
Retirement Security and Late-Life Work

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Rising Life Expectancy at Age 65

Year	Men	Women
1960	13.2 years	17.4 years
1990	16.1	19.4
2010	18.6	21.1
2030 (projected)	20.0	22.4
2060 (projected)	21.8	23.9

Source: Social Security Administration, Office of the Actuary.

U.S. Old-Age Dependency Ratio

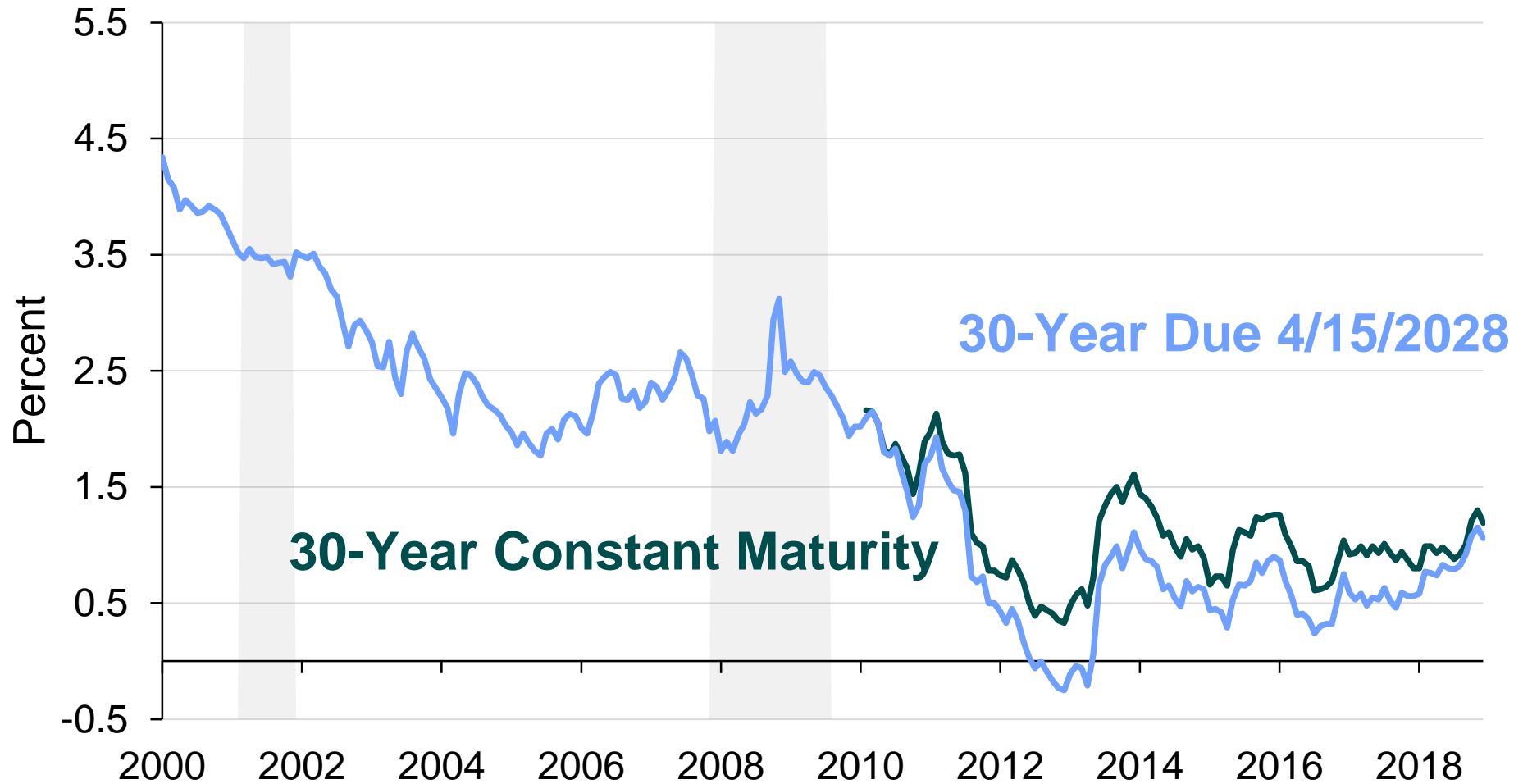
Year	Population 65+/(25-64)
1960	0.198
1990	0.247
2010	0.245
2030	0.416
2060	0.480

Source: U.S. Bureau of the Census.

