

WORK, WELLBEING, & SCARCITY I

PMAP 8141: Economy, Society, and Public Policy

September 19, 2019

*Fill out your reading report
on iCollege!*

PLAN FOR TODAY

Incentives

XYZ Airlines

Preferences and tradeoffs

INCENTIVES

ELASTICITY AND RESPONSIVENESS

$$\varepsilon = -\frac{\% \text{ change in demand}}{\% \text{ change in price}} \quad \varepsilon = -\frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

% change in demand that follows a 1% change in price

$Q \uparrow P \downarrow$
or
 $Q \downarrow P \uparrow$

$\epsilon = 2$: "If price increases by 10%, quantity decreases by 20%"

$\epsilon = 0.5$: "If price increases by 10%, quantity decreases by 5%"

$\epsilon = \infty$ = Perfectly elastic

Any change in price moves quantity to 0

Identical goods
Two vending machines

$\epsilon > 1$ = Elastic

Changes in price change the quantity a lot

Goods with substitutes
Diet Coke

$\epsilon = 1$ = Unit elastic

Changes in price change the quantity the same

$\epsilon < 1$ = Inelastic

Changes in price change the quantity a little

Goods with few substitutes
AIDS medicine

$\epsilon = 0$ = Perfectly inelastic

Changes in price do nothing to the quantity

Survival goods
Water in the desert

ϵ , TAXES, & PREFERENCES

Taxing things changes their prices

Changing prices changes
quantities demanded

Taxing elastic goods will make quantities go down a lot and decrease tax revenues

Taxing inelastic goods will make quantities go down slightly and not hurt revenues

Category	Type	Calories per serving	Price per 100 g (\$)	Typical spending per week (\$)	Price elasticity of demand
1	Fruit and vegetables	660	0.38	2.00	1.128
2	Fruit and vegetables	140	0.36	3.44	0.830
15	Grain, pasta, bread	1,540	0.38	2.96	0.854
17	Grain, pasta, bread	960	0.53	2.64	0.292
28	Snacks, candy	433	1.13	4.88	0.270
29	Snacks, candy	1,727	0.68	7.60	0.295
30	Milk	2,052	0.09	2.32	1.1793
31	Milk	874	0.15	1.44	1.972

If P↑ by 10%, Q↓...

8.3%

2.7%

19.72%

GENERAL TAX GUIDANCE

Tax inelastic products unless you're
trying to change consumption

Soda?

Cigarettes?

Alcohol?

Property?

Those who can afford to avoid
taxes will try to avoid them

WHY DO PEOPLE DO WHAT THEY DO?

People get utility from doing stuff

Extrinsic rewards

Intrinsic rewards

These can get distorted
and crowded out!

WHY CARE AS AN MPA/MPP?

Good policy uses incentives to channel behavior toward some desired outcome. Bad policy either ignores incentives or fails to anticipate how rational individuals might change their behavior to avoid being penalized.

