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EXECUTIVE SUMMARY

The “Working Longer and Retirement Conference: Applying Research to Help Manage an Aging Workforce” was held on April 27-28 on the Stanford campus in Palo Alto, CA. The conference was organized and hosted by the Stanford Center on Longevity (SCL) and the Stanford Institute for Economic Policy Research (SIEPR), and sponsored by the Alfred P. Sloan Foundation.

SCL and SIEPR organized this conference with the goal of gathering a group of academic researchers, employers, and human resource practitioners to discuss how to apply emerging academic research conclusions to the practical challenges of managing an aging workforce.

We aimed to engage in a constructive exchange that would benefit both researchers and practitioners by:

• Providing researchers with a forum to test and refine their ideas with practitioners,
• Helping researchers make connections that could be useful for future research,
• Presenting research findings that have practical applications for practitioners managing an aging workforce, and
• Allowing practitioners to share their most pressing problems that could be aided by future research.

We hoped to identify opportunities for real-world application of these ideas, topics for future research, and possibilities for collaboration between researchers and industry. One goal for this conference was to find practical applications for research that had been presented at prior SIEPR “Working Longer and Retirement” academic conferences.
Major themes of discussion included:

• There is a compelling case for people to work longer:
  o It’s often financially necessary, since many older workers have not accumulated sufficient savings to retire.
  o Working longer can help maintain physical and cognitive health.
  o For some employers, the presence of older workers can improve the productivity of the entire workforce.
  o Certain industries are experiencing labor force gaps, so employers are feeling the need to retain older workers out of necessity.
  o From a societal perspective, with increased lifespans, continuing to add the extra years of life to the retirement phase increases strains on welfare programs such as Social Security, Medicare, and Medicaid. In addition, older citizens represent an under-utilized resource that can help address societal challenges. Details in Topics 1 and 2.

• Significant barriers impact both workers, who are trying to stay in the workforce, and employers, who are trying to engage older workers past traditional retirement ages. Stereotypes about older workers, age discrimination laws that discourage age diversity, and inflexible institutional structures are challenges faced when employing an older worker. Details in Topic 3.

• Priorities change for older workers. Research shows that while older workers want to work longer, they also want more flexibility in their work schedule. Details in Topic 4.

• What needs to change? Here are some of the particularly important steps:
  o Build a business case for retaining and hiring older workers. Without a clear financial reason to do so, there is little incentive to try to overcome the barriers to employing older workers.
  o Create a work environment that responds to what older workers want (and other age groups as well): more flexible working experiences, continued support and training, compensation which matches their contribution, and phased retirement.
  o Develop strategies that allow older workers to self-select into alternative career trajectories, job responsibilities, and pay structures. Details in Topic 5.
  o Modify Social Security and Medicare to provide incentives to hire and retain older workers.
  o Refine company health wellness programs to focus on health conditions common with older workers, to enable them to continue working.

• Future research can help address the challenges of an aging workforce. Possibilities include:
  o Building the business case for retaining older workers.
  o Investigating appropriate job structures and fair compensation that recognizes the value of older workers.
  o Establishing research collaborations between academia and industry to enable researchers to use employee databases.
SPEAKERS AND MODERATORS

Ramsey Alwin is a Director of Thought Leadership at AARP. In her role directing AARP’s Financial Resilience Thought Leadership efforts, Ms. Alwin works to position AARP as the global leader in challenging outdated beliefs and sparking new solutions related to financial resilience so people can choose how they age. Alwin engages with provocative thinkers to bring the best ideas from a wide range of perspectives to bear on AARP’s programs, policy work, and products. Prior to joining AARP, she was the Vice President for Economic Security at the National Council on Aging.

Dawn Carr is an Assistant Professor of Sociology and a Faculty Associate at the Pepper Institute for Aging and Public Policy at Florida State University. Dr. Carr’s research examines the factors that bolster older adults’ ability to remain healthy and active as long as possible, with a particular focus on work/retirement, volunteer engagement, and care work in mid- and later-life.

Robert Clark is a Professor of Economics and Management at the Poole College of Management at North Carolina State University. His research examines retirement decisions, the impact of DC vs. DB plans, government pension regulation, employer-provided financial literacy programs, and the role of supplementary retirement saving plans in the public sector. Dr. Clark is also a Research Associate with the NBER’s program in Aging, a member of the Pension Research Council at the Wharton School of the University of Pennsylvania, and a Fellow of the Employee Benefit Research Institute and the TIAA-CREF Institute.

Catherine Collinson is the President of the Transamerica Institute and the Transamerica Center for Retirement Studies, where she oversees all research and outreach initiatives. Her work focuses on how to prepare employees for financial success in retirement, including through employer-sponsored plans. Ms. Collinson also is the Executive Director of The Netherlands’ Aegon Center on Longevity and Retirement.

Harry Conaway is the President and CEO of the Employee Benefits Research Institute (EBRI). He has over 30 years of experience in employee benefits and employer-sponsored benefits plans from the legal and private-sector perspectives. The mission of EBRI is to contribute to, to encourage, and to enhance the development of sound employee benefit programs and sound public policy through objective research and education.

Gopi Shah Goda is a Senior Fellow and the Deputy Director at the Stanford Institute for Economic Policy Research (SIEPR) at Stanford. Her research examines the economics and aging, with a focus on economic policymaking. She studies retirement savings decision-making and the effects of long-term care insurance on family members’ work and location decisions. Dr. Goda is also a Faculty Research Fellow at the National Bureau of Economic Research and a Fellow of the Society of Actuaries.

Michael Hurd is the Director of the RAND Center for the Study of Aging. His research as a Senior Principal Researcher at RAND examines the structural and behavioral economics of aging, including those related to retirement plans, Social Security, the use of health care services, the relationship between socioeconomic status and mortality, the monetary costs of dementia, and the costs of long-term care.

Nicole Maestas is an Associate Professor of Health Care Policy at Harvard Medical School. Her research studies how the health and disability insurance systems affect individual economic behaviors, such as labor supply and the consumption of medical care. Prior to joining the faculty at Harvard, she was a senior economist at RAND, where she served as Director of the Economics, Sociology and Statistics Research Department as well as of the Center for Disability Research.

Haig Nalbantian is a Senior Partner and Co-Founder of the Workforce Sciences Institute at Mercer. His research and work focuses on managing and measuring human capital. In his role at Mercer, he develops and implements advanced analytical methods to measure the economic impact of workforce management practices.

Susann Rohwedder is a Senior Economist at the RAND Corporation, Associate Director of the RAND Center for the Study of Aging, and a member of the Pardee RAND Graduate School faculty. Her research examines the economics of aging,
with a focus on household consumption and saving behavior, retirement, long-term care, and expectation formation. Dr. Rohwedder is a research fellow of NETSPAR (Network for Studies on Pensions, Aging, and Retirement) in the Netherlands, a member of the Survey Committee of the German Socio-Economic Panel, and the Associate Editor of the *Journal of the Economics of Ageing*.

**John Shoven** is the former Director of the Stanford Institute for Economic Policy Research and the Charles R. Schwab Professor of Economics at Stanford. His research focuses on public and corporate finance, including Social Security, health economics, corporate and personal taxation, mutual funds, pension plans, economic demography, and applied general equilibrium economics. Dr. Shoven is also a Senior Fellow at the Hoover Institution and a Research Associate of the National Bureau of Economic Research.

