

UN3902: Economics of Public Policy Seminar
Week 6: Inequality

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February 24, 2026

Outline

Income Inequality and Government Transfer Programs (Gruber Chapter 17)

(quick) Hackathon!

Outline

Income Inequality and Government Transfer Programs (Gruber Chapter 17)

- Facts on Income Distribution in the United States

- Transfer Policy in the United States

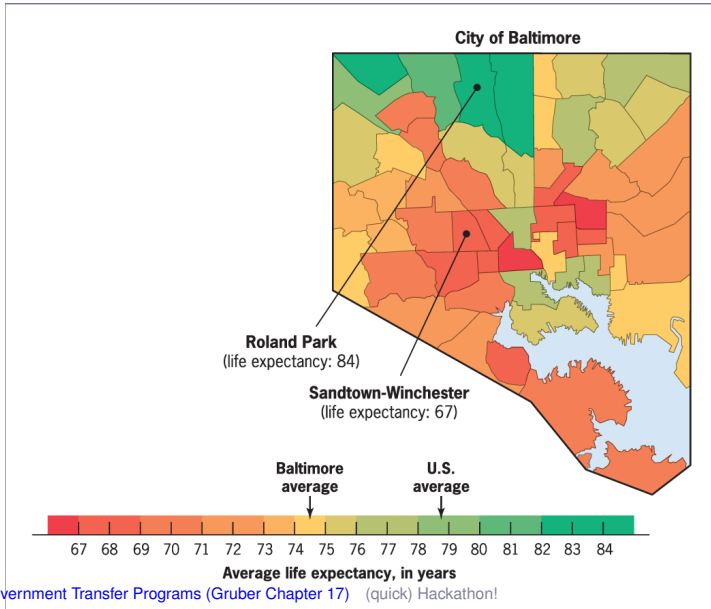
- The Moral Hazard Costs of Transfer Policy

- Universal Basic Income?

Introduction: Differences in Life Expectancy 1

- ▶ The last week of April 2015 was marked by several weeks of protests in Baltimore, Maryland sparked by the death of Freddie Gray while in custody of the police
- ▶ the protests erupted into violence resulting in almost 500 arrests, and an estimated \$9 million in damage to businesses.
- ▶ The larger cause may have been the astounding level of inequality in the city of Baltimore. Even in neighborhoods only several miles apart, life circumstances in Baltimore are dramatically different.

Introduction: Differences in Life Expectancy 2



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Introduction: Differences in Life Expectancy 3

- ▶ In Freddie Gray's neighborhood of Sandtown-Winchester, the average life expectancy in 2015 was 67 years; just three miles away in the wealthy Baltimore neighborhood of Roland Park, life expectancy averaged 84 years.
- ▶ The life expectancy in Freddie Gray's neighborhood is well below that in North Korea, one of the poorest countries in the world—and at about the same level as the U.S. average in 1948.
- ▶ This is not an isolated example: in 2015, 15 Baltimore neighborhoods have a life expectancy below that of North Korea.
- ▶ This enormous discrepancy represents huge underlying differences in economic resources in these different neighborhoods.

Introduction: Differences in Life Expectancy 4

- ▶ The life expectancy discrepancy represents huge underlying differences in economic resources in these different neighborhoods. In 2015,
- ▶ the median household income in Sandtown-Winchester neighbourhood was \$24,000 per year, compared with more than \$107,000 in the Roland Park neighborhood.
- ▶ more than half of residents in Sandtown-Winchester lived below \$25,000 per year, while fewer than 10% of those in Roland Park did.
- ▶ only 2.5% of children in Roland Park lived below the poverty line while 54.8% of children in Sandtown-Winchester did.

Introduction: Income Distribution and Transfer Programs 1

- ▶ This dramatic discrepancy in resources raises a central question for public finance.
- ▶ Social welfare may be maximized by redistributing from high-income individuals to low-income individuals, but the private sector is unlikely to provide such income redistribution.
- ▶ Government can solve this problem by taxing its citizens to provide public redistribution.
- ▶ The most well-known source of redistributing income to low-income citizens is through cash transfer.

