

The VOTE Textbook

Student Notes

Chapter 17: Retirement Security

Opening Story: Hazel's 90th birthday party

Retirement is the time of life when you no longer need to work to earn an income.

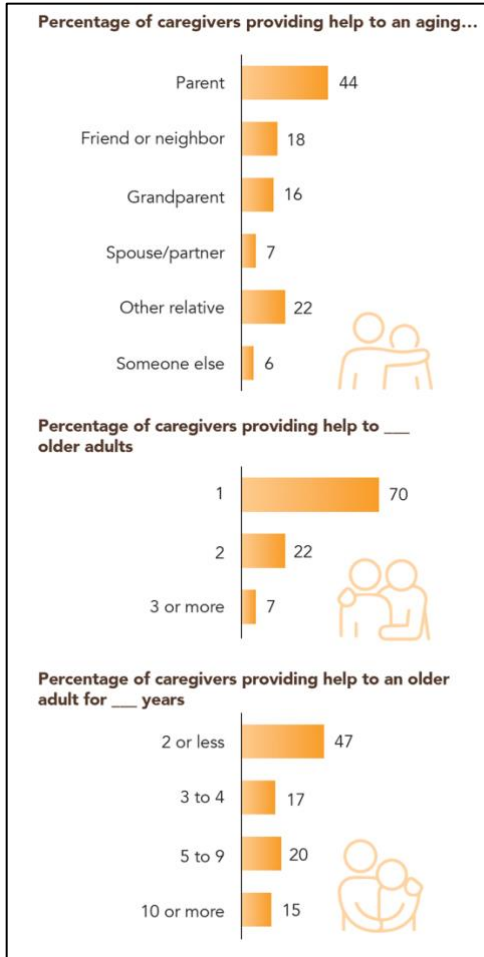
Retirement security is the assurance of material well-being through the last stage of life.

The Golden Moment

Shared Problem: Seniors are economically vulnerable

Shared Goal: Care and peace of mind for the elderly

Families have been responsible for elders since humans first existed.

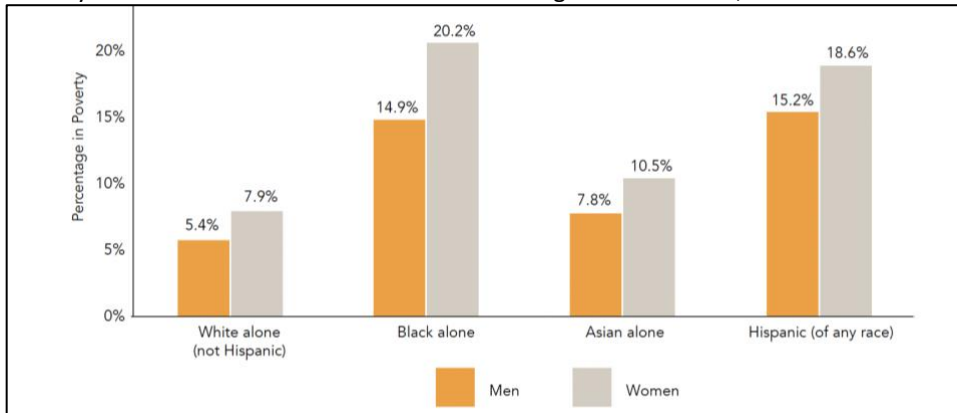


Options for Elderly in Need of Long-Term Care

- Live with family
- Independent living
- Assisted living
- Skilled nursing facility
- Memory care residence
- Nursing care facility
- Adult care home

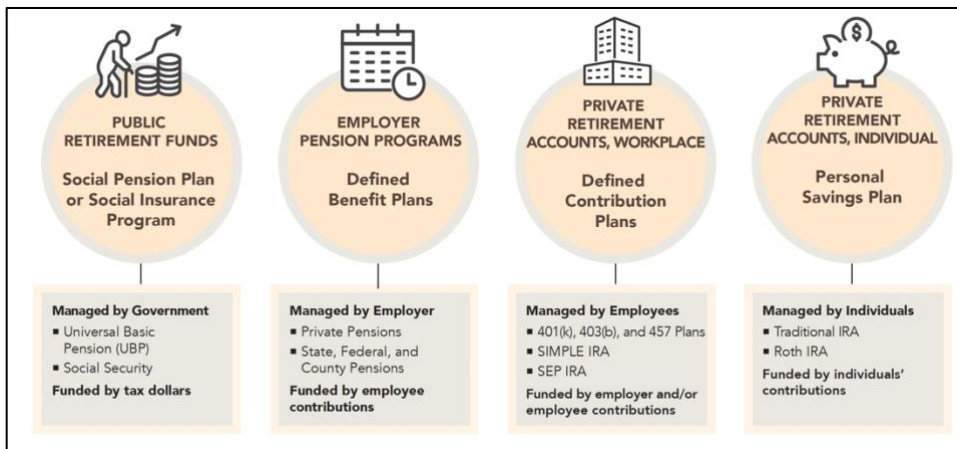
Everyone wants the same thing in retirement, which is the SWAN—Sleep Well at Night—experience.

