



# Welfare and Work Incentives

EC 350: Labor Economics

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# Welfare and Work Incentives



## 1. Understanding worker responses

- Wealth and substitution effects
- Individual labor supply curve

## 2. Policy analysis

- Aid to Families with Dependent Children (AFDC)
- Temporary Assistance for Needy Families (TANF)
- Earned Income Tax Credit (EITC)



# Understanding worker responses

# Understanding worker responses



**Q:** What happens when your hourly wage increases?

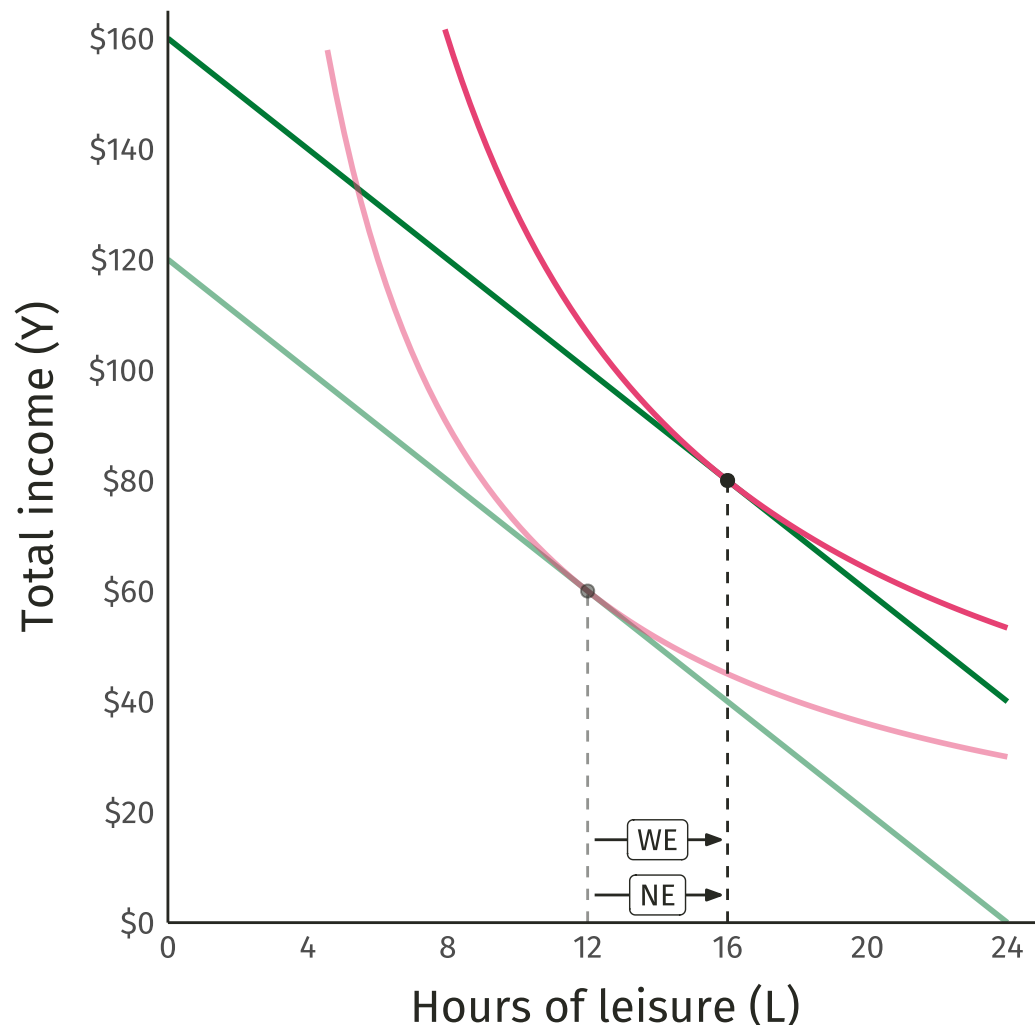
**A<sub>1</sub>:** Your opportunity set expands.

**A<sub>2</sub>:** The opportunity cost of leisure increases.

To better understand how workers respond to changes in market conditions, we will decompose changes in labor supply into a **wealth effect (WE)** and a **substitution effect (SE)**:

$$\text{Net effect (NE)} = \text{WE} + \text{SE}$$

# Understanding worker responses



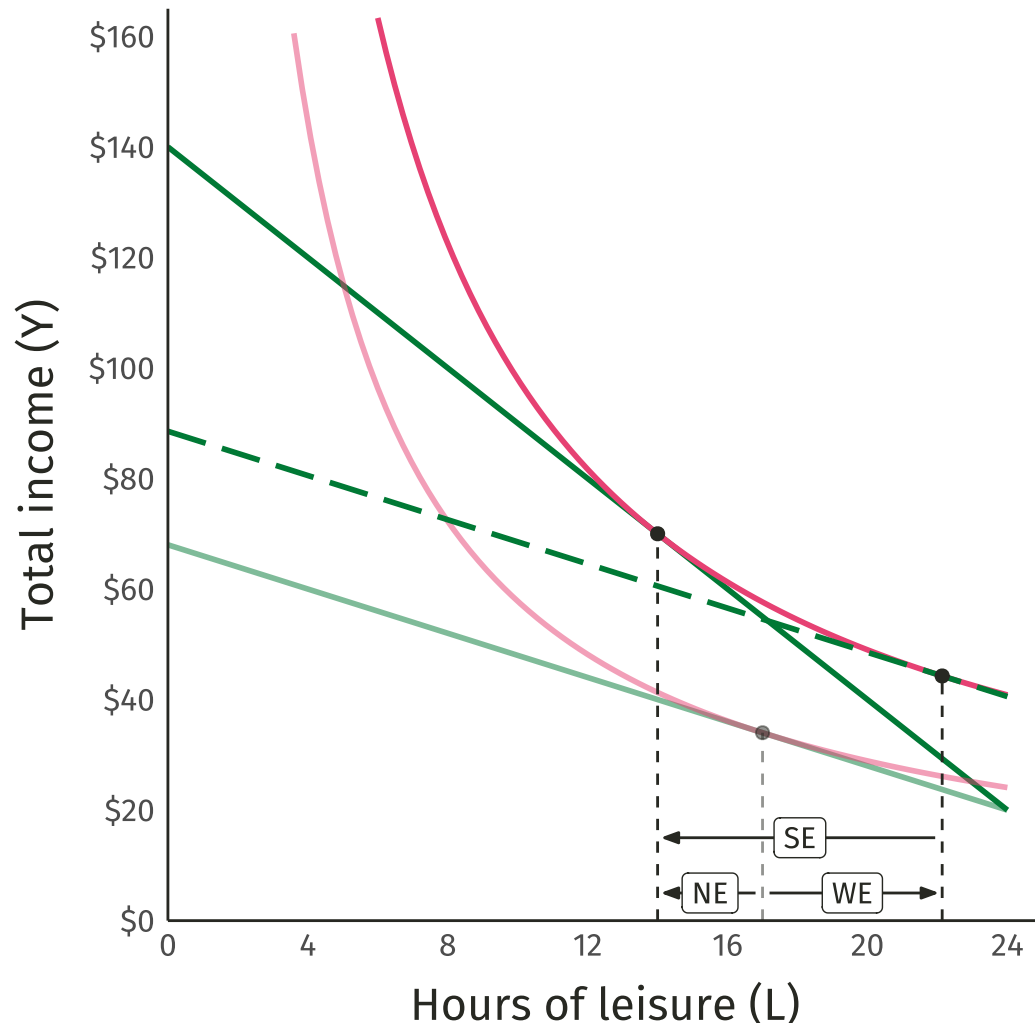
**Q:** How will this worker respond to an increase in non-labor income?

**A:** The worker will work fewer hours.

- **Why?** Leisure is a normal good, and the worker's wealth just increased.

