
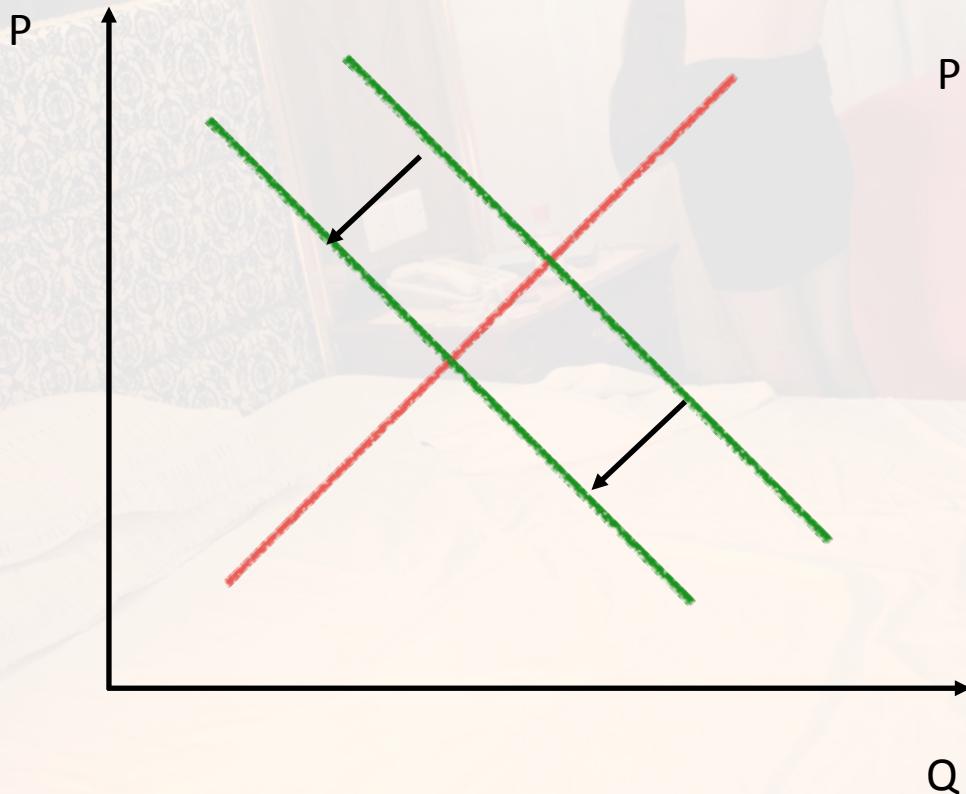
- ❖ WOMEN
- ❖ MEN
- ❖ TRANSGENDER
- ❖ CHILDREN(10-18)



# Shifts of the Demand Curve

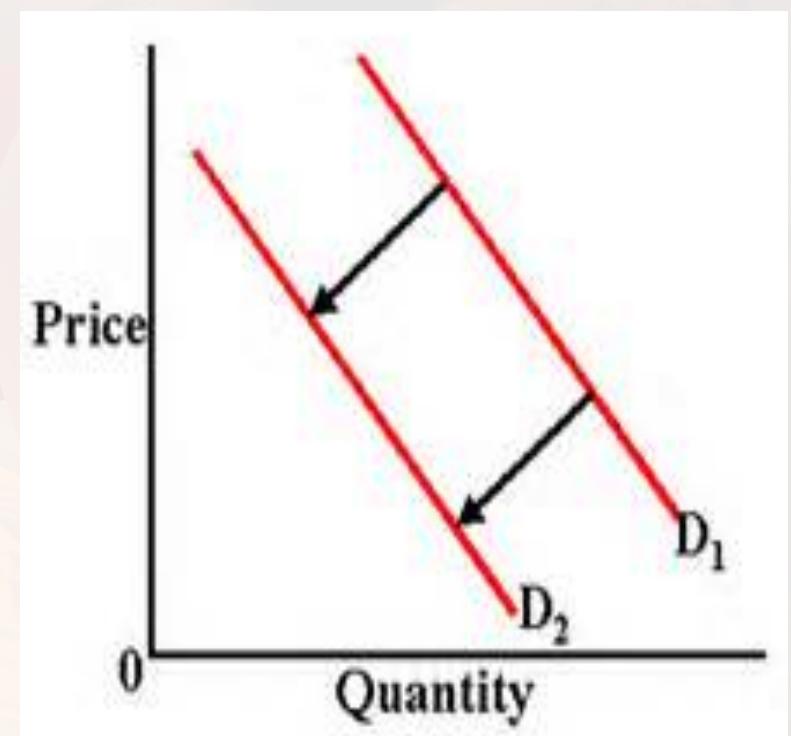
In relation to:

- Number of buyers
- Income elasticity of demand



# How to Reduce Demand

- Increase the effort needed to buy.
- Increase the inconvenience for buying.
- Push up price.
- Normalize the illegality.



