

Redistribution

1. Equity and efficiency
 - a. We can also think of efficiency in terms of the set of things that are possible. Consider a *Possibility Frontier* which defines all the feasible situations for two people.
 - b. Draw picture of you and me and our happiness, and draw a line to define the most happiness we can each get, given how happy the other is.
 - i. There is a trade-off, perhaps because we are sharing some stuff, or doing stuff together or what-have-you.
 - ii. The edge is called the *frontier*.
 - iii. Efficiency requires that we be on the frontier.
 - iv. It does not require that we are both very happy, just that given how happy each is, we cannot make the other more happy.
2. Most government action we have thought about is getting you from inside the frontier to the frontier, or at least towards it. This is about *efficiency*.
 - a. Eg, if there is an externality, you can make everyone happier by taxing the negative externality and giving away the proceeds appropriately.
 - b. If there is no insurance market because insurers are plagued by information problems, you can make everyone better off by forcing them to buy an insurance package.
 - c. But, governments also move you along the frontier. This is about *equity*.
 - d. For example, governments take money from people who have money and give it to people who don't have money.
 - i. This is *redistribution*.
 - e. Sometimes, the frontier responds to redistribution.
 - i. For example, if there is no redistribution, then the frontier on money in a pie-sharing game is linear (with a slope of -1). Either i have the pie or you have it.
 - ii. If there is redistribution, then we might lose some pie as we move it from you to me (or vice versa). Thus, the frontier may be pulled inwards as we try to move more pie from one person to the other.
 - iii. Now, think about a world with production. If i know that my earnings will be taken away, i may work less hard and produce less.
 - iv. This is analogous to the pie-sharing problem, because moving money around is costly (in terms of total production), just like moving pie around is costly (in terms of lost pie).
3. Equity
 - a. Horizontal Equity—treat identical people identically
 - b. Vertical Equity—treat worse off people better
4. Why is there redistribution?
 - a. Positive stories:
 - i. People are altruistic. That is, their well-being depends in part on the well-being of others. After all, people donate to charities.
 - ii. Thus, they vote to redistribute.
 - iii. But, why do they redistribute through government, rather than by giving to charities?
 - iv. There is an positive externality on giving to charities: if everyone is altruistic, then if one person donates to the food bank and improves the lives of folks without food, then it makes all those hungry folks better off, which in turn implies that everyone gets a little better off (because of the altruism).

- v. Thus, governments should subsidize charitable giving.
- vi. They do: there is a tax credit for charitable giving.
- vii. In addition, government may have an advantage in redistributing: they can more easily get information on who is poor than can small private agencies. Eg, government has Canada Revenue Agency.
- viii. Government redistribution may have less stigma, eg tax credits.
- b. Normative stories:
 - i. Redistribution is *good*. But, what defines goodness? All such arguments are necessarily ethical arguments.
 - ii. Veil of Ignorance (Rawls) (Parachute Test–Boadway). If you didn't know who you were going to be, what kind of society would you want to live in?
 - iii. This is closely related to insurance, but it is 'insurance at birth'.
- 5. Progressive Taxation (Do the \$1000 RA work example)
 - a. First \$8839 is taxed at 0%.
 - b. British Columbia 2009
 - i. 0% up to \$9373,
 - ii. 5.06% from \$9373 to \$35,716 of taxable income, +
 - iii. 7.7% on the next \$35,717 (up to 71,433) +
 - iv. 10.5% on the next \$10,581 (up to 82,014), +
 - v. 12.29% on the next \$17,574 (up to 99,588), +
 - vi. 14.7% on the amount over \$99,588
 - c. Federal 2009
 - i. 0% up to \$10,320
 - ii. 15% from \$10,320 to \$40,726 of taxable income,
 - iii. 22% on the next \$40,726 of taxable income (on the portion of taxable income between \$40,726 and \$81,452),
 - iv. 26% on the next \$44,812 of taxable income (on the portion of taxable income between \$81,452 and \$126,264),
 - v. 29% of taxable income over \$126,264.

from	to	rate	rate*chunk	all previous	avg rate at upper
\$0	\$9,373	0	0	0	0
\$9,374	\$10,320	5.06%	\$48	\$48	0.46%
\$10,321	\$35,716	20.06%	\$5,094	\$5,142	14.40%
\$35,717	\$40,276	22.77%	\$1,038	\$6,180	15.34%
\$40,277	\$71,433	29.77%	\$9,275	\$15,455	21.64%
\$71,434	\$81,452	32.50%	\$3,256	\$18,711	22.97%
\$81,453	\$82,014	36.50%	\$205	\$18,916	23.06%
\$82,015	\$99,588	38.29%	\$6,729	\$25,645	25.75%
\$99,589	\$126,264	40.70%	\$10,857	\$36,501	28.91%
\$126,264	And over	43.70%			

- 6. Progressivity may be defined as follows:
 - a. If the average tax rate faced by an individual is (weakly) rising with income, then the tax system is *progressive*. The faster it rises, the more progressive it is.
 - b. Can also think of progressivity in terms of the transfers implied by the program

(or set of programs):

- i. For example, the tax regime described below is used to fund expenditures that are (mostly) received in a quantity that does not depend on how rich you are: both rich and poor people get the same amount of publicly funded education, publicly funded health insurance, publicly funded pensions, etc.
 - ii. So, to think about progressivity, you take the taxes paid plus the individual's valuation of the public goods received, and ask whether that is biggest for poor people and smallest (mostly likely negative) for the rich.
7. Many public programs increase both efficiency and equity, just by their nature. For example, if public pensions fill in a hole in private markets (because private markets do not on their own provide inflation-proof annuities), then
- a. the mere existence of a public pension system has potential to improve efficiency (get us towards the frontier).
 - b. And, the way the public pension solves the selection problem (by giving everyone the same insurance contract) is inherently equalising, and has the potential to improve equity (by getting us towards the middle, more equal, distributions).
8. Is publicly funded education redistributive? Is it progressively redistributive—that is, does it take from the rich and give to the poor?
- a. Do poor people get the same quantity of publicly funded education as rich people?
 - i. Why or why not?
 - ii. Does this have something to do with *capital markets*, that is, the market for borrowing money?
 - b. What do rich and poor people pay for that education?
 - c. To increase progressivity, what might you do?
 - d. What are vouchers, and how do vouchers affect progressivity?