Handout 10 - ECON 101 (Fall 2026)

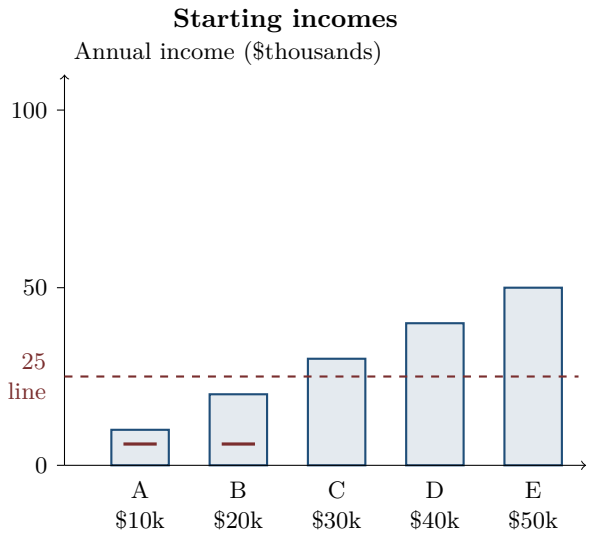
Inequality

1 Inequality and Poverty Ask Different Questions

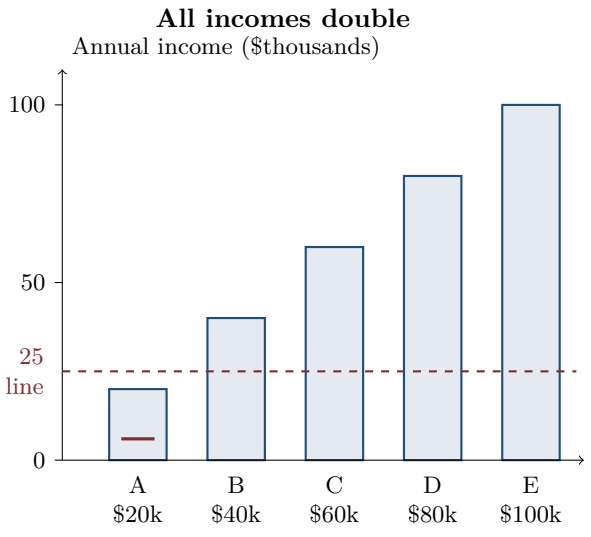
Inequality asks how unevenly resources are distributed. **Poverty** asks who falls below a specified standard. A higher average income alone does not answer either question. Here we measure *income*: money received over a period.

1.1 Everyone can gain while income shares stay the same

Compare the same five one-person households before and after every income doubles. Prices stay unchanged, so purchasing power doubles too. All numbers are hypothetical; income is in **thousands of dollars per year**.



Two of five below the $25k line: 40%.



One of five below the $25k line: 20%.

The dashed line is a **fixed purchasing-power standard**. The short marks identify incomes below it. Mean income rises from $30k to $60k, but every household keeps the same share of total income. Household E receives one-third in both panels. **Relative income inequality is unchanged, while poverty under this fixed standard falls.**

1.2 Moving the threshold changes the question

A **relative poverty line** can instead be set at half the median income. The median is the middle household's income: $30k before and $60k after. This rule makes the line rise as society becomes richer.

Rule	Starting situation	After doubling
Fixed real line: $25k	2 of 5 below it	1 of 5 below it
Half the median: $15k → $30k	1 of 5 below it	1 of 5 below it