# The effect of Government policy on Supply and Demand

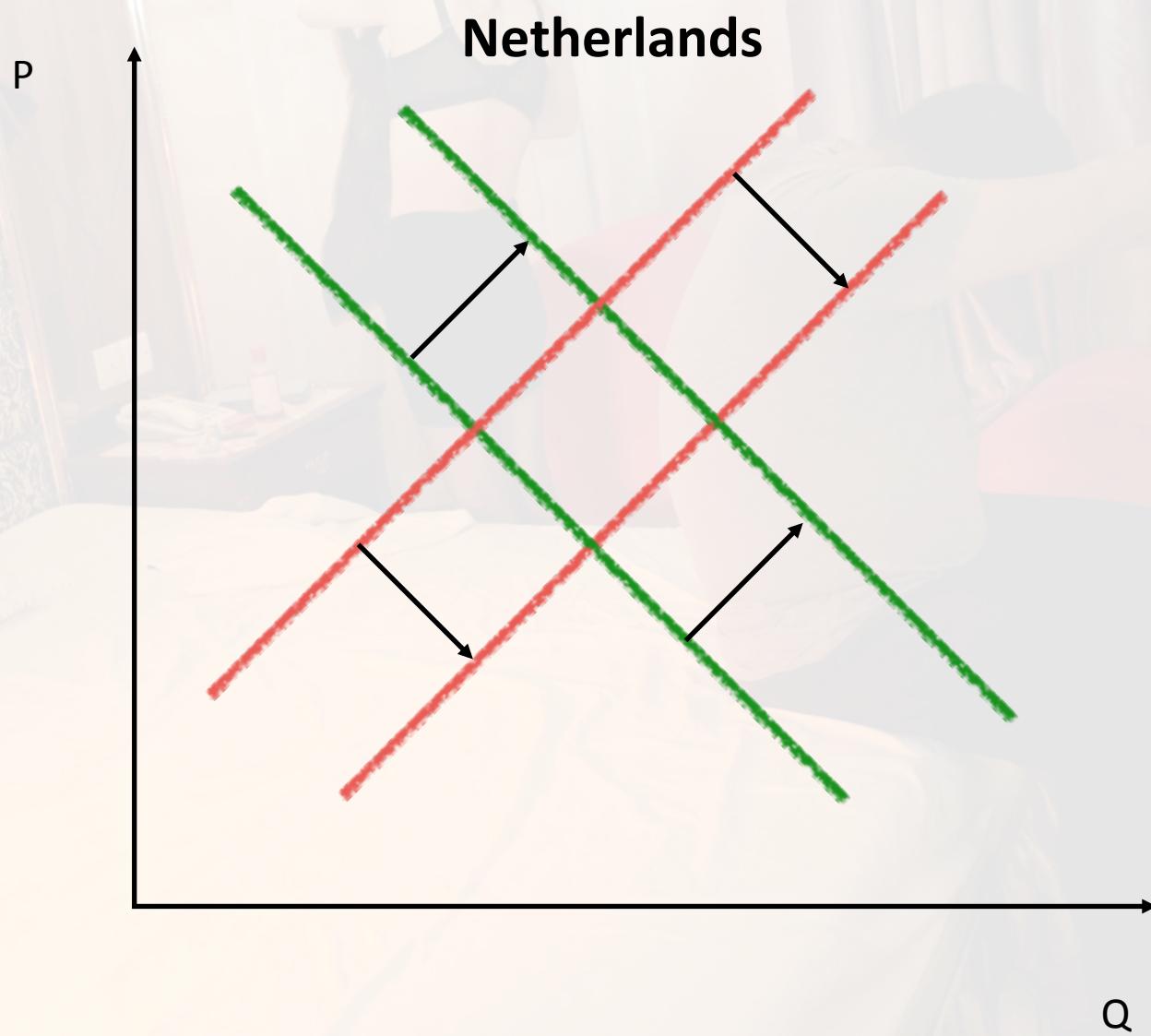
**Philippines**



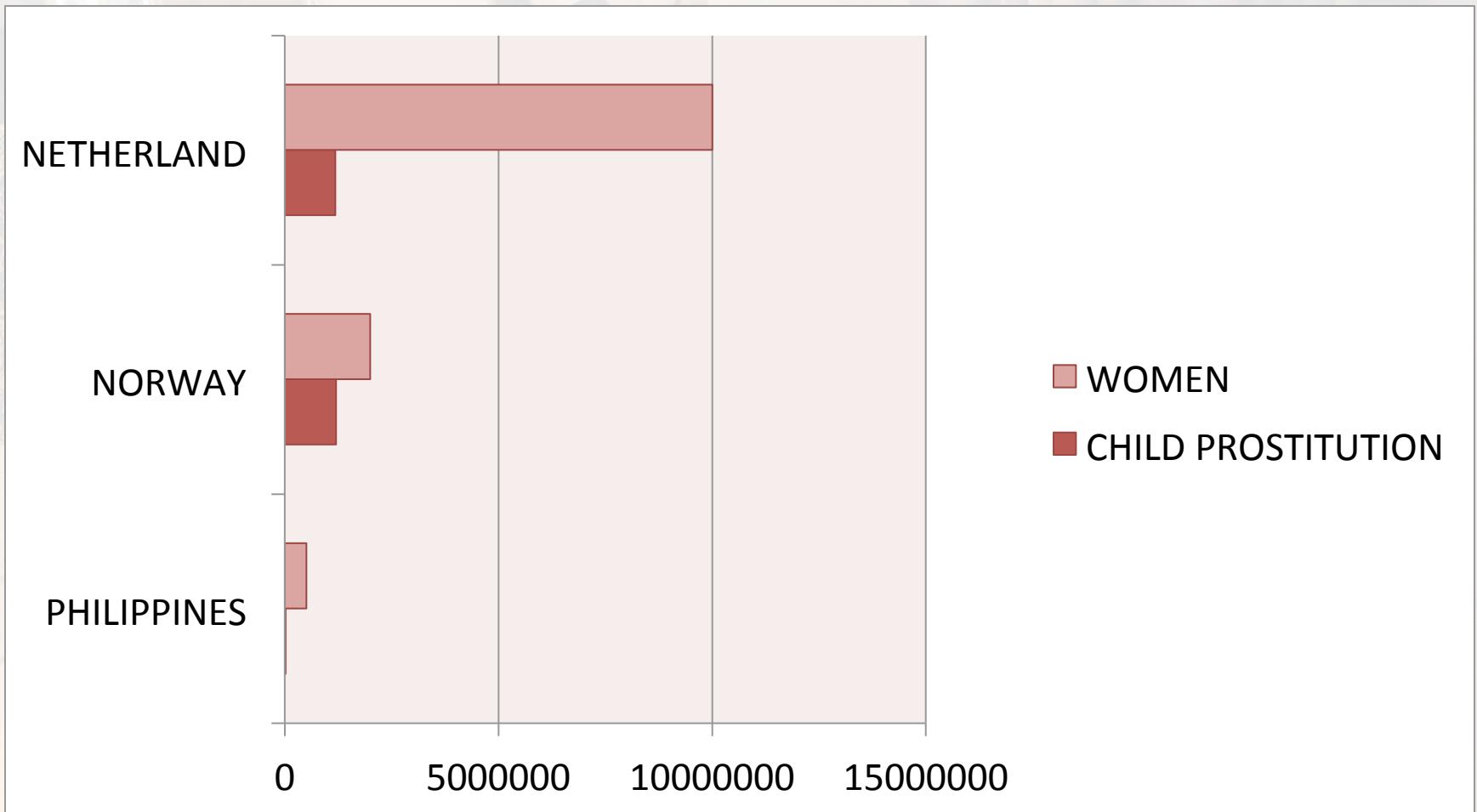
**Norway**



# The effect of Government policy on Supply and Demand

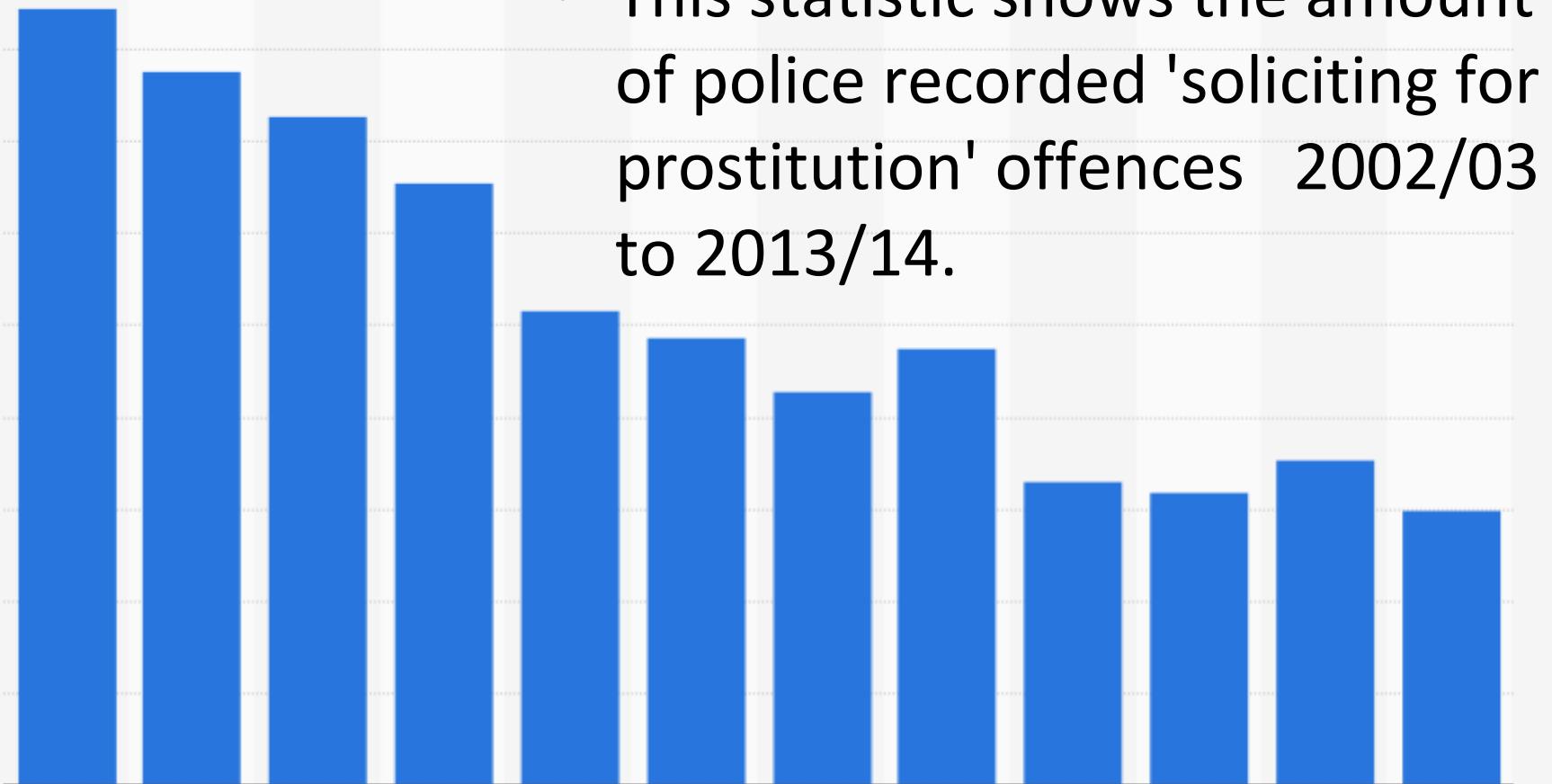


# Data Analysis



Statistic	Data
Estimated number of prostitutes in the world	40 Million
Average annual income of a U.S. prostitute	\$290,000
Number of countries that prostitution is completely legal and regulated	22
Percent of men who have purchased a prostitute	10%
Thailand has the largest sex industry	\$35 Billion
Number of American citizens arrested annually for soliciting sex	80,000
Percent of arrests that are female prostitutes	70%
Percent of arrests that are male prostitutes	20%
Percent of arrests that are the customer	10%
Cost to tax payers annually in court and jail fees	\$200 Million
Murder rate for an American prostitute	204 per 100,000
Average age of a customer	39.5
Percent of customers who paid for services they never receive	40%
Percent of customers who were robbed by the prostitute	20%
Average times each year a prostitute has unprotected sex	300
Percent of prostitutes who were abused as children	75%
<b>Female Prostitution Statistics (U.S.)</b>	
Average age a female becomes a prostitute	14
Percent who reported assaults	58%
Percent with STDs	20%
Percent who want to quit but can't due to lack of money	92%

# Soliciting for Prostitution



- This statistic shows the amount of police recorded 'soliciting for prostitution' offences 2002/03 to 2013/14.