Poverty Status of Individuals in the United States Ages 65 and Older, 2019



Poverty among elders is not spread evenly among different groups.

Ageism is discrimination based on age. Anti-ageism is recognizing older people as a rich resource of wisdom and experience.



Shared Tools: Opportunity Cost

Opportunity Cost: The loss of the potential gain of doing one thing because you chose to do another thing. Example: When I come to class, I give up the opportunity to spend that time working, sleeping, hanging out with friends, etc.

Every country has the same three types of resources: land, labor, and capital. When we use resources to make one thing, we aren't using them to make something else.

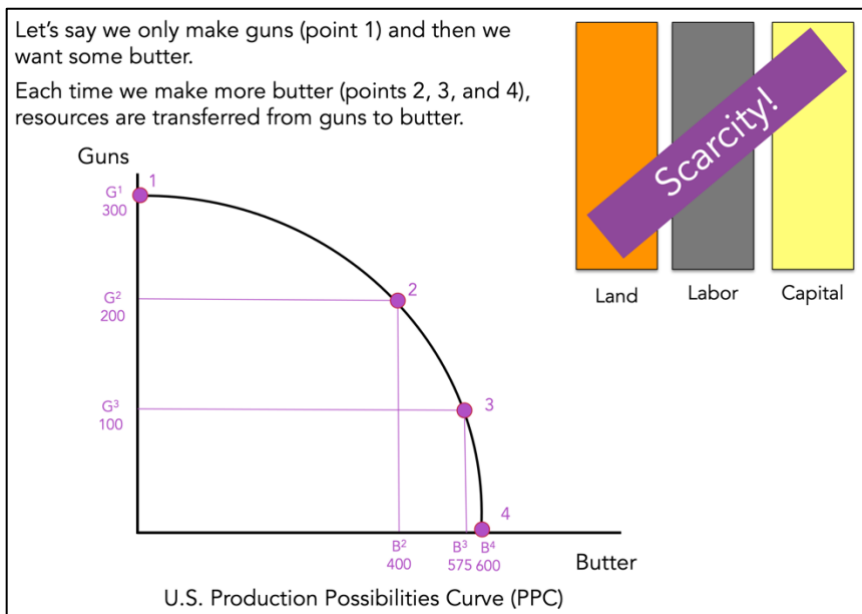
Resource pressures include:

- National security
- Water, sewage, roads, gas lines
- Health care
- Cleaning up pollution
- Natural disaster response
- Elder care

Conventional Tools: Production Possibilities Curve (PPC)

Production Possibilities Curve (PPC): The different combinations of goods and services that a society can produce given the available resources and existing technology.

Guns and butter symbolize everything a society could make with its scarce resources.

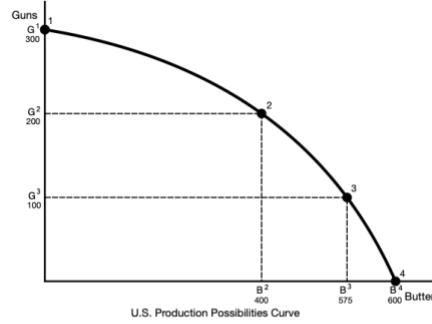


Two Characteristics

1. Negative Slope

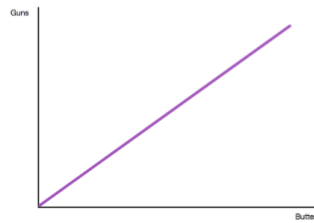
There is a *trade-off*.

To get more butter, society must give up guns, and vice versa.



What would this look like without scarcity?

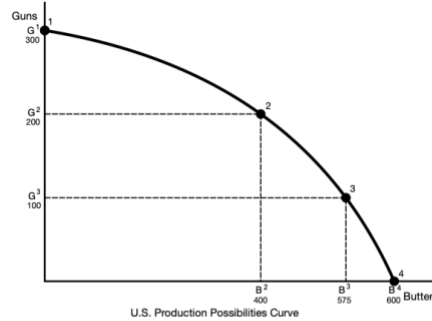
Without scarcity, there would be a positive slope.