Holding wages constant, the impact of an increase in wealth on hours worked is known as a **wealth effect**.

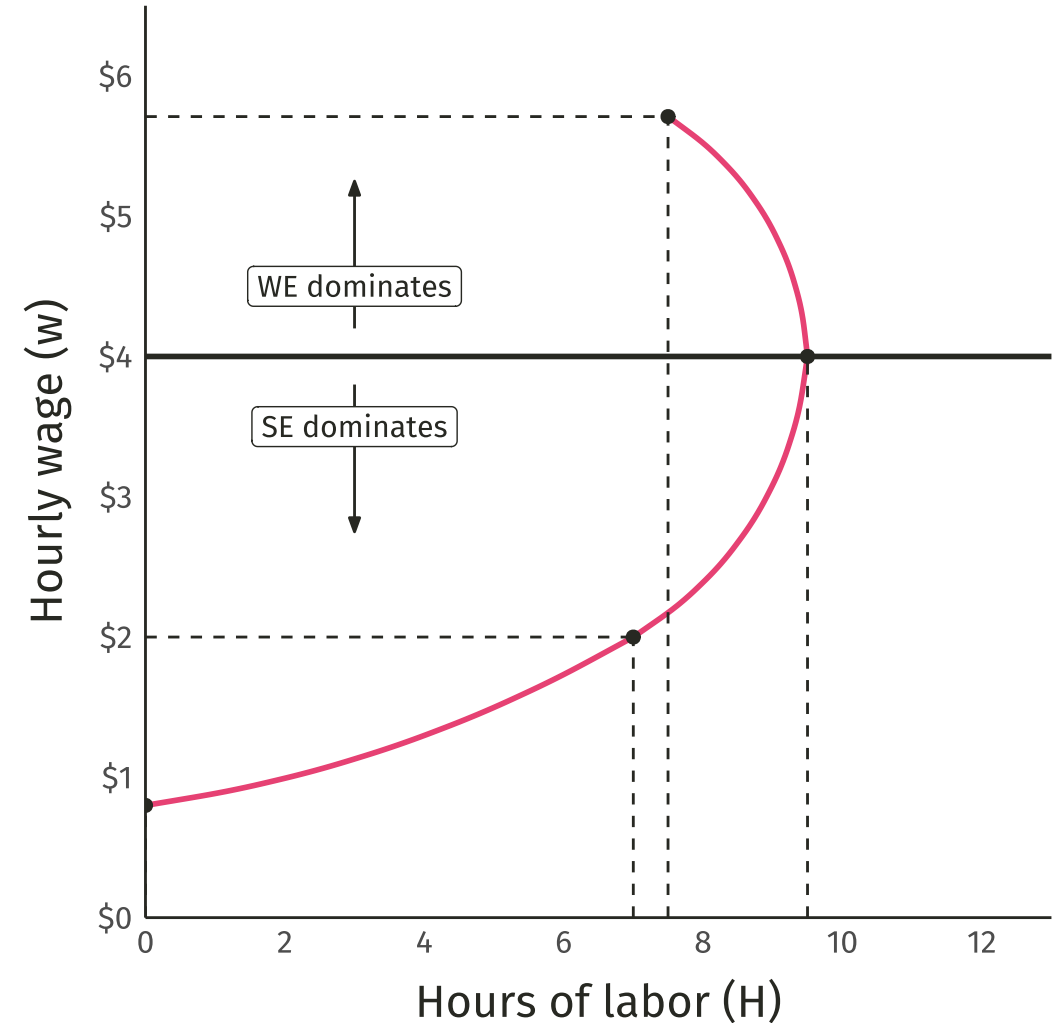
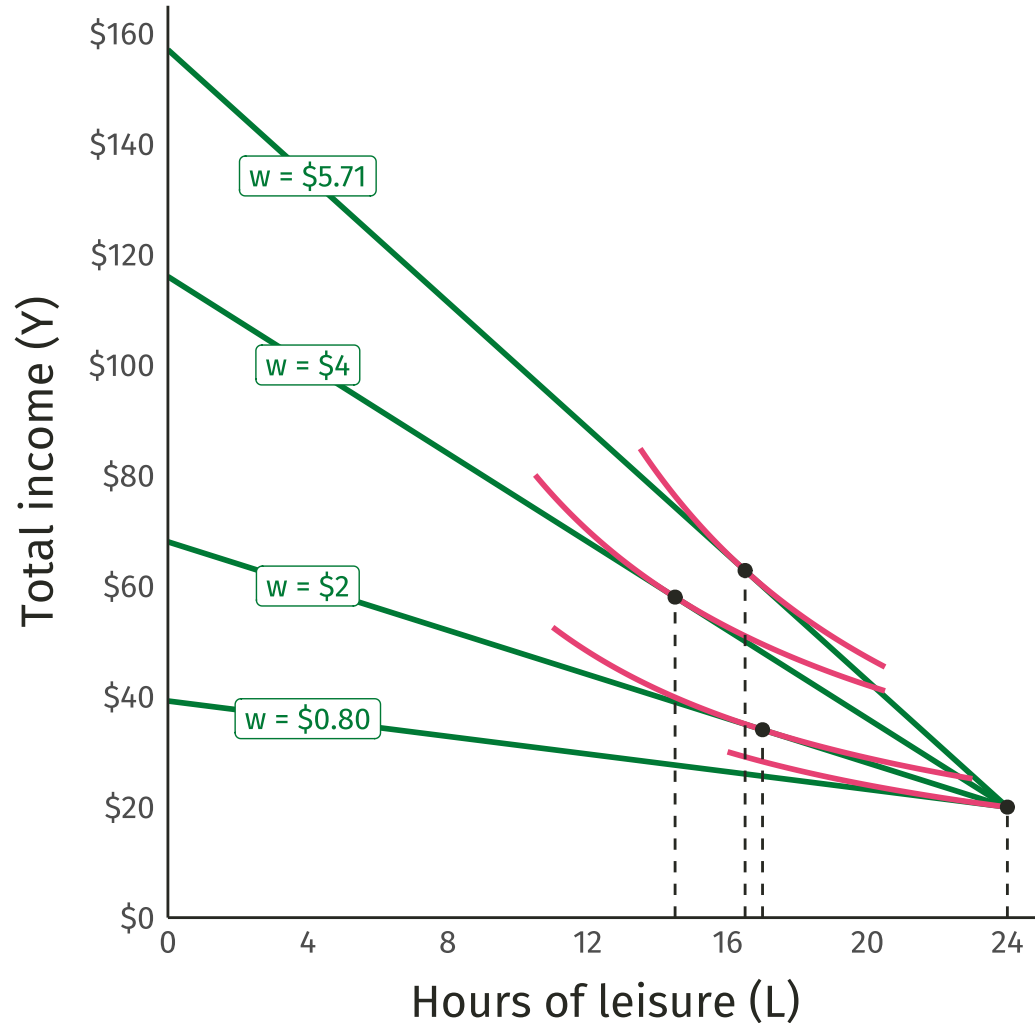
# Understanding worker responses



**Q:** How do we decompose the effect of a wage increase into a wealth effect and a substitution effect?

- **Step 1:** Re-optimize → net effect
- **Step 2:** Remove the wage increase, then "compensate" the worker
- **Step 3:** Hypothetical "compensated" bundle → wealth effect
- **Step 4:** Difference between "compensated" bundle and actual bundle → substitution effect

# Individual labor supply





# Policy analysis



# Policy analysis



**Policy question:** How can we increase living standards for the least well-off?

- There are numerous state and federal **social assistance programs** that provide cash or in-kind benefits.
- **Examples:** **Medicaid**, **SNAP** ("food stamps"), **WIC** (benefits for young mothers and their children), **free school lunches**, **public housing**, **Section 8** (housing vouchers), **TANF** (cash "welfare"), **EITC**, etc.