Low Return Environment Exacerbates the Challenge

- Low long-term rates of return reduce the power of saving to provide for retirement
- Challenge for pension funds, retirement savers

30-Year TIPS Yield



Source: Haver Analytics, 30-Year 3-5/8% Treasury Inflation-Indexed Bond, Due 4/15/2028 [TP30A28], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/TP30A28>, January 14, 2019. Board of Governors of the Federal Reserve System (US), 30-Year Treasury Inflation-Indexed Security, Constant Maturity [FII30], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/FII30>, January 14, 2018.

Saving Rate That Replaces 50% of Final Earnings with Annuity

Saving Period	$r = 0.03$	$r = 0.01$
20 Years	0.275	0.455
30 Years	0.165	0.303
40 Years	0.111	0.227

Calculations assume annual real wage growth of 1% per year. r denotes the real interest rate.

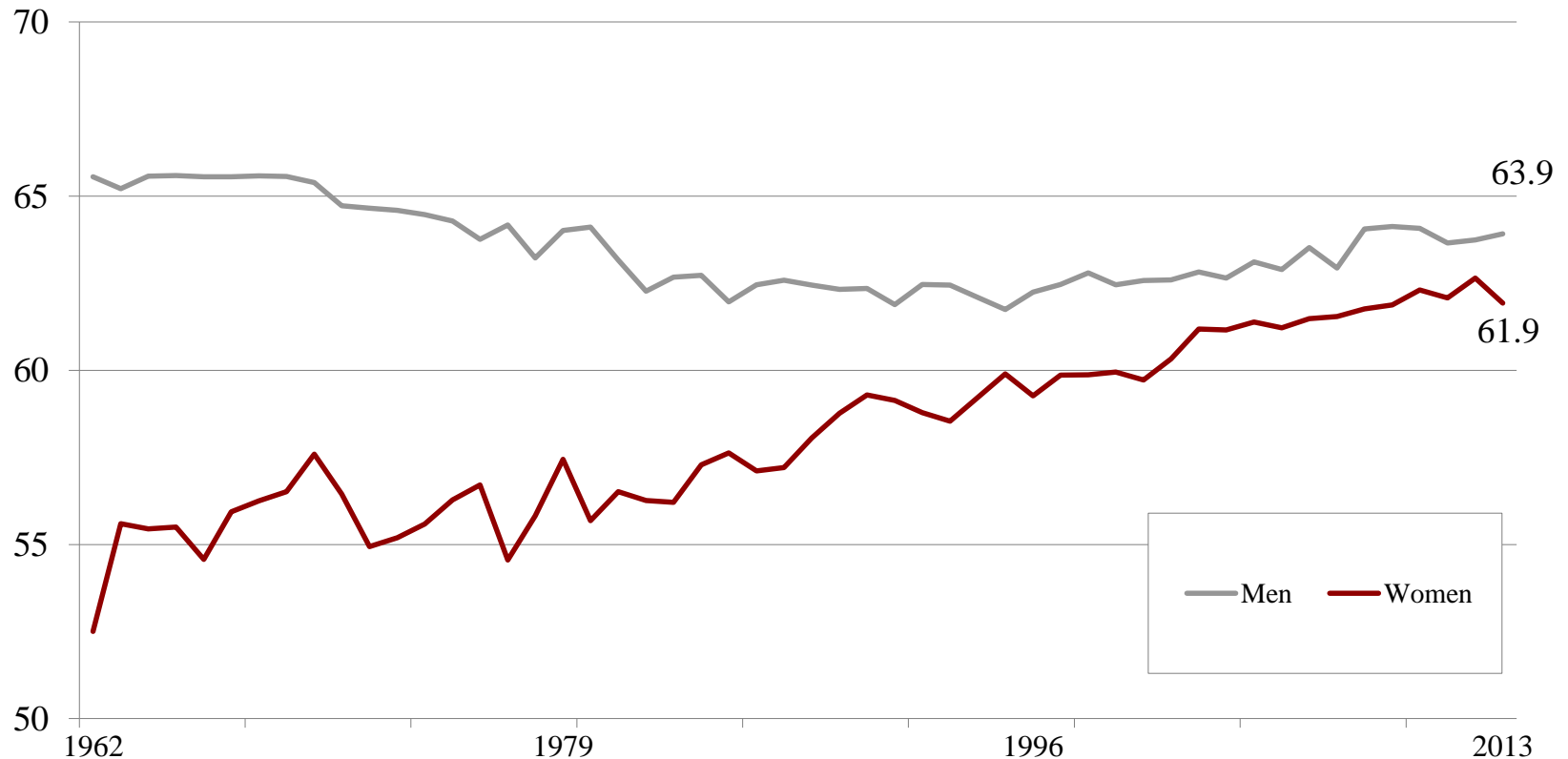
Responses to Longer Lifespan and Low Returns