Two Characteristics

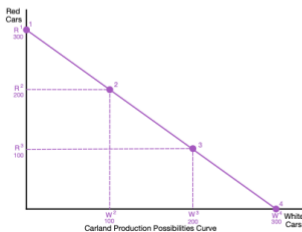
2. Bowed Out Shape

Resources are not perfectly substitutable between two products. As you make more of one thing, the opportunity cost increases.



What would this look like if only two of the same type of products, e.g. cars, were made?

With two of the same products made, there would be a constant slope.



All points on the PPC are *efficient*, which means that society can't get more guns without giving up some butter, or vice versa.

All points inside the PPC are *inefficient*, which means resources are being wasted or misallocated.

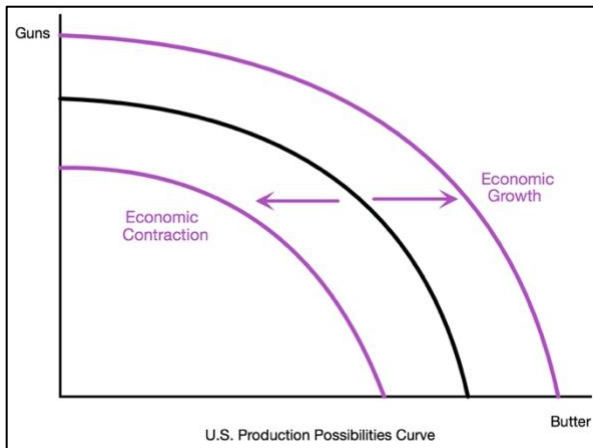
With a few exceptions, all points outside the PPC are *unattainable* because we can't get more products than our resources and technology allow.

But society can increase the amount of goods and services available over time through economic growth:

- Increase the quantity of resources
- Improve the quality of resources
- Increase technology
- Invest in more capital

The opposite is economic contraction.

Economic Growth and Contraction



Conservative	Liberal
<p>Only having private retirement accounts grows the economy and increases the well-being of elders in four ways:</p> <ol style="list-style-type: none"> 1. More motivation to work 2. More wealth, so healthier seniors 3. More entrepreneurs, so more tech 4. More business investment 	<p>Social Security with supplemental private retirement accounts grow the economy and increase the well-being of elders in four ways:</p> <ol style="list-style-type: none"> 1. More motivation to work 2. More wealth, so healthier seniors 3. More entrepreneurs, so more tech 4. More business investment
<p>The graph shows the U.S. Production Possibilities Curve with 'Guns' on the vertical axis and 'Butter' on the horizontal axis. A black curve represents the initial state with point 1 at coordinates (B¹, G¹). A red curve represents the new state after conservative policy, with point 2 at coordinates (B², G²). Dashed lines connect these points to their respective values on the axes. An arrow points from point 1 to point 2, indicating an outward shift.</p>	<p>The graph shows the U.S. Production Possibilities Curve with 'Guns' on the vertical axis and 'Butter' on the horizontal axis. A black curve represents the initial state with point 1 at coordinates (B¹, G¹). A blue curve represents the new state after liberal policy, with point 2 at coordinates (B², G²). Dashed lines connect these points to their respective values on the axes. An arrow points from point 1 to point 2, indicating an outward shift.</p>

Retirement Security Policies	
Conservative	Liberal
Conservatives want total privatization of retirement accounts.	Liberals want to strengthen Social Security and improve incentives for supplemental private retirement accounts.

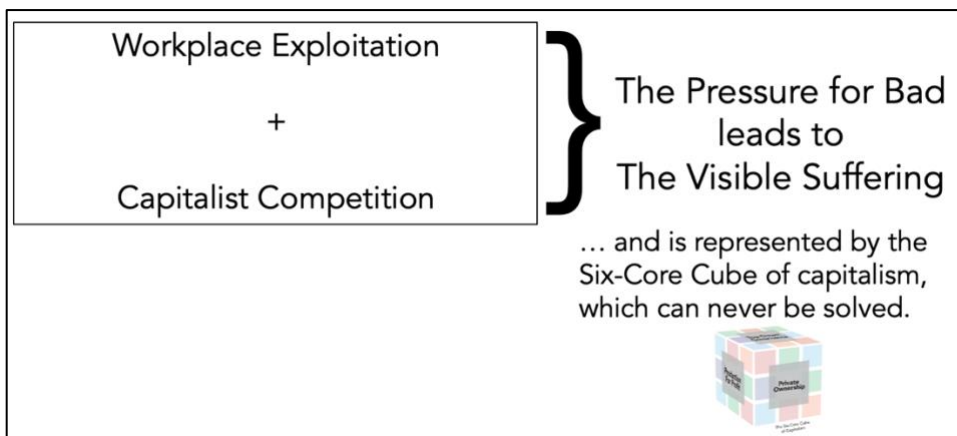
Radical Tools: Individuals at Risk and Social Safeguards