**Q:** How well do these programs work? What are the tradeoffs?

- Do the intended beneficiaries actually receive benefits?
- Do people adjust their behavior when benefits become available?
- Do particular programs have the intended consequence of reducing poverty?

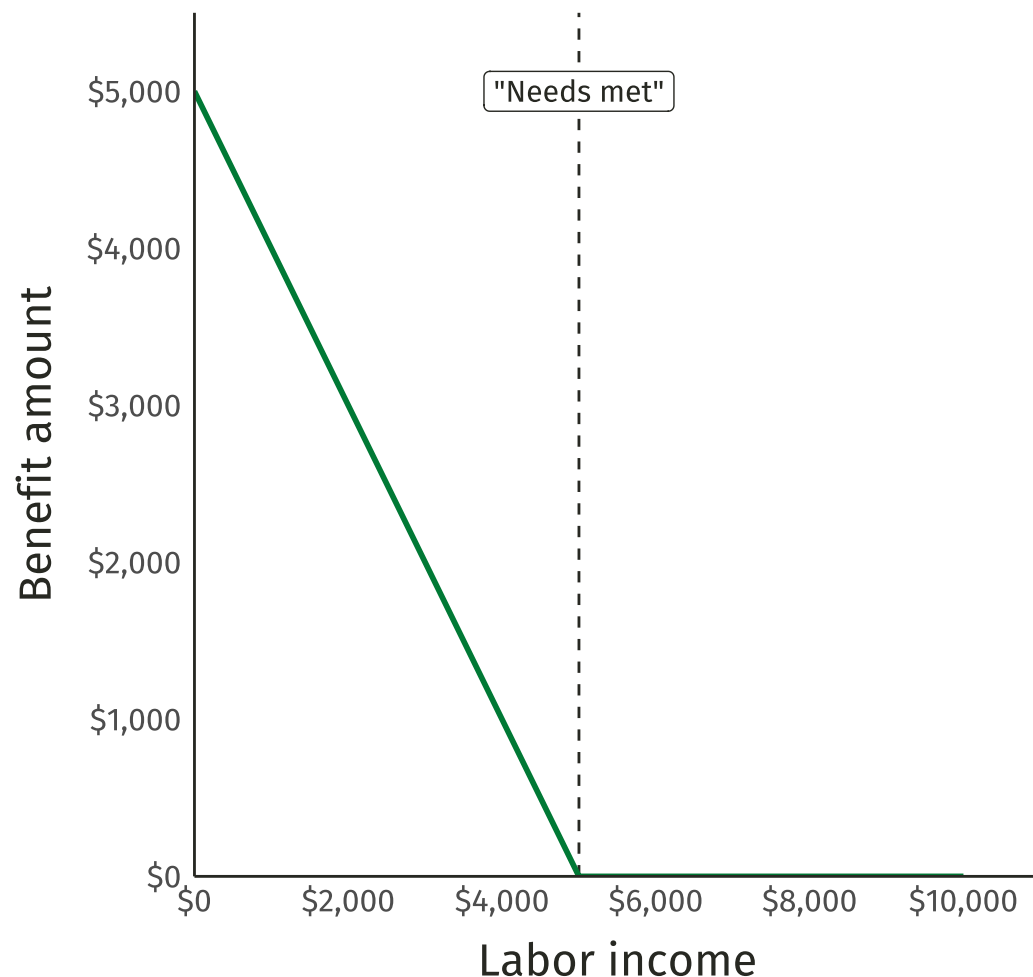


**Aid to Families with Dependent Children (AFDC)** provided cash benefits to (mostly) single mothers with incomes below a certain threshold.

- Known colloquially as "welfare"
- Created by the Social Security Act of 1935 (part of the **New Deal**)
- Replaced with a less-generous program in 1997 as a consequence of the **Personal Responsibility and Work Opportunity Act** ("welfare reform")



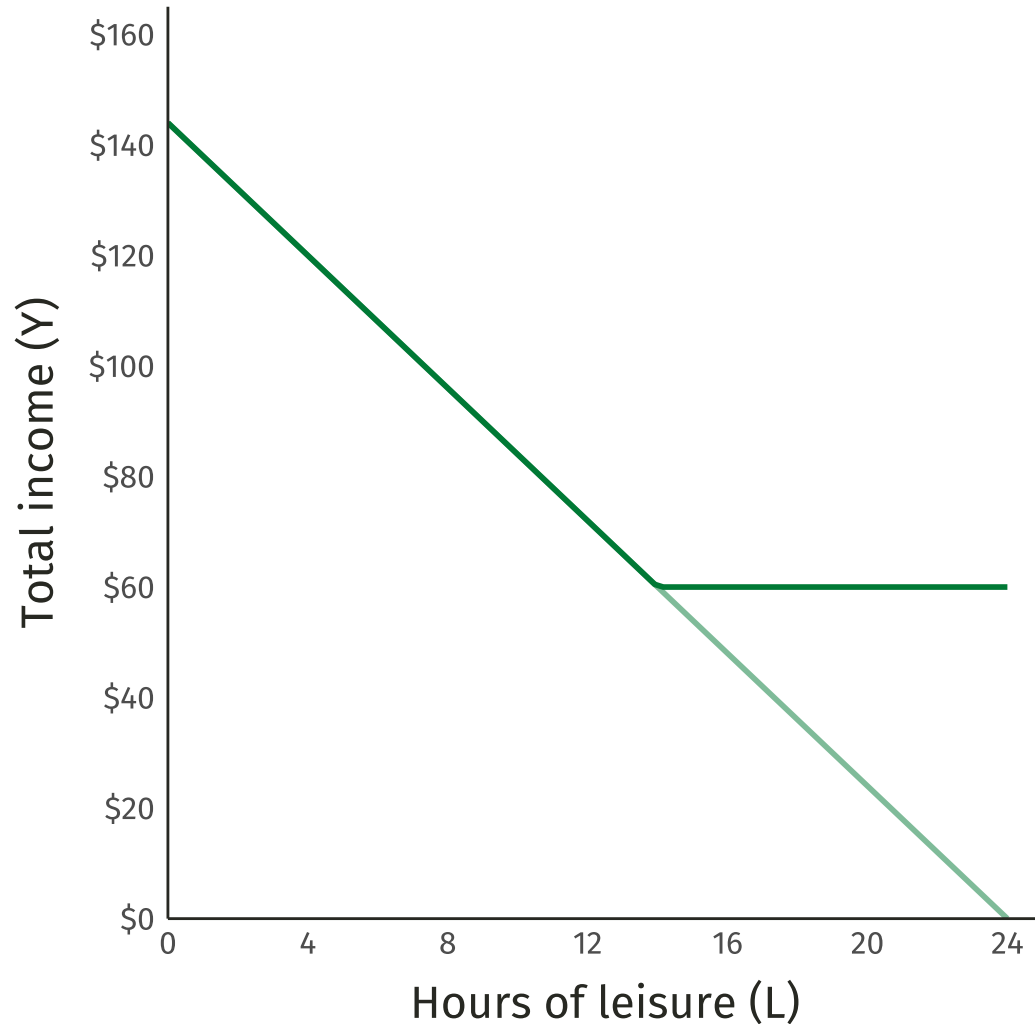
### Hypothetical benefit schedule



State and federal governments would determine how much money a family of a certain size would "need" to secure basic necessities.