Naked Economics, p. 39

PERVERSE INCENTIVES



IMPORTANCE OF INCENTIVES

People respond to
what you signal

You get what you measure

Daycares and late pickups

Blood donors

Taxes

Favors

Thanksgiving

Playgroups and daycares

MLMs

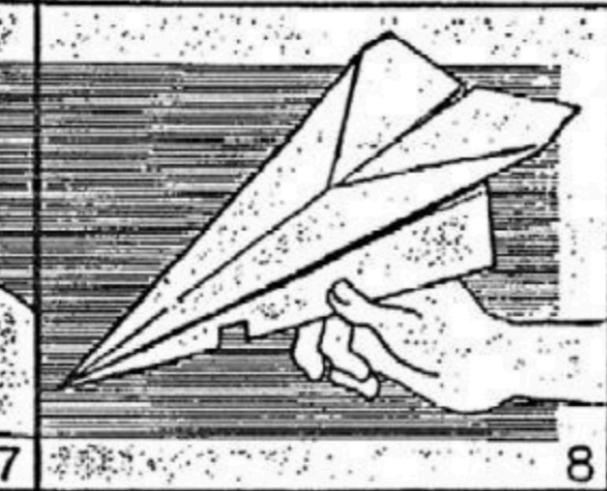
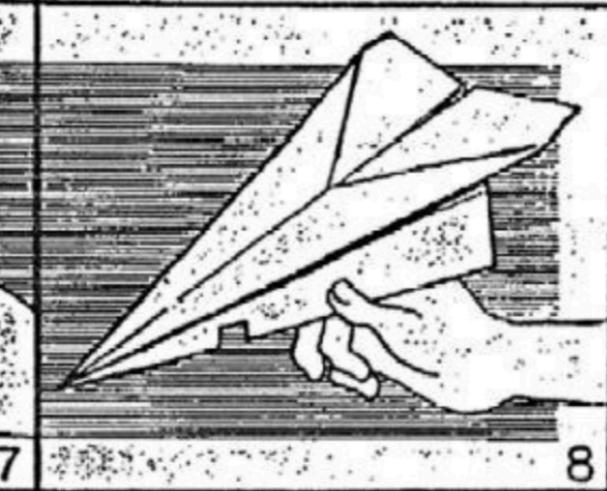
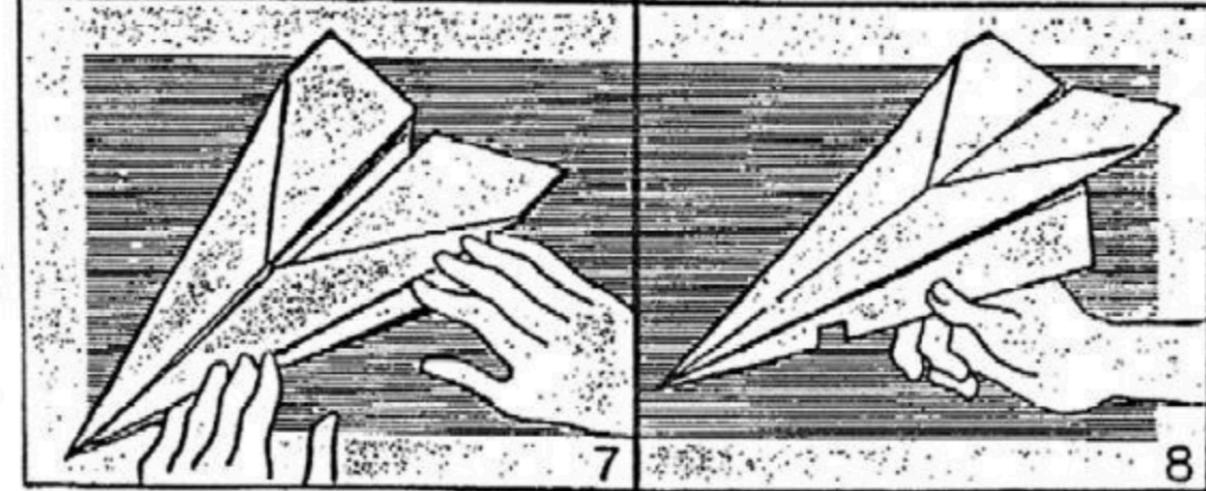
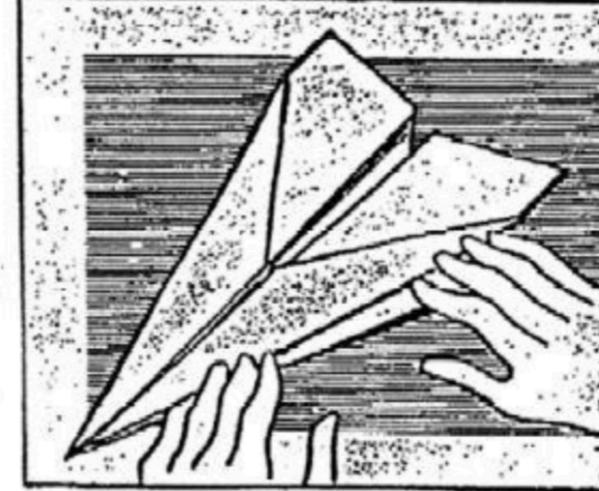