- Consume less when retired
- Increase saving while working
- Work longer to shorten retirement period and lengthen saving period
- “Reach for yield:” Invest in riskier assets
- Collect transfers from working cohorts

Extra Work Years That Preserve Value of Consumption when Life Length Rises by 10 Years (Starting from 40 Years Work, 10 Retired)

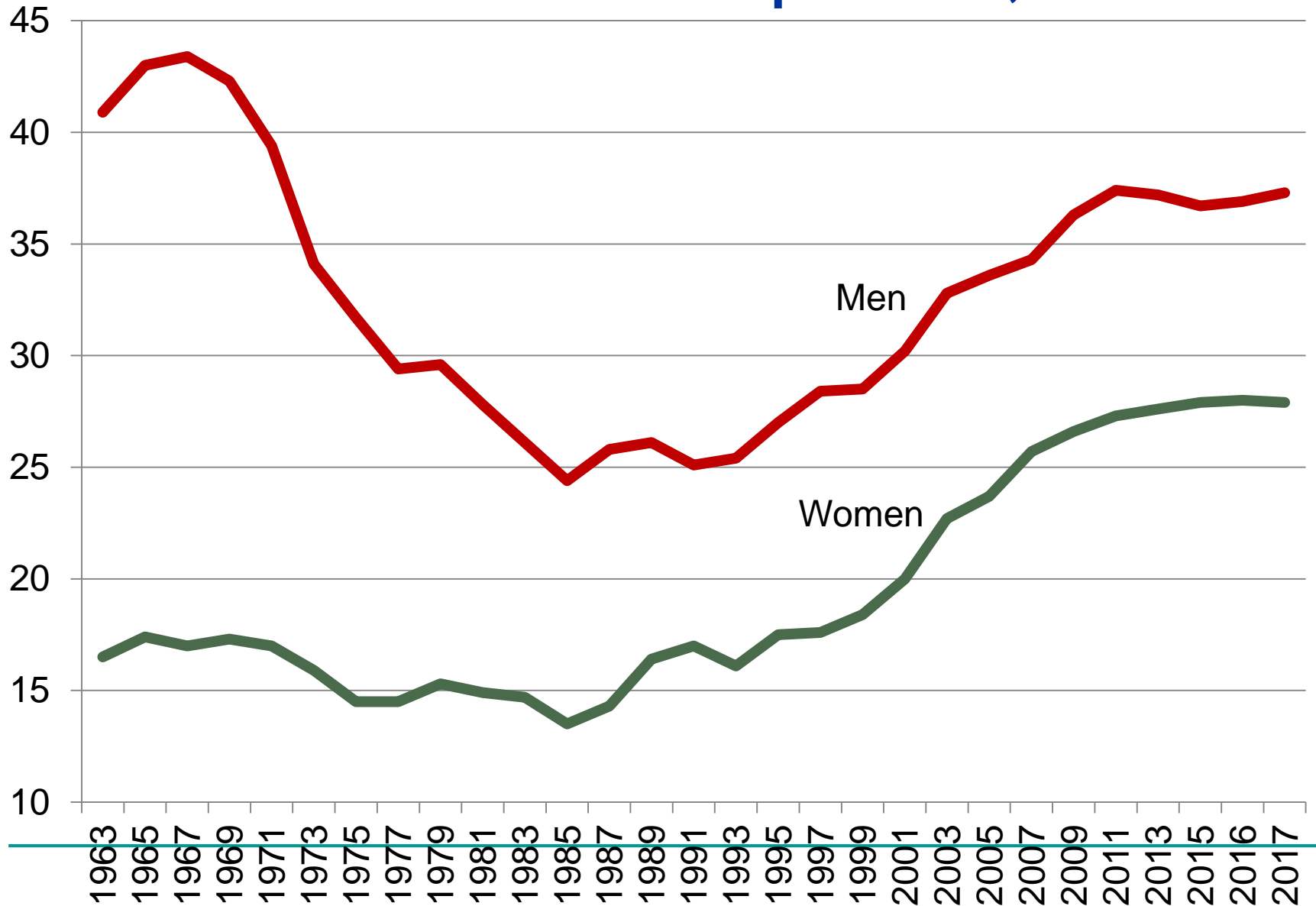
$r = 0$	$r = .02$	$r = .04$
8.0	7.0	5.8

Age at Which LFPR = 50%



Source: A. Munnell, "The Average Retirement Age – An Update," Issue Brief 15-4, Center for Retirement Research @ Boston College, 2015.

Labor Force Participation, 65-69



Assessing Capacity to Work: Men, 1977-2010

Age	Mortality Rate (2010)	Employment Rate in 2010	Employment Rate @ same death rate in 1977	Difference
55	0.0078	71.8%	89.1%	17.3%
59	0.0104	65.9	83.6	17.7
63	0.0140	54.3	82.3	18.0
67	0.0189	32.6	75.9	43.3

Source: C. Coile, K. Milligan, D. Wise, "Health Capacity to Work at Older Ages: Evidence from the U.S." NBER working paper 21940.