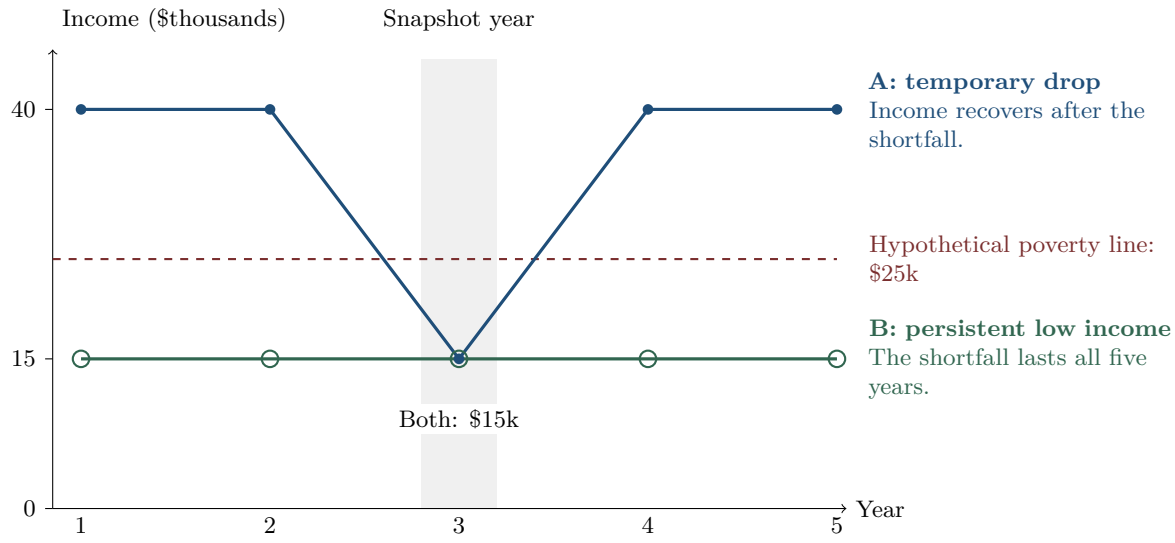
Neither count is a mistake: the rules measure different standards. Adjusting a line for inflation preserves purchasing power; it does not automatically keep up with rising median income. The example isolates equal growth. The U.S. rise in income inequality since 1980 involves *changing* income shares, as the lecture data show.

Where to revisit the material. Textbook Sections 13.1–13.2, pp. 322–331; Module 10 slides, PDF pp. 5–44; Worksheet 10 Q1–Q2. Textbook references are to Stevenson and Wolfers, *Principles of Microeconomics*, 3rd ed. Slide numbers count PDF pages.

2 One Year's Income Does Not Tell the Whole Story

An annual income measure records one period. It leaves out the length of a shortfall and the resources available to absorb it. Two households with the same income today can face very different financial insecurity.

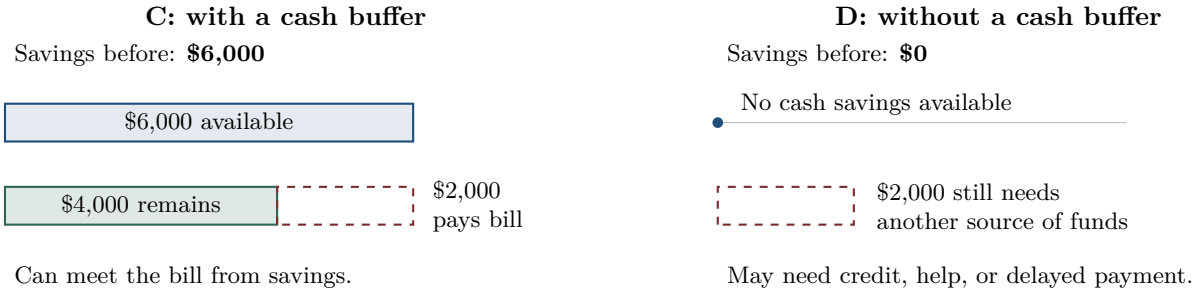
2.1 A snapshot can hide a temporary or a persistent shortfall



In the highlighted year, both households are below the line. The longer view reveals different experiences: A spends one of these five years below it; B spends all five. **The annual count does not tell us how long hardship lasts.** These are illustrative histories, not predictions about anyone's future. Lifetime resources—the idea behind *permanent income*—require a longer view still.

2.2 The same current income can come with different buffers

Now consider a separate comparison. C and D each receive $15,000 a year and face an unexpected $2,000 bill. Their accessible cash savings differ.



Net wealth is a stock: assets minus debts at a particular date. Cash savings are one part of that stock. A home may add to wealth without providing cash for today's bill. Access to savings or borrowing can help smooth spending when income falls, but not everyone has that option. Low annual income can therefore signal very different levels of hardship.

