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Chapter 23: Income Inequality and Poverty
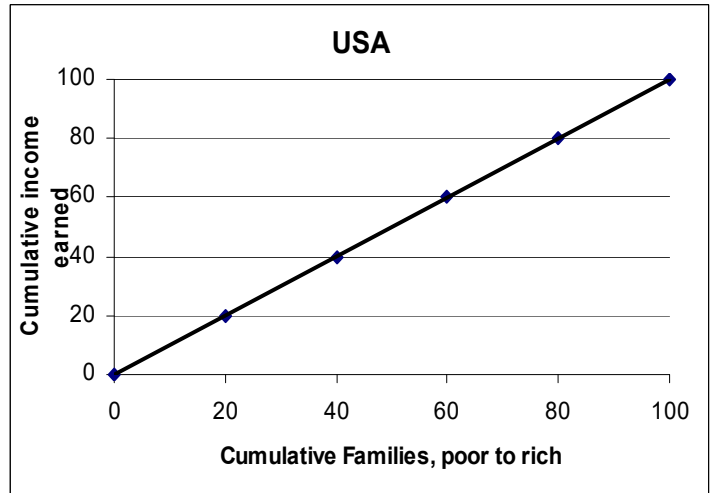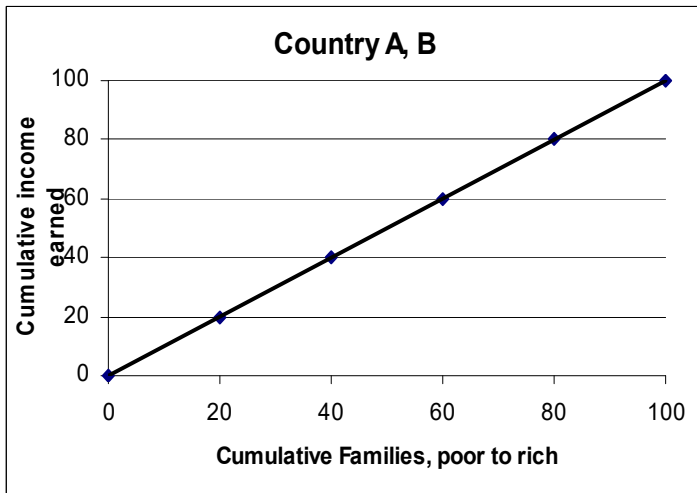
Part 1: Income Distribution: How do we measure income inequality?   **HOUSEHOLDS!**

*A **household** includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters.*

    a. Income Quintiles
    b. Lorenz Curve
    c. Gini Coefficient: 0=perfect equality, 1=perfect inequality Practically speaking Ginis range from around .22 (Sweden, Finland) to .63 (South Africa, Lesotho, Haiti)
       https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html

Income Quintiles	%income Country A	A Cumulative	% income Country B	B Cumulative	% income USA	USA Cumulative.
Poorest 20%	20%		4%			
Lower middle 20%	20%		4%			
Middle 20%	20%		4%			
Upper Middle 20%	20%		4%			
Highest 20%	20%		84%			

Country A, B — Cumulative income earned vs Cumulative Families, poor to rich

USA — Cumulative income earned vs Cumulative Families, poor to rich

Part 2: Why are *individual* incomes unequal? 7 main reasons:

Wealth
Innate Ability
Education, training, experience
Preferences for work and taking risks
Market Power, Supply and Demand
Luck, Connections, and Tragedies
Discrimination

"Women earn 77 cents for each dollar earned by men." Why?

    1) 92% of workplace-related deaths are to men.
    2) Men work 3.5 hours per week more than women, looking only at full time workers
    3) 12.4% of women work part time, only 4% of men do
    4) Let's look at the most common jobs for men and women https://www.bls.gov/cps/cpsaat11.htm
    5) There is a small % that is still unexplained, probably due to discrimination or asking for raises.

Other Thoughts: Cost of Living in Different Places

How does immigration affect Lorenz Curves and Income Inequality?

What would happen if we forced all incomes to be equal, no matter what? **Equality versus Efficiency**

Chapter 23, Part 3: Poverty, Discrimination, and remedies
*Preliminary Note: Income Mobility: over their lifetimes, most people's incomes move up and down quite a bit.

1. **Poverty:** What is it? Why should we care?
   a. How is it measured? (Relative vs. absolute)

In the US, an economist named Mollie Orshansky was working for the Social Security Administration. She knew that families spent about 1/3 of their income on food in 1955. She figured out the cost of an "economy food plan" of inexpensive but nutritious food, and multiplied it by 3 to start developing poverty level incomes.

