

CM12 VOLUNTARY EXCHANGES 4-18-21

MOST, BUT NOT ALL, OF WHAT YOU SHOULD KNOW

1. What is the difference between an involuntary and a voluntary exchange?
2. Why must a well-informed voluntary exchange make both parties to the exchange better off as far as they are concerned?
3. Why do people work in sweatshops?
4. Why do most economists believe that banning sweatshops or boycotting the goods produced in sweatshops may harm the workers the measures are meant to help?
5. Where do most children work?
6. If parents in LDCs love their children why do they allow them to work rather than attend school especially if the work the children do is dangerous?
7. What are the two ways in which the military can acquire personnel?
8. Why is a draft likely to be less efficient than a volunteer military?
9. In what ways is a draft likely to be inefficient?
10. What is the major difference in the incentive structures of a draft and a volunteer military?
11. When should we stop bribing people to move into the military?
12. What is the optimal allocation rule?
13. What is the opportunity cost of drafting someone?
14. How would we estimate the change in GDP when a civilian is moved into the military?
15. In what sense does the draft act as an implicit tax?
16. Is it possible to have an efficient draft?
17. Who would gain from an efficient draft?

"I'll make him an offer he can't refuse." Marlon Brando, *The Godfather Part I*

1. VOLUNTARY VERSUS INVOLUNTARY EXCHANGES

1. The economist's concept of an *exchange* is very broad, it refers to *any type of transaction where there is a change in ownership of something* – I exchange my labor for WWU's money, you exchange your money for a copy of a textbook from the bookstore. A *voluntary exchange is one in which the participants have the right to refuse to participate*. I can refuse to work for WWU if I don't like the miserly pay they offer me; WWU does not have to rehire me. An *involuntary exchange is one in which one party coerces the other into making the exchange - slavery*. Command or centrally planned economies are characterized by involuntary exchanges – you used to have a permit to live in Moscow. The Berlin wall was necessary not to keep people out but to keep them in.

2. All "well informed" voluntary exchanges **must**, in the opinions of the participants, be mutually, but **not necessarily equally**, beneficial because if the participants do not think the offer is to their benefit then they will refuse it. WWU pays me a pittance for my superb course so it gains more than I do, but I still gain enough to make it worth my time teaching you economics (it is my implicit benefits that turn the scale – I love to teach economics).

Economics assumes that we are well informed with respect to what we are getting in the exchange,² and that we are aware of all of the available alternatives. Exchange or trade is **not** a "zero sum game", like poker, in which one-side gains at the expense of the other one, both parties to a voluntary the exchange must believe that they gain or they will not trade.

3. If you are well informed concerning your alternatives, know your own preferences, and if you maximize those preferences subject to the constraints placed upon your purchases by your limited income and the positive prices of the things that you wish to purchase, then you cannot, in your opinion, be made worse off by the exchange. An economist would say you were in equilibrium. Therefore, government interventions (regulation) to prohibit or curtail your voluntary exchanges can only benefit you if they can provide a superior alternative that was not available to you. Walmart is often criticized for its employment practices but it employed 2.2m persons in 2018 (1.4m in the US). Amazon has just fended off an attempt to unionize one of its warehouses, despite the long hours of hard, repetitive work that it demands of its employees. Unless there are **no** alternative employers locally why would someone work for

² But remember the old legal maxim, *Caveat emptor* – buyer beware – before you buy an expensive watch at a bargain price sold from a suitcase on Fifth Avenue.

Walmart or Amazon if they were not the best alternative available? Which doesn't mean that those jobs are good ones, it simply means that the employees do not know of better ones. The better educated usually have more, and more attractive, options than the less well educated, but we are all "wage slaves". If you are between a rock and a hard place then you are not likely to be happy whichever you choose.