**Steve Vernon** is a Research Scholar at the Stanford Center on Longevity. He speaks, writes, and conducts research on the most challenging aspects of retirement, including finances, health, and lifestyle. His current focus is on retirement security in a defined contribution world, behavioral finance, and retirement decision-making. For more than 30 years, he consulted at Watson Wyatt and Mercer, helping Fortune 1000 employers design, manage, and communicate their retirement programs. Vernon writes a regular blog column for CBS MoneyWatch, titled “Money for Life.” His latest book is *Money for Life: Turn Your IRA and 401(k) Into a Lifetime Retirement Paycheck*. Vernon is a Fellow in the Society of Actuaries and a Member of the American Academy of Actuaries.

**Robert Willis** is a Professor of Economics and Research Professor at the Population Studies Center and Survey Research Center at the University of Michigan. His research examines labor economics, family, and intergenerational transfers and cognitive economics. Dr. Willis is also the former Director of the Health and Retirement Study (HRS) and a current member of the HRS investigator team. He also serves on the External Advisory Committee of the Stanford Center for Population Health Sciences.
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Demography of life expectancy, workforce participation, and retirement:

- There has been a steady decline in mortality during the 20th century – people are living longer and are healthier than ever before. From 1970 to 2005, there was a three-fold decrease in mortality at age 65 (Rohwedder, Shoven).

- Labor force participation among older workers declined in many countries until the 1990s, and more recently has begun to increase. For example, about 80% of men aged 60-64 in America participated in the labor force in 1960; this percentage declined to 55% of men in the 1990s but rose to 60% by 2015. Among women, the increases have been even greater (Rohwedder).

- The likelihood to continue working later varies by occupation, but it has increased in most occupations. For example, salespeople and management are more likely to work past age 65 than are office and administrative support staff (Rohwedder).

Perceptions of working longer:

- Analyses of the Health and Retirement Survey suggest that people have become increasingly pessimistic about the prospect of living beyond age 75 in the past 10-15 years (Rohwedder).

- The 2017 Retirement Confidence Survey from Employee Benefits Research Institute suggests that about six in 10 workers feel confident they will have enough money for retirement, but only two in 10 are very confident. Workers over 55 and those with higher incomes tend to feel more confident about retirement (Conaway).

- This confidence may be misguided, given the lack of preparation reported by older workers (Conaway). The modest amount of savings accumulated by current older workers provides more evidence this retirement confidence may be misguided (Vernon).

- Many older workers are retirees, and many retirees would work if they could (Maestas).
The role of technology:

- When computers became prevalent in workplaces, they generally replaced jobs in the “middle” – routine thinking tasks. Manual service jobs and high-complexity thinking jobs remained. This meant workers clustered on either side: they added skills and learned to use computers, or went into service work that computers couldn’t easily do (Willis).

- Mainframe computers entered workplaces in the 1950s and 60s, and became widespread in the 1990s. Today’s workers over age 55 didn’t grow up with computers; they learned to use them after they learned how to work without them. This meant many older workers who could use computers were “skilled” and could keep working longer, but older workers who were not skilled with computers ended up getting replaced and pushed out of the workforce (Willis).

The role of policy:

- Current Social Security features in the U.S. incentivize people to leave work completely by age 70. Medicare incentivizes people to leave the workforce at age 65 (Rohwedder).

- The prevalence of employer-provided retiree health insurance has declined in recent years, providing incentives for workers to continue working until Medicare eligibility (Goda).

- Internationally, policy around working longer varies significantly. For example, in Japan many companies have mandatory retirement at age 60, but employers often help retiring workers find new jobs with vendors, suppliers, or customers, or they are hired back as contractors. As a result, many workers continue working beyond the mandatory retirement age. This is a formal way for an older worker to step down but not retire completely (group discussion point).
TOPIC 2: THE CASE FOR WORKING LONGER FOR INDIVIDUALS, WORKFORCES, AND SOCIETIES

The financial case:
- Most people can't fund a 30-year retirement over a 40-year career (Shoven). Most older Americans do not have significant savings or home equity, and will rely on Social Security payments in retirement (Vernon).
- Delaying retirement by even five years, from 65 to 70, often greatly increases a person's subsequent income in retirement, because it significantly increases Social Security income and enables savings to grow over those five years, even if the person is not adding to their savings (Vernon).

The health case:
- Most people are healthy enough to work in their 60s and 70s, even if they are not in perfect health (Vernon).
- At the same time, as many as one-quarter of older workers report chronic pain. These workers are more likely to stay in the workforce if they are in a high support job (Carr).

The cognitive case:
- When people retire from low complexity jobs, they are more likely to experience a drop in cognitive performance. Only people who continue to work full time show no cognitive loss (Carr).
- When people retire from high complexity jobs, most workers show no significant cognitive loss, and those who return to work experience a slight increase in cognitive performance compared to before (Carr).

The team productivity case:
- There is a “secret sauce” to success in the combination of older workers' knowledge and younger workers' abilities. The value of older workers becomes apparent when you look at teams, rather than at individuals (Nalbantian).
- As a person in the workforce ages, their contribution often changes: while their individual contributions might decrease, they begin to have a bigger positive effect on the productivity of people around them. This means accurately measuring productivity for older workers requires looking beyond an individual level (Nalbantian).
- Older workers are less likely to quit than younger workers, meaning that they actually have longer average tenure. Interestingly, this is also the case for workers of all ages who have older managers (Nalbantian).
- Currently, many companies have “career choke points,” where people aren't getting promoted. One reason for this is because the shift from defined benefit to defined contribution plans took away an incentive to retire and led to older retirement (Nalbantian).
- The biggest predictors of growth in revenue of one professional services company is: 1) experience of people on the sales team and 2) diversity (including age diversity) of people on the sales team (Nalbantian).
- Changing corporate culture around team productivity must take into account that talent is most directly a manager's resource, not a corporate resource (group discussion point).

The societal case:
- Older people are expensive for public assistance programs. Keeping people in the workforce longer can privatize some of that cost (Clark).
TOPIC 3: BARRIERS AND CHALLENGES TO WORKING LONGER

For workers:

- Myths and stereotypes about older workers can create a hostile environment for older workers, meaning that many don't want to work longer. Furthermore, many older workers hold stereotypes about themselves, potentially limiting their sightlines to the future (group discussion point).

- Many workers do not have a clear financial plan for retirement. Low financial literacy among workers can lead to poor decision-making around retirement planning (Vernon).

- Even if older workers want to continue working, having an open discussion about their retirement plans with managers can be risky. It may adversely affect their remaining tenure at the firm. Workers may be afraid to ask for a step down in pay and responsibilities, because they may worry they might not be able to increase pay and responsibilities at a later date if that becomes necessary. Older workers may also fear they will be overlooked for interesting assignments or training to update skills (group discussion point).

- Environmental blockers outside of the workforce (e.g. family, leisure, finances) affect older workers and their decisions regarding whether to keep working (Maestas).

- The prevalence of increases in chronic diseases among older workers might inhibit their ability to continue working. Trends on older workers’ health are troubling (Rohwedder).
For employers:

- Many reasons employers give for not employing older workers are myths (group discussion point). For example:
  - Myth: Older workers have more health problems and are therefore more expensive than younger workers. Data suggest this is more true for older men than older women but isn't nearly as significant as many believe it to be, particularly when costs for dependent children are recognized.
  - Myth: Older workers won't stay very long, so aren't worth investing in. Data suggest that the opposite is true: older workers are less likely to quit than younger workers.
  - Myth: In the new gig economy, workers of all ages don't care about tenure. Trend data from Mercer suggests this isn't true. Rather, workers across industries and ages do care about tenure.

- Age discrimination lawsuits and litigation may actually hinder behavior that encourages age-diversity. They may prevent employers from personalizing roles based on age (potentially hindering flexibility) (group discussion point).
  - The fear of lawsuits (and the high cost associated with them) means many employers feel discouraged to address age diversity. Many companies operate conservatively with respect to risk; when employee lawsuits are perceived to be common, companies often don't want to take risks on employee relations issues with older workers.