# IF THERE IS NO DEMAND



# THERE WILL BE NO SUPPLY



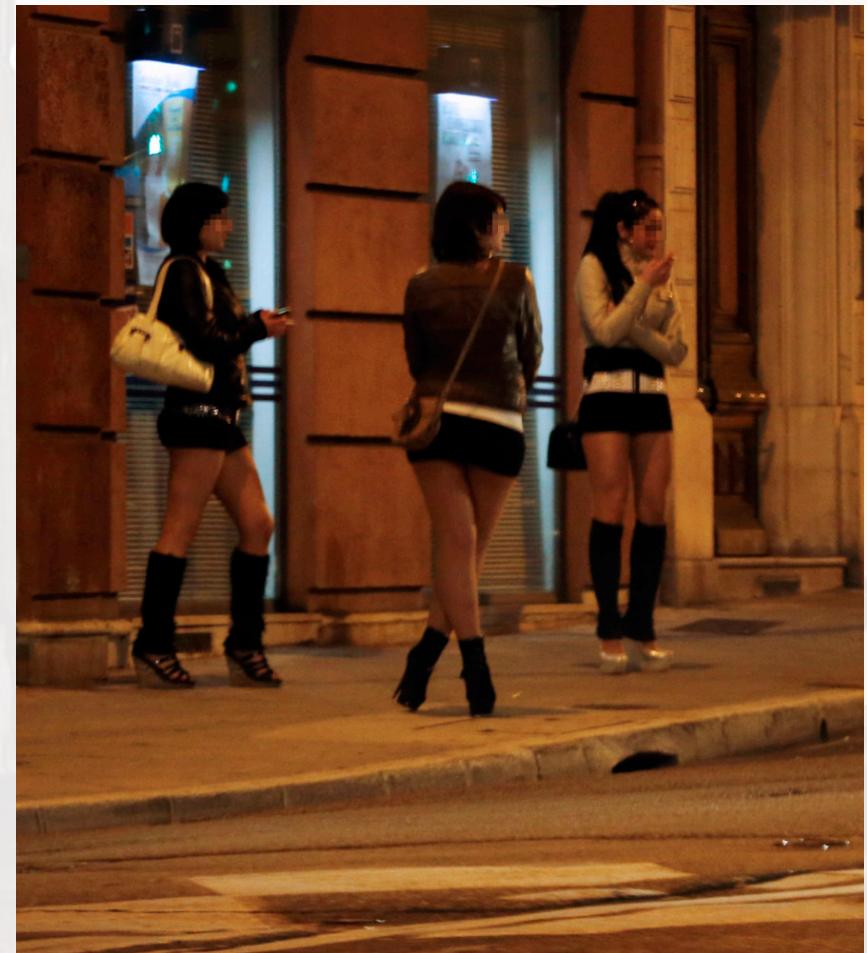
# Industrial Organization



Guo Zhang

# Market Structure

- Monopolistic Competition
- Similar but not identical products
- Area and service
- Other substitutes
- Monopoly over slightly differentiated product



# Unconcentrated Industry

- If quality is mainly produced with variable rather than fixed costs, larger markets will fragment and offer products with a wider range of qualities.

# Unconcentrated Industry

- Prostitution is a low-skilled industry, with low fixed cost and variable cost.
- Prostitution market is unconcentrated and competitive.

# Product Differentiation

- What is product differentiation?
- Each firm produces a product that is at least slightly different from those of other firms.
- Vertical differentiation vs. Horizontal differentiation

# Vertical Differentiation

- Quality
- Different types of sexual services

By type of sex:						
Manual	\$28.64	\$21.64	\$28.57	\$23.33	\$26.12	\$33.57
	N=133	N=60	N=30	N=12	N=41	N=8
Oral	\$35.94	\$31.82	\$43.14	\$43.39	\$42.79	\$49.76
	N=378	N=324	N=216	N=60	N=66	N=21
Vaginal	\$69.86	\$62.80	\$87.20	\$94.12	\$94.61	\$83.64
	N=67	N=85	N=93	N=76	N=23	N=22
Anal	\$94.06	\$72.37	\$86.67	\$103.95	\$98.20	\$92.09
	N=17	N=20	N=12	N=42	N=56	N=56

# Horizontal Differentiation

- Location
- Taste and preference

# Product Differentiation

- The clients have different preferences
- Hair,ear,eye,foot,leg,breast...
- The prostitutes may choose to look and behave in a certain way