2. SWEATSHOPS

1. The term sweatshop comes from the years before the English Industrial Revolution (1760s to 1820s) when much cloth production was done on a piece rate basis (paid per yard of acceptable cloth produced) in cottages where the raw materials were provided by the cloth merchant and the cloth was woven on hand looms – with the whole family working very long hours under very poor conditions. A "sweater" was the middleman who delivered the wool and paid as little as possible for what he deemed acceptable work. The inventions that brought about the Industrial Revolution made it more efficient to produce cloth in mills in towns. In 2021 the term sweatshop is usually used to refer to a small manufacturing business, such as a clothing factory, where working conditions are poor and sometimes unsafe.

2. It is often forgotten that working and living conditions, health, life expectancy, and pollution in England during the Industrial Revolution (1760s to 1820s) and America (1800s to 1890s) were as bad, and often worse, than in LDCs in the 21st century.

3. Economists would be happy to see sweatshops disappear, as they largely have in Europe and North America, but economists are also reluctant to support measures designed to do away with sweatshops that do not take into account the harsh realities of the real world. When thinking about sweatshops the crucial issue is: *can we come up with superior alternatives to sweatshops?* Just banning the sale of their output is most likely to cause the firms to become uncompetitive and go out of business thus denying their workers the ability to work in jobs that they have voluntarily chosen. The industries that use "sweated labor" are usually operating in highly competitive global markets where profit margins are low. However, if wages and conditions could be increased simultaneously in all sweatshops in the industry throughout the world, then the extra costs associated with the better wages and conditions could be passed on to the consumers in industrialized countries who would have to pay higher prices for those goods. It may be very difficult for western firms to monitor conditions

in the subcontractors' establishments in their supply-chains. However, it is also possible that the managements of the western firms simply choose to ignore what they suspect is going on.

4. It is often argued that one reason Africa south of the Sahara is so poor is that there are very few sweatshops there. China has started to invest heavily in Africa south of the Sahara and there are even Chinese who have started to farm in Southern Africa. Recently there have been complaints about the pay and conditions in some of those Chinese plants.

5. Sweatshop workers earn so little because they are low productivity workers, which doesn't mean that they do not work hard but that their work does not produce much in terms of saleable product; cheap sandals and mats are cheap because they are produced with labor that has almost no human capital, working with very little physical capital, perhaps a few sewing machines in a dilapidated building. As workers become better educated, they can switch to better paying jobs that require more skill to perform and their labor will be replaced by machines, or the owners will find other places to produce where labor costs are lower.

Here are some links that are pro-sweatshops:

<http://www.nytimes.com/library/magazine/home/20000924mag-sweatshops.html>

http://www.nytimes.com/2009/01/15/opinion/15kristof.htm?_r=1

<http://dollarsandsense.org/blog/2009/01/kristoff-apologist-for-sweatshops.html>

<http://www.nytimes.com/2001/04/22/opinion/reckonings-hearts-and-heads.html>

3. CHILD LABOR

1. *Most child labor is in agriculture* not in factories or sweatshops and girl children do massive amounts of work in and around the home, for example getting water from the nearest source which may be five miles away. Some of the work is dangerous, for example, five-year-old girls cooking over open fires.

<http://www.nytimes.com/2005/07/14/business/14scene.html>

2. There is no reason to believe that parents in LDCs love their children less than parents in rich countries do. But if you are desperately poor then you may be forced to keep your children working on the farm, or send them to work in sweatshops or factories or brickfields, or sell them into prostitution or slavery, rather than sending them to school. The evidence shows that as parents' incomes rise parents send their children to school. (LDCs need more schools,

more school equipment, and more teachers – especially ones who actually turn up and teach.)

3. While these are not voluntary exchanges by the children, they are voluntary exchanges by the parents on behalf of the family – the alternative to selling one of your children may be that the whole family dies.

In famines babies and small children are most likely to starve because it makes sense to give food to the viable adults and older children. Amartya Sen has shown that famines are not usually the result of lack of food but of the poor distribution of the food and high prices that make the food unaffordable to the poor.

4. Banning products produced by child labor is not likely to help those children; we need to provide subsidies to the families that are contingent on their children being in school and we need to make education less expensive in LDCs where education is seldom free.