- Even if employers are open to more flexible career options, it is challenging to determine a fair compensation structure for flexible work schedules, especially when the value of older workers is often not measurable by traditional individual productivity measures (see Topic 2). Firms may have difficulty justifying alternative compensation structures for older workers, recognizing their worth to the organization (group discussion point).

- Executives and line managers alike lack knowledge on the value of having older workers in the workforce and therefore have few incentives to employ them (group discussion point).

For society:

- Stereotypes and expectations about older workers are strong and, in most cases, hinder a culture of extending the work-life of older workers through flexible working schedules (Collinson).

- Government programs, such as Social Security and Medicare, can incentivize full retirement at particular ages. These may not leave room for phased retirement or flexibility with working longer (Goda).

- The phrase “working longer” itself may have negative connotations for both workers and employers, making it more challenging to build a culture of working longer (group discussion point).

- Variation in preferences across employers and employees makes it hard, and potentially detrimental, to make a “one-size-fits-all” policy for older workers (Vernon).

- Most discussions about diversity in the workplace include race and gender but do not emphasize the importance of age diversity (group discussion point).

Executives and line managers alike lack knowledge on the value of having older workers in the workforce, and therefore have few incentives to employ them.
Flexible transitions from work to retirement.

- For 28% of older workers, continuing to work in some capacity is part of their retirement aspirations (Collinson, Vernon).
  - However, many older workers are not proactively taking the steps necessary to remain employable, such as staying healthy, performing well, or keeping skills up to date (Collinson).

- Part-time work is a crucial part of phased retirement. Formal structures for transitioning from full-time to part-time are beginning to appear but are still not widespread (Vernon).
  - Many workers figure out a way to transition into part-time work: in one survey, 40% of retirees transitioned into part-time work within eight years (Carr).

There are four primary models of workers phasing out of the workforce.

- The four models of phasing out of the workforce (Carr):
  - Shift to part-time work (from 40+ to 30 hours per week): 40% of workers.
  - Shift to partial retirement (from 40+ to 20 hours per week): 28% of workers.
  - Part-time work to retirement (gradual reduction from 40+ to 0 hours per week over six years): 12% of workers.
  - Phased partial to full retirement (from 40+ to 10 hours to 0 hours per week over six years): 20% of workers.

- Conclusions and observations (Carr):
  - There are significant differences between “partial retirement” and “part-time work.” This may partly be due to the types of workers in these two categories:
    - “Partially retired” workers typically have had longer tenure, are making these transitions at an older age, have higher income and wealth, and are more commonly male.
    - Women are more likely to call themselves part-time workers, Many face more difficulties because they more commonly have lower income/wealth than men.

- Some employers provide options for flexible work; however, these options vary (Maestas). For example:
  - Workers across all industries tend to have fairly restrictive schedules and are unable to have flexible hours. Less-educated workers tend to have more restrictive schedules than more-educated workers. Sometimes workers’ schedules become more restrictive with age, not less.
The types of pressure on workers, such as for daily production quotas or for completing tasks by a deadline, varies a lot by occupation. This means that building flexibility into work may also need to be occupation-specific (Maestas).

- Could employers implement an option for flexible schedules across the lifespan? This may be desirable, although some preliminary data suggests that having a flexible schedule does not impact productivity (group discussion point).

Meaningful work.

- Older workers often want (and are good at) jobs that make a difference or have opportunities for mentorship (Nalbantian).

Specific benefits and job attributes.

- Across all benefits and job attributes, workers report that paid time off is the most valuable (Maestas).
- Health care throughout retirement may be desirable, but it also encourages people to fully retire. Research shows that the presence of retiree health coverage before eligibility for Medicare at age 65 increases incidence of retirement (Goda).

Safe conversations with managers about flexibility, work role, and retirement (group discussion point).

- Workers often become more engaged when managers have conversations with employees about ideal options for flexibility from both the worker and the employer’s perspective.
- One way to encourage these open conversations is to integrate each person into a workgroup, and design roles that fit with the workers’ goals. It’s important that all team members and stakeholders are aligned on broader shared goals.
- Workplaces must have cultures that encourage older workers to feel comfortable reporting to younger managers.

Financial planning assistance. Older workers want help understanding and planning for the amount of money they will need in retirement (group discussion point).

Many of the points mentioned above are not just ideal for older workers, but for workers of all ages (group discussion point).
Increasing the number of older workers has the potential to solve the imminent labor shortage (Maestas).

Efforts to increase financial literacy and educate workers and employers about the implications of long lives may pay off in the form of more informed decision-making by both individuals and employers. What is the role for public policy? Building more educational components of the Social Security system may be a great place to start (group discussion point).

The role of benefits will be important in incentivizing working longer.

- Health insurance is a strong incentive to work or retire. Employers who want to encourage retirement before age 65 should offer retiree medical coverage until age 65, when workers become eligible for Medicare. Employers who want to retain older workers may want to offer medical coverage only for active employees. Health insurance options could help incentivize phased retirements (Goda).
- People value paid time off (PTO) more than any other job attribute. Not everybody uses all their PTO; but it is still beneficial for a worker to know that they have the option. Availability of programs such as unpaid leave or buying paid time off at the beginning of the year might help give flexibility and keep people working longer (Maestas).
- Health wellness programs that focus on older workers might help address their health challenges. Workplace policies and the built environment may need to accommodate workers who aren’t in perfect health but are still able to continue working (Carr).

It will be necessary for older worker to feel comfortable reporting to younger managers, and for younger managers supervising older workers. To achieve this, managers may need sensitivity training as well as positive examples and case studies (group discussion point).

The idea of flexible transition seems desirable both for older and younger workers (see Topic 4) to the extent it could help clear up choke points for younger workers to rise and move within an organization. One possibility is to take advantage of self-selection: give older workers who want to work longer and more flexibly the opportunity to choose a flexible work schedule, but don’t force everybody into the same path (group discussion point). Some possibilities and open questions in order to implement this include:

- The model will most likely vary by industry, company, and occupation. For example, models might be different for blue-collar workers compared to office workers. Other factors that need to be considered are the extent to which remote work is feasible and the importance of day-to-day continuity of individual workers.
- Employers and industries will need to improve methods that fit different types of workers to different roles.
- It will be important to make it safe for workers to discuss their options and take a reduction in hours, pay, and responsibilities.
- Companies will want to create programs that increase age diversity without targeting specific groups or individuals.
- It will be necessary to develop models for fairly compensating older workers. How should compensation and benefits be structured, and how should they change if an employee wants to take a different role within the organization? Wage rigidity and traditional individual productivity measures may hinder the ability to calibrate pay to performance for older workers.
One way to address the issue of older workers creating choke points for younger workers is to encourage lateral moves.

It will be very important to engage line managers in any program that encourages working longer. Decisions regarding older workers often made by line managers who need to get the job done, rather than executives at a company-wide level.

As technology continues to change and grow, so will models of working longer. Technological change brings with it the necessity of changing dynamics of required skill sets. Is it fair and reasonable to put the burden on the individual to maintain their skills? (Willis)

Policy around Social Security, health benefits, and age discrimination laws all may affect working longer behavior (group discussion point). Possibilities for public policy include:

- Eliminating payroll taxes for Social Security and Medicare once workers attain normal retirement ages.
- Making Medicare the primary payer for workers after age 65.

How to get there: immediate next steps and mediating factors (group discussion points).