Introduction: Income Distribution and Transfer Programs 2

- ▶ To some conservatives, the negative effects of cash payments to low-income single mothers are responsible for many of the social ills in the United States.
- ▶ To some liberals, it is wrong to force low-income families off transfer programs and into the labor market.
- ▶ Who is right? Has cash transfer played a constructive or a destructive role in the lives of low-income groups?
- ▶ In this chapter, we discuss income redistribution and its effects, both in theory and in reality.

Relative Income Inequality 1

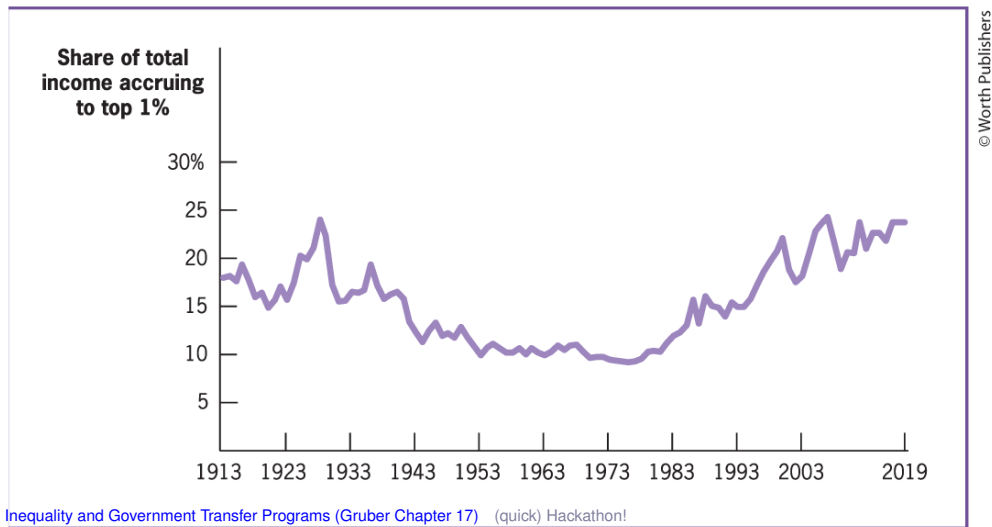
- ▶ Relative income inequality: The amount of income that the least wealthy individuals have relative to the most wealthy.
- ▶ Since 1980, relative income inequality has increased in the United States.

Income	1967	1980	1990	2000	2010	2019
Lowest 20%	4.0	4.2	3.8	3.6	3.3	3.1
Second 20%	10.8	10.2	9.6	8.9	8.5	8.3
Third 20%	17.3	16.8	15.9	14.8	14.6	14.1
Fourth 20%	24.2	24.7	24.0	23.0	23.4	22.7
Highest 20%	43.6	44.1	46.6	49.8	50.3	51.9

Data from: U.S. Bureau of the Census (2021), Table H-2

Relative Income Inequality 2

- ▶ Much of the income inequality has been driven by enormous increases in income at the very top of the income distribution.



Relative Income Inequality: OECD Countries A–G, 2018

- ▶ Relative income inequality in the United States is much higher than it is in other developed nations.

Income Share in Total Income for OECD Nations

Country (2018)	Bottom 10%	Bottom 20%	Bottom 40%	Top 40%	Top 20%	Top 10%
Austria	3.1	8.5	22.7	59.4	36.6	22.3
Belgium	3.8	9.2	23.3	58.1	34.8	20.7
Canada	2.9	7.8	21.0	61.1	37.8	22.9
Czech Republic	4.1	9.9	24.3	57.5	34.7	20.5
Denmark	3.8	9.5	23.6	58.3	35.7	21.9
Finland	3.9	9.4	23.4	58.8	36.3	22.3
France	3.4	8.6	21.9	60.8	39.0	25.0
Germany	3.3	8.5	22.1	60.1	37.5	23.2
Greece	2.9	7.7	20.9	61.5	38.2	23.4

Relative Income Inequality: OECD Countries H–N, 2018

Income Share in Total Income for OECD Nations

Country (2018)	Bottom 10%	Bottom 20%	Bottom 40%	Top 40%	Top 20%	Top 10%
Hungary	3.2	8.5	22.2	60.2	37.5	23.1
Italy	2.0	6.6	19.4	63.0	39.7	24.5
Korea	2.2	6.2	18.4	64.4	40.7	25.0
Luxembourg	2.7	7.6	20.5	62.2	39.5	24.6
Mexico	2.0	5.6	15.9	69.4	47.9	32.3
New Zealand	2.9	7.3	19.2	64.5	42.2	27.5
Norway	3.3	8.9	23.6	57.9	35.2	21.45

Relative Income Inequality: OECD Countries P–Z, 2018

- ▶ The share of income received by the top 10% in the United States was 15% higher than the OECD average.