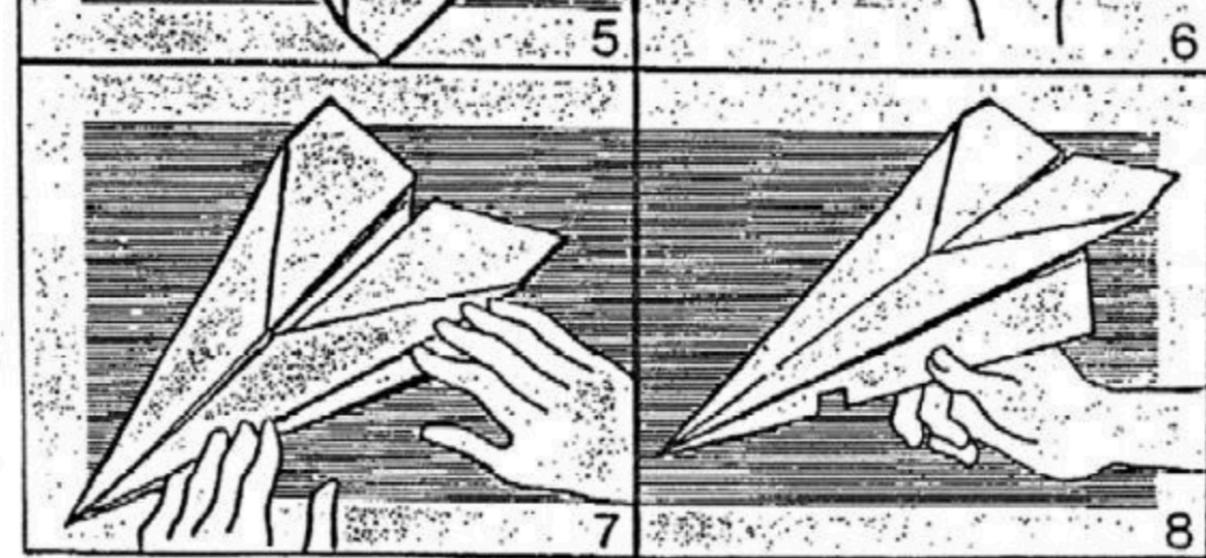
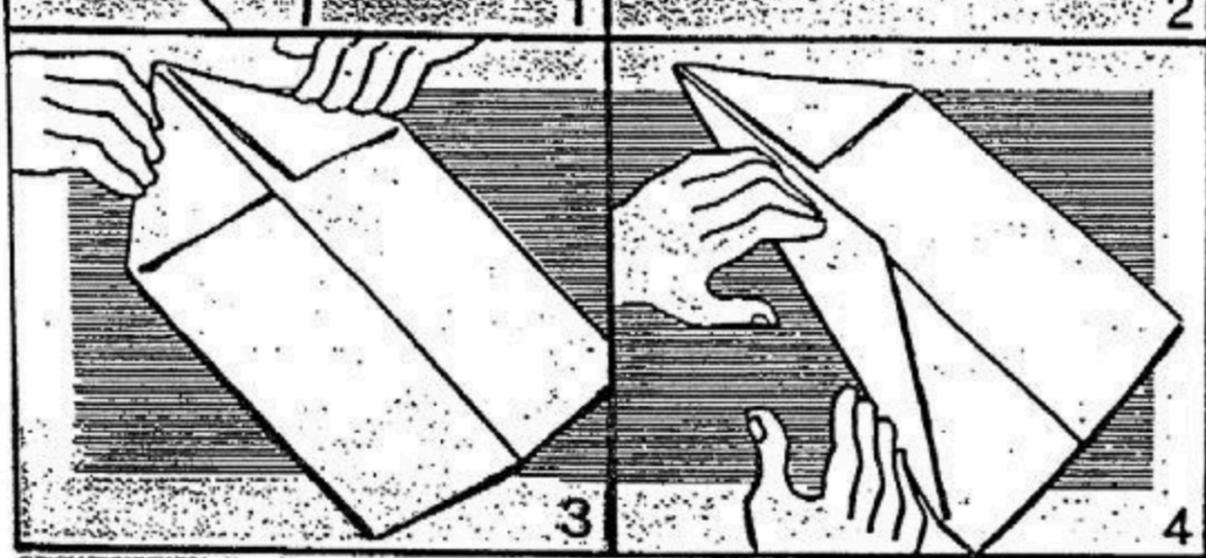
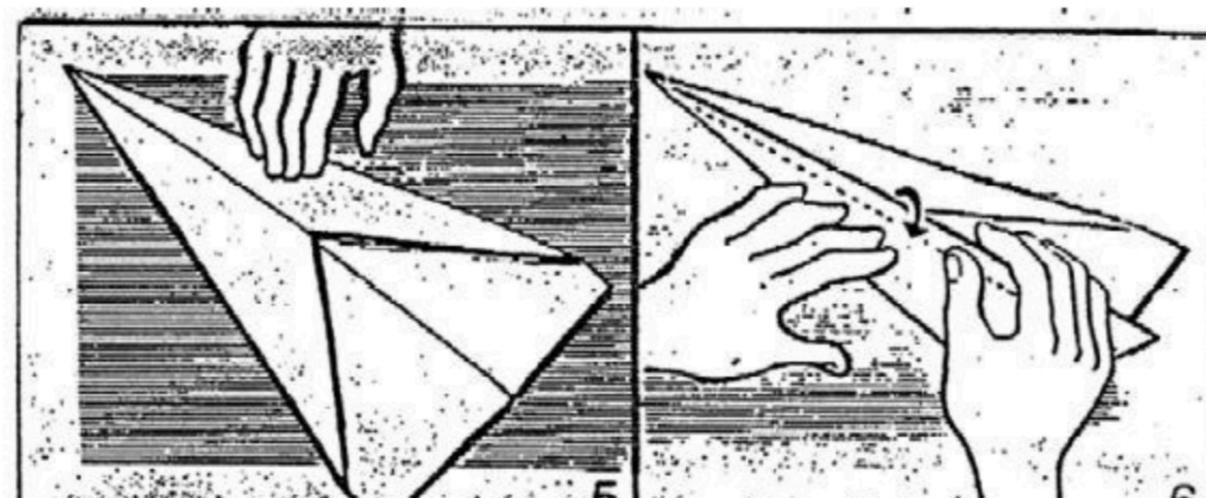
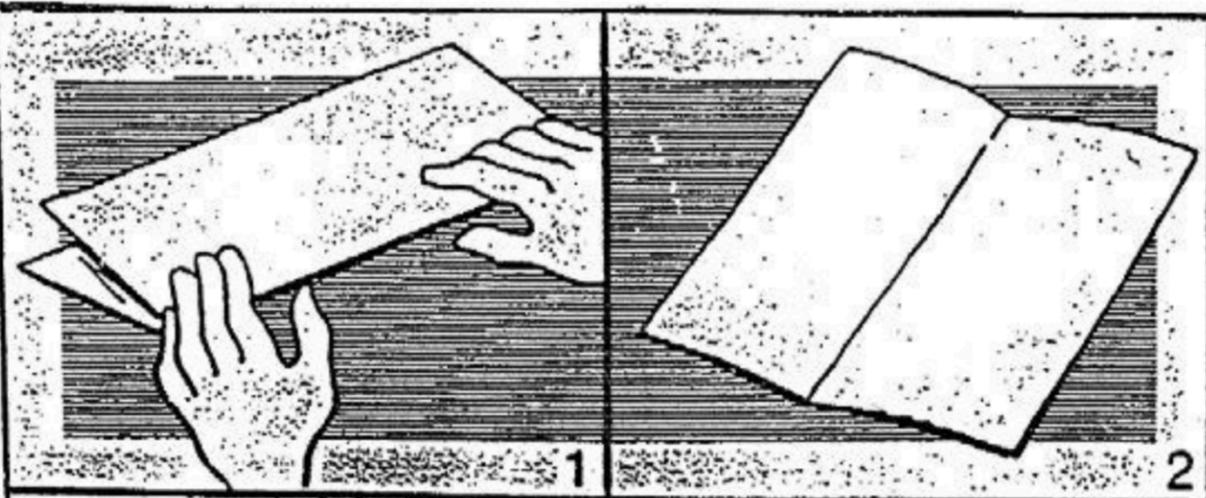
NED and democracy promotion