- Update corporate culture. The relationship between work policy and culture is powerful. Companies are already sensitive to needs based on gender and ethnicity; could age be next?
- Publicize stories of success. Employers tend to only implement changes when there is a clear successful model to follow. Employers need qualitative information to complement quantitative data.
- Re-frame the discussion from “working longer” to a related concept that doesn't have the negative connotations and stereotypes. Some possibilities may include:
  - From the individual perspective: e.g. earning longer, extending engagement.
  - From the employer perspective: e.g. extending workers’ productive lives, contributing longer.
- Build the business case for keeping older workers. This will be especially important in order to get executive buy-in on programs to encourage working longer. Employers often look closely at cost per head. A business case would need to address health care costs; productivity (make sure that the work will get done); keeping competitive advantage for top older talent; and common false myths such as that older workers have shorter tenure.

The relationship between work policy and culture is powerful. Companies are already sensitive to needs based on gender and ethnicity; could age be next?
TOPIC 6: DIRECTIONS FOR FUTURE RESEARCH

   o See AARP’s publication “Disrupting Aging in the Workplace: Profiles in Intergenerational Diversity Leadership.”
     http://www.aarp.org/content/dam/aarp/ppi/2016-08/Disrupt%20Aging%20in%20the%20Workforce%20Report_FINAL_WEB.pdf

2. Build a concrete business case for age diversity in the workforce.

   We need to build a concrete business case for age diversity in the workforce.

3. How much of the variation in work style across ages is about age vs. generations? Will the same patterns exist in 20, 30, or 40 years? What did today’s older workers think about working longer and retirement when they were younger? What were the perceptions about younger workers a few generations ago?

4. What is the most effective way to increase age diversity in the workforce? Is it more effective to do it indirectly, such as through discussions of teambuilding?

5. What are the tradeoffs with respect to benefits, paid time off, and flexible work schedules that workers of different ages would accept?

6. What can we learn from lessons from around the world, e.g., Singapore and Japan? How do government policies and workplace cultures impact older workers’ experiences? What policies could we bring to the U.S. from countries such as Singapore and Japan, which have had mandatory retirement, out-placement, and re-employment programs for older workers?

7. Even where broad-based research exists on the merits of older workers, employers will place a high value on research that applies to their specific workforces. Many companies may wait to implement possible solutions until they have research on efficacy within their specific workforce, or at least within a population that looks like their workforce. What are the types of applied research that can help employers make informed decisions?

8. Explore ways for researchers to collaborate with employers to access more data that represents the practical decisions employers are making. Research is often focused on macro labor supply in part because that data is readily available.

9. Survey older workers to understand preferences, wants, perceived contributions, and acceptable trade-offs.

10. Survey line managers to understand front perceptions of older workers, what contributions they provide to a work team, and where they make a difference.
The mission of the Stanford Center on Longevity is to redesign long life. The Center studies the nature and development of the human life span, looking for innovative ways to use science and technology to solve the problems of people over 50 in order to improve the well-being of people of all ages.

RESOURCES

READING MATERIALS

Labor Market Effects of the Affordable Care Act: Updated Estimates

The Health and Retirement Study – Aging in the 21st Century: Challenges and Opportunities

Extending Work Life: Can Employers Adapt When Employees Want to Delay Retirement?

PUBLICATIONS FROM THE STANFORD CENTER ON LONGEVITY

http://longevity.stanford.edu/scl-publications/

STANFORD INSTITUTE FOR ECONOMIC POLICY AND RESEARCH
ACADEMIC WORKING LONGER CONFERENCES

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Opening Remarks
Working Longer and Retirement Conference

John B. Shoven

Source: Social Security Cohort Life Tables
Age that males reach 1%, 2%, and 4% Mortality

Source: Social Security Cohort Life Tables

Age that females reach 1%, 2% & 4% mortality

Source: Social Security Cohort Life Tables
Only the Rosiest Assumptions Avoid Insolvency

Trust Fund Balance

Life Expectancies for Couples

<table>
<thead>
<tr>
<th>Husband</th>
<th>Wife</th>
<th>Yrs to 1st Death</th>
<th>Yrs to 2nd Death</th>
<th>Length of Widowhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>60</td>
<td>17.5</td>
<td>29.2</td>
<td>11.7</td>
</tr>
<tr>
<td>63</td>
<td>61</td>
<td>16.7</td>
<td>28.2</td>
<td>11.5</td>
</tr>
<tr>
<td>64</td>
<td>62</td>
<td>16.0</td>
<td>27.2</td>
<td>11.2</td>
</tr>
<tr>
<td>65</td>
<td>63</td>
<td>15.3</td>
<td>26.3</td>
<td>11.0</td>
</tr>
<tr>
<td>66</td>
<td>64</td>
<td>14.6</td>
<td>25.3</td>
<td>10.8</td>
</tr>
<tr>
<td>67</td>
<td>65</td>
<td>13.8</td>
<td>24.4</td>
<td>10.5</td>
</tr>
<tr>
<td>68</td>
<td>66</td>
<td>13.1</td>
<td>23.4</td>
<td>10.3</td>
</tr>
<tr>
<td>69</td>
<td>67</td>
<td>12.5</td>
<td>22.5</td>
<td>10.0</td>
</tr>
<tr>
<td>70</td>
<td>68</td>
<td>11.8</td>
<td>21.6</td>
<td>9.8</td>
</tr>
</tbody>
</table>

Based on Social Security Cohort Life Tables

6
People live longer: Substantial reductions in mortality since late 1960s

Source: Milligan and Wise, 2012
Declines in Labor Force Participation among older workers until 1990s. Increases since.

Big differences due to economic incentives

Increased labor force participation at older ages among men (CPS data)
Among women even larger increases

- 60-64: Increased from 35.5% to 50% percent
- 65-69: Increased from 17% to 28% percent

Will working-longer trends continue?

Ask individuals in their 50s about their expectations of working past certain ages:

What are the chances you will be working full-time past age 65? (62, 70)

Suggests further increases in fraction working at older ages.

Source: HRS data - Authors' calculations
Labor Force Participation among those in their 70s: Increasing

Look into the Future: Individuals’ expectations working past age 70

Average probability reported at age 55-56 in 2014

<table>
<thead>
<tr>
<th></th>
<th>CPS 2016, any work</th>
<th>HRS P70 any work</th>
<th>HRS P70 full-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>23.8</td>
<td>27.0</td>
<td>15.5</td>
</tr>
<tr>
<td>Female</td>
<td>11.7</td>
<td>20.7</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Predicts
- slight further increase for males.
- Larger increase for females.

Source: HRS, Authors’ calculations
Great Variation in “Retirement Years”

Switch from full-time to no work
Gradual retirement
Never retire …

Follow cohort of full-time workers from age 57 to 70 and record all trajectories.

Less than 40% move from full-time to retirement
About 40% move to part-time

<table>
<thead>
<tr>
<th>Distribution of Retirement Trajectories</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time work to retirement</td>
<td>37.7</td>
</tr>
<tr>
<td>Gradual retirement</td>
<td>13.9</td>
</tr>
<tr>
<td>Unretirement</td>
<td>16.8</td>
</tr>
<tr>
<td>Full-time to part-time work</td>
<td>13.8</td>
</tr>
<tr>
<td>Always full time work</td>
<td>12.5</td>
</tr>
<tr>
<td>Retired after unemployment</td>
<td>1.8</td>
</tr>
<tr>
<td>Retired after disability</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Hudomiet, Parker and Rohwedder (2016)
Variation in Probability of Working past age [x] by Occupation, HRS 2014

Men, age 57-61: average probability of working past...

Large differences across occupations

Source: HRS, Authors’ calculations

Change in Probability of Working past age 62 between 1992 and 2014 by Occupation

Mostly higher in 2014, but not for all

Source: HRS, Authors’ calculations
Challenge for Workers and Employers

Employers don’t know employee’s remaining time on job

- A 60 year-old employee may retire any time or still work for the same employer 15 years later.
- May adversely affect training decisions and other job (growth) opportunities
- At the same time, older workers bring many good qualities …
- How to reveal remaining time and desired opportunities on the job?