Income Share in Total Income for OECD Nations

Country (2018)	Bottom 10%	Bottom 20%	Bottom 40%	Top 40%	Top 20%	Top 10%
Poland	3.2	8.5	22.3	59.6	36.6	22.2
Portugal	3.0	7.8	20.7	62.2	39.8	25.1
Slovak Republic	3.5	9.4	24.5	56.5	32.8	18.5
Sweden	3.5	8.7	22.6	59.4	36.6	22.7
Turkey	2.4	6.2	17.1	67.7	46.3	31.3
United Kingdom	2.4	6.7	18.5	65.4	43.6	29.0
United States	1.6	5.3	16.2	67.6	44.5	28.5
OECD	2.9	7.7	20.6	62.3	39.6	24.8

Absolute Deprivation and Poverty Rates

- ▶ Inequality does not measure absolute deprivation.
 - ▶ **Absolute deprivation:** The amount of income the least wealthy people have relative to some measure of “minimally acceptable” income.
- ▶ Measured by the share of people below poverty line.
 - ▶ **Poverty line:** The federal government’s standard for measuring absolute deprivation.
 - ▶ It was determined to be three times the cost of a minimally nutritionally accepted diet.

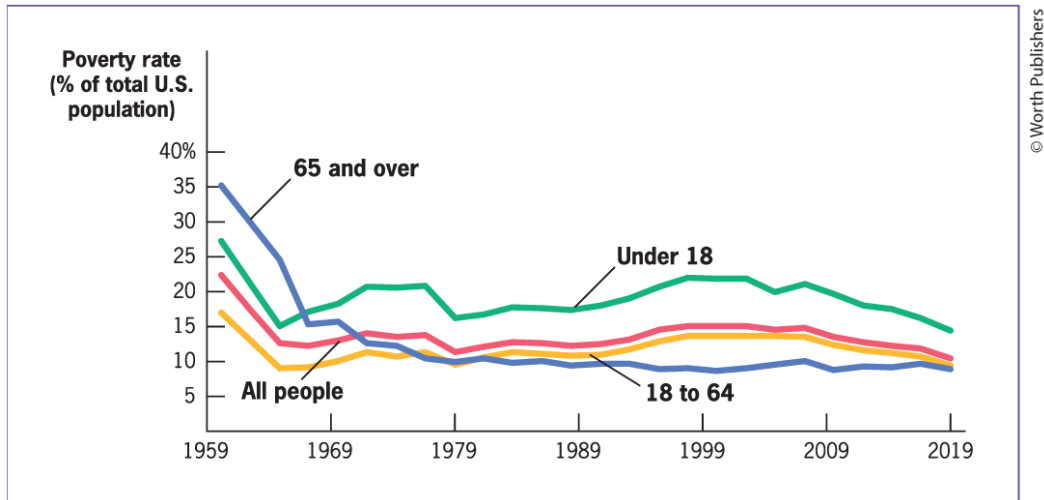
Poverty Lines by Family Size (2020)

- ▶ Since their development in 1964, these amounts have simply been updated for inflation.

Size of Family Unit	Poverty Line
1	\$12,760
2	17,240
3	21,720
4	26,200
5	30,680
6	35,160
7	39,640
8	44,120
For each additional person, add	4,480
<i>Data from: U.S. Department of Health and Human Services (2021).</i>	

Poverty Rates over Time in the United States

- Poverty rates declined rapidly in 1960s and early 1970s and then oscillated for all age groups. Poverty rates began to decline again after 2010.