Population Heterogeneity is Key for Working Longer Policies

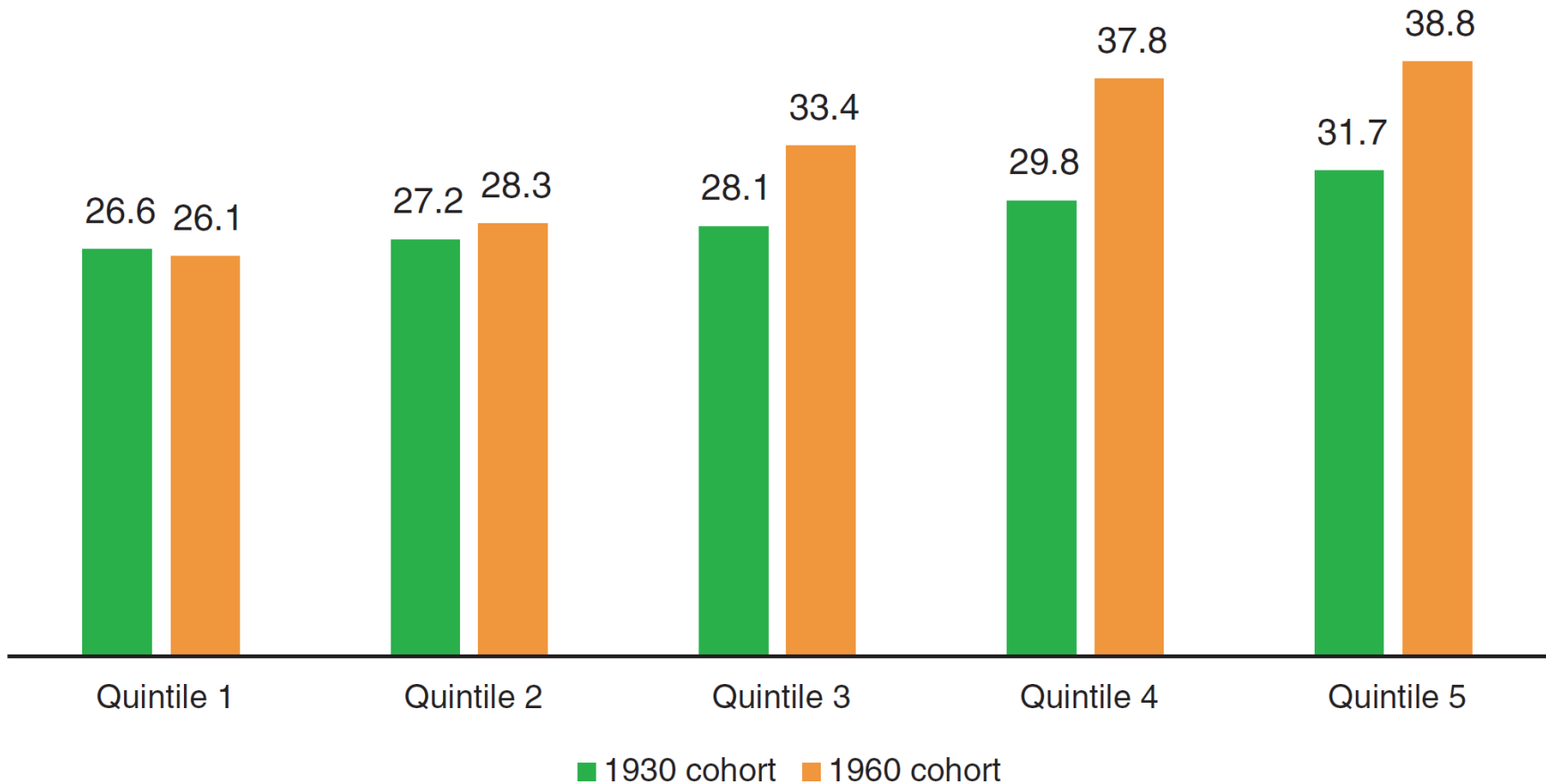
- Can everyone work longer?
- Are those who are in better health, and who are able to work longer, also the ones with fragile retirement security?
- How can a policy of later retirement recognize that some individuals find additional late-life work very difficult?

Heterogeneity in Health Status

Number of Chronic Conditions	65-69	70-74	75-79
0	25.7%	18.9%	15.2%
1	20.4	18.0	16.0
2	22.2	22.5	21.6
3	16.0	18.7	19.9
4 or more	15.7	21.9	27.3

Source: J. Wolff, B. Starfield, G. Anderson, "Prevalence, Expenditures, and Complications of Multiple Chronic Conditions in the Elderly," *archives of internal Medicine* 162 (2002), pp2269-76.

Male Life Expectancy at Age 50, 1930 and 1960 Birth Cohorts



Source: Estimates reported in National Academies study *The Growing Gap in Life Expectancy by Income* (2015).

Household Balance Sheets, 65-69 Year Olds in 2014

Per-centile	SS Wealth	DB Wealth	Non-Retirement Financial	IRAs & DC Plans	Home Equity	Net Worth
10	\$0	\$0	\$0	\$0	\$0	\$144K
25	120K	0	0.5K	0	19K	290
50	226	0	12	29K	105	615
75	355	160K	97	225	250	1271
90	462	445	330	705	555	2207

Source: Updated from Poterba, Venti, & Wise (2013) Journal of Economic Perspectives.

Net Financial Assets, Married Couples Near Retirement, 2016

Per- centile	60-64, Working	60-64, Earnings < \$500	65-69, Working	65-69, Earnings < \$500
10	\$4K	\$0	\$0	\$0
20	20	1	13K	2K
50	200	34	134	132K
80	914	351	837	591
90	1825	1505	2299	1180

Source: Survey of Consumer Finances, 2016.