**Extrinsic rewards can crowd
out intrinsic motivations**

**Don't violate important social
relationships by reducing
services to a market transaction**

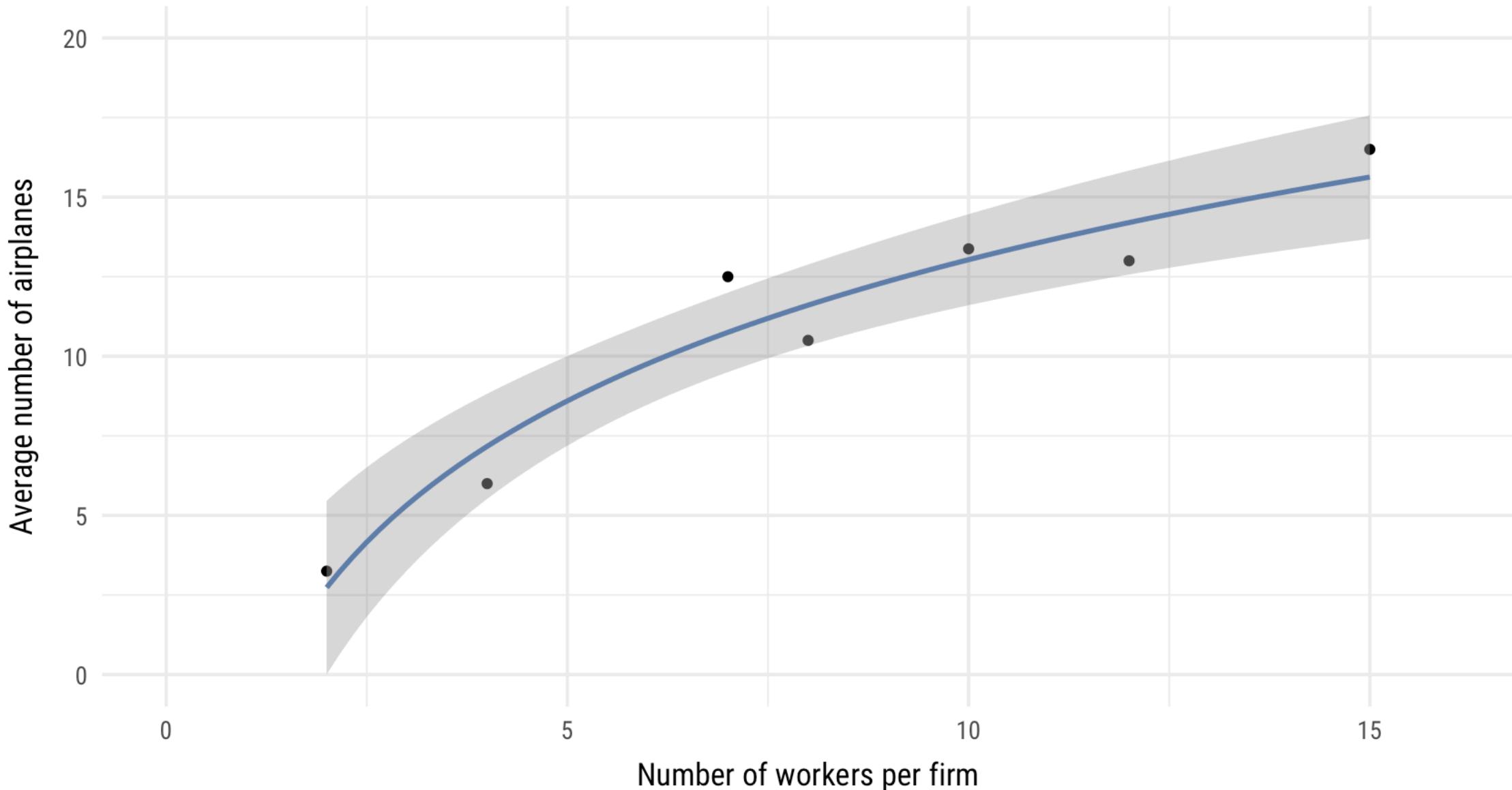
Pay enough or don't pay at all

XYZ AIRLINES



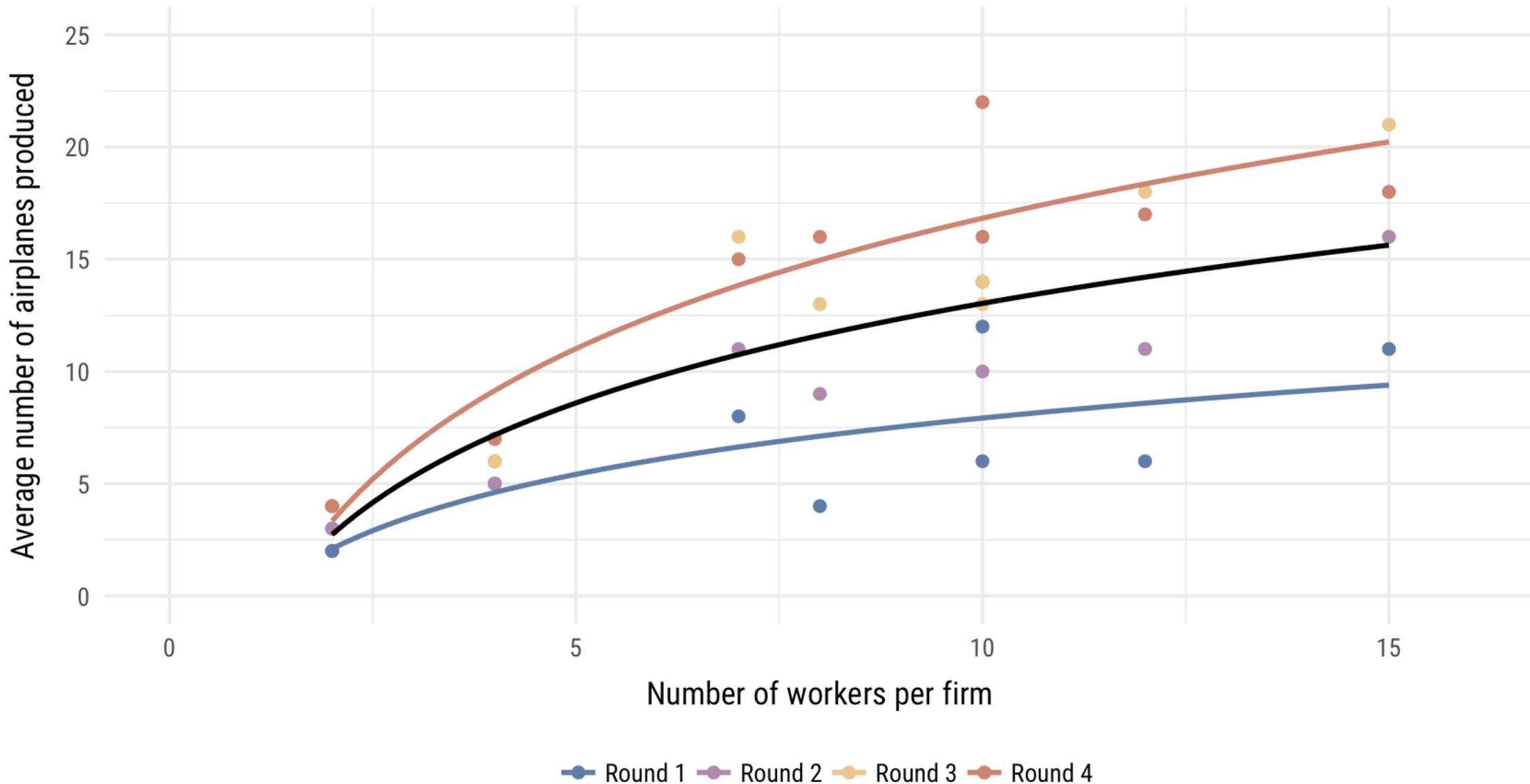
Average number of airplanes produced by 10 firms