Working Longer …

Some clouds on the horizon:

Worse health among most recent cohorts of people in their 50s.
Self-rated Health: Improvements at older ages, but worsening for successive cohorts in early 50s

Source: Hurd and Rohwedder (2015)

Increasingly Large Fractions Overweight: 35% among most recent 51-56 year olds

Source: Hurd and Rohwedder (2015)
Percent with diabetes: Doubled for youngest cohorts!

Survival prospects: Highest around 2000, recently substantially more pessimistic
Differentials in Subjective Survival

Males: average subjective survival by education, age 57-64

Source: HRS, Authors' calculations

Worse health and working longer?

- Accommodations on the job may become more important
- Improvements in disease management?

But maybe those in bad health don’t need to work as long?
Thank you!

P62 strongly predictive of actual labor force participation observed in panel

Average P62, average labor force participation rate at age 62 and at age 63, panel, men and women combined, age 51-56 at baseline.
Social Security Trustees’ assumptions

Figure 2. Trustees’ Assumptions versus Actual Participation Rates (men, age 65–69)

Source: Bureau of Labor Statistics and authors’ compilations of data from Social Security survey.
The Cognitive Demands of Work and the Length of Working Life: The Case of Computerization

Robert J. Willis
University of Michigan

Outline

• Population Aging and the Labor Force
• Polarization of the Work Force
• The Role of Computerization for Work and Retirement
• Challenges for the future
1. Population Aging is Happening Everywhere in the World and Much Faster than in the U.S.

Probability that regions of world will have 1/3 or more of population over 60 by year. Japan almost certainly by 2025; US perhaps never.

Source: Lutz, Sanderson & Scherbov (2008)

Place of the Baby Boomers in US Current and Future Age Distribution

![Diagram showing current and future age distribution of the Baby Boomers in the US.](image-url)
Tension between life cycle consumption and population aging

A. Age Consumption Profiles
Lee & Mason

B. Age Distributions
Pew Research Center

In U.S. a quarter of the labor force will be 55+ by 2024 and young workers will be scarce


Source: Bureau of Labor Statistics
2. Inequality of Earnings and Polarization of the Labor Force

- Computerization has been implicated as an important reason for growing inequality in wages and a decline in middle-skill, middle class jobs
  — Autor et al. (2003); Autor & Acemoglu (2011)
- “Routine” jobs are ones for which computer code can be written to replace tasks

Growth of Inequality of Earnings and Polarization of Occupational Skill: 1980-2005

- Employment by Skill Percentile
- Hourly Wage by Skill Percentile

Share of low wage and high wage occupations grew, middle skill jobs declined

Real wages grew only 10% over 25 years for middle skill jobs
Hypothesis: Routinization of tasks facilitated by computers, artificial intelligence and robotics can explain occupational polarization.

**Definition:** Routine tasks are those for which computer code can be written to do the tasks previously performed by a human.

Source: Autor, Levy and Murnane, 2003

---

**Types of Tasks in Major Occupation Groups**

<table>
<thead>
<tr>
<th>Occupation Group</th>
<th>Abstract Tasks</th>
<th>Routine Tasks</th>
<th>Manual Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers/prof/tech/finance/public safety</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Production/craft</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Transport/construct/mech/mining/farm</td>
<td>−</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Machine operators/assemblers</td>
<td>+</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Clerical/retail sales</td>
<td>+</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Service occupations</td>
<td>−</td>
<td>−</td>
<td>+</td>
</tr>
</tbody>
</table>

**Notes:** The table indicates whether the average task value in occupation group is larger (+) or smaller (−) than the task average across all occupations. Shaded fields indicate the largest task value for each occupation group.

Source: Autor and Dorn, AER (2013)
3. Implications of Computerization for Length of Working Life and Retirement

- Cohort perspective
- Working in computerized occupation requires continued human capital investment to avoid obsolescence of skills
  - Push to retire if improved technology does not complement skills
  - May delay retirement if skills are complemented
- Implications for Future Cohorts
  - Human capital and malleability of human skills
Computerization during lifetime of original HRS cohort born 1931-41: they learned on the job

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital computer invented</td>
<td>1952-62</td>
<td>21-31</td>
</tr>
<tr>
<td>Mainframe introduced</td>
<td>1962-72</td>
<td>31-41</td>
</tr>
<tr>
<td>Mini-computer introduced</td>
<td>1972-82</td>
<td>41-51</td>
</tr>
<tr>
<td>Personal computer introduced</td>
<td>1982-92</td>
<td>51-61</td>
</tr>
<tr>
<td>Growth of internet</td>
<td>1992-02</td>
<td>61-71</td>
</tr>
<tr>
<td>Smart phones</td>
<td>2002-12</td>
<td>71-81</td>
</tr>
</tbody>
</table>

Source: personal recollection

Baseline Predicted Age Patterns of Work and Retirement of 1931-41 Cohort
Effect of Occupation Involving Use of Computer on the Job by Sex and Age

Hypothesis:
Group 1 males middle-skilled computerization pushes them into retirement before age 62

Females
strong effect
invariant to age

Group 2
males
high skilled
computers complement skills, stay in work

Females

Deviations from Baseline Retirement Rates for Workers in Computerized Occupations (males and females)

Source: Willis (2014)

Another Look at Cohorts and Computerization

digital computer invented
Year 1952-62
Age 21-31

mainframe introduced commercially
Year 1962-72
Age 31-41

War Babies
Reach 18
1960-65
1960-65

mini-computer introduced
Year 1972-82
Age 41-51

Early Boomers
Reach 62
1966-71
2010-15

Mid Boomers
1972-77
2010-15

Late Boomers
1978-83
2016

personal computer introduced
Year 1982-92
Age 51-61

growth of internet
Year 1992-02
Age 61-71

War Babies
Entered HRS 1998

smart phones
Year 2002-12
Age 71-81

tablets

growth
apps

Reach 18

Reach 62

Entered HRS 1998

None of the HRS Cohorts who have retired or will retire during the next ten years finished HS before the personal computer was introduced
Challenges for the Future

- Tensions between support of an aging population and investments in the education of the young would be eased if people worked to a later age.
- Current generations approaching retirement have had to adapt human capital they acquired in school and early career to a world of computerization.
  - Those whose skills were replaced by computers had little growth in earnings and appear to be retiring earlier.
  - Those for whom computers are a tool tend to be working longer with high earnings.
- It is an open question whether the younger generation following them will regard computers, robots and artificial intelligence as tools or as replacements for their human intelligence and motivations.
Human Capital Theory
- Focus on individual productivity and performance
- Focus on pay as a proxy for productivity – the impact of competitive markets
- Explain trajectory of age-earnings profiles in terms of the productivity of human capital investments in education and training
- Draw out implications of presumed “diminishing returns” to learning and experience

Offshoots of Human Capital Theory and Alternative Models
- Essentially examines disruptions to pay – productivity link to solve incentive and selection problems associated with incomplete or asymmetrical information and implications for observed age/tenure-earnings relationships
  - Distinctions between “general” and “firm-specific” human capital
  - “Bonding” to solve incentive problems
  - Tournaments to motivate performance and better allocate risk
This interpretation may be confounded by a set of factors that disrupt the link between pay and productivity, rendering pay a flawed proxy for individual productivity:

- Back-loading of pay/benefits to account for employer investments in training and learning
  - Differential patterns of investment and return to general versus firm-specific human capital
- Back-loading of pay/benefits to address incentive problems in agency relationships
  - I.e., the performance bond
- Hierarchical structures of pay/benefits to motivate performance and more effectively allocate risk
- Asymmetries of information between employers and employees regarding job and employee attributes and resulting challenges of insuring match quality
- Imbalances in external versus internal labor market valuation of experience that can make older workers more or less valued than the true social utility of their employment
**INTERNAL LABOR MARKET (ILM) ANALYSIS®** “MAPS” THE TALENT FLOWS AND ASSOCIATED REWARDS THAT DETERMINE WHAT YOUR WORKFORCE IS, WHAT IT IS BECOMING, AND IT STATISTICALLY ESTIMATES THE DRIVERS OF THOSE OUTCOMES

<table>
<thead>
<tr>
<th>Career Level</th>
<th>Hires</th>
<th>Promotions</th>
<th>Exits</th>
<th>Lateral moves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 8</td>
<td>11</td>
<td>85</td>
<td>16</td>
<td>81</td>
</tr>
<tr>
<td>7</td>
<td>72</td>
<td>85</td>
<td>81</td>
<td>52</td>
</tr>
<tr>
<td>6</td>
<td>125</td>
<td>129</td>
<td>640</td>
<td>186</td>
</tr>
<tr>
<td>5</td>
<td>190</td>
<td>134</td>
<td>830</td>
<td>341</td>
</tr>
<tr>
<td>4</td>
<td>312</td>
<td>963</td>
<td>640</td>
<td>234</td>
</tr>
<tr>
<td>3</td>
<td>116</td>
<td>383</td>
<td>517</td>
<td>123</td>
</tr>
</tbody>
</table>

**Selected Drivers**

- Age
- Tenure
- Ethnicity
- Gender
- Recruitment Source
- Higher Degree
- Career Level
- High Potential
- Supervisor
- Wellness Score

**Outcomes**

- Base Pay
- Total Pay
- Pay Growth
- Promotion
- Performance Rating
- Resignation
- Absence

*The statistical model upon which such results are based accounts for a variety of individual attributes, organizational factors, and external influences for which data are available and includes all active employees in the period examined. "All else being equal" refers only to the factors accounted for in the model. There may be other relevant factors that are not reflected in the archival data utilized. All effects are significant at the 95% level unless otherwise noted.*
Disguised Case Example

At this technology company, generational effects play out predictably, though GenX employees seem to enjoy a particularly privileged position. All else being equal:

- Turnover probability falls steeply with age.
- Advancement seems to be most focused on GenXs.
- Total compensation rises with age, though pay growth is highest early in career.

**Employee Career Outcome**

<table>
<thead>
<tr>
<th></th>
<th>Turnover Probability</th>
<th>Promotion Probability</th>
<th>High Rating</th>
<th>Base Pay Level</th>
<th>Total Pay Level</th>
<th>Pay Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterans compared to GenX</td>
<td>-87%</td>
<td>-75%</td>
<td>-40%</td>
<td>-11%</td>
<td>+3%</td>
<td>-65%</td>
</tr>
<tr>
<td>Boomers compared to GenX</td>
<td>-45%</td>
<td>-40%</td>
<td>-18%</td>
<td>+6%</td>
<td>+2%</td>
<td>-50%</td>
</tr>
<tr>
<td>GenYs compared to GenX</td>
<td>+42%</td>
<td>-15%</td>
<td>+16%</td>
<td>-2%</td>
<td>-10%</td>
<td>+110%</td>
</tr>
</tbody>
</table>

**Note:**
- Turnover probability falls steeply with age.
- Advancement seems to be most focused on GenXs.
- Total compensation rises with age, though pay growth is highest early in career.

Study Results: Preliminary

Older workers are consistently less likely to be highly rated but those in groups with more older workers are more likely to get high ratings.

- Negative effects for individual employees of being older.
- Positive effects of group characteristics: evidence of spillover.

- "Prepared for printing" refers to preliminary results from statistical modeling of the drivers of group ratings across 11 large client organizations over a ten-year period. Models account for a variety of individual attributes, organizational factors, and external influences for which data are available and includes all active employees in the period examined. "All else being equal" refers only to the factors accounted for in the model. All effects are significant at the 95% level unless otherwise noted.

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TRADITIONAL ECONOMIC APPROACHES TO MEASURING THE PRODUCTIVITY OF OLDER WORKERS FOCUS ON MEASURES OF INDIVIDUAL PRODUCTIVITY, BUT THIS MAY MISS A BIG PART OF THE PRODUCTIVITY STORY

- Individual productivity of older workers, as traditionally measured, may indeed tend to be lower, but spillover effects, or productive “externalities,” may be so large as to offset any fall-off in individual performance
- For instance, older workers may:
  - stabilize a work unit by lowering turnover, which in turn increases unit productivity and performance
  - Both older and more tenured workers are less likely to turn over
  - In supervisory roles, they often reduce the propensity of others around them to turn over
  - Those working in groups of older and/or more tenured workers are sometimes less likely to turn over as well
  - Increase the productivity of those around them through knowledge and information sharing
  - Help grow the human capital within an enterprise by enhancing development and career progress of those they supervise or mentor
  - Enable innovation
  - Strengthen group cohesion, collaboration, conflict avoidance, and resolution, among other things

Measuring and understanding the trade-offs is fundamentally an empirical issue
IN THIS HEALTH SERVICES COMPANY, OLDER AND MORE TENURED EMPLOYEES ARE FAR LESS LIKELY TO QUIT

Percentage Reduction in Propensity to Quit

- External labor market factors
  - Unemployment: 7% vs. 4%
  - Employee lives closer
- Designing and staffing departments
  - More tenured manager
  - Larger department
  - Higher departmental turnover
  - Less heterogeneous workforce
  - More overtime hours
- Quick quits
  - Started as a temp
- Investments in human capital
  - Ten years older
  - Has one more year of tenure
  - Took at least one compliance course
  - Took quality training

A PATTERN THAT MATTERS A GREAT DEAL GIVEN THE EXCEEDINGLY HIGH COST OF TURNOVER, ACROSS ALL JOB FAMILIES

Effect of increase in voluntary turnover

Annual impact of 5, 10, and 15 – percentage point reductions in turnover

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>10</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved operating margin</td>
<td>$31mm</td>
<td>$63mm</td>
<td>$94mm</td>
</tr>
<tr>
<td>Decreased cost per unit</td>
<td>$66mm</td>
<td>$132mm</td>
<td>$198mm</td>
</tr>
<tr>
<td>Increased deadlines met</td>
<td>5%</td>
<td>11%</td>
<td>17%</td>
</tr>
</tbody>
</table>
BUT IN THIS PRODUCTS COMPANY, LIMITED INCENTIVES TO RETIRE RESULT IN LOW ILM VELOCITY, CAREER CHOKE POINTS AND THE LOSS OF UP-AND-COMING TALENT

<table>
<thead>
<tr>
<th>Career Level</th>
<th>Hires</th>
<th>Actives</th>
<th>Laterals</th>
<th>Total Exits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 8</td>
<td>8.0%</td>
<td></td>
<td></td>
<td>8.0%</td>
</tr>
<tr>
<td>Level 7</td>
<td>4.6%</td>
<td>3.1%</td>
<td>3.1%</td>
<td>16.9%</td>
</tr>
<tr>
<td>Level 6</td>
<td>3.3%</td>
<td>3.3%</td>
<td>4.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Level 5</td>
<td>3.2%</td>
<td>3.4%</td>
<td>4.8%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Level 4</td>
<td>3.8%</td>
<td>2.5%</td>
<td>6.7%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Level 3</td>
<td>7.4%</td>
<td>3.6%</td>
<td>5.3%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Level 2</td>
<td>14.9%</td>
<td>7.3%</td>
<td>5.1%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Level 1</td>
<td>18.5%</td>
<td>15.8%</td>
<td>4.4%</td>
<td>15.1%</td>
</tr>
<tr>
<td>All Levels</td>
<td>10.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Build" Organization: Ratio of new hires to promotable drops below 1
Career "choke points" have materialized at these levels