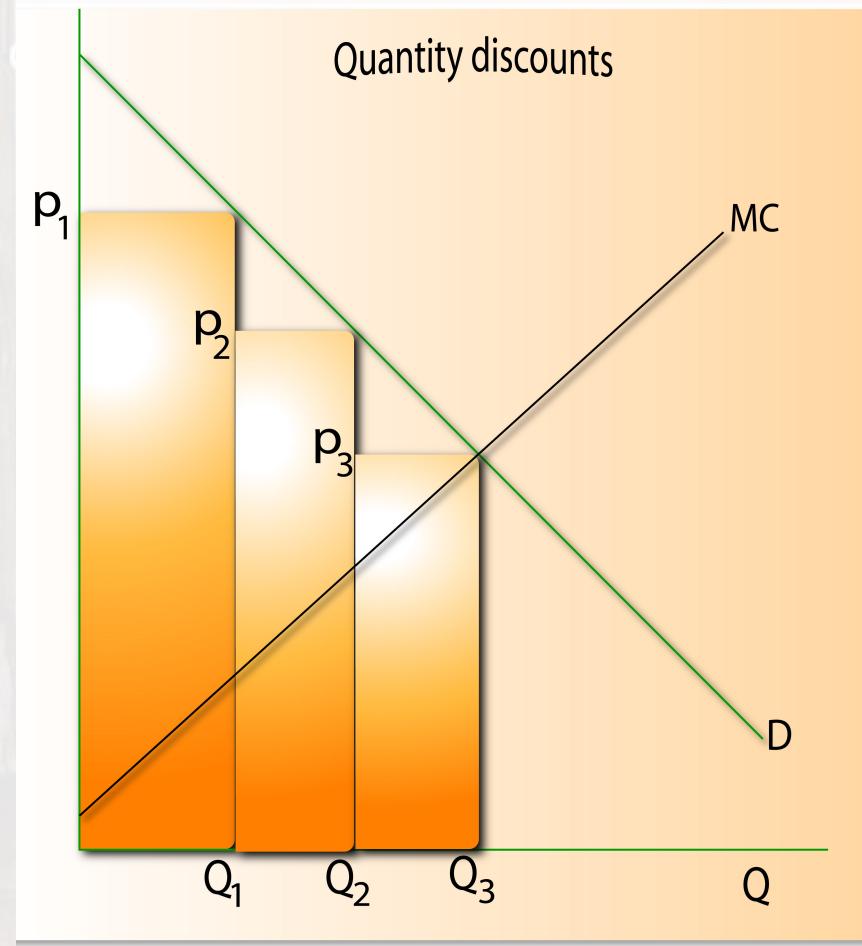
# Industrial Organization

Evidence: Chicago (Levitt's paper) as an example

1. A large number of pimps and individual prostitutes

# Price Discrimination

- The selling of the same good at different prices
- Maximize profits.



# Price Discrimination

- Black customers vs. whites or Hispanics
- Repeated clients vs. new customers.

**Table 4: Average Price by Customer Race, Type of Sexual Act, and whether the Customer is a Repeat**

	Customer race					
	Black		White		Hispanic	
	New	Repeat	New	Repeat	New	Repeat
Overall	\$39.74	\$37.58	\$55.38	\$76.31	\$62.01	\$77.95
	N=430	N=379	N=183	N=310	N=102	N=168
By type of sex:						
Manual	\$28.64	\$21.64	\$28.57	\$23.33	\$26.12	\$33.57
	N=133	N=60	N=30	N=12	N=41	N=8
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	N=17	N=20	N=12	N=42	N=56	N=56

A woman with dark hair and red nail polish is sitting in a red upholstered chair. She is wearing a red sequined dress and holding a clear glass with a red liquid. In the foreground, there is a stack of US dollar bills. The background is blurred.

# Labour Economics

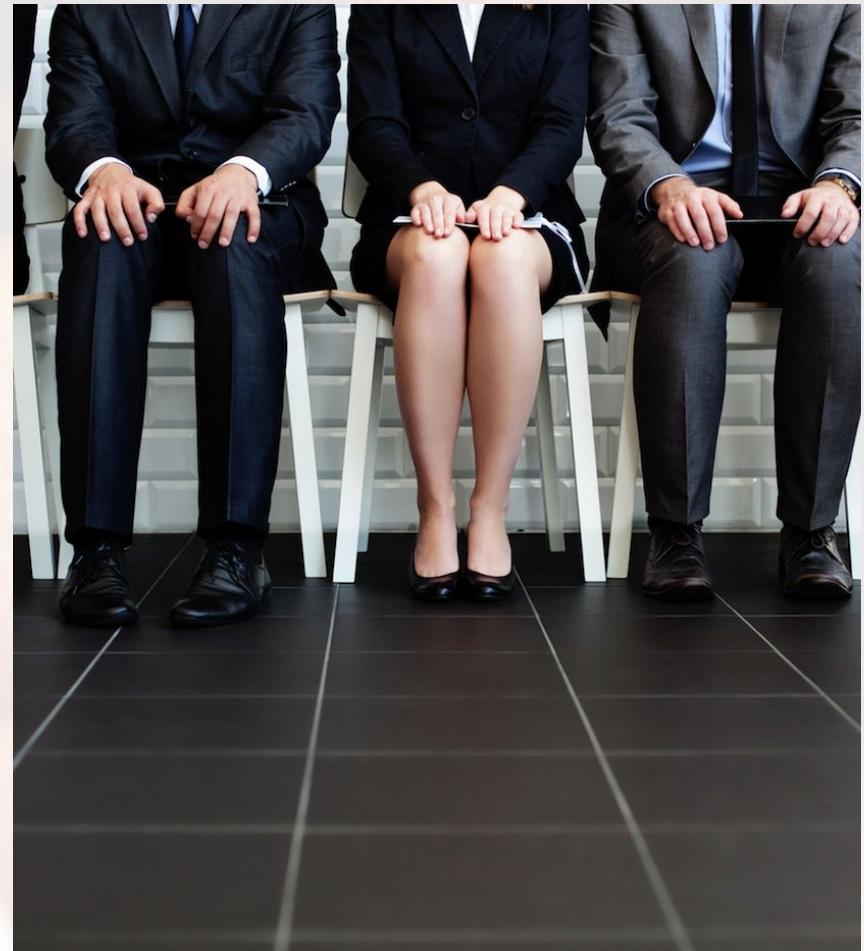
Guo Zhang

# Wage of a Prostitute

- In Chicago: hourly wage of \$26.73 per hour, while the average wage in outside jobs is of \$7.24 per hour for prostitutes.
- Why this difference in wage?

# Human Capital

- Accumulation of investment in people
- Education, on-the-job training
- Higher wage



# Job Opportunities

- Human capital of prostitution?

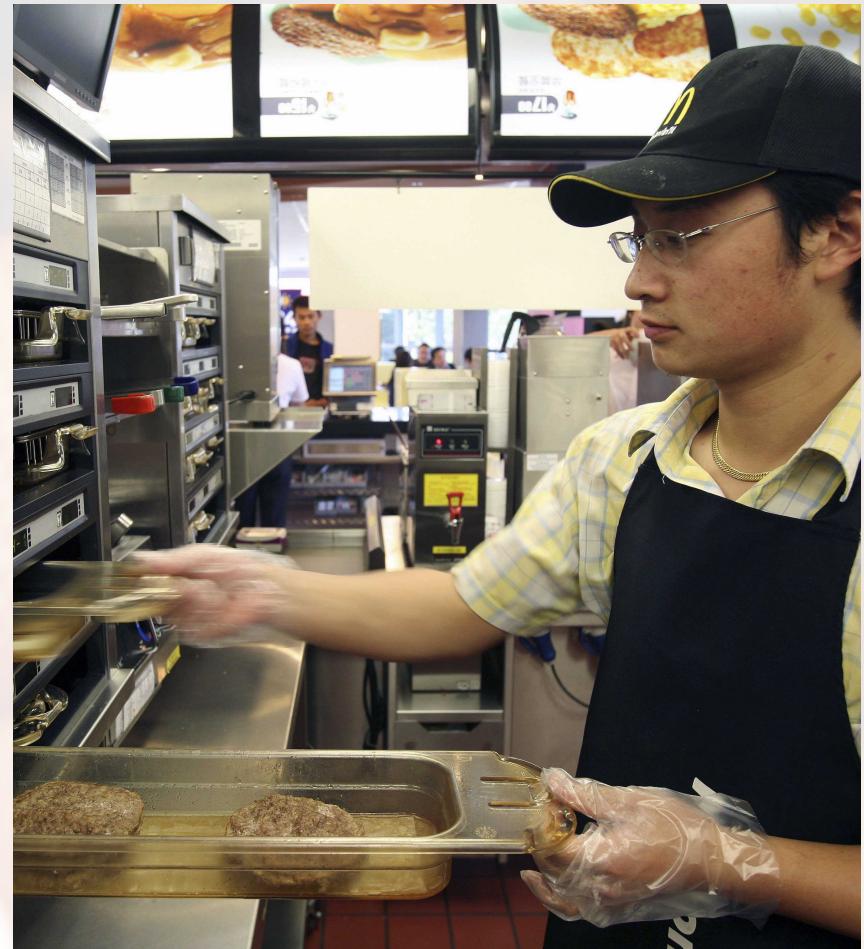
## Job Opportunities:

Outside income earned per week

	Woman-week-job Obs	Average	Total \$	Hourly Wage (when reported)
Daycare/Babysit (26)	26	\$56.73	\$1,474.98	\$4.60
Formal Sector (34)	34	\$144.85	\$4,924.90	\$9.75
Informal Sector (42)	42	\$86.76	\$3,643.92	\$6.25
Crime (9)	9	\$92.50	\$832.50	N/A
Total	111	\$95.21	\$10,876.30	\$7.24

# Options with Low Human Capital

- Formal sector jobs (e.g. retail jobs, school aide, janitor)
- Daycare/babysitting
- Informal sector work (Lawn care, hair styling)
- Crime (e.g. selling drugs or stolen goods, scams).



# Labour Economics

- Prostitution low-skilled
- The outside jobs are low-skilled
- Wage of prostitution high
- Ignore some opportunity cost



# Compensating Differentials

- Suppose the protituation market is in equilibrium (or below equilibrium)
- Difference in wage that arises from nonmonetary characteristics of different jobs.
- Jobs with high risk tend to have higher equilibrium wages.



# Street Prostitution

- Dangerous, unpleasant, and stigmatizing job
  - Violence
  - STDs
  - Unprotected sex
  - Unwanted birth
  - Social problems



# Theory of Efficiency

If the wage is above the equilibrium

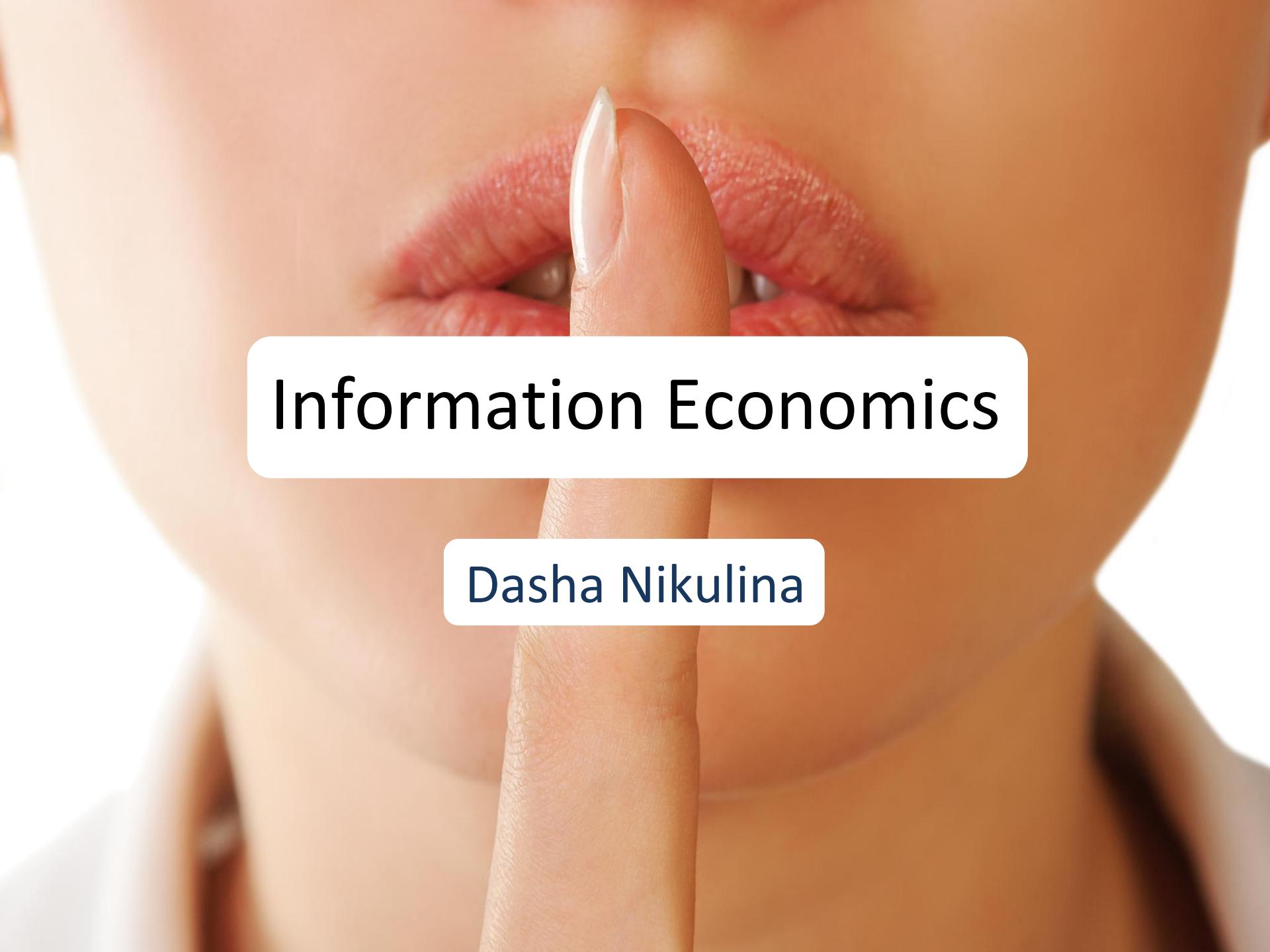
- This theory holds that a firm can find it profitable to pay high wages because doing so increases the productivity of its workers.
- Surprisingly, the pimps choose to pay efficiency wages to prostitutes

# Efficiency Wages

- Surprisingly, the women working without pimps earn roughly \$25 an hour and those with pimps earning about 50 percent more.
- Therefore, the pimps choose to pay efficiency wages to prostitutes.