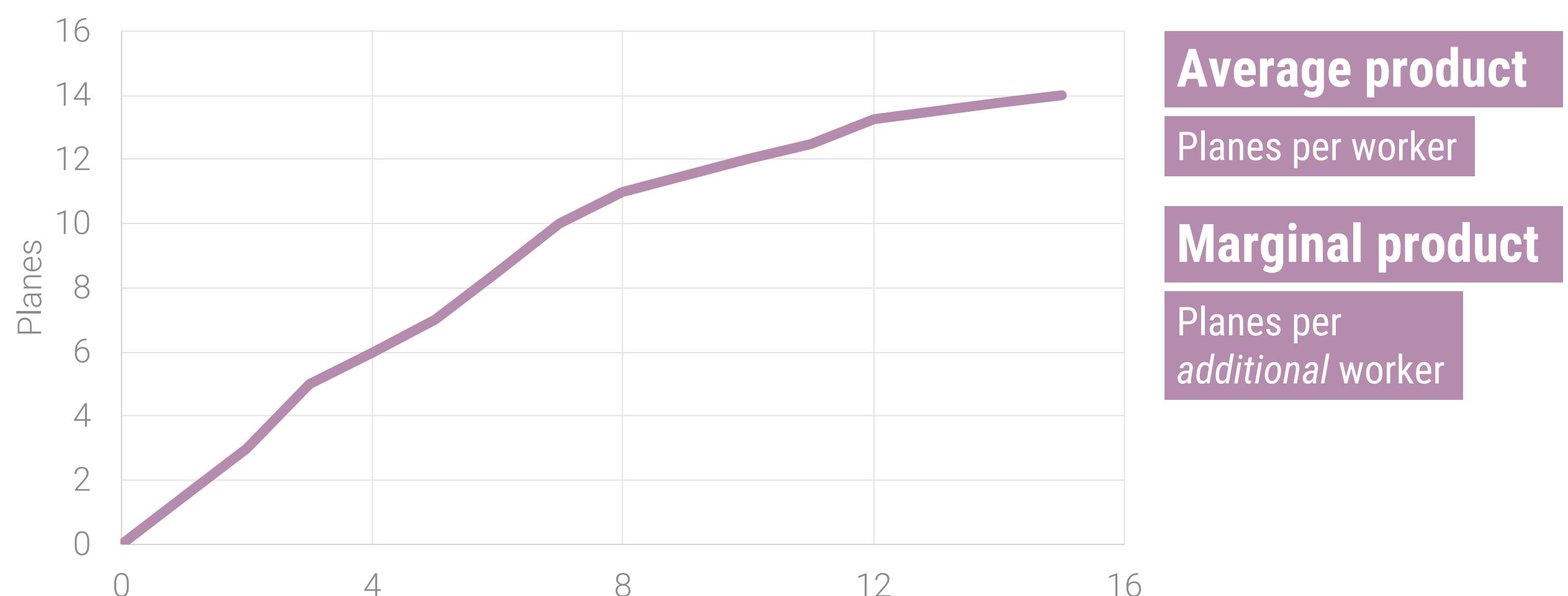
Averaged over 4 rounds; firms varied in size