While specific income floors varied across household size and time, the general structure of the program was to **close the gap between need and income** until needs were met:

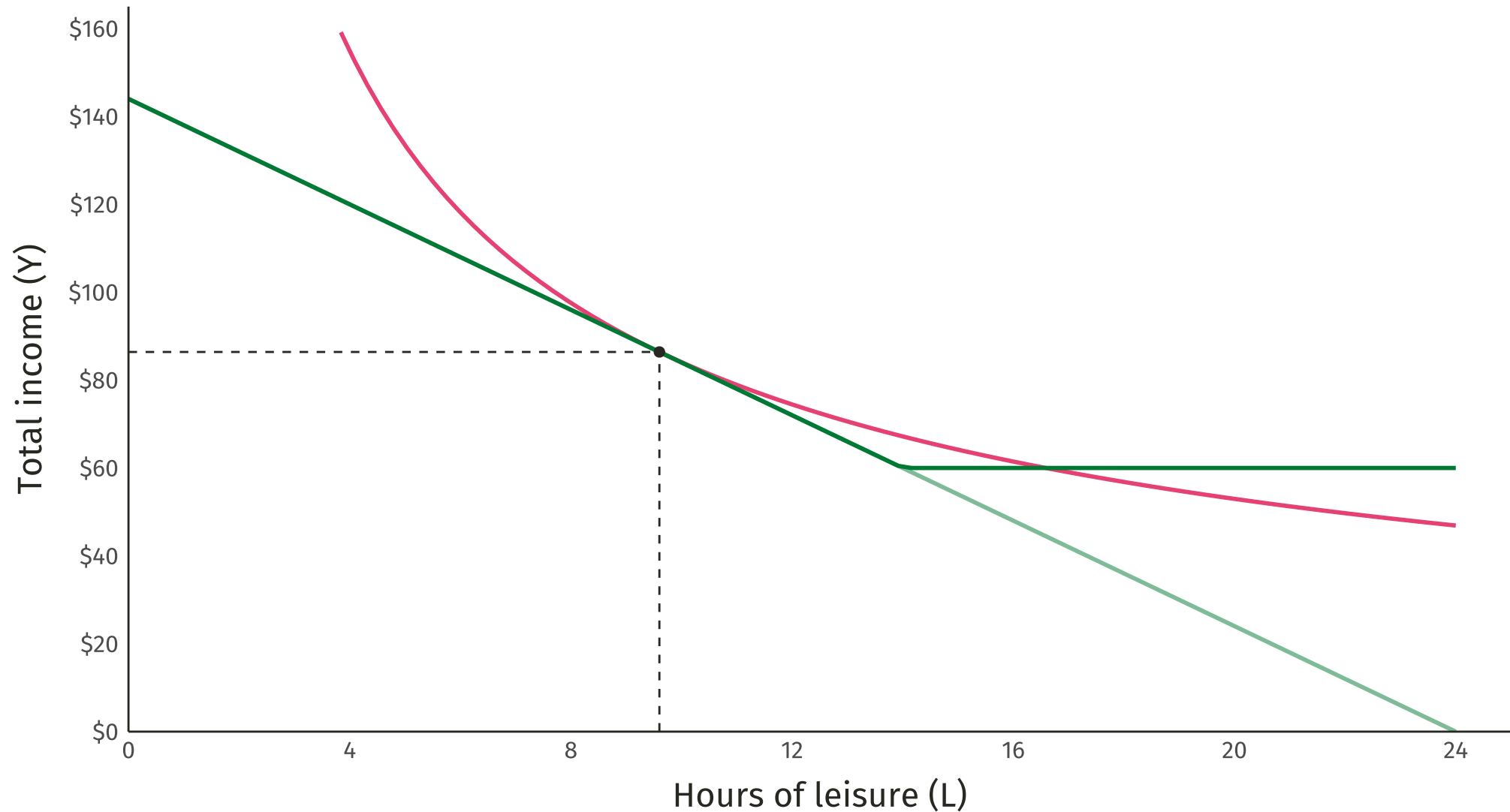
$$\text{Benefit} = \text{Need} - \text{Income}$$



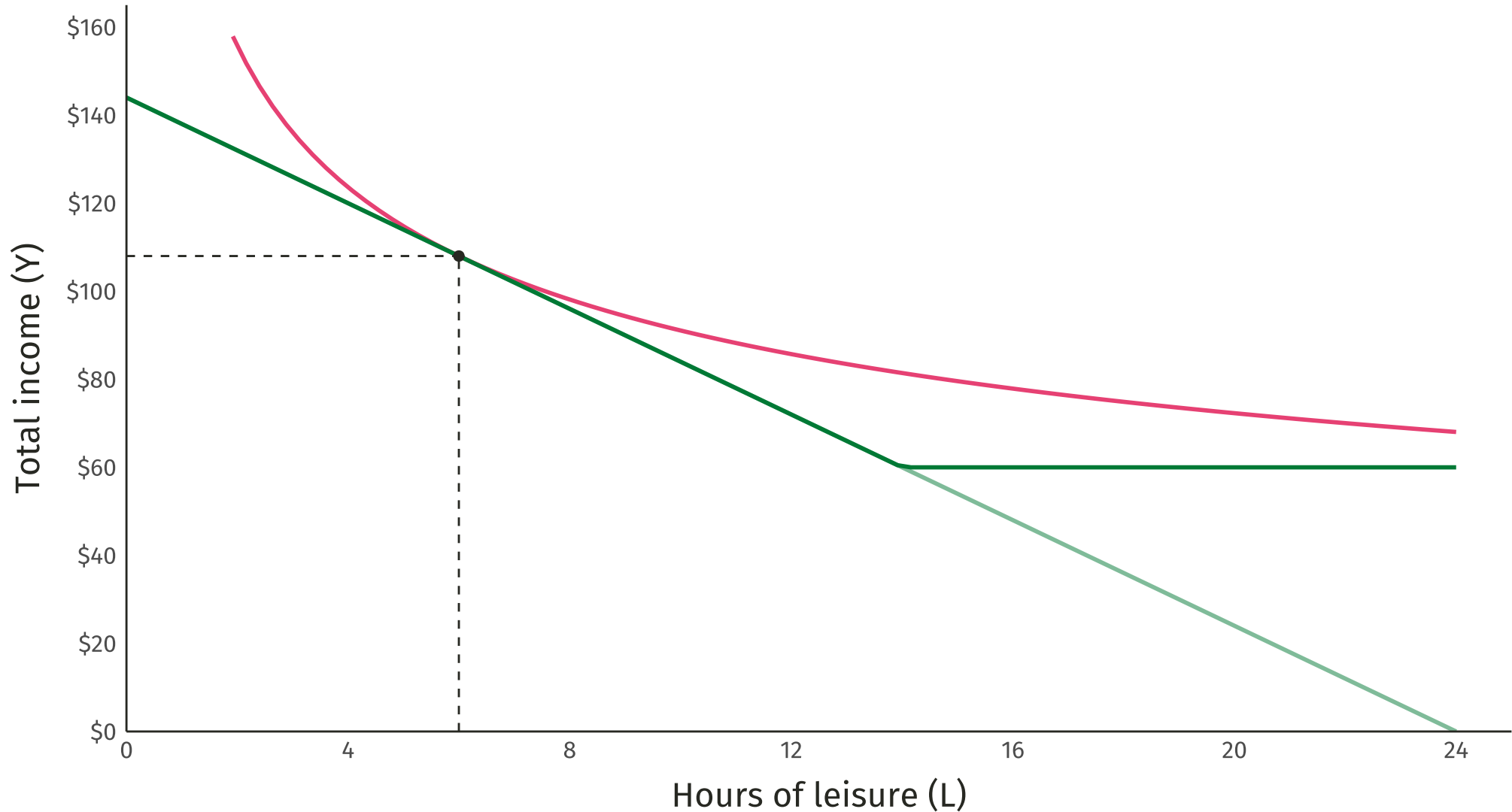
The AFDC benefit schedule **inserts a kink** into the budget constraint.

- **Q:** What is the level of need in this example?