Radicals use the six core points as tools to analyze economic issues.

- Ownership
- Governance
- Meeting people’s basic material needs
- Production
- Sustainability
- Communities

Radicals select the core point that makes the most sense for a particular issue. For retirement security, it is meeting people’s basic material needs.

Drill down into meeting people’s basic material needs in capitalism:



The Unsolvable Six-Core Cube of Capitalism

1. Private Ownership
2. Top-Down Governance
3. Individuals at Risk
4. Production for Profit
5. Unsustainable Growth
6. Unhealthy Communities



Why unsolvable?

It is built around six core points that are rotten to the core!

Individuals at Risk: There is no guarantee that basic material needs will be met, so people live in fear about their well-being.

Individuals at Risk

- Getting basic material needs met is a privilege, not a right.
- The well-being of individuals is traded for profit.
- Everyone is left to fend for themselves and must constantly worry about survival.



The Visible Suffering of Capitalism

- Hunger and malnourishment
- Harmful products
- Mass poverty
- Homelessness
- Extreme income inequality
- Pollution and climate crisis
- Inaccessible, low-quality health care
- Destructive market domination
- **Impoverished elders**
- Exploding public and private debt
- Damaging trade relationships
- High prices and no jobs

Drill down into meeting people’s basic material needs in democratic socialism:

Workplace Justice

+

Coordination Among Competitors

}

The Pressure for Good
leads to
The Invisible Synergy

...and is represented by the
Six-Core Cube of democratic
socialism, which can be solved.



The Solvable Six-Core Cube of Democratic Socialism

1. Cooperative Ownership
2. Participatory Governance
3. Social Safeguards
4. Production for Use
5. Sustainable Development
6. Healthy Communities



Why solvable?

It is built around six core points that are beneficial to the core!

Social Safeguards: Meeting everyone's basic material needs is everyone's guaranteed right and responsibility.

Social Safeguards

- Individuals have a right to get their basic material needs met.
- Society provides universal benefits that are funded by all.
- People contribute their best to society when they have a guaranteed safety net.



Retirement Security Policy: Radical



1. *Universal Basic Pension (UBP)*

A monthly payment sufficient to guarantee that every senior can afford a dignified retirement. To fund the UBP, everyone pays a percentage of their income into this government-managed fund.

2. *Worker-Owned Pension Funds*

Each worker-owned firm may democratically decide to take a portion of the surplus and put it into a shared pension fund so that when they retire they will have “fun money” above the UBP.

The Invisible Synergy of Democratic Socialism

- Abundant, healthy food
- Safe and helpful products
- Prosperity
- Housing for all
- Equitable income distribution
- Clean environment
- Universal, first-rate health care
- Fair and positive competition
- **Secure and dignified retirement**
- A thriving, debt-free society
- Mutually beneficial trade relationships
- Jobs and stable prices

THE BLAME GAME		
What causes economic vulnerability for seniors?		
<p>Conservative</p> <p>Too much government interference in capitalism</p> <p>We need free-market capitalism.</p>	<p>Liberal</p> <p>Not enough government intervention in capitalism</p> <p>We need fair-market capitalism.</p>	<p>Radical</p> <p>The drive for profit in capitalism</p> <p>We need democratic socialism.</p>

Bonus Tool: Game Theory

Game theory is a way to figure out what the best strategy is when outcomes are interdependent.

Classic Game Theory: The Prisoner's Dilemma

		Thief Orange	
		Silent	Testify
Thief Gray	Silent	A 1 , 1	B 20 , 0
	Testify	C 0 , 20	D 7 , 7

Five steps to determine a thief's dominant strategy (from Thief Gray's perspective):

1. Should I stay silent or testify?

2. It depends on what Thief Orange does.
3. If Thief Orange stay silent, I should ...
4. If Thief Orange testifies, I should ...
5. Whichever I do, regardless of what Thief Orange does, is my dominant strategy.