<http://www.news.cornell.edu/releases/July98/Child.Labor.jw.html>

5. The next link is more sophisticated from an economic point of view. I am skeptical that anyone believes that children make their own trade-offs between work and education.

http://economistsview.typepad.com/economistsview/2007/02/child_labor.html

http://marginalrevolution.com/marginalrevolution/2003/09/the_economics_o_1.html

<http://www.economist.com/node/16690887>

4. THE ECONOMICS OF THE DRAFT

A. DRAFTEES versus VOLUNTEERS.

1. There are two ways to acquire military personnel: get them to volunteer by offering an attractive pay and benefits package (a voluntary exchange) – the method used by the US since 1973, or draft them (an involuntary exchange) – the method used in the US from 1940 to 1972.³ About 60 countries out of 191 have a draft and actually require military service (45 only males, 15 both sexes). Russia has a draft although there is much evasion. China no longer has a draft.

³ Historically foreign mercenaries have also been a source of military manpower. Both sides in the Civil War used draftees. The draft caused infamous riots in New York. https://en.wikipedia.org/wiki/New_York_City_draft_riots

2. A draft is forced labor, like slavery or jury duty.⁴ The government requires you to serve and will imprison you and/or impose additional penalties if you refuse to serve. The government dictates the length of service (usually two years or less) and the pay and benefits of the draftees (the least amount politicians can get away with) and so any link between pay and benefits and productivity is broken.

3. Wars between nations have involved conscription (a draft) at least since the wars of the French Revolution (1791-1815). The US used drafts in the Revolutionary War, the Civil War, WW1, WW2, the Korean War, and the Vietnam War. I doubt if it would have been possible to get enough volunteers to have fought WW2, and I doubt that we would have invaded Iraq if the draft was still the major source of military manpower.

4. A volunteer military is an example of a voluntary exchange. The all-volunteer system uses positive incentives (rewards or bribes); but the draft is an involuntary exchange and uses negative incentives (penalties and punishment). *Positive incentives are known to be much more effective than negative incentives.* This asymmetry is one of the reasons that “market economies” are so much more effective and efficient at producing goods and services than “command economies” such as the defunct USSR, or Cuba, or North Korea. Humans are extraordinarily recalcitrant and difficult to coerce except with threats to “life and limb” and even those may not work (the street demonstrations against dictators/Schindler's List).

5. *A draft is an inefficient method of producing military output.* (1) Because *labor is artificially cheap* the military will use too much of it – draftees doing laundry and chefs driving trucks and truck drivers becoming cooks. (2) *Supervision costs are very high* – the draftee is on the wrong side of an involuntary exchange and will “goof off” given the slightest opportunity and will not show initiative. When Microsoft or Boeing need more labor, they entice workers to work for them by offering ever better wages and benefits. (3) *Turn-over costs are very high* – military personnel require a great deal of lengthy and very expensive training but the vast majority of draftees will leave after eighteen months to two years. Most of their service is taken up turning the recruits into effective members of their respective branches of the military. Imagine that you are the Human

⁴ Even if you volunteer once you have signed on you are subject to the Military Code of Discipline and Congress can increase your length of service without consulting you, as happened in Iraq and Afghanistan – but didn't in Vietnam because that war was fought with draftees.

Resource manager for a Fortune 500 corporation and that you have to report that the firm's labor force is turning over approximately every two years.

6. These inefficiencies all arise from the fact that *the draft uses negative incentives, coercion and punishment (sticks), whereas a volunteer military relies upon positive incentives and rewards (carrots)*. Social psychologists have collected overwhelming evidence that *carrots are more effective than sticks*.⁵ Capitalism is about *persuading* (bribing) people to do what you want them to do – they will work in terrible and dangerous conditions if you reward them for doing so. If you need people to work on an oilrig in the North Sea in the middle of winter then pay them very well to do so.