Household Size	Income Level
1	$ 12,260
2	$ 16,240
Add One	Add $4,180

2013 Official Poverty Rate: 14.5%; in 2016 it was 13.5%
   b. What are some problems with how it is measured?
      i. Ignores non-monetary(in-kind) benefits (e.g. food stamps), taxes, and tax credits

If you adjust for noncash benefits & tax credits, some suggest the poverty rate ***should be*** 8.5%
      ii. Ignores wealth
      iii. Ignores **where** you live
      iv. *Why* are they poor?
      v. Many retired people and almost all students are in poverty
      vi. Doesn't track who is in poverty (temporary, or lifelong?)
      vii. Immigration?
   c. Who is most likely and least likely to be in poverty in the US?

2. Discrimination: when one group of workers with the same abilities, education, training, and experience gets inferior treatment compared to another group.
   1. Wage discrimination: Paying people less for the same work. Can be subtle and difficult to detect.
   2. Employment discrimination: People less likely to get jobs or promotions.
   3. Occupational discrimination: People are arbitrarily restricted from certain jobs
   4. Human capital discrimination: People systematically get a worse education.
   5. Statistical discrimination: Since you are part of a group who on average are worse than another group, we decide not to hire you (e.g., people from South Carolina are not as good as those from NC!)
   6. "Taste for Discrimination Model" What we often see is prejudiced people will be willing to hire people they don't like, but ***only*** if they get them "at a discount". In the long run, these businesses should fail. Why?

3. What can/should we do about poverty and income inequality?
   a. **Public assistance** (help because you need it) vs. **social insurance** (help because you paid into it)
      Public assistance: SSI, TANF, WIC/SNAP, Medicaid, EITC, "Universal Basic Income"- UBI

      Social insurance: Social Security, Medicare, Unemployment Insurance

   b. Other things: PROGRESSIVE income tax (tax high incomes at a higher rate), death tax, housing subsidies, free/low cost education, combat discrimination.

   c. (Equality vs. Equity(Fairness)) vs. Efficiency tradeoff.

   d. Political Discussion: Republicans vs. Democrats vs. Libertarians

Median earnings for an **individual working full time** in the US: $45,000 (2017)

**Household** income limits for quintiles:

2016 Approximate Income Limits	Quintile	Share of income	Percent	Cumulative Percent
$0-22,000	Lowest income 20%	1	3%	3%
$22,001-41,000	Next 20%	3	9%	12%
$41,001-68,000	Middle 20%	5	15%	27%
$68,001-111,000	Next 20%	7	21%	48%
$111,001+	Highest 20%	17	52%	100%
	Total:	33		