# Summary

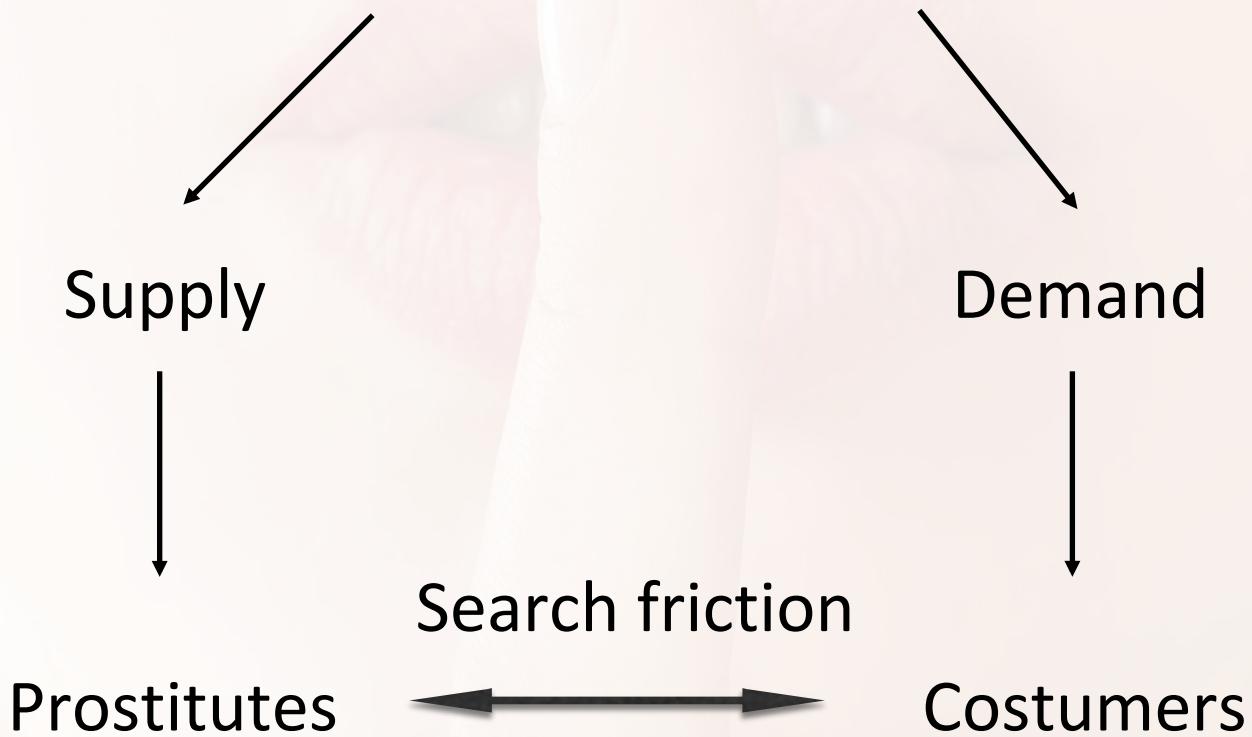
- The prostitution market is of monopolistic competition
- Prostitutes earn high wages but it's reasonable

A close-up photograph of a person's lips and fingers. The lips are slightly parted, revealing a pinkish-red color. A single finger is visible, pointing towards the center. The background is blurred, focusing on the skin texture and color.

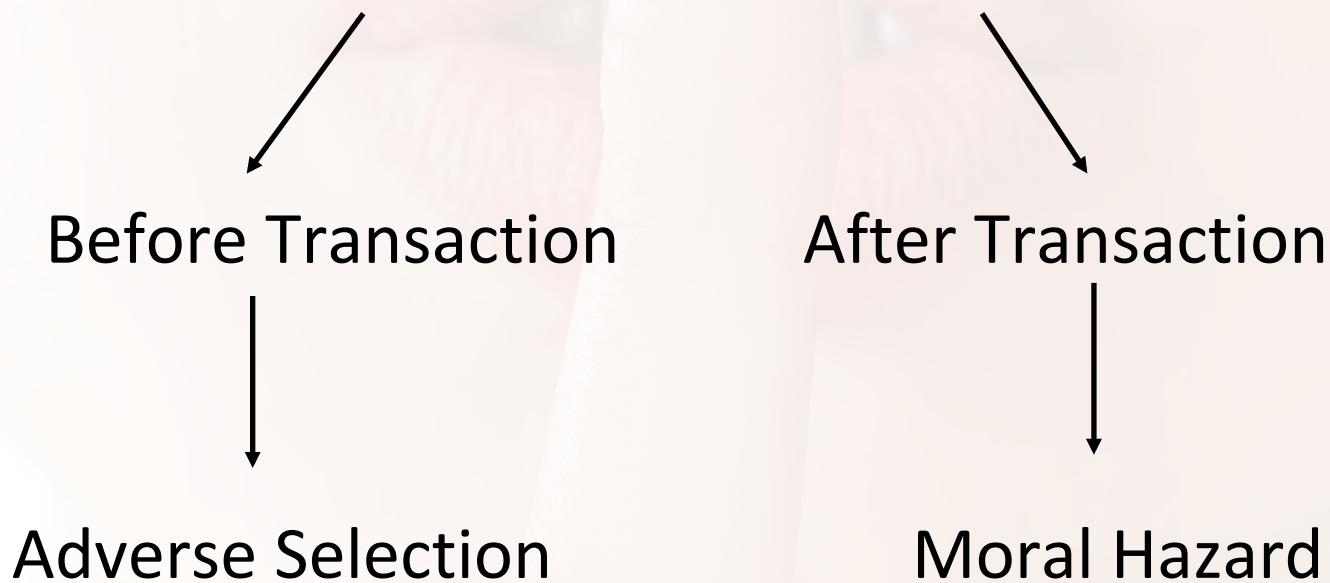
# Information Economics

Dasha Nikulina

# Market of Prostitution



# Asymmetric Information



# Consumer



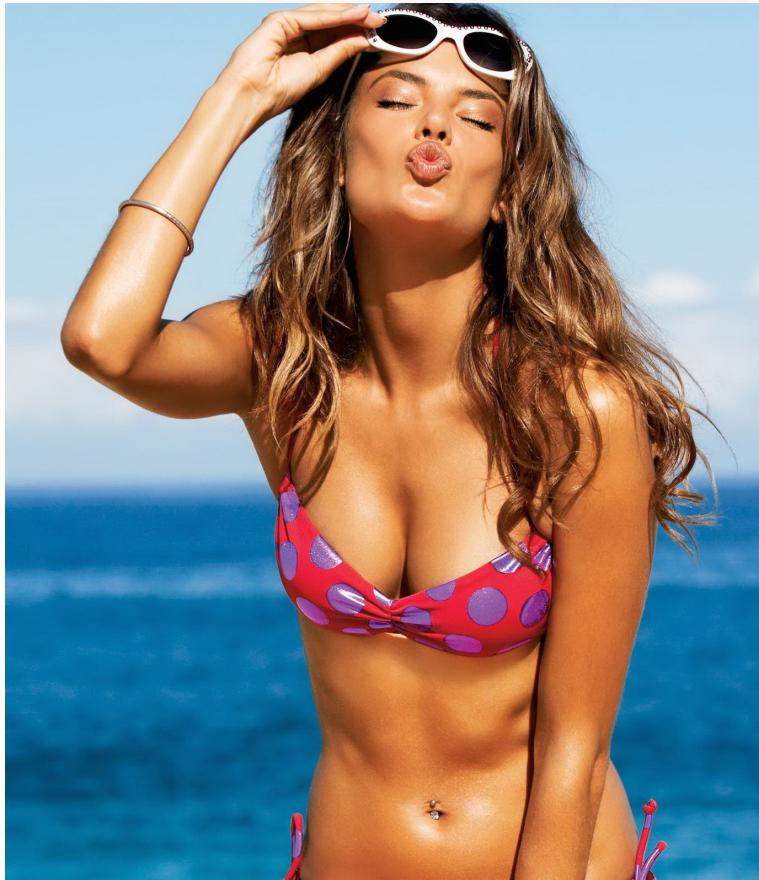
- Quality?
- Health?
- Using drugs?
- Connect to a crime?
- Has license?
- Ages?

# Prostitute



- Is he likely to be a violent?
- Is he able to pay?
- Diseases?
- How will he treat me?