B. EFFICIENCY AND OPPORTUNITY COST.

1. How large should the military be? There is no “correct” economic answer because that answer would involve value judgments, but an economist can define what would be an *efficient* allocation of labor between the civilian and military sectors. *From society’s point of view* (what would be best for the US) it would be efficient to *transfer civilians into the military until the marginal social benefit to the US is equal to marginal social cost to the US*. That is, $MSB = MSC$ (where the costs and benefits are those to society, the US, not to the individuals involved). $MSB=MSC$ is not likely to be achieved under a draft where *draftees are selected by a lottery (semi-randomly), because you will end up with some ideal recruits and some lousy ones, and some ideal recruits will not volunteer at the draft wage and some persons who would be very valuable in the civilian sector will end up doing poorly in the military*. With a volunteer military you would expect that the volunteers would be the persons most suitable for military service – they would self-select.

2. In general an optimal allocation of money or time would be one in which each activity gives the same rate of return per dollar, or per hour, spent on each activity, because if one activity gave a higher rate of return then we would gain by reallocating resources in its favor. An efficient allocation between three activities, a, b, and c, would be one in which $MB_a/P_a = MB_b/P_b = MB_c/P_c$ etc.

⁵ So, while you may be tempted to threaten your child with dire consequences – I brought you into this world and I can take you out – or punish your child *after* the event, you will find it more effective to bribe them *before* the event. (And **always** be consistent!)

where the Ps are the prices or costs of the alternative activities. For example: if you are interested in maximizing your grade point average then the last hour devoted to studying ECON 206 should give you the same benefit (increase in GPA, whatever) as the last hour devoted to any other course, where the benefit would be the increase in your grade weighted by how important that grade is to you (is it a crucial required course in your major?)

3. So we want to expand the armed forces until the last person recruited/drafted produces in the military (MSB) exactly what they would have produced if they remained in the civilian sector (MSC). The opportunity cost of moving someone from the civilian sector to the military sector consists of an explicit and an implicit cost. Say Jane Doe is making \$100,000 as a civilian programmer. She is drafted into the army where she is made a lieutenant and paid \$30,000 and receives other benefits (food, clothing, housing, transportation, medical and dental treatment) that costs another \$10,000 per year (these are all explicit costs). Then *the opportunity cost to the US of drafting Jane is the explicit costs, the \$40,000 it costs the army in pay and benefits, plus the implicit costs of her lost civilian output, \$100,000 (her value in her next best employment).* So, the opportunity cost in her case is \$40,000 plus \$100,000 or \$140,000.

C. THE CHANGE IN GDP.

1. Say Hawkeye Pearce receives \$1,000,000 in pay and benefits as a civilian thoracic surgeon and that he would not volunteer for military service no matter how much money he was offered. Assume that as a captain in the army he gets \$100,000 in the form of pay and benefits. What would be the opportunity cost to the US of drafting Hawkeye? The explicit costs to the US would be the \$100,000 in pay and benefits, which could be used to purchase other goods and services – for example, better schools – and the implicit cost would be the lost output in the civilian sector. *Economists normally assume that your pay and benefits reflect your productivity (which, as I have argued in previous lectures may not be true) and so they would use his \$1,000,000 civilian pay as a proxy (shadow price) for his civilian output.* Therefore, the opportunity cost to the US of drafting Hawkeye would be \$100,000 (EC)+ \$1,000,000 (IC) = \$1,100,000.

2. What happens to GDP when Hawkeye is drafted? *The change in GDP will be the difference between his civilian output and his military output.* We have already decided to proxy (put a shadow price on) the civilian output by using the his civilian pay and benefits (\$1,000,000), but we cannot use his military pay and benefit as a proxy for his military output because that \$100,000 is essentially arbitrary, reflecting a political decision, not his actual productivity as a military

surgeon. One way to proceed would be to use the average pay and benefit of an average civilian thoracic surgeon (a shadow price) – although Hawkeye is clearly an outstanding surgeon and would be paid above that average if “the market works”. If an average thoracic surgeon makes \$400,000 then using that figure as our proxy, drafting Hawkeye would cause GDP to fall by the difference between his civilian output (assumed to be equal to his civilian wage and benefits) minus his military output (where we use the average civilian pay as our proxy or shadow price) which is $\$1,000,000 - \$400,000 = \$600,000$. Clearly there are problems. We can't use this procedure for draftees who end up driving tanks, because there are no civilian equivalents. In the case of Hawkeye perhaps the change in GDP is zero because he continues to be a surgeon although he is doing general surgery not his specialty. In some cases, GDP would rise, for example, drafting someone who was unemployed.