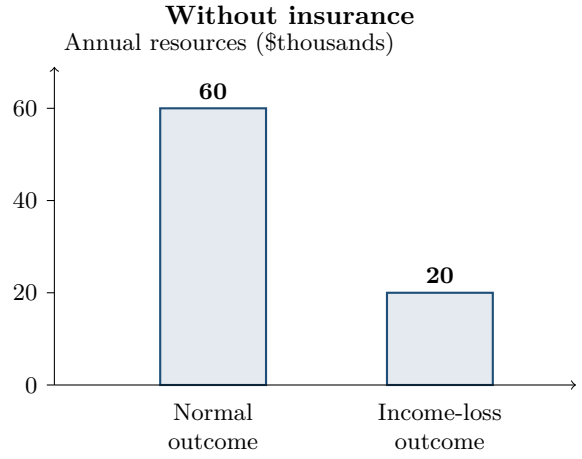
Where to revisit the material. Textbook Section 13.1, pp. 324–326, and Section 13.2, pp. 329–331; Module 10 slides, PDF pp. 27–29 and 38–39. For further applications, see textbook study problems 2, 9, and 10.

3 Insurance Can Help Before We Know Who Will Need It

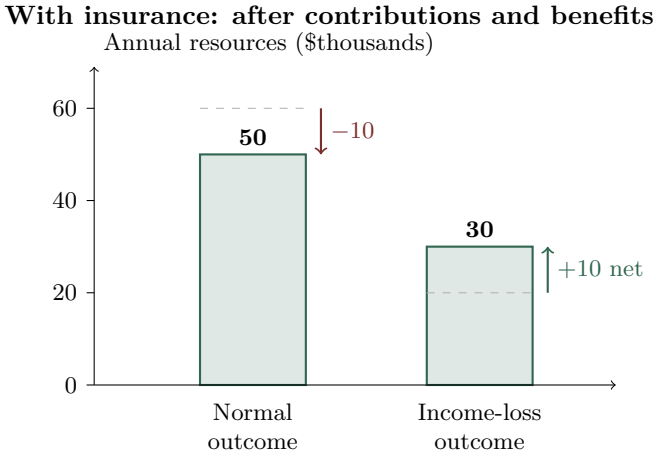
Insurance protects against uncertain outcomes. Its value can arise *before* we know which outcome will occur. Consider the same person facing two equally likely annual income outcomes in a hypothetical example.

3.1 Pooling risk makes the bad outcome less severe

The person contributes \$10k in either outcome and receives \$20k if the income loss occurs. Ignore administration costs here. With many participants and independent risks, contributions cover average payouts in this example.



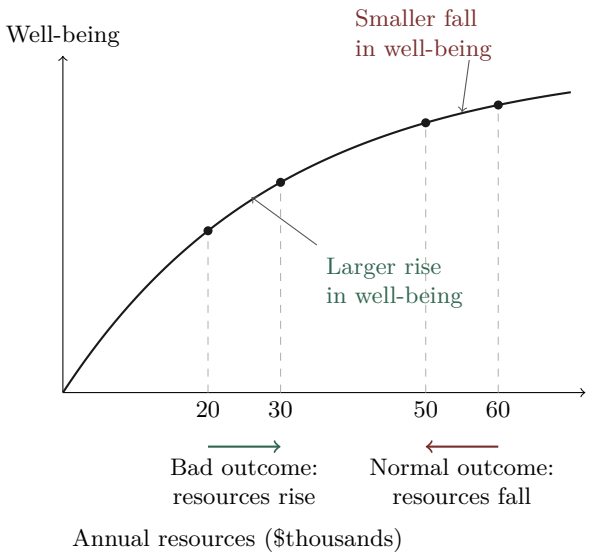
A large gap: \$60k versus \$20k.



A smaller gap: \$50k versus \$30k.

In the income-loss outcome, the \$20k payment more than offsets the \$10k contribution. Average resources across the two equally likely outcomes remain \$40k. **Insurance reduces risk without raising average resources.**

3.2 An extra dollar can matter more when resources are scarce



Follow the same person across circumstances. Insurance shifts \$10k away from the normal outcome and adds \$10k in the bad outcome, after contributions and benefits. When additional dollars have a larger benefit at low resources, the gain in the bad outcome can outweigh the loss in the normal outcome. This is **diminishing marginal benefit**: the curve becomes flatter.

The curve is illustrative, not measured happiness data. It explains a reason to value protection, rather than identifying an ideal policy.

Social insurance covers specified risks under qualifying rules; means-tested assistance targets current financial need. Support also requires funding and administration and may change incentives. Some assistance, such as help with child care, can enable work. **Assess the protection, the costs, and fairness separately.**

Where to revisit the material. Textbook Section 13.3, pp. 331–336, and Section 13.4, pp. 336–343; Module 10 slides, PDF pp. 46–57 and 69–79; Worksheet 10 Q3. The textbook develops the wider debate about redistribution and fairness.