		Thief Orange	
		<u>Silent</u>	<u>Testify</u>
Thief Gray	<u>Silent</u>	<div style="border: 1px solid black; padding: 2px;">A</div> <u>1</u> , <u>1</u>	<div style="border: 1px solid black; padding: 2px;">B</div> <u>20</u> , <u>0</u>
	<u>Testify</u>	<div style="border: 1px solid black; padding: 2px;">C</div> <u>0</u> , <u>20</u>	<div style="border: 1px solid black; padding: 2px;">D</div> <u>7</u> , <u>7</u>

"Dominant Strategy"

"Dominant Strategy"

Nash Equilibrium: When a player has no interest in changing strategies, assuming that the other player doesn't change their strategy. (Both players' dominant strategies are in the same cell.)

Pareto optimal: The point at which no one can be better off without someone else being worse off.

		Thief Orange	
		Silent	Testify
Thief Gray	Silent	<div style="border: 1px solid black; padding: 2px;">A</div> 1 , 1 Pareto optimal	<div style="border: 1px solid black; padding: 2px;">B</div> 20 , 0
	Testify	<div style="border: 1px solid black; padding: 2px;">C</div> 0 , 20	<div style="border: 1px solid black; padding: 2px;">D</div> From cell D, there is a Pareto improvement to cell A! 7 , 7 Nash equilibrium

Game theory can be used to help individuals and groups find their Pareto optimal payoffs.

		Saver Orange	
		PRA	GMF
Saver Gray	PRA	# , #	# , #
	GMF	# , #	# , #

PRA: Private Retirement Accounts
GMF: Government-Managed Funds

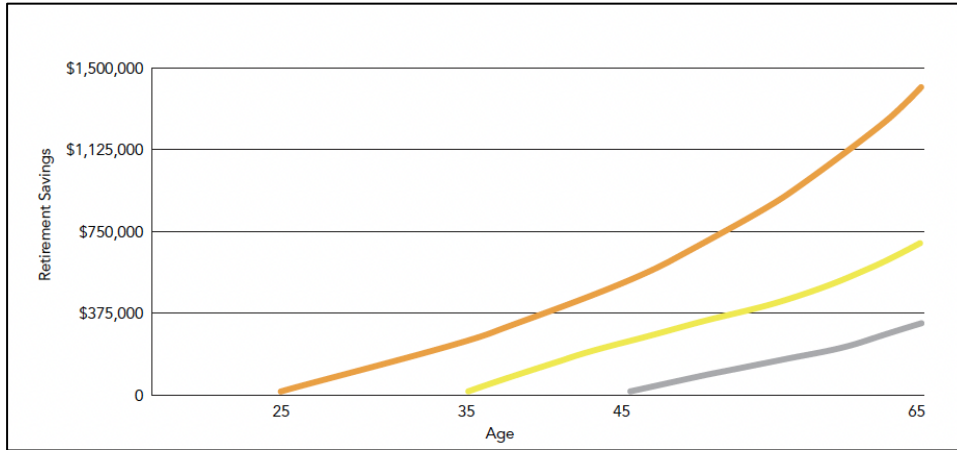
In the Three-in-One, we'll use game theory to decide between PRAs and different forms of GMFs (UBPs and Social Security) to fund elders' basic necessities.

The big question will be: what are the correct payoffs so that we can make the best decision possible?

Discussion Story: Which box did he check?

Understanding Retirement Security

The Power of Compound Interest



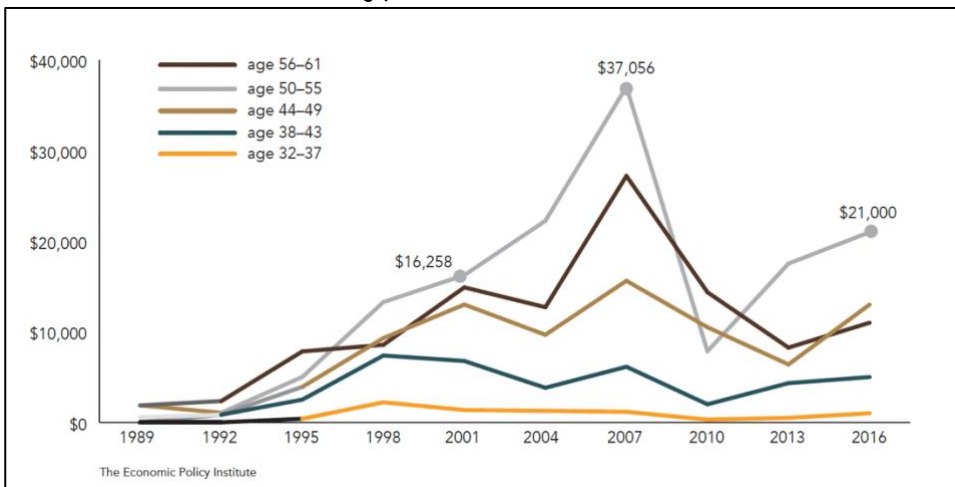
Orange: Saves from age 25 – 35, \cong \$1,400,000 at age 65
 Yellow: Saves from age 35 – 45, \cong \$730,000 at age 65
 Gray: Saves from age 45 – 55, \cong \$370,000 at age 65