Poverty Thresholds by family size in the US (Multiples are for eligibility for some benefits)
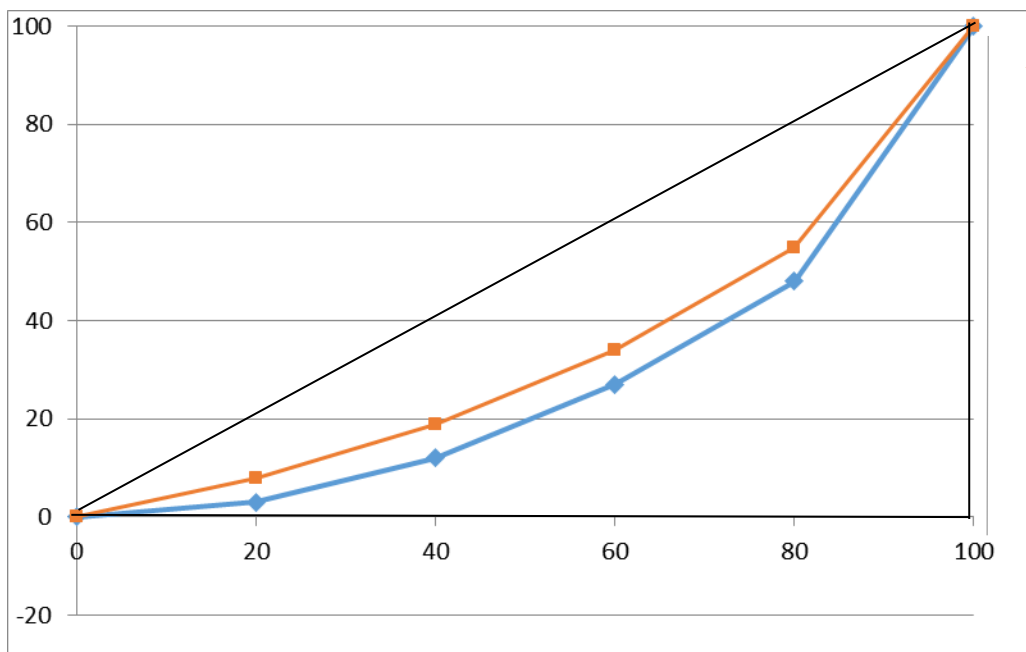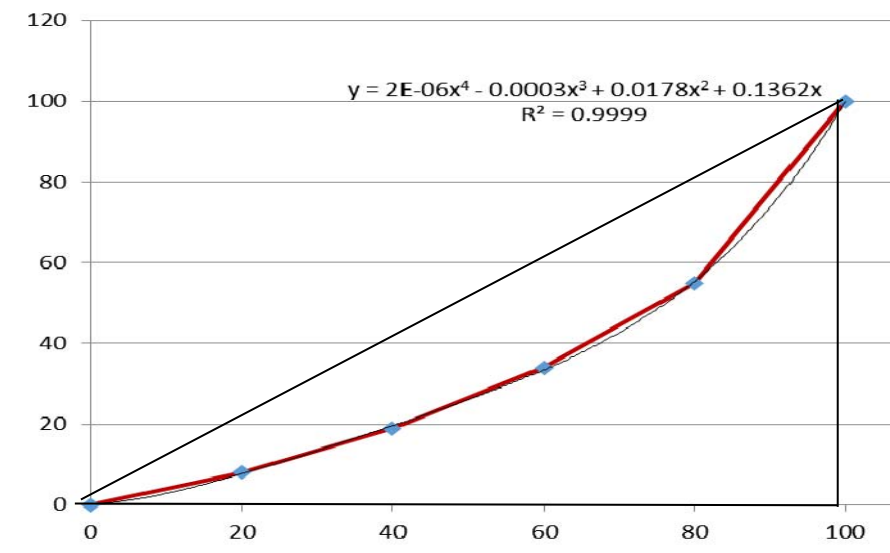
Family Size	100% FPL	138% FPL	200% FPL	400% FPL
1	$12,060	$16,643	$24,120	$48,240
2	$16,240	$22,411	$32,480	$64,960
3	$20,420	$28,180	$40,840	$81,680
4	$24,600	$33,948	$49,200	$98,400
5	$28,780	$39,716	$57,560	$115,120
6	$32,960	$45,485	$65,920	$131,840
7	$37,140	$51,253	$74,280	$148,560
8	$41,320	$57,022	$82,640	$165,280
	+$4,180 per person above 8			

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Lorenz Curve for the US (around 2016)

$$y = 3E\text{-}06x^4 - 0.0005x^3 + 0.0311x^2 - 0.3216x$$
$$R^2 = 0.9997$$
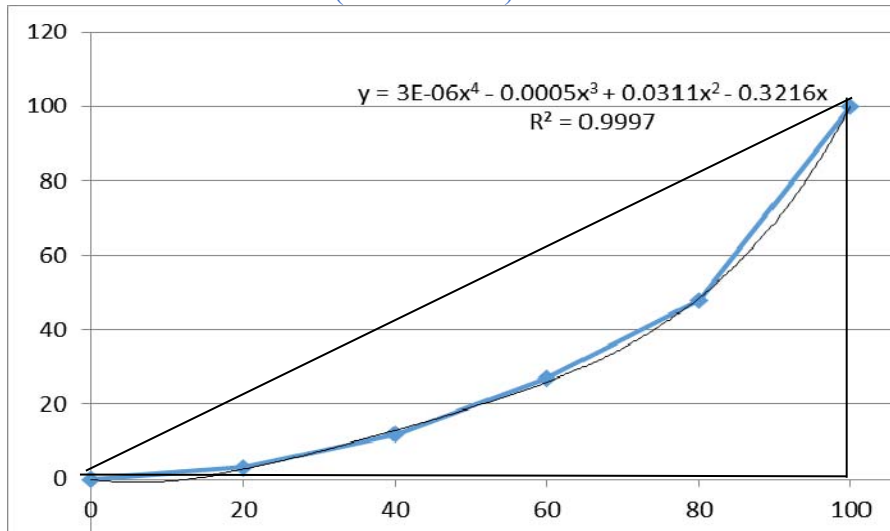
After taking taxes and transfers into account