**Q:** How would this worker respond to the introduction of AFDC benefits?

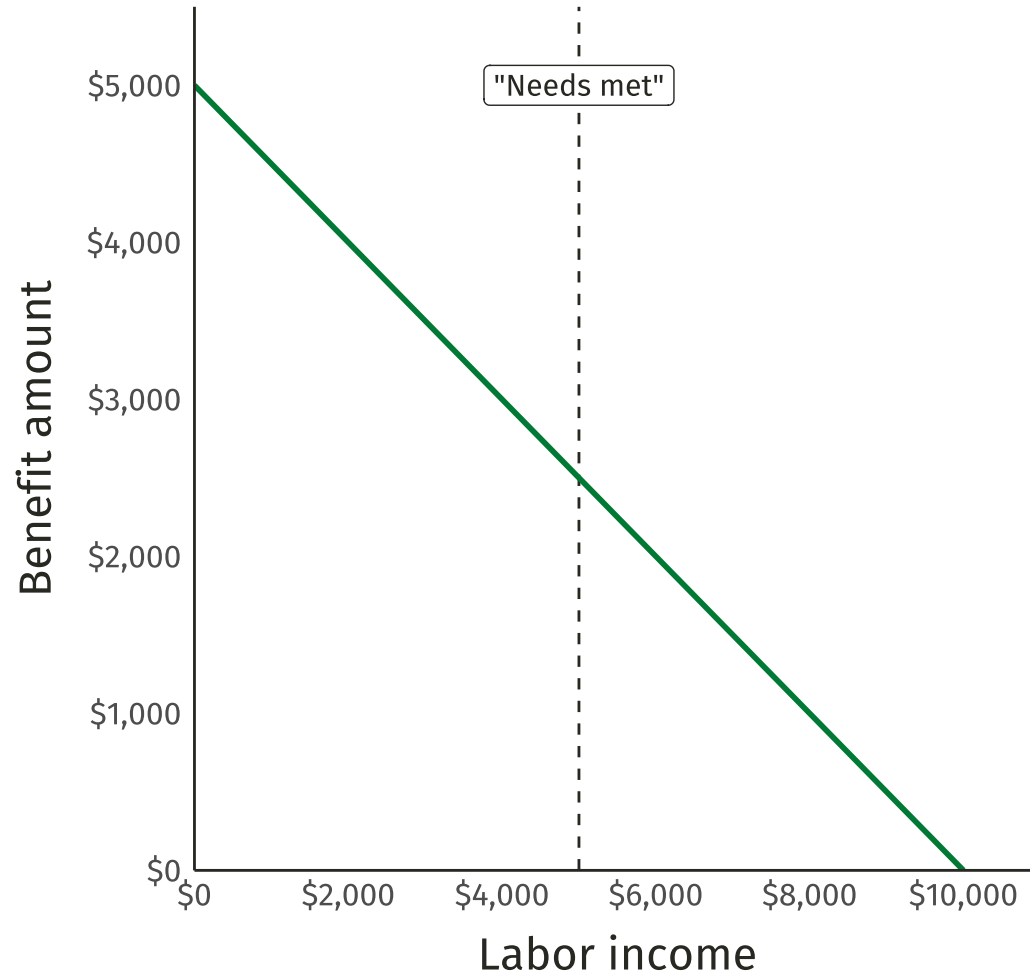


Q: How would this worker respond to the introduction of AFDC benefits?





## Hypothetical benefit schedule

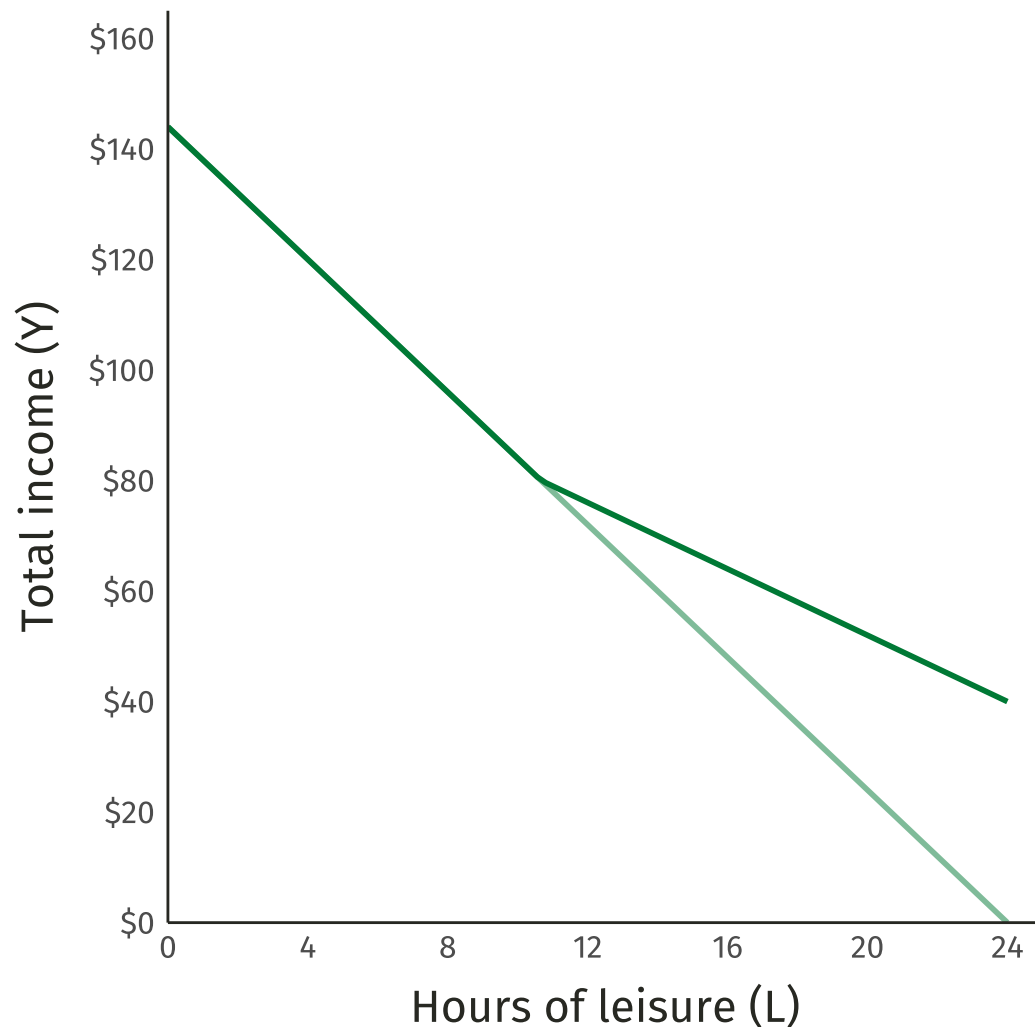


## Temporary Assistance for Needy Families (TANF)

also provides "cash welfare" to low-income families.