Velocity of Talent Movement is low beyond the professional level

MEASURING THE PRODUCTIVITY OF OLDER WORKERS
THE "MACRO" VIEW
THE ORGANIZATION’S “PRODUCTION FUNCTION” TRANSFORMS WORKFORCE CHARACTERISTICS AND OUTCOMES INTO BUSINESS PERFORMANCE

WORKFORCE OUTCOMES
- Capabilities
- Behaviors
- Attitudes
- Engagement
- Satisfaction

HUMAN CAPITAL MANAGEMENT PRACTICES

BUSINESS OUTCOMES
- Customer value
- Customer profitability
- Customer loyalty
- Financial performance
- Productivity
- Quality

MONITORING & ACCOUNTABILITY
People Scorecard

AT PROFESSIONALCO, LENGTH AND DISPERSION OF EXPERIENCE WERE THE STRONGEST DRIVERS OF YEAR-TO-YEAR SALES GROWTH

Percentage 1-year growth in revenue

- Breadth of relationship: Delivering one additional service to customers
- Stability of relationships:
  - Increase in dedicated staff serving customers (from 15% to 30%)
  - A 33% reduction in the turnover of the most seasoned people
  - A 33% reduction in voluntary turnover
- Key personal attributes:
  - An increase from 5 to 7 years in the average tenure
  - An 8% increase in the average performance rating of employees
- Diversity:
  - A 33% increase in the range of tenure of customer service employees
  - An increase in the % of non-whites (from 10 to 15%)
ON THE OTHER HAND, IN THIS RETAIL FIRM, STORES WITH OLDER EMPLOYEES PERFORM LESS WELL

### Age of FT Employees

![Graph showing age distribution of employees](image)

**Note:** Department X numbers have been included in the calculations for PC EBITDA and Margin, but excluded from those for PC GP. The models span from Year 1 to Year 3. Displayed averages and percentiles exclude Department X.

---

IN THIS NATURAL RESOURCES COMPANY, OLDER WORKERS DRIVE PRODUCTIVITY IN THIS UNIT...
WHEREAS LENGTH OF SERVICE DRIVES PERFORMANCE IN THIS OTHER UNIT

- # active workers
- Percent male
- Mean tenure in group
- Percent retirement
- Percent of new hires
- # active in job group F
- Mean age in group
- Variability of tenure in group
- Ratio of active miners to foremen
- # active workers in job group F

DISGUISED CASE EXAMPLE

CONCLUSION
WHAT IT ALL MEANS

• There is quite pervasive evidence that measures of individual productivity and performance wane as workers get older, though the value of firm-specific knowledge appears to offset at least some of these productivity differentials

• Gauging the value of older workers strictly in terms of traditional individual measures of performance may be very misleading
  – Spillover effects are very significant, suggesting the real economic value of older workers manifests itself at the group or organizational level

• A persistent imbalance may exist between external and internal labor market valuations of experience
  – External labor markets may “price” general experience higher in terms of wages/salaries, but internal labor markets may value homegrown experience more and deliver that value through other elements of rewards
  – This can result in situations where older workers get locked into employment with their current employer, impeding career progress for younger employees, even as they might contribute higher value to other employers and to the economy overall

• Strengthening “after markets” for older workers and actually enabling higher levels of mobility among the oldest employees may be a way to better align social and private value

• For individual employers, there is no substitute for careful, disciplined measurement of the drivers of workforce performance
  – In the age of big data, the possibilities to quantify these relationships far outstrip what they were even a few years ago

ABOUT THE PRESENTER

Haig R. Nalbantian is a Senior Partner and a Co-founder/Co-leader of Mercer’s Workforce Sciences Institute. A labor/organizational economist, he has been instrumental in developing Mercer’s unique capability to measure the economic impact of human capital practices. Those capabilities have been applied in numerous projects he has directed globally and across a board range of industries in the U.S., Europe and the Middle East, including: pharmaceuticals, high technology, manufacturing, financial services, media and information services, energy, telecommunications and professional services.

Haig came to Mercer from National Economic Research Associates, Inc.; before that he was on the faculty of economics at New York University and was a research scientist at its C.V. Starr Center for Applied Economics. He is an internationally recognized expert in incentives, human capital measurement and management and their links to workforce productivity and organizational performance.


Haig earned his BA in English and Economics at New York University and his graduate degrees in economics from Columbia University. He is a member of the American Economic Association.

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2017 RCS Methodology Overview

- 27th Annual Survey
- Conducted online, rather than by phone, for the first time this year
  - January 6 through January 13, 2017
- 1,671 20-minute online surveys with Americans age 25 and older
- 1,082 online interviews with workers
- 589 online interviews with retirees
- Margin of errors: ±3.04 percentage points for all workers and ±4.12 percentage points for all retirees (sample sizes are noted on figures)
Retirement Confidence

6 in 10 workers feel confident they will have enough money for retirement, but only 2 in 10 are very confident

Overall, how confident are you that you (and your spouse) will have enough money to live comfortably throughout your retirement years? (2017 Workers n=1,082)

- Very Confident
- Very or Somewhat Confident
- Not Too or Not At All Confident

![Graph showing retirement confidence from 1993 to 2017](image-url)
Those with a retirement plan nearly three times as likely to be very confident in their retirement security

Overall, how confident are you that you (and your spouse) will have enough money to live comfortably throughout your retirement years? (Workers)

<table>
<thead>
<tr>
<th>Have Retirement Plan* (n=809)</th>
<th>No Retirement Plan (n=273)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Confident</td>
<td>Somewhat Confident</td>
</tr>
<tr>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>18%</td>
<td>17%</td>
</tr>
<tr>
<td>46%</td>
<td>48%</td>
</tr>
<tr>
<td>14%</td>
<td>24%</td>
</tr>
</tbody>
</table>

*Have Retirement Plan defined as respondent or spouse having at least one of the following: IRA, DC plan, or DB plan

Those ages 55+ and higher income workers tend to feel more confident about retirement

Overall, how confident are you that you (and your spouse) will have enough money to live comfortably throughout your retirement years? (Workers)

<table>
<thead>
<tr>
<th>Worker Age</th>
<th>Worker Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Confident</td>
<td>Somewhat Confident</td>
</tr>
<tr>
<td>25-34</td>
<td>35-44</td>
</tr>
<tr>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>13%</td>
<td>28%</td>
</tr>
<tr>
<td>16%</td>
<td>27%</td>
</tr>
<tr>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Retiree confidence remains high, with a third feeling very confident

Overall, how confident are you that you (and your spouse) will have enough money to live comfortably throughout your retirement years? (2017 Retirees n=589)

![Graph showing retiree confidence trends from 1993 to 2017]

Two-thirds of workers not confident in ability to have enough money for basic expenses in retirement

Overall, how confident are you that you (and your spouse) will have enough money to take care of your basic expenses during your retirement? (2017 Workers n=1,082)

![Graph showing worker confidence trends from 1993 to 2017]
Retiree confidence about their ability to pay for basic expenses in retirement remains high

Overall, how confident are you that you (and your spouse) will have enough money to take care of your basic expenses during your retirement? (2017 Retirees n=589)

Retirement Planning
Only 2 in 10 workers are very confident they are doing a good job preparing for retirement

Overall, how confident are you that you are doing a good job of preparing financially for your retirement? (2017 Workers n=1,082)

7 out of 10 retirees are confident they did a good job preparing for retirement

Overall, how confident are you that you did a good job of preparing financially for your retirement? (2017 Retirees n=589)
4 in 10 workers have tried to figure out how much they need to save for retirement