# Lemon Problem

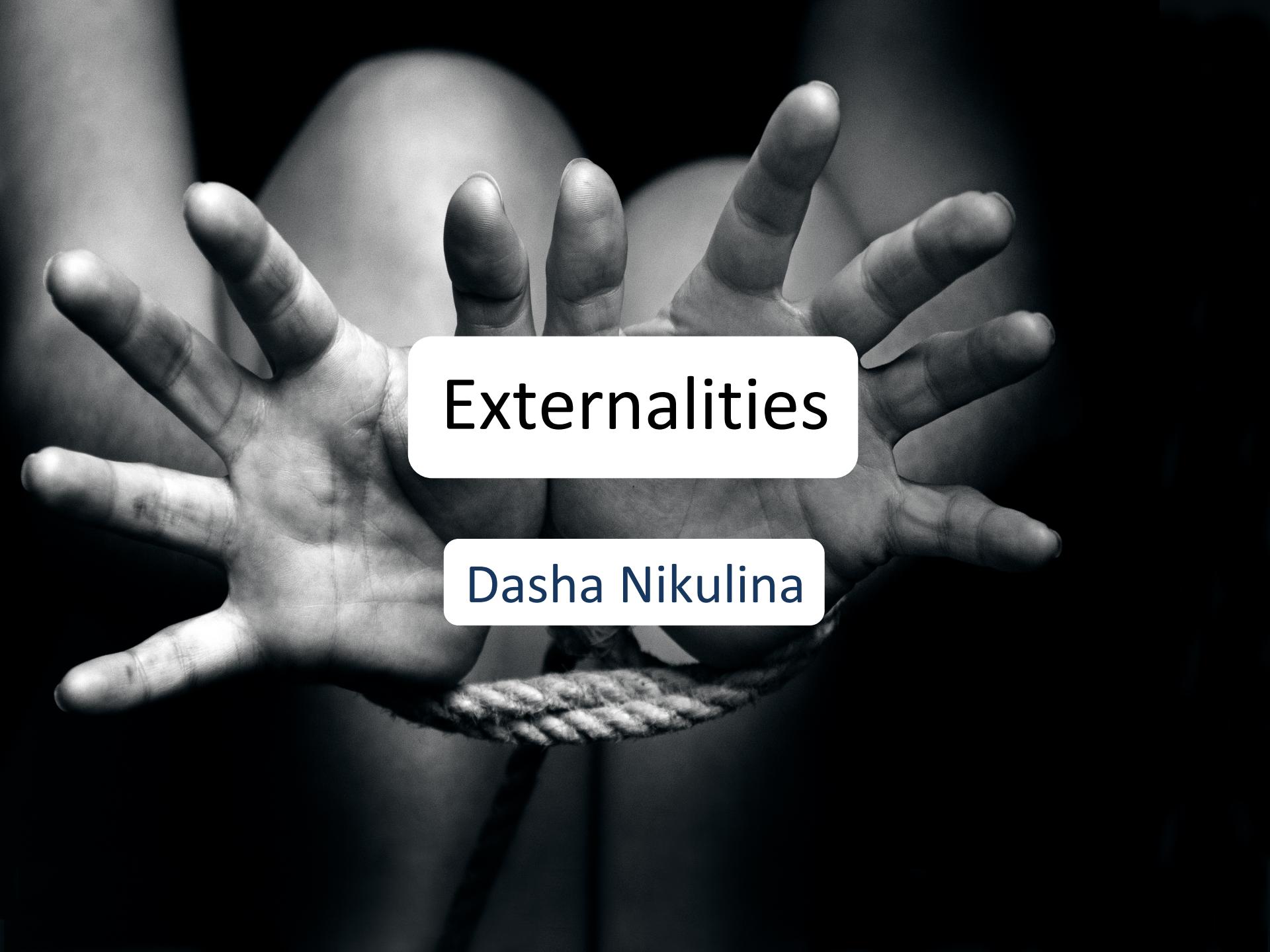


High-quality  
leave market



Lower-quality  
stay

	<b>Signalling</b>	<b>Sorting</b>
<b>A prostitute can learn more about a buyer BECAUSE:</b>	<p><u><i>The buyer can signal his quality through:</i></u></p> <ul style="list-style-type: none"> <li>• Email</li> <li>• Verification Sites</li> <li>• Investigating online reputation</li> <li>• Revealing personal information</li> </ul>	<p><u><i>The prostitute can sort information about the buyer such as:</i></u></p> <ul style="list-style-type: none"> <li>• Employment information</li> <li>• Other online information</li> <li>• Blacklists</li> <li>• References</li> </ul>
<b>A buyer can learn more about a prostitute BECAUSE:</b>	<p><u><i>The prostitute can signal her quality thought:</i></u></p> <ul style="list-style-type: none"> <li>• Email</li> <li>• Advertisement</li> <li>• Blogs</li> <li>• Videos</li> </ul>	<p><u><i>The buyer can sort information about the prostitute such as:</i></u></p> <ul style="list-style-type: none"> <li>• Review sites</li> <li>• Advertisement</li> </ul>



Externalities

Dasha Nikulina

# Why Should Government Intervene with Prostitution?

Individual rights

Externalities

Positive

Negative



# Negative Externalities of Prostitution:

- Crime
- Spreading of disease
- Human trafficking
- Unwanted children
- High divorce rates



# Organization of a prostitution market where Illegal (Philippines)

- Fully prohibited
- No regulations
- Street prostitution
- Extremely dangerous (Crime)
- Active spreading of diseases

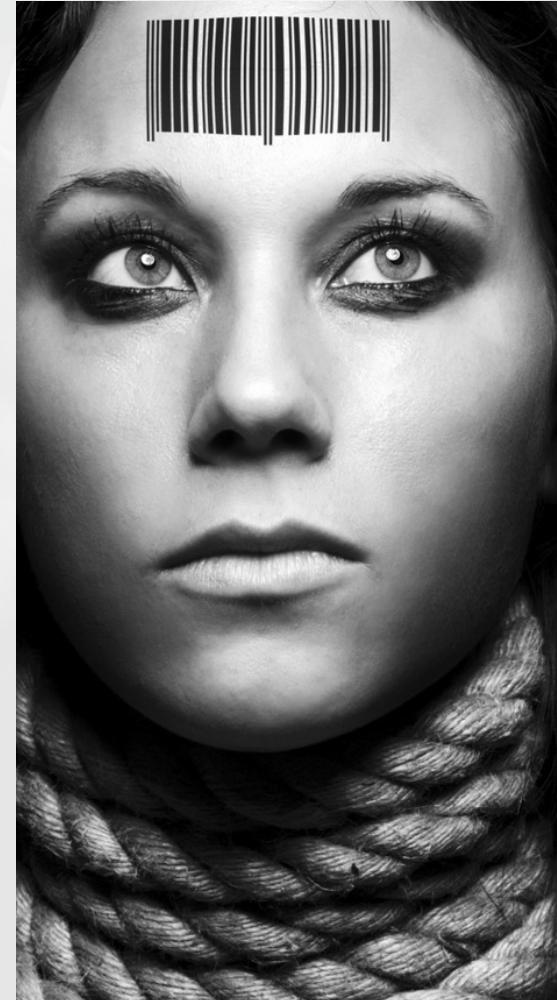


# Those who support prohibition argues:

- Legalized and regulated prostitution has negative effect
- Lead to crime
- Prostitutes are controlled by outside pimps
- Legal industry only leads to another parallel illegal industry
- Many women do not want to register
- Socially acceptable to buy sex, creating a huge demand
- Increasing human trafficking and underage prostitution

# Organization of a prostitution market where half Legal (Norway, Sweden and Iceland)

- Demand is illegal, Supply is legal
- Prostitution is a form of violence
- Human trafficking driven by demand
- Government organize indoor places
- Specialized exit services
- Decreased crime and disease
- Good motivations for prostitute to quit