Beyond being less generous, on average, **TANF benefits "phase out"** so that the additional income from working longer is not completely offset by a reduction in benefits:

$$\text{Benefit} = \text{Need} - \text{Rate} \times \text{Income}$$

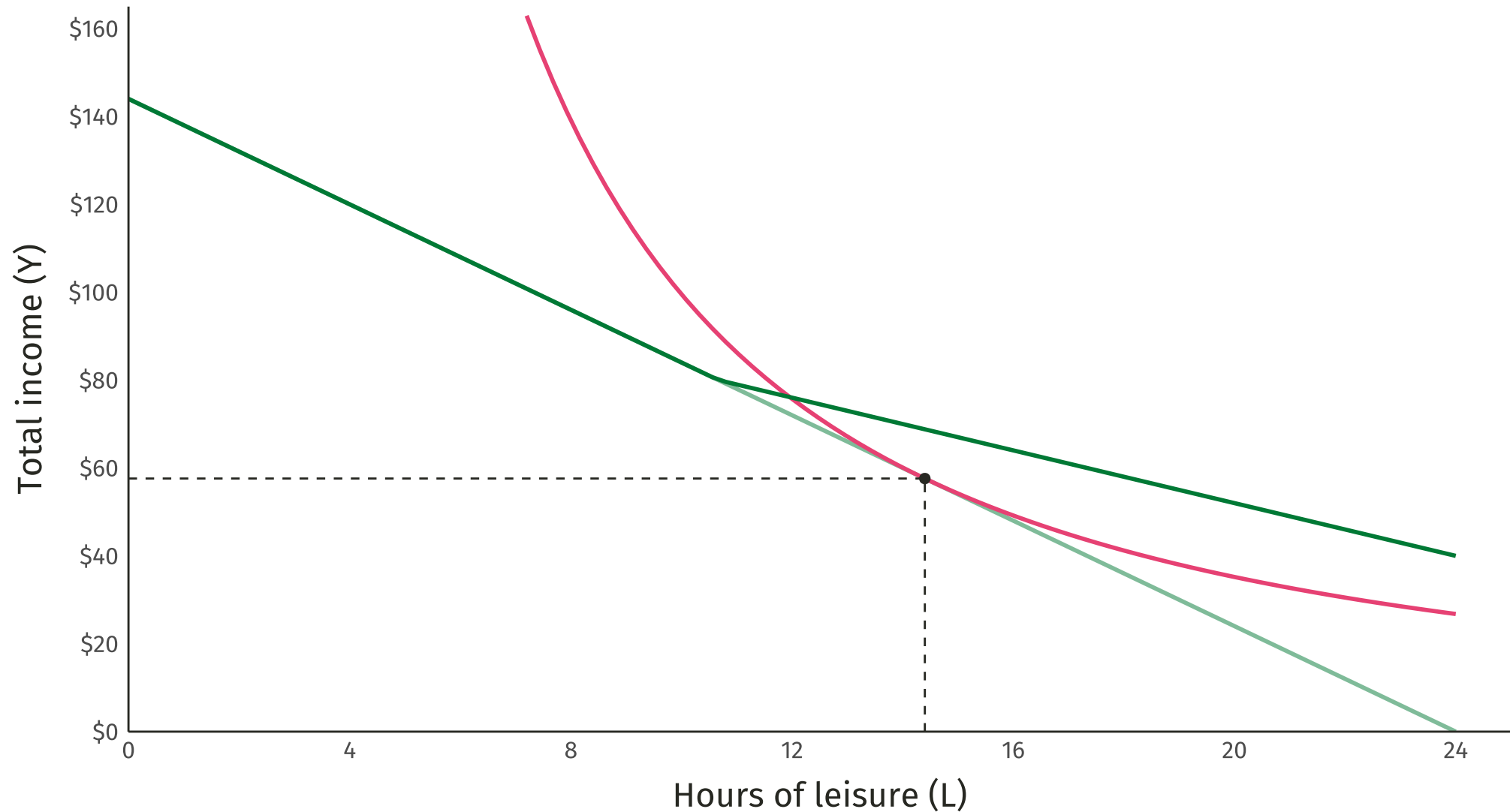


The TANF benefit schedule also **introduces a kink** in the budget constraint.

- In this example, the phase-out rate is 50 cents on the dollar.



Q: How would this worker respond to the introduction of TANF benefits?



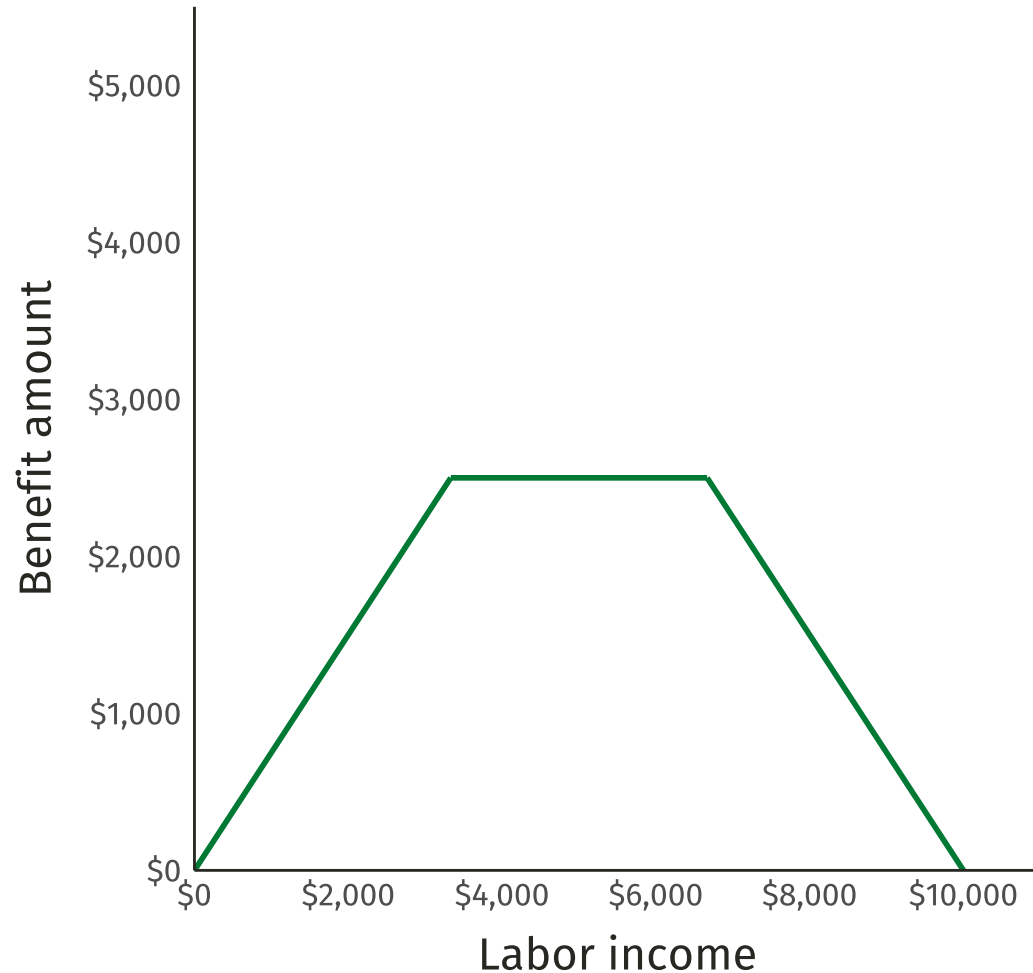


The **Earned Income Tax Credit (EITC)** is currently the largest cash benefit program in the United States.