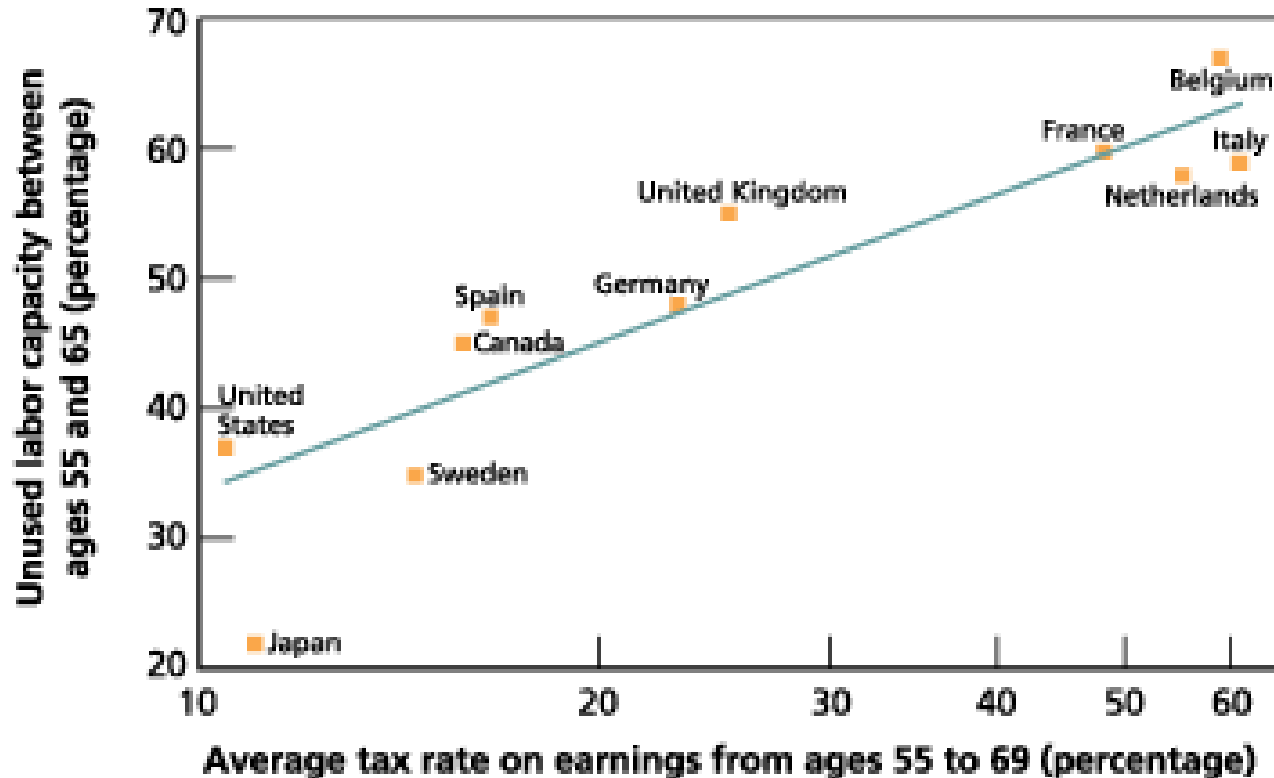
Labor Force Participation Rates

Country	Men 60-64	Men 65+	Women 60-64	Women, 65+
Germany	58.9	7.1	41.1	3.3
Japan	75.4	28.7	45.8	13.4
New Zealand	77.6	25.5	64.1	15.0
Canada	58.0	17.1	45.7	8.8
U.S.	60.5	23.6	50.4	14.4

Source: D. Goodkind, "Labor Force Participation Rates for an Aging World 2015 US Census Bureau. Data apply to 2012.

<https://www.census.gov/newsroom/blogs/random-samplings/2016/03/labor-force-participation-rates-for-an-aging-world-2015.html>

Labor Market Activity at Older Ages: Effect of “Net Wage”



Source: J. Gruber and D. Wise.