APPLICATION: Problems in Poverty Line Measurement 1

- ▶ Three problems with the current calculation of the poverty line:
 1. Bundle has changed.
 - ▶ Shelter, medical care, and other goods are important, but only food mattered in initial poverty line calculation.
 2. Differences in cost of living.
 - ▶ Rents differ enormously across areas, yet the same poverty line applies to all locations.
 3. Income definition is incomplete.
 - ▶ Medicaid and childcare does not count toward the poverty line, yet are part of an individual's available resources.

APPLICATION: Problems in Poverty Line Measurement 2

- ▶ In the early 1990s, the National Academy of Sciences produced a list of changes to the way the U.S. poverty line is calculated in order to address these criticisms.
- ▶ But there are practical difficulties:
 - ▶ How to quantify the value from income smoothing due to receiving Medicaid when adjusting income?
 - ▶ Implementing these changes would lead to huge redistribution from the South and Midwest to the East and West.

Outline

Income Inequality and Government Transfer Programs (Gruber Chapter 17)

Facts on Income Distribution in the United States

Transfer Policy in the United States

The Moral Hazard Costs of Transfer Policy

Universal Basic Income?

Transfer Policy in the United States 1

- ▶ Transfer programs can be categorical or means-tested.
- ▶ **Categorical transfer:** Transfer programs restricted by some demographic characteristic, such as single motherhood or disability.
- ▶ **Means-tested transfer:** Transfer programs restricted only by income and asset levels.

Transfer Policy in the United States 2

- ▶ They can also be cash or in-kind.
- ▶ **Cash transfer:** Transfer programs that provide cash benefits to recipients.
 - ▶ Benefit guarantee: The cash transfer benefit for individuals with no other income, which may be reduced as income increases.
 - ▶ Benefit reduction rate: The rate at which transfer benefits are reduced per dollar of other income earned.
- ▶ **In-kind transfer:** Transfer programs that deliver goods, such as medical care or housing, to recipients.

Cash Transfer Programs

- ▶ Transfer programs in the U.S.:
- ▶ Cash transfer programs:
 - ▶ Temporary Assistance for Needy Families (TANF). Jointly funded by the federal and state governments, provides support to low-income families with children in which one biological parent is absent.
 - ▶ Supplemental Security Income (SSI). provides cash transfer to people who are aged, blind, or have a disability.
 - ▶ It fills holes that are left by Social Security and disability insurance (DI).
 - ▶ Youths with disabilities comprise a large share of the SSI caseload.
 - ▶ It is not very widely known, nor is it debated with the ferocity of TANF, but it is, in fact, a bigger program, with expenditures of more than \$56 billion in 2019.
- ▶ Redistributive program:
 - ▶ Earned Income Tax Credit (EITC), which subsidizes labor supply for low-income families.

In-Kind Programs

- ▶ Supplemental Nutrition Assistance Program (SNAP)
 - ▶ Provides a debit card like that can be used to buy food.
- ▶ Medicaid
 - ▶ Largest categorical transfer program.
- ▶ Public Housing
 - ▶ Provision of housing in public housing projects, and “Section 8 vouchers” subsidize housing.
- ▶ Other Nutritional Programs
 - ▶ Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and School Lunch and Breakfast Programs.

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The Moral Hazard Costs of Transfer Policy

- ▶ Income redistribution as a “leaky bucket”: we are carrying money from low- to high-income groups but some money leaks out along the way.
- ▶ There are three sources of leakage as society transfers money.
 - ▶ Administrative costs of enabling this transfer.
 - ▶ Taxation of high-income individuals lowers returns to work and savings and might cause people to work less hard or save less.
 - ▶ Moral hazard: Transfers raise the incentive for individuals to earn low income in order to qualify for transfers.