- First established in 1975; expanded several times thereafter
- Allows individuals who file a tax return to collect a refundable tax credit if their income is below a certain threshold
- By design, only those who work are able to receive the credit



## Hypothetical benefit schedule

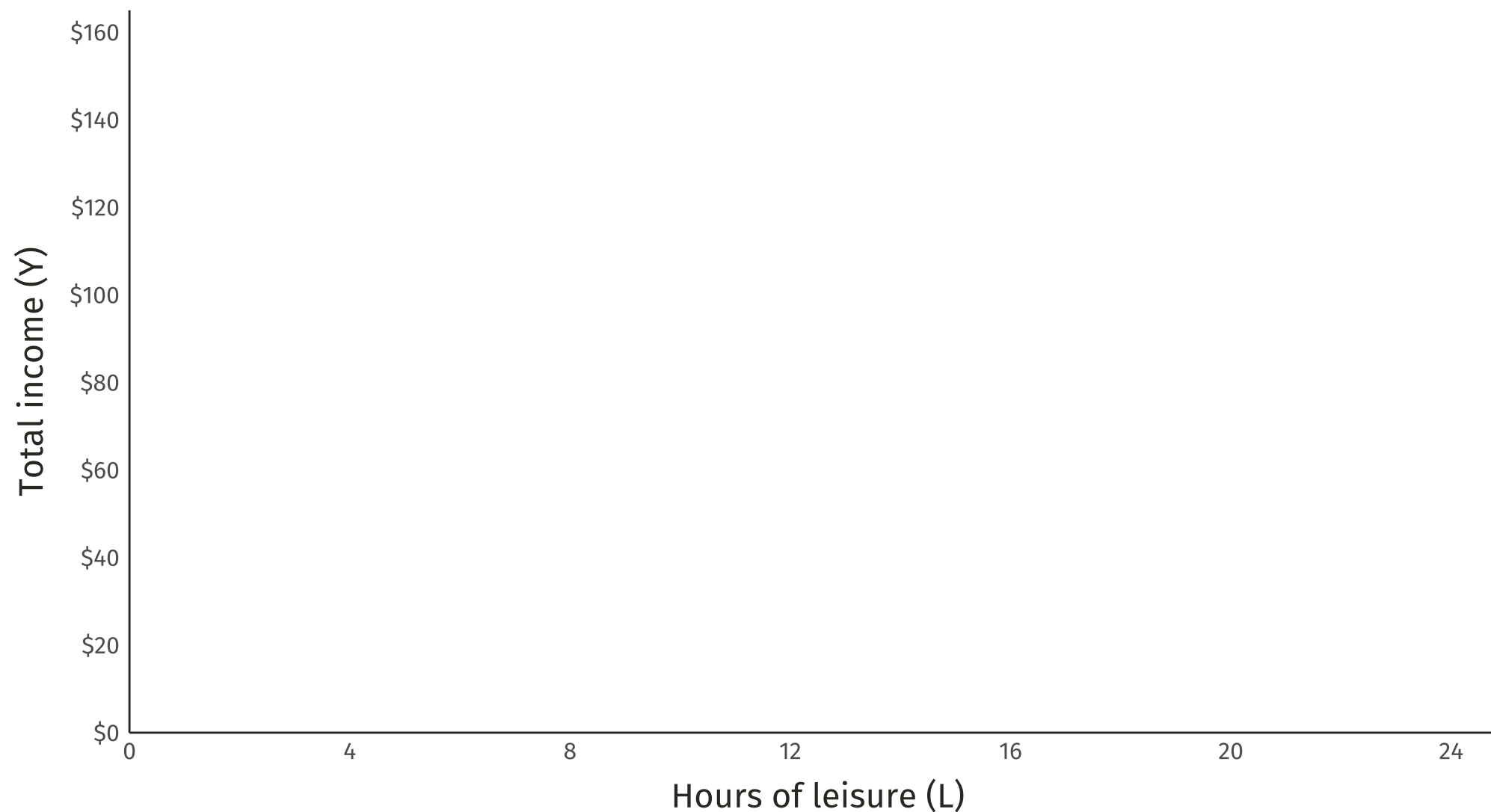


The EITC benefit schedule features a **phase-in** region and a **phase-out** region.

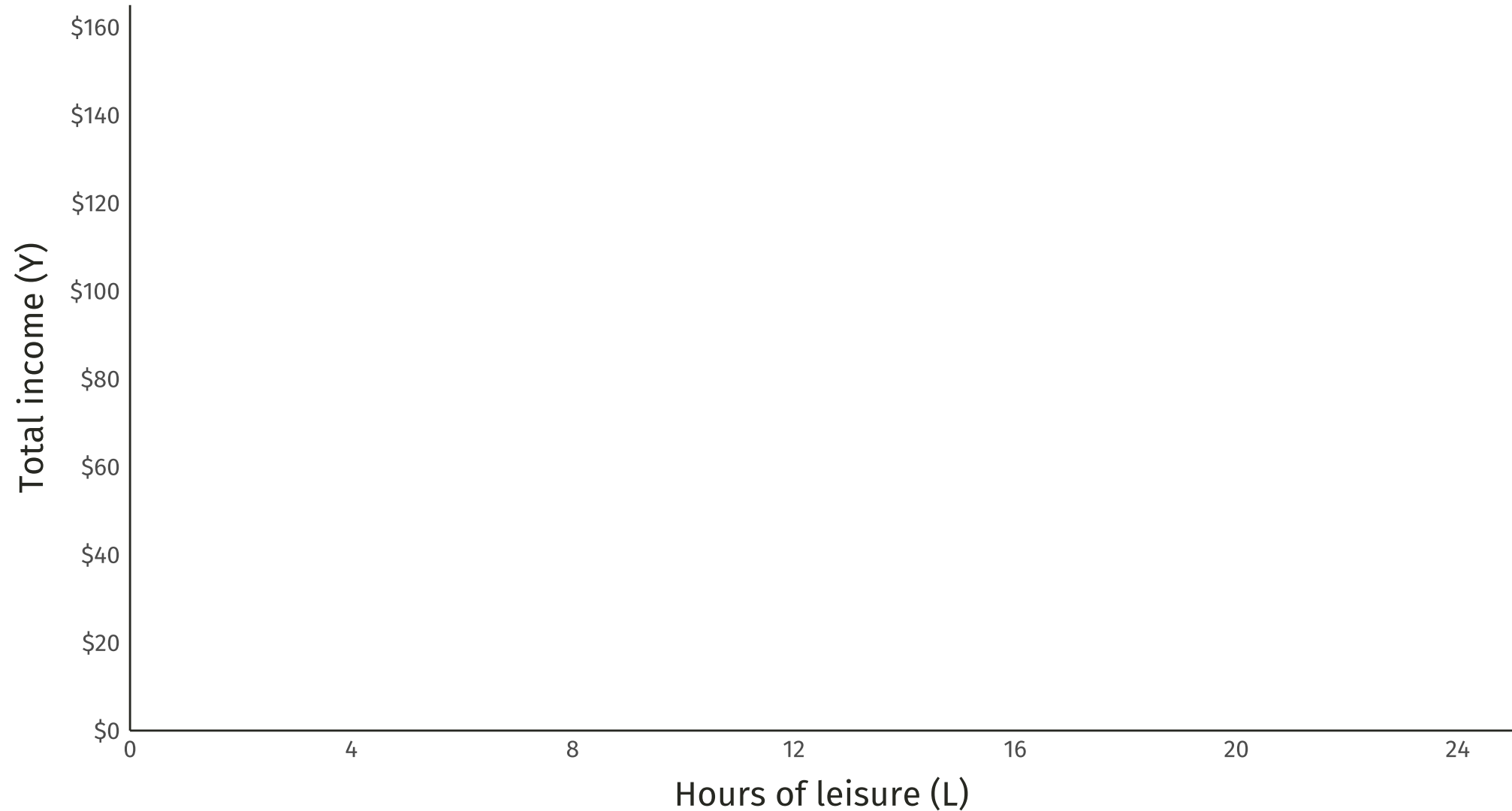
Phase-in rates and maximum benefit levels vary by household size, marital status, and state.