3. Say we have a plastic surgeon who makes \$800,000 doing “tummy tucks” and “boob jobs” as a civilian but as a military surgeon he works reconstructing the horribly mangled faces of eighteen-year-old boys – how valuable is his military output? Economics does not have an answer to this sort of question; economics is about prices not in values. When we look at consumerism in CM18 all we can conclude is that some people are willing to pay very large sums of money for things that others would not even want to own.⁶ And remember that WTP is based on your ability to pay (ATP), your income and wealth and access to credit.

D. AN IMPLICIT TAX

1. Politicians and the Pentagon favored the draft because it appeared to be a cheap way of acquiring military personnel. In particular the amount of tax that has to be raised to pay for military personnel is lower if you force a draftee to serve in the military for \$35,000 a year, than if you have to pay a volunteer \$60,000 a year to volunteer. Note that the draft will make those who would have

⁶ There were 650,000 cosmetic plastic surgeries in S. Korea in 2013. Some of them performed by “ghost doctors”, surgeons trained in other specialties, persons with MDs but no surgical training, and some people with no medical training at all. Many Chinese women go to S. Korea for cosmetic plastic surgery. <http://www.nytimes.com/2014/12/24/business/international/plastic-surgery-tourism-brings-chinese-to-south-korea.html>

volunteered for the military worse off – they are now drafted and get \$35,000 rather than the \$60,000 they would have received in a volunteer system.⁷

2. The draft was an implicit tax. Hawkeye would have earned \$1,000,000 as a civilian, but as a draftee he only gets \$100,000 so he is \$900,000 worse off – it is as if the government placed a \$900,000 per year tax on him during the two years he serves in the army (the *Implicit Tax = Civilian Wage - Military Wage*). This tax had some interesting features: (1) It was *sexist* – because only males were drafted. (2) It was *regressive* – borne disproportionately by low-income groups – 76% from working or lower middle-income households.⁸ (3) It was *racist* – assuming that minorities were predominantly low income (12.5% of deaths were among black Americans). (4) It was “*ageist*” – the young fight wars declared by their elders. (A possible (!!)) solution to (1) and (3) would be to form Kamikaze battalions of Hells Grannies. Put a satchel charge under granny’s wheelchair and point her at the enemy. Bang – up goes grannie and hopefully some of the enemy too. And the grannies don't add to civilian GDP!)⁹ The things you are missing this quarter! Of course, we wouldn’t want to draft grandpas because we are so valuable. The links below show there is a lot of controversy about whether the Vietnam war tax was regressive and/or racist.

<http://www.washingtonmonthly.com/features/2009/0911.fallows.html>

<http://www.theatlantic.com/magazine/archive/1993/04/low-class-conclusions/5404/>

<http://www.examiner.com/conservative-politics-in-national/myths-of-the-vietnam-war-part-3-age-race-and-class>

<http://www.militaryfactory.com/vietnam/casualties.asp>

<http://www.uswings.com/vietnamfacts.asp>

<http://www.nndb.com/event/806/000140386/>

3. Obviously there was a difference between being drafted and serving in the US, being drafted and serving in Vietnam, being drafted and being in a combat zone, and being drafted and seeing combat. The better educated were more likely to have desk jobs and less likely to end up in the infantry.

⁷ Many men who were in the military during the Vietnam era were “volunteers” because “volunteering” gave you certain advantages such as choice of which branch of the military you would join.

⁸ The well-known journalist James Fallows starved himself until he weighed only 120 pounds despite the fact that he was six feet and one inch tall. He failed the draft not because he was emaciated but because he failed the psychological exam! Fallows estimates that of the 12,000 Harvard men who were potential draftees only 2 saw combat.

<http://www.washingtonmonthly.com/features/2009/0911.fallows.html>

⁹ The average age of a serviceman in the Vietnam War was 22, and in WW2 it was 26.