Moral Hazard Effects of a Means-Tested Transfer System 1

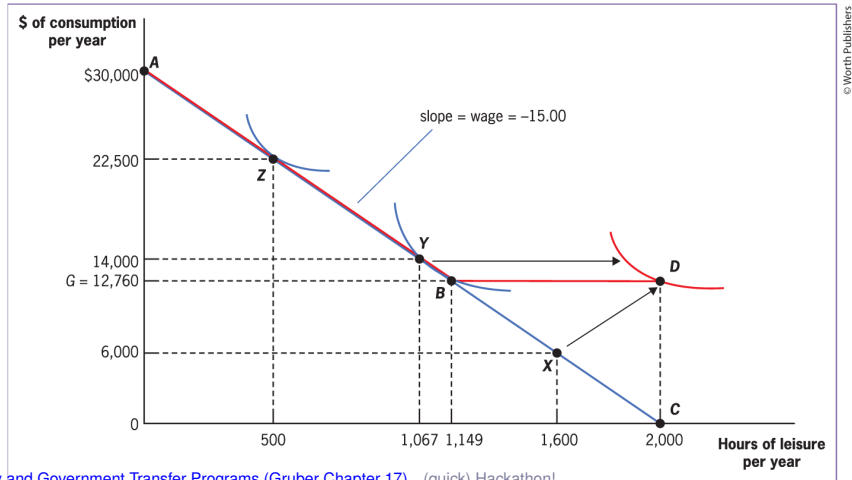
- ▶ Means-tested transfer systems cause moral hazard.
- ▶ Consider a simplified version of TANF, with benefits B :

$$B = G - t \times w \times h$$

- ▶ G is the guarantee, t the benefit reduction rate, w wages, and h hours worked.
- ▶ Setting $G = \$10,000$ and $t = 1$, it would cost \$131 billion to eliminate poverty, which is only about one-sixth of the cost of the Social Security program.
- ▶ **But:** This ignores behavioral responses.

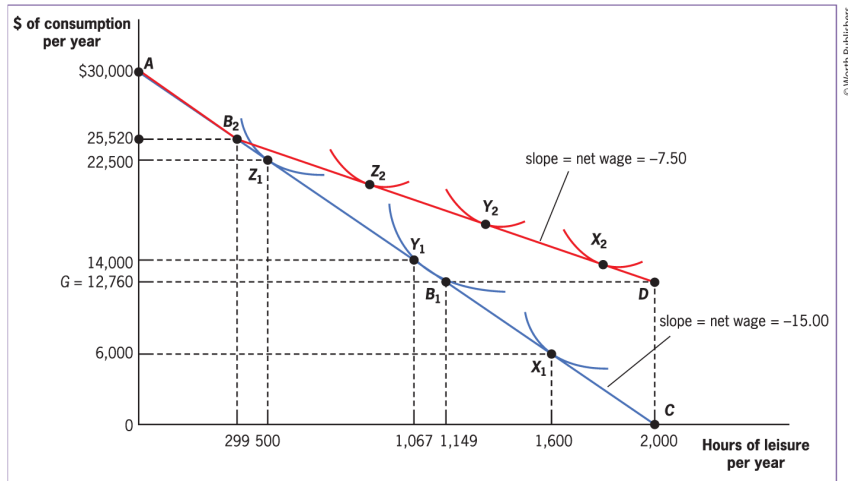
Moral Hazard Effects of a Means-Tested Transfer System 2

- ▶ 100% Benefit Reduction Rate: All families with income below the poverty line and many individuals with income above the poverty line immediately stop earning income so they can get more leisure and consumption.



Solving Moral Hazard by Lowering the Benefit Reduction Rate

- 50% Benefit Reduction Rate: The net impact of new rate on labor supply is ambiguous and depends on relative sizes and preferences of worker groups.



The “Iron Triangle” of Redistributive Programs 1

- ▶ Reducing the benefit rate ends up redistributing less.
- ▶ This illustrates the “Iron Triangle” of redistributive programs.
- ▶ Iron Triangle: There is no way to change either the benefit reduction rate or the benefit guarantee to encourage work, redistribute more income, and lower costs simultaneously.