$$y = 2E\text{-}06x^4 - 0.0003x^3 + 0.0178x^2 + 0.1362x$$
$$R^2 = 0.9999$$

After taxes and transfers
"Income" only
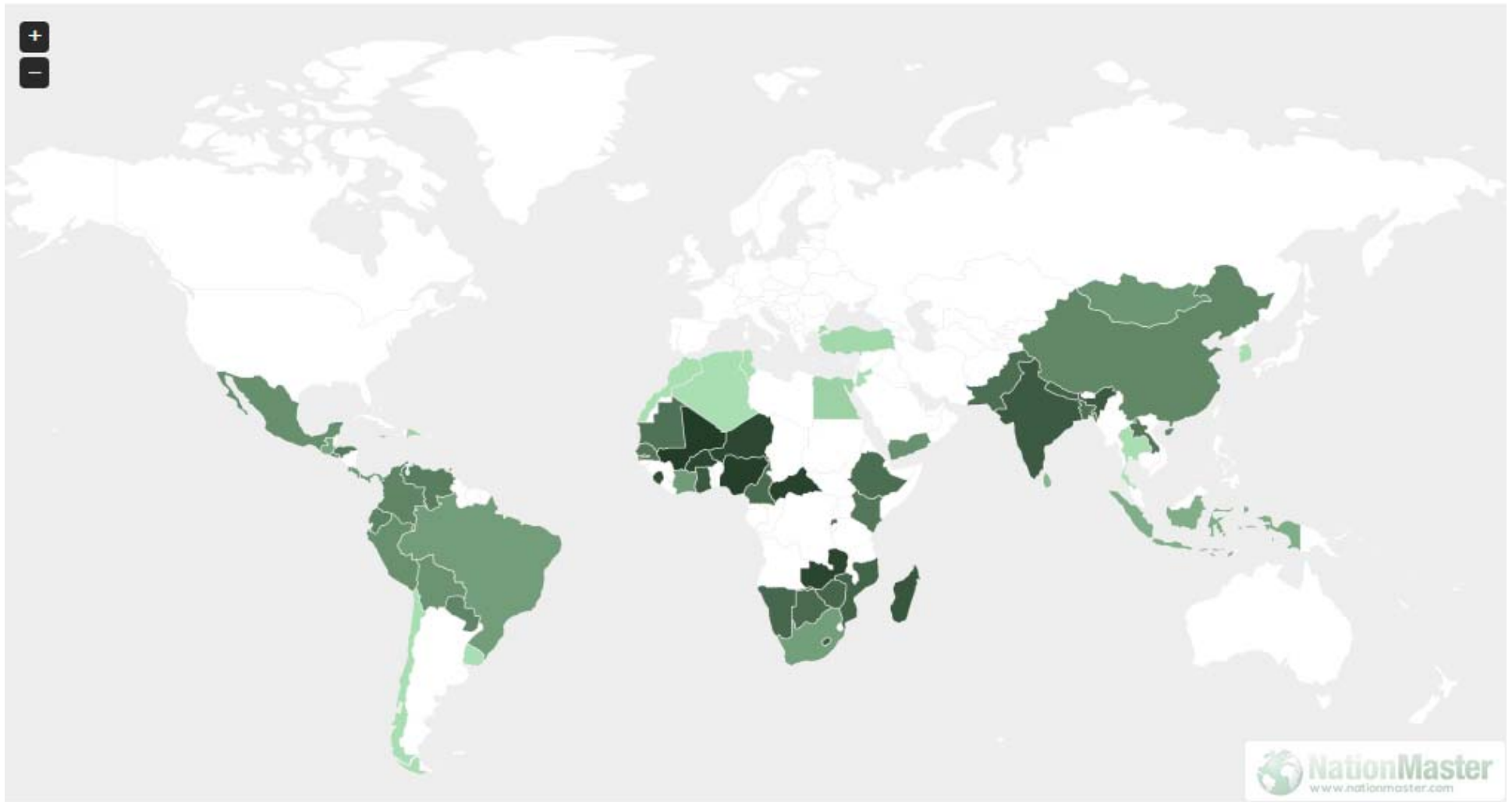
People < $1 per day: India 44%   China 18%   Mali: 73% Madagascar: 50% Mexico: 16% Zimbabwe 36%