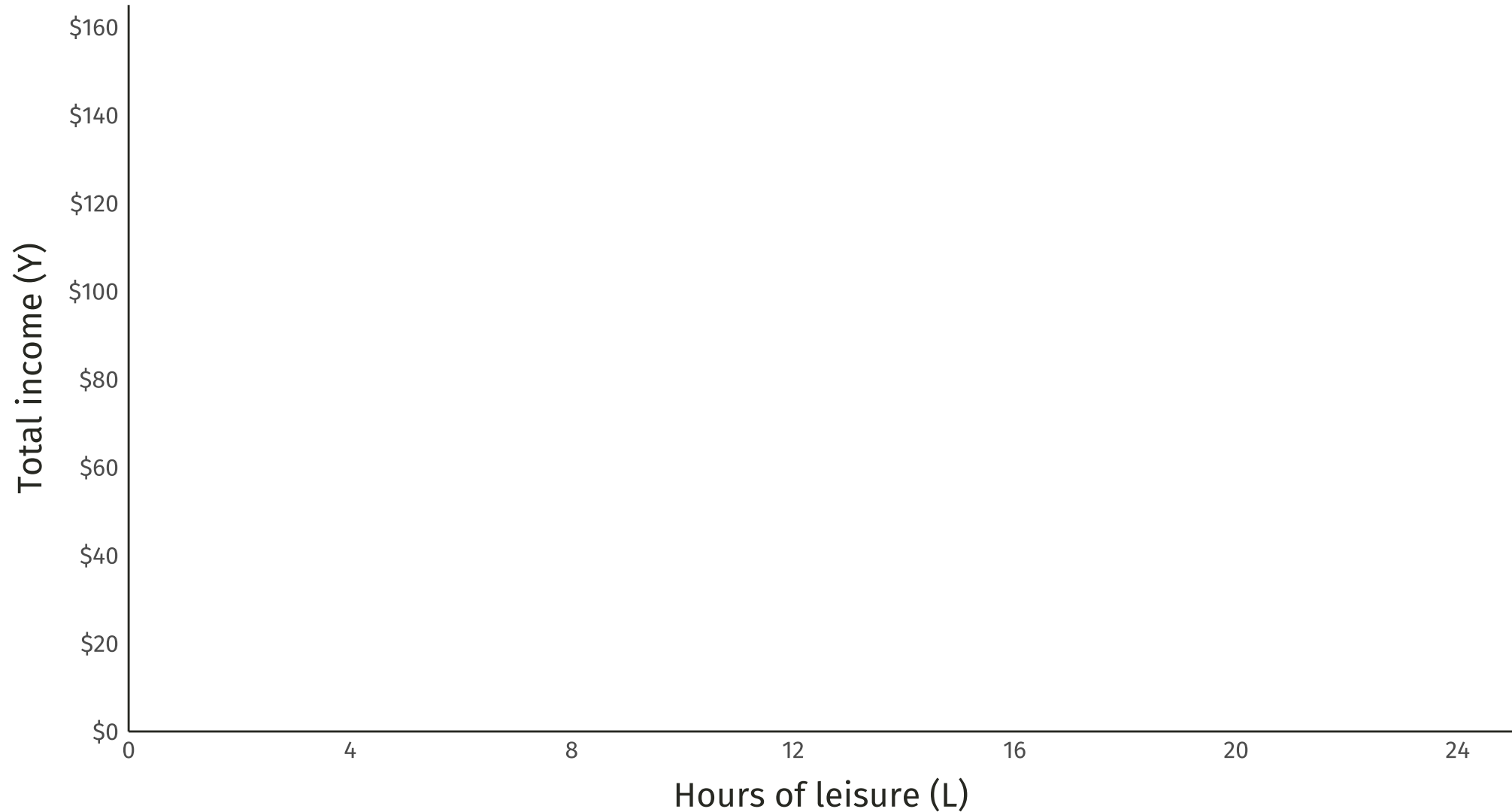
**Q:** How do we visualize an EITC budget constraint?



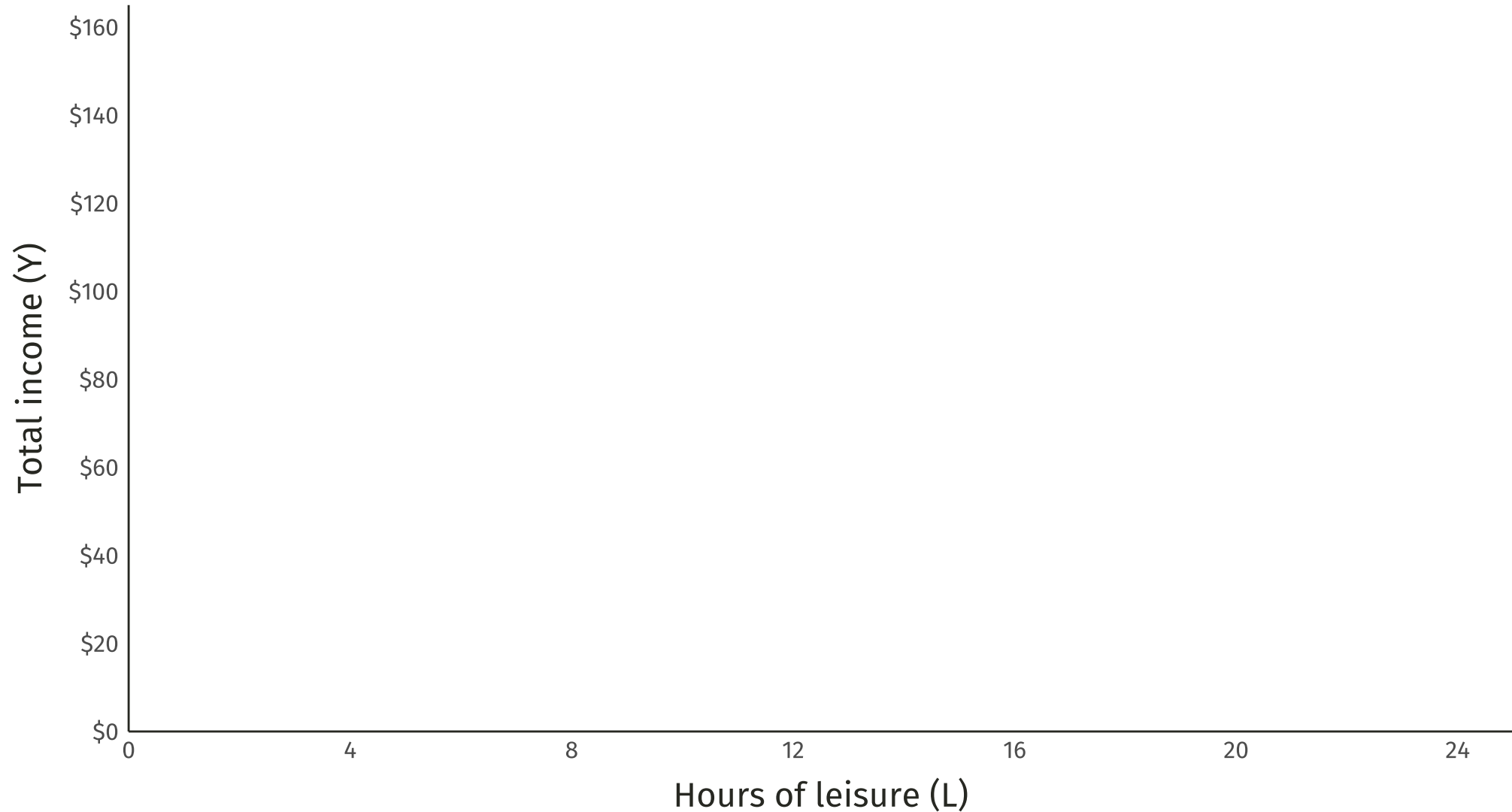
**Q:** How does the EITC affect labor supply? (Case 1)



**Q:** How does the EITC affect labor supply? (Case 2)



Q: How does the EITC affect labor supply? (Case 3)



# Housekeeping



**Assigned reading for Sunday:** Effective policy for reducing poverty and inequality? The Earned Income Tax Credit and the distribution of income by Hilary Hoynes and Ankur Patel (2018).

- Reading Quiz 4 will open tonight and will be due Sunday night.
- Non-technical sections and main figures (see quiz instructions)

**Problem Set 1** due Friday by 11:59pm PDT.

- Office hours tomorrow 10:00-11:00am PDT (see Canvas).