The Iron Triangle of Redistributive Programs 2

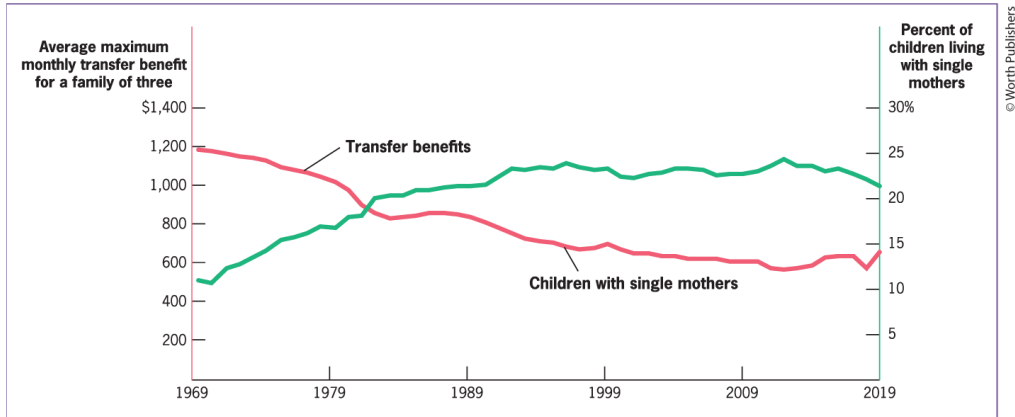
- ▶ There are three approaches that might get around this iron triangle.
- ▶ Moving to categorical transfer payments
- ▶ Using in-Kind Benefits
- ▶ Increasing outside options

Moving to Categorical Transfer Payments

- ▶ Moral hazard arises because the government wants to redistribute to low-income people, but people control their income.
- ▶ If we could target benefits to earnings capacity, there would be no moral hazard.
- ▶ Two targets are people with disabilities and single mothers.
- ▶ What makes a good targeting mechanism?
 - ▶ No way to change behavior in order to qualify.
 - ▶ Targets people with low earning capacity.

Targeting by Single Motherhood

- ▶ Time series evidence shows that since the 1970s, while the average maximum monthly transfer benefit for a family of three has declined dramatically, single motherhood has in fact increased steadily over time.



Using In-Kind Benefits

- ▶ Ordeal mechanisms: Features of transfer programs that make them unattractive, leading to the self-selection of only the most needy recipients.
- ▶ The paradox of ordeal mechanisms
 - ▶ If the government provides a benefit that is not attractive to the non-needy but helps out the truly needy, then targeting will be more efficient.
 - ▶ The paradox of ordeal mechanisms is therefore that apparently making the less able worse off can actually make them better off.

APPLICATION: An Example of Ordeal Mechanisms

- ▶ In setting up a soup kitchen to support the needy, the government can:
 - ▶ Hire many workers, keeping wait times down.
 - ▶ Hire few workers, producing long lines.
- ▶ The long line might discourage high-income earners from using the soup kitchen.
- ▶ The ordeal mechanism works because the target population has a relatively high value for the good (soup) and a relatively low cost for the ordeal.

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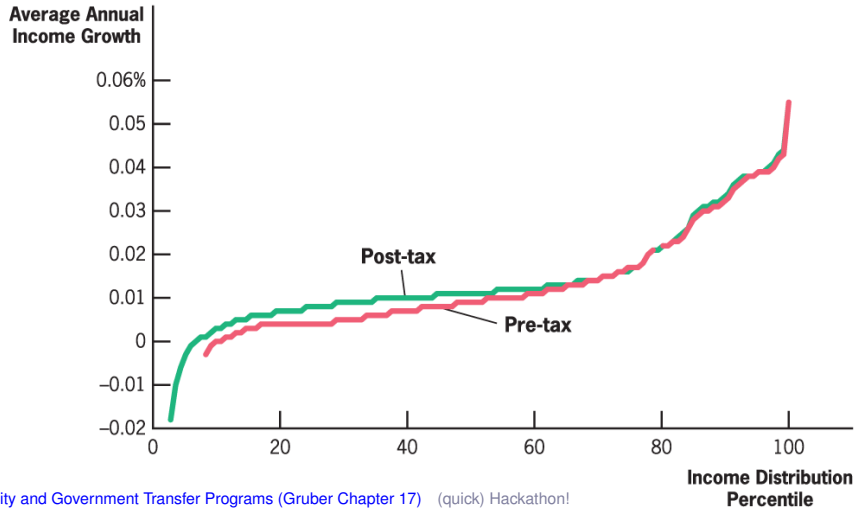
- Universal Basic Income?