E. AN EFFICIENT DRAFT?

1. What would be an efficient draft? A draft in which (1) there were *no deferments* except for independently verified (a panel from outside the local draft board area?) physical, psychological or hardship reasons and males with children. Everyone else would be chosen by a lottery; and (2) a draft where *those who were drafted could either pay not to serve or could provide an acceptable replacement* as in the Civil War (\$300 for a Vermont Commutation Certificate in 1863).

Example: Frank Burns makes \$350,000 as a civilian surgeon. He would volunteer if his pay and benefits were \$550,000. Clearly Frank was acceptable to the army. Hawkeye pays Frank \$450,000 for each year he serves in Hawkeye's place. Frank accepts – we have converted an involuntary exchange into a voluntary exchange – since he now will get \$550,000, \$100,000 from the army and \$450,000 from Hawkeye. Hawkeye gains – it is a voluntary exchange – he pays Frank \$450,00, which is less than the implicit tax of \$900,000. The US gains \$650,000 the difference between Frank's civilian earnings and the amount that Hawkeye earns as a civilian. The opportunity cost of having Frank in the army is less than the opportunity cost of having Hawkeye transferred out of the civilian sector.

2. The Gates Commission examined the pros and cons of an all-volunteer force and recommended dropping the draft.¹⁰ The Commission also noted that an all-volunteer force might encourage "Military adventurism" – if other people's children are forced to fight our wars then they and their parents may not vote for the politicians who declare the wars (although it is a long time since Congress has declared a war, except on drugs) and politicians may be less willing to go to war. If the all-volunteer military and their families are only a small fraction of voters then we can send them to fight our wars as the British did during the

¹⁰ Economists may have helped end the draft. Milton Friedman was strongly opposed to the draft on libertarian principles. Friedman was a close friend of Jimmy Savage a very distinguished statistician and his colleague at the university of Chicago. Savage was a friend of a friend of Nixon. Savage got Friedman access to then-Secretary of Defense Melvin Laird, who first moved the U.S. away from a conscript force. Friedman and General William Westmoreland were both members of the Gates Commission. When Westmoreland declared that he didn't want to command an army of mercenaries, Friedman rejoined: "Would you rather command an army of slaves?"

http://economistsview.typepad.com/economistsview/2007/01/david_warsh_fri.html

colonial wars of the 19th century.¹¹ Would the US have invaded Iraq and Afghanistan, even less stayed there, if the US still had a draft?

3. An all-volunteer force may save US and enemy lives because it is so much more efficient that it wins quickly when fighting draftees. (The six week “war” between the UK and Argentina in the Falklands in 1982, the Gulf War of 1990-1991, and the initial military campaign in Iraq in 2003.)

Here is a link to the costs of the Afghan war. How many of the costs were true opportunity costs? For example, the US would have needed to feed, clothe etc. military personnel sent to Afghanistan even if there had been US engagement there. Bill Nordhaus in 2002 estimated that the Iraq and Afghanistan wars would cost about \$2trillion, which seems about right. Joe Stiglitz in 2008 put the long-term costs (including pensions and medical treatment) at about \$3 trillion.

<https://www.bbc.com/news/world-47391821>

(4,682)

¹¹ The British invaded Afghanistan in 1839. When they retreated from Kabul in 1842, they had some 4,500 British and Indian troops and were accompanied by about 12,000 “camp followers”. Only one man returned to India and seven men were captured. A second force was sent into Afghanistan in 1842 and pillaged much of the country, defeated the Afghans and freed the prisoners. It then retreated back to India and held the Khyber Pass for the next hundred years. (It took Alexander the Great seven years to subdue the Afghans, essentially by wiping most of them out.) Would the US have engaged in war in Afghanistan if it relied on draftees?

http://en.wikipedia.org/wiki/First_Anglo-Afghan_War-Destruction_of_Elphinstone.27s_army

George MacDonald Fraser’s spoof – Flashman – provides an entertaining fictional account of the First Afghan War.