PRA Investment Instruments

- U.S. Treasury securities
- Corporate and municipal bonds
- Stocks
- Mutual funds, ETFs, and index funds
- Annuities
- Certificates of deposit (CDs)

Most Americans don't save enough for retirement.

Median Retirement Account Savings, 1989 - 2016



Different Perspectives on Personal Savings for Retirement

Radicals: 0% necessary. UBPs fully fund retirement, but personal savings might be desirable for fun money.

Conservatives: 100% necessary. PRAs fully fund retirement.

Liberals: 60% necessary. Social Security provides the other 40% to fully fund retirement.



Pensions are monthly benefits paid by employers when people reach a certain age and retire.

- By the early 2000s, most private pensions had been eliminated and replaced with 401Ks—sometimes matched by employers.
- Government pensions continue to be offered.

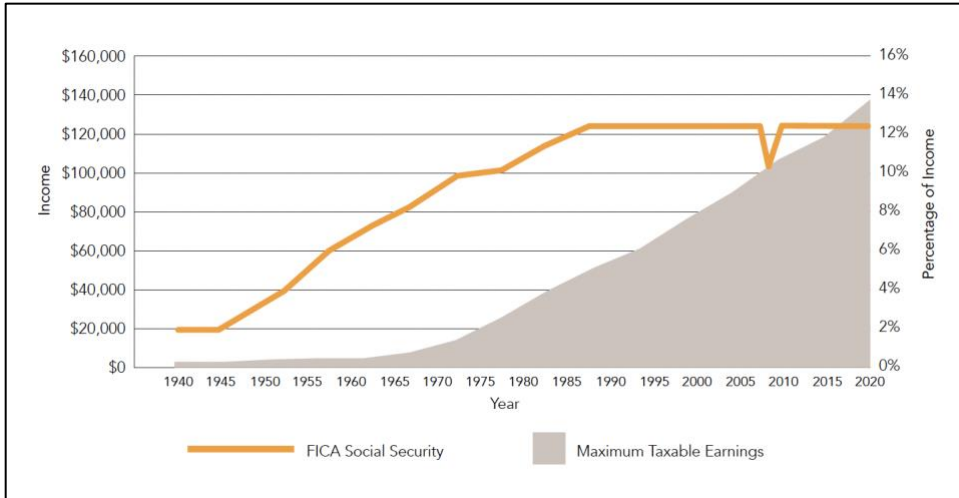
President Roosevelt (FDR) signed the Social Security Act in 1935.
Official name: Old-Age, Survivors, and Disability Insurance (OASDI)

Social Security is a contributory entitlement program, meaning you are entitled to receive benefits only if you contribute a certain amount during your working years.

SSA Benefits Funding:

- FICA: Federal Insurance Contributions Act “Payroll Tax”
- Employee portion 6.2% + Employer portion 6.2%
- Total Tax = 12.4%
- There is a limit to how much income is taxed for Social Security.