# Organization of a prostitution market where legal (Netherlands)

- Legal and regulated
- Indoor work places
- Street prostitution is not allowed
- Older than 18 years old
- License of labour work
- Citizen of the European Union
- Force to have a regular medical examination



# Organization of a prostitution market where legal (Netherlands)

- Work places need to provide condoms, sexual act cannot be performed without protection
- Special policy - sex-box
- Decreasing externalities of crime and spreading diseases
- Individual rights of prostitutes
- Profession becomes less risky
- Still problem of human trafficking, slaving and children prostitution
- Positive externality such as increasing of country Revenue

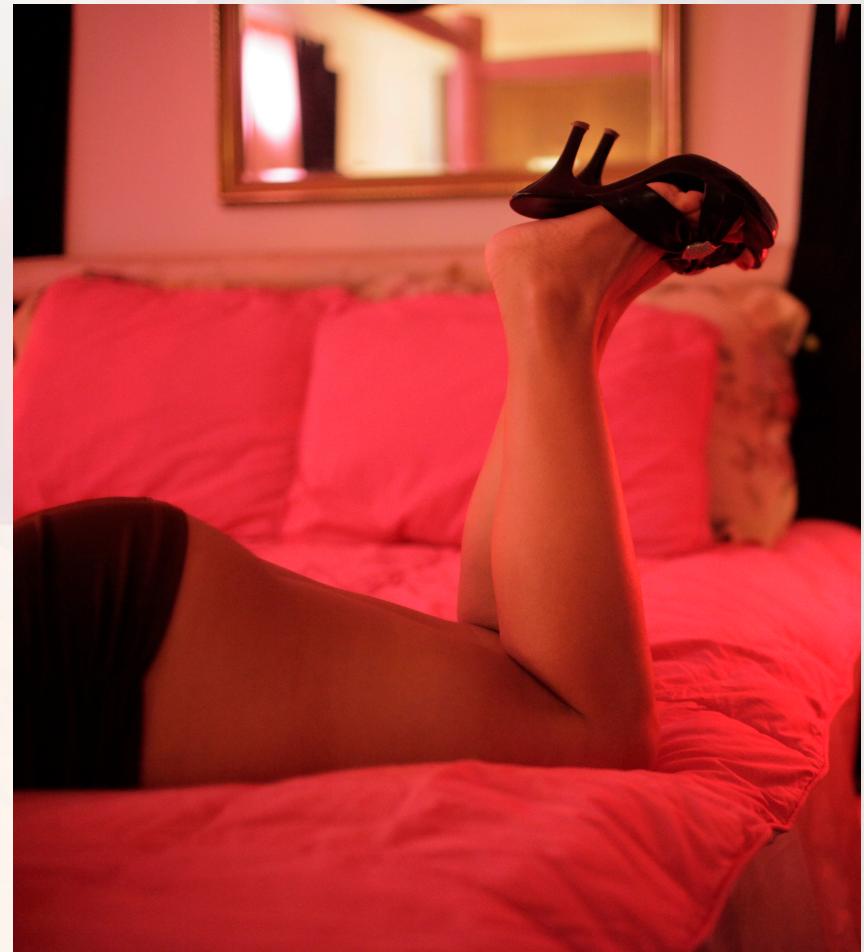
A photograph of a person sitting alone in a long, dimly lit tunnel. The walls are made of large, light-colored tiles. The person is sitting on the floor against a wall, facing away from the camera, and appears to be looking at a mobile device. The lighting is warm and focused on the person, while the tunnel recedes into the distance.

# Conclusion

William Schmidt

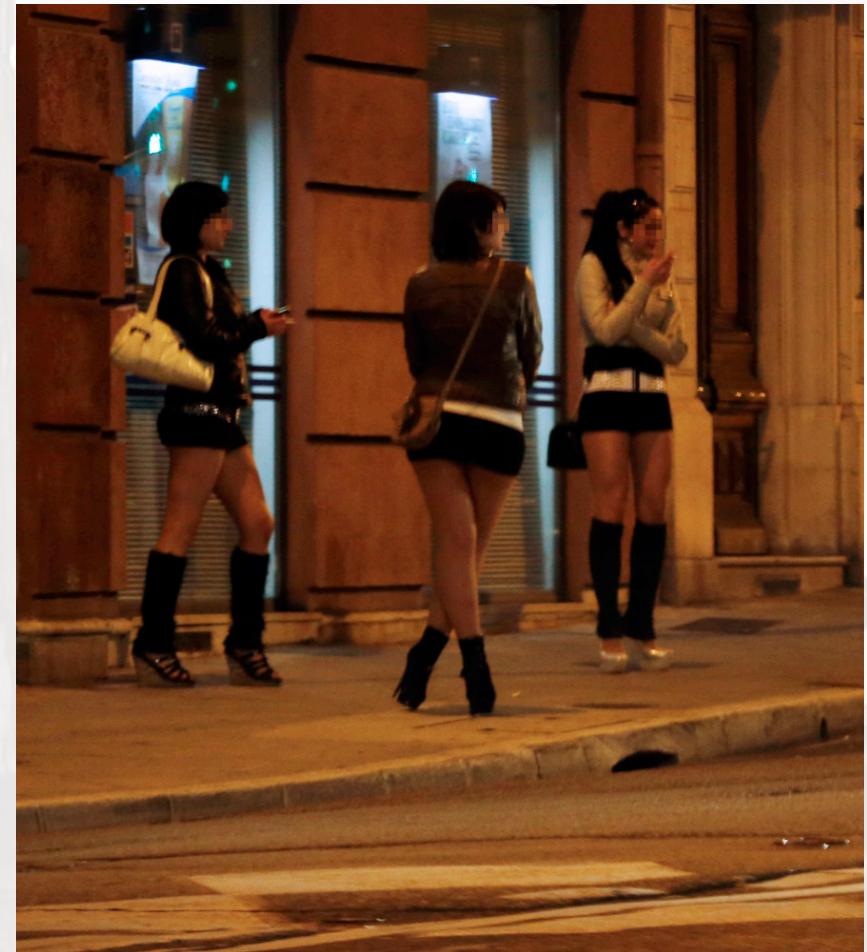
# Supply and Demand

- Supply and demand
- Shifts in supply and demand
- Elasticity



# Industrial Organization

- Monopolistic competition
- Product differentiation
- Unconcentrated
- Price discrimination



# Labour Economics

- Wage
- Compensating differentials
- The risk of disease and violence
- Human capital
- Job opportunities



# Information Economics

- Search friction
- Asymmetric information
- Moral hazard
- Adverse selection
- Lemon problem



# Externalities

- Positive and negative
- Crime, human trafficking and health
- Government intervention
- Illegal
- Supply legal
- Legal



# The Philippines



# Norway



# The Netherlands



# The Philippines



- Sex tourism
- Large market (Larger if legal)
- Less government control
- More search friction
- Assymetric information
- Less security

- Less prostitution
- Less demand
- More search friction
- Human trafficking
- No change in violence
- More competition



# The Netherlands



- Large market for prostitution
- Sex tourism
- Human trafficking
- Tax revenues
- More rights
- Better overview
- Generally less externalities



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- [http://bfts.5read.com/pdf/6D/  
6D5265270EDF52E71BF558B769A20D5E3yhiw  
YJ~wYJ90~02~155-162.pdf](http://bfts.5read.com/pdf/6D/6D5265270EDF52E71BF558B769A20D5E3yhiwYJ~wYJ90~02~155-162.pdf)