Universal Basic Income

- ▶ Although the U.S. economy grew steadily since the end of the Great Recession, except for the Covid-19 recession, those benefits are not being shared widely in society.
- ▶ Accompanying this growing inequality has been a sense that the existing transfer system is not equipped to address the income disparities in society.
- ▶ For these reasons, there has been a resurgence of interest among progressive policy experts in establishing a Universal Basic Income (UBI).
 - ▶ A UBI gives all citizens a flat grant of income, no strings attached.
 - ▶ Evidence around the world shows UBI positive results.

Average Annual Income Growth, 1980–2019

- ▶ The top 0.001% of the income distribution has seen income growth of 6% per year compared to 1.5% or less for the bottom 85%.



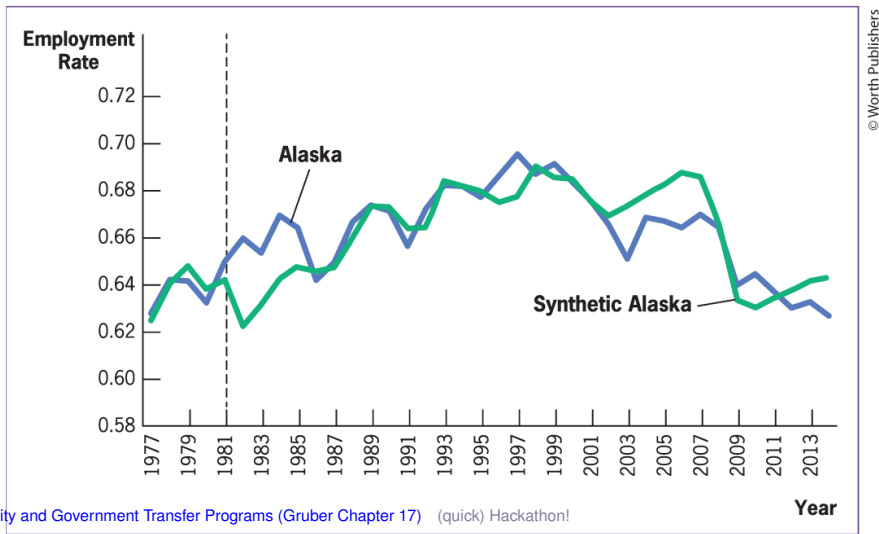
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The Alaska Permanent Fund Dividend and Labor Supply

- ▶ In 1982, the Alaska Permanent Fund Dividend (APFD) was put in place, paying all Alaskan residents out of the income of the Alaska Permanent Fund Corporation.
 - ▶ This payment ensures that all Alaskans benefit from oil revenues.
 - ▶ The dividend annually lifts 15,000 – 25,000 Alaskans out of poverty.
 - ▶ Alaska is the most equal state in the nation in terms of income distribution.
- ▶ Comparing Alaska's employment rate to a control group has shown no long-run labor reduction from this modest universal basic income.

The Employment Impacts of a Basic Income

- ▶ The APFD had no noticeable negative effect on employment in that state relative to a comparable set of control states.



Outline

Income Inequality and Government Transfer Programs (Gruber Chapter 17)

(quick) Hackathon!

Hackathon: COVID-19 and Inequality

- ▶ Use the data from the Opportunity Insights group available here: <https://economictracker.org/> to answer the following questions:
 1. Did the COVID-19 pandemic increase or decrease income inequality in the United States? By how much?
 2. Did the federal policy response (stimulus payments, extended unemployment insurance) offset or aggravate the impacts of COVID-19 on income inequality?

Hackathon: COVID-19 and Inequality – Process

- ▶ Split into 2 groups
- ▶ 10 mins: Discuss how to answer your question and decide on a strategy for doing so.
 1. Measurement: How will you measure inequality? How will you measure the incidence of COVID-19? How will you measure the impact of federal policy response?
 2. What will be your unit of analysis? The data is aggregated at the zip code level, so you will need to decide how to use this data to answer your question.
 3. Will you have a causal research design? If so, what will it be?
- ▶ 20 mins: Divide up tasks and work on them.
- ▶ 10 mins: write up your work and nominate a presenter.
- ▶ 10 mins: presentation and discussion.