Social Security Tax Rate and Maximum Taxable Earnings



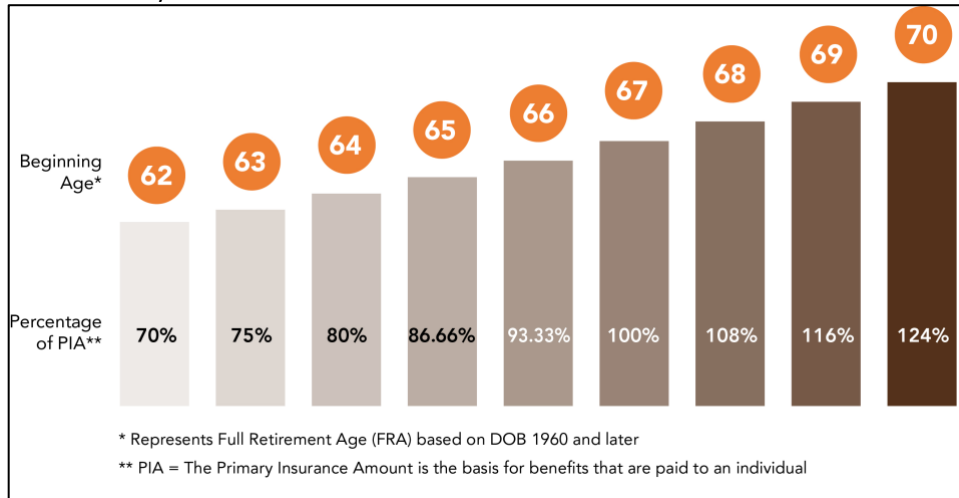
SSA Benefits

- Must make minimum contributions for 40 quarters to be eligible for benefits.
- The 40 quarters don't need to be consecutive.

How to Calculate Your Monthly Benefits

- List your annual salary for all your working years and pick the highest 35. Convert each year into today's dollars.
- Add earnings up and divide by 420 (number of months in 35 years).
- This is your Average Indexed Monthly Earnings (AIME).
- Your monthly Social Security check will be a percentage of the AIME, called the Primary Insurance Amount (PIA).

Effects of Early and Late Retirement on SSA Benefit

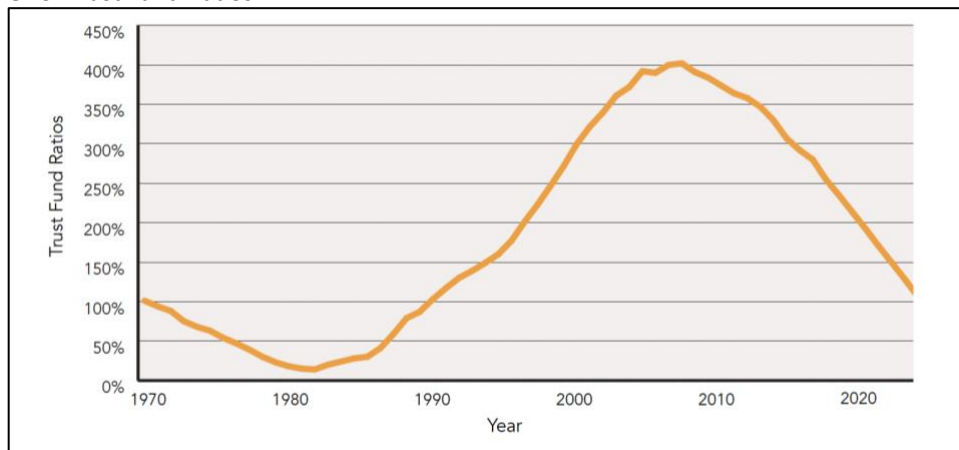


If I retire early, the amount of money I can earn outside of my SSA benefit is limited. The earnings limit doesn't apply after I reach my full retirement age (FRA).

Social Security benefits are funded as a pay-as-you-go system. Today's workers fund today's retirees. The ratio in the 1960s was 5 workers to every 1 retiree, but by 2040 it is expected to be 2 to 1 due to:

- Demographic changes
- Life expectancy changes
- Birth rate changes

OASI Trust Fund Ratios



The Social Security Trust Fund Ratio (the combination of the money already in the fund, expenditures, and revenues) needs to be at 100% to pay

benefits to all who are eligible, but in 2020 it was predicted that by 2034 the trust fund ratio will be zero.

Public Opinion on How to Fix Social Security, 2013



Social Security is supported by a large majority of Americans despite glaring problems. But...

- Conservatives want to get rid of it.
- Radicals want to replace it.
- Liberals want to fix it.

Three-in-One Activity: “The Golden Years”

Round I: Neutral

Goal of the retirement system: Provide at least the basic necessities to all seniors.

Test Payoff Matrix

Saver
Orange

		PRA	GMF
Saver Gray	PRA	A 9, 9	B 6, 10
	GMF	C 10, 6	D 7, 7

PRA: Private Retirement Account
GMF: Government-Managed Funds

Payoffs not based on real data. Just testing whether game theory could be useful here.

The payoff matrix shows two strategies for funding seniors' basic necessities:

1. Government-Managed Funds (GMFs), a strategy of cooperation that could be either Social Security or Universal Basic Pensions.
2. Private Retirement Accounts (PRAs), a strategy of competition.