Number of airplanes produced by 10 firms

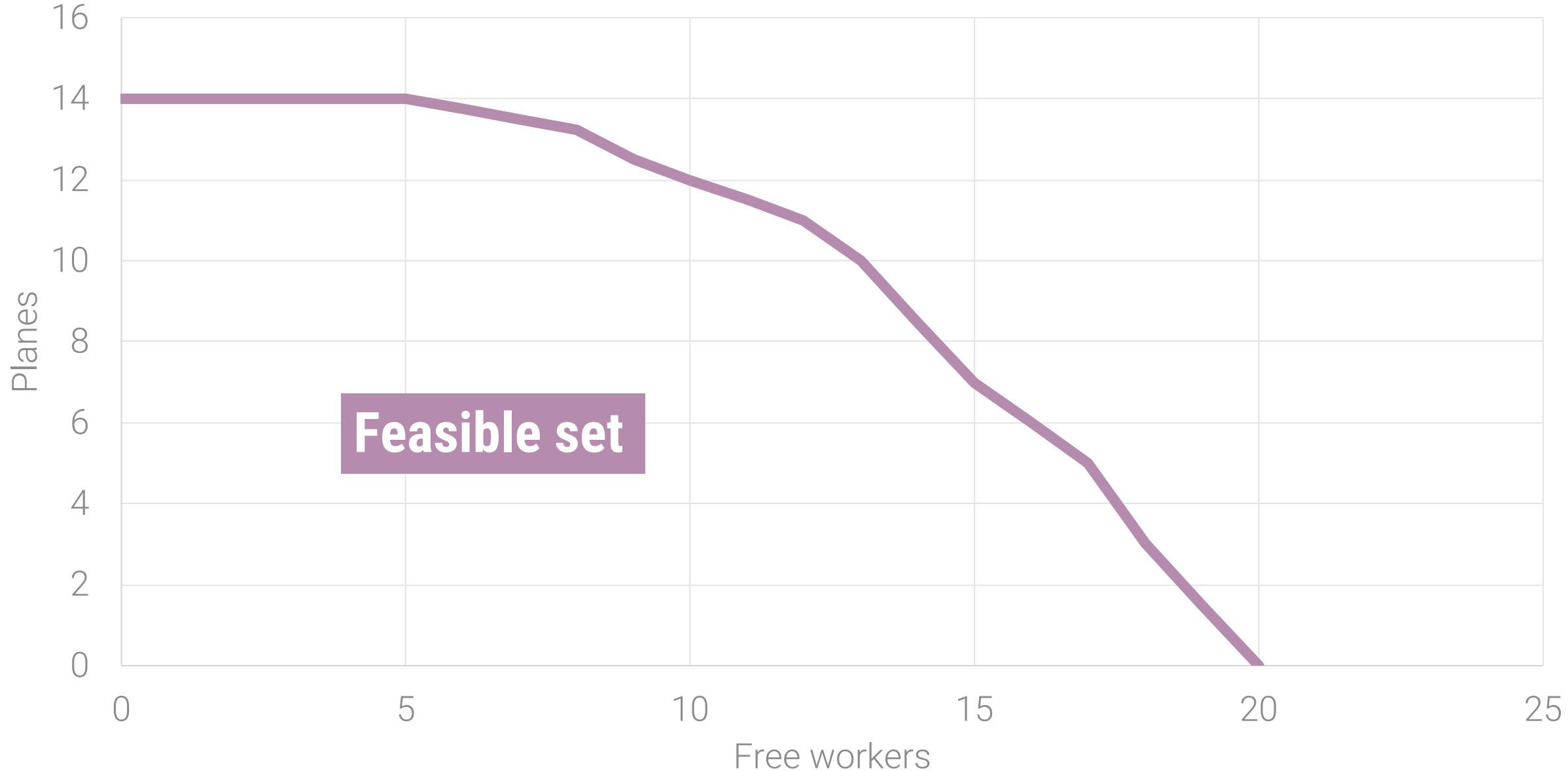
Firms varied in size

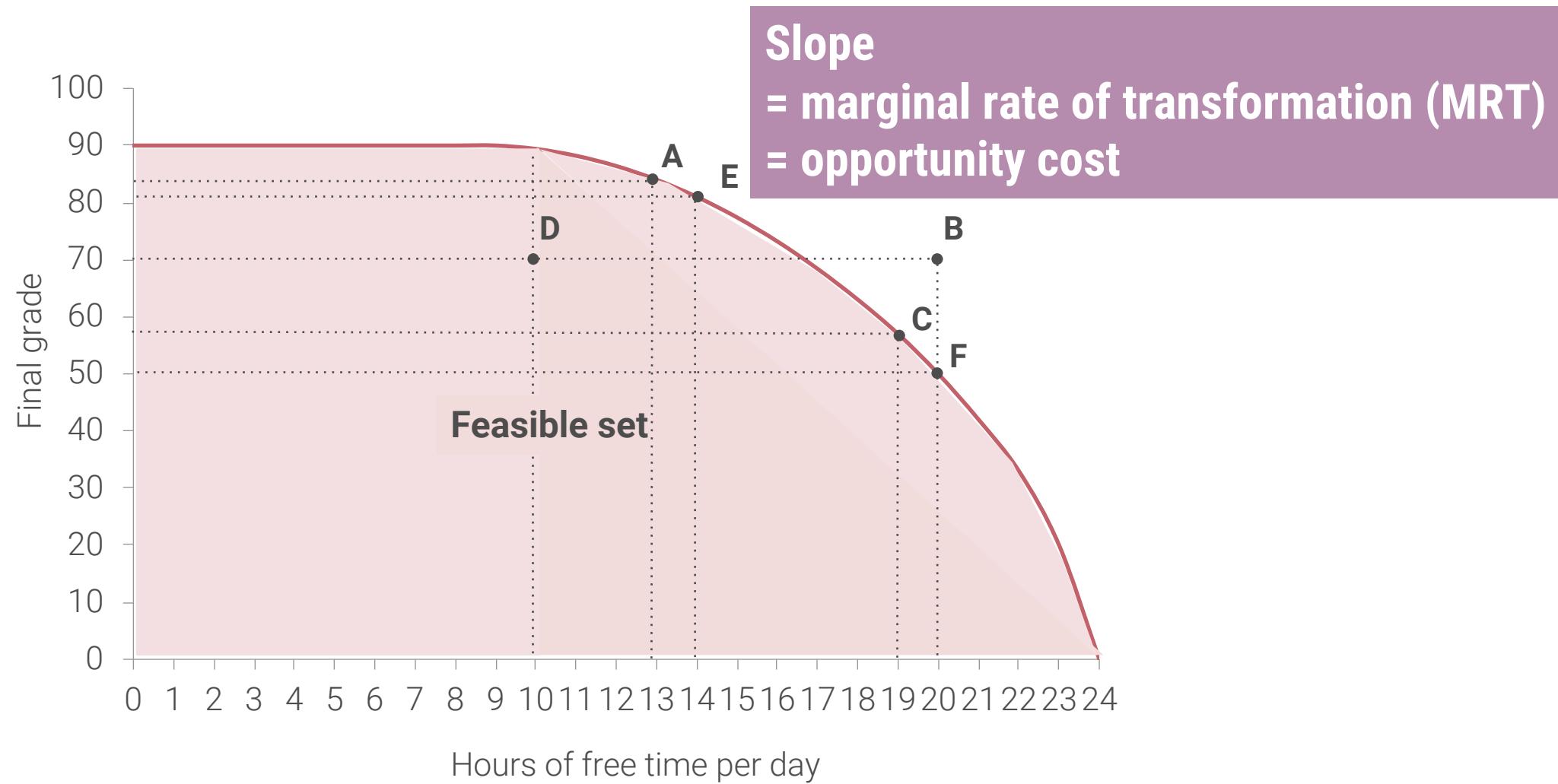




Workers	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Planes	0	1.5	3	5	6	7	8.5	10	11	11.5	12	12.5	13.25	13.5	13.75	14

**Does marginal product
always diminish?**





	A	E	C	F
Free time	13	14	19	20
Grade	84	81	57	50
Opportunity cost		3		7

WHY ARE YOU GOING HERE?
GAS IS TEN CENTS A GALLON CHEAPER AT
THE STATION FIVE MINUTES THAT WAY.



IF YOU SPEND NINE MINUTES OF YOUR
TIME TO SAVE A DOLLAR, YOU'RE WORKING
FOR LESS THAN MINIMUM WAGE.

OPPORTUNITY COST

The value of the thing you can't do because of a decision

The value of the forgone option



OPPORTUNITY COST

Cost for
theater concert

\$25

Value of park
concert to you

\$15

Economic
cost of theater

\$40

Value of theater
concert to you

\$50

\$35

Your choice

Theater

Park

PREFERENCES & TRADEOFFS

Are We Running Out of Ideas? (Ep. 310)

November 29, 2017 @ 11:00pm

by Stephen J. Dubner

Produced by Greg Rosalsky



LISTEN NOW:



Stuck in a rut: If new ideas spread so easily, why is productivity growth slowing? (Photo: Wikimedia Commons)

Our latest Freakonomics Radio episode is called “Are We Running Out of Ideas?” (You can subscribe to the podcast at [Apple Podcasts](#) or [elsewhere](#), get the [RSS feed](#), or listen via the media player above.)

Economists have a hard time explaining why productivity growth has been shrinking. One theory: true innovation has gotten much harder – and much more expensive. So what should we do next?

UTILITY

Happiness points



Diminishing marginal utility