Test Payoff Matrix		Saver Orange	
		PRA	GMF
Saver Gray	PRA	A Pareto optimal 9, 9 Depending on if the payoffs are correct...	B 6, 10
	GMF	C 10, 6	D Nash equilibrium 7, 7

Payoffs not based on real data! Just testing whether game theory could be useful here.

PRA: Private Retirement Accounts
GMF: Government-Managed Funds

Voices on Retirement Security

Radical

Response to discussion story: Neither box is secure. The funds accumulate through exploitation and then people “choose” between a casino and mismanagement.

Voice: Pages 805-809

Summary: Page 810

Talking Points: Page 811

Test Payoff Matrix

Activity: Examine the original numbers (on the left) and then indicate change with up ↑ or down ↓. (Change by 5 or 10 points.)

		PRA	GMF
PRA	A	9, 9 Pareto Optimal	6, 10
Saver Gray	C	10, 6	7, 7 Nash Equilibrium
GMF			

		PRA	Saver Orange	UBP
Radical	A	Individuals at Risk		Insufficient Savings & Underfunded Program
PRA		↓ -1, -1 ↓		↓ 1, 5 ↓
Saver Gray	C	Underfunded Program & Insufficient Savings		Social Safeguards
UBP		↓ 5, 1 ↓		↑ 17, 17 ↑

PRA: Private Retirement Accounts
UBP: Universal Basic Pension

Radical Payoff Matrix: Adjusted
Identify the Nash equilibrium and Pareto optimal cells.

		PRA	Saver Orange	UBP
Radical	A			B
PRA		-1, -1		1, 5
Saver Gray	C			D
UBP		5, 1		17, 17 Nash equilibrium Pareto optimal

PRA: Private Retirement Accounts
UBP: Universal Basic Pension

Conservative

Response to discussion story: The box for PRAs is always the better choice—a bigger return on investment, controlled by the workers themselves, and left to their heirs.

Voice: Pages 812-816

Summary: Page 817

Talking Points: Page 818

Test Payoff Matrix

	PRA	GMF
PRA	A 9, 9 Pareto Optimal	B 6, 10
GMF	C 10, 6	D 7, 7 Nash Equilibrium

Activity: Examine the original numbers (on the left) and then indicate change with up ↑ or down ↓. (Change by 5 or 10 points.)

	PRA	Saver Orange	GMF
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Conservative

PRA

Saver Gray

GMF

	A	Market Surge		B
	↑	19, 19	↑	↓
		1, 5		↓
	C	Unrealistic Promises & Weak Market Returns		D
	↓	5, 1	↓	↓
		-3, -3		↓

PRA: Private Retirement Accounts
GMF: Government-Managed Funds

Conservative Payoff Matrix: Adjusted

Identify the Nash equilibrium and Pareto optimal cells.

	PRA	Saver Orange	GMF
--	-----	--------------	-----

Conservative

PRA

Saver Gray

GMF

	A	19, 19 Nash equilibrium Pareto optimal		B
		1, 5		
	C	5, 1		D
		-3, -3		

PRA: Private Retirement Accounts
GMF: Government-Managed Funds

Liberal

Response to discussion story: The better box depends on the risk/reward comfort of the worker. Both are strong choices because Social Security is there as a failsafe.

Voice: Pages 819-823

Summary: Page 824

Talking Points: Page 825

**Test
Payoff
Matrix**

**Saver
Orange**

Activity: Examine the original numbers (on the left) and then indicate change with up ↑ or down ↓. (Change by 5 or 10 points.)

		PRA	RSS
		<div style="border: 1px solid orange; padding: 2px; display: inline-block;">Saver Orange</div>	

PRA: Private Retirement Accounts
 RSS: Reformed Social Security

Liberal Payoff Matrix: Adjusted
 Identify the Nash equilibrium and Pareto optimal cells.

		Saver Orange	
		PRA	RSS
Liberal	PRA	<div style="border: 1px solid gray; display: inline-block; padding: 2px;">A</div> -1 , -1	<div style="border: 1px solid gray; display: inline-block; padding: 2px;">B</div> 1 , 5
	RSS	<div style="border: 1px solid gray; display: inline-block; padding: 2px;">C</div> 5 , 1	<div style="border: 1px solid gray; display: inline-block; padding: 2px;">D</div> 17 , 17 Nash equilibrium Pareto optimal

PRA: Private Retirement Accounts
 RSS: Reformed Social Security

Shared Outcome: Care and peace of mind for the elderly.