Have you (or your spouse) tried to figure out how much money you will need to have saved by the time you retire so that you can live comfortably in retirement? (2017 Workers n=967, percent yes)

2 in 3 workers who calculated how much they need for retirement expect to need $500,000 or more

How much do you think you (and your spouse) will need to accumulate in total by the time you retire so that you can live comfortably in retirement? How much did you (or your spouse) calculate you would need in total by the time you retire so that you can live comfortably in retirement? (2017 Workers n=782)
### About 4 in 10 workers have estimated their retirement income needs; only 1 in 10 have a formal financial plan

Have you (or your spouse)…? (2017 Workers n=1,082, percent yes)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percent Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thought about how you would occupy your time in retirement</td>
<td>44%</td>
</tr>
<tr>
<td>Estimated how much income you would need each month in retirement</td>
<td>38%</td>
</tr>
<tr>
<td>Estimated the amount of your Social Security benefit at your planned retirement age</td>
<td>38%</td>
</tr>
<tr>
<td>Thought about moving or downsizing</td>
<td>38%</td>
</tr>
<tr>
<td>Estimated your expenses in retirement</td>
<td>34%</td>
</tr>
<tr>
<td>Talked with a professional financial advisor about retirement planning</td>
<td>23%</td>
</tr>
<tr>
<td>Calculated how much money you would likely need to cover health expenses in retirement</td>
<td>21%</td>
</tr>
<tr>
<td>Prepared a formal, written financial plan for retirement</td>
<td>11%</td>
</tr>
</tbody>
</table>

### More than half of retirees estimated how much income they would need each month in retirement

To prepare for retirement, did you (or your spouse)…? (2017 Retirees n=589, percent yes)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percent Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate the amount of your Social Security benefit at your retirement age</td>
<td>62%</td>
</tr>
<tr>
<td>Estimate how much income you would need each month in retirement</td>
<td>56%</td>
</tr>
<tr>
<td>Think about how you would occupy your time in retirement</td>
<td>54%</td>
</tr>
<tr>
<td>Estimate your expenses in retirement</td>
<td>52%</td>
</tr>
<tr>
<td>Calculate how much money you would need for retirement</td>
<td>41%</td>
</tr>
<tr>
<td>Calculate how much money you would likely need to cover health expenses in retirement</td>
<td>39%</td>
</tr>
<tr>
<td>Talk with a professional financial advisor about retirement planning</td>
<td>34%</td>
</tr>
<tr>
<td>Think about moving or downsizing</td>
<td>34%</td>
</tr>
<tr>
<td>Prepare a formal, written financial plan for retirement</td>
<td>19%</td>
</tr>
</tbody>
</table>
Savings and Investments

Workers with a retirement plan and higher incomes much more likely to have saved for retirement

Not including Social Security or employer-provided money, have you (and/or your spouse) personally saved any money for retirement? These savings could include money you personally put into a retirement plan at work. (2017 Workers, percent yes)

**Workers Having Saved for Retirement**

<table>
<thead>
<tr>
<th>Have Retirement Plan*</th>
<th>Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All Workers</strong></td>
<td></td>
</tr>
<tr>
<td>(n=1,082)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>61%</td>
</tr>
<tr>
<td>(n=809)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>11%</td>
</tr>
<tr>
<td>(n=273)</td>
<td></td>
</tr>
<tr>
<td>Under $35k</td>
<td></td>
</tr>
<tr>
<td>(n=195)</td>
<td>27%</td>
</tr>
<tr>
<td>$35k-$74k</td>
<td></td>
</tr>
<tr>
<td>(n=302)</td>
<td>57%</td>
</tr>
<tr>
<td>$75k+</td>
<td></td>
</tr>
<tr>
<td>(n=481)</td>
<td>83%</td>
</tr>
</tbody>
</table>

*Have Retirement Plan defined as respondent or spouse having at least one of the following: IRA, DC plan, or DB plan
Nearly 6 in 10 workers report they are currently saving for retirement

Are you (or your spouse) currently saving for retirement? (2017 Workers n=1,082, percent yes)

<table>
<thead>
<tr>
<th>Have Retirement Plan*</th>
<th>Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Workers (n=1,082)</td>
<td>56%</td>
</tr>
<tr>
<td>Yes (n=809)</td>
<td>74%</td>
</tr>
<tr>
<td>No (n=273)</td>
<td>7%</td>
</tr>
<tr>
<td>Under $35k (n=195)</td>
<td>49%</td>
</tr>
<tr>
<td>$35k-$74k (n=302)</td>
<td>79%</td>
</tr>
<tr>
<td>$75k+ (n=481)</td>
<td></td>
</tr>
</tbody>
</table>

*Have Retirement Plan defined as respondent or spouse having at least one of the following: IRA, DC plan, or DB plan

Three-quarters of retirees report having saved for retirement, including most of those 80 or older

Not including Social Security taxes or employer-provided money, did you (and/or your spouse) personally save any money for retirement before you retired? These savings could include money you personally put into a retirement plan at work. (2017 Retirees)

<table>
<thead>
<tr>
<th>Have DB Plan</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Retirees (n=589)</td>
<td>76%</td>
</tr>
<tr>
<td>Yes (n=347)</td>
<td>87%</td>
</tr>
<tr>
<td>No (n=231)</td>
<td>63%</td>
</tr>
<tr>
<td>69 or younger (n=196)</td>
<td>74%</td>
</tr>
<tr>
<td>70-79 (n=225)</td>
<td>74%</td>
</tr>
<tr>
<td>80 or older (n=51)</td>
<td>95%</td>
</tr>
</tbody>
</table>
Two-thirds of workers without a retirement plan have less than $1,000 in savings, versus just 9% of those with plan

In total, about how much money would you say you (and your spouse) currently have in savings and investments, not including the value of your primary residence or defined benefit plan assets? (2017 Workers n=876)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $1,000</td>
<td>35%</td>
<td>30%</td>
<td>28%</td>
<td>36%</td>
<td>28%</td>
<td>26%</td>
<td>24%</td>
</tr>
<tr>
<td>$1,000 - $9,999</td>
<td></td>
<td>18%</td>
<td>18%</td>
<td>16%</td>
<td>17%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>$10,000 - $24,999</td>
<td></td>
<td>13%</td>
<td>12%</td>
<td>11%</td>
<td>8%</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>$25,000 - $49,999</td>
<td></td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>$50,000 - $99,999</td>
<td></td>
<td>13%</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>$100,000 - $249,999</td>
<td></td>
<td>15%</td>
<td>11%</td>
<td>12%</td>
<td>11%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>$250,000 or more</td>
<td></td>
<td>14%</td>
<td>10%</td>
<td>12%</td>
<td>11%</td>
<td>14%</td>
<td>20%</td>
</tr>
</tbody>
</table>

*Have Retirement Plan defined as respondent or spouse having at least one of the following: IRA, DC plan, or DB plan

4 in 10 retirees have more than $250,000 in savings

In total, about how much money would you say you (and your spouse) currently have in savings and investments, not including the value of your primary residence or defined benefit plan assets? (2017 Retirees n=418)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $1,000</td>
<td></td>
<td>32%</td>
<td>28%</td>
<td>31%</td>
<td>29%</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>$1,000 - $9,999</td>
<td></td>
<td></td>
<td>19%</td>
<td>16%</td>
<td>17%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>$10,000 - $24,999</td>
<td></td>
<td></td>
<td>13%</td>
<td>8%</td>
<td>12%</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td>$25,000 - $49,999</td>
<td></td>
<td></td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>$50,000 - $99,999</td>
<td></td>
<td></td>
<td>11%</td>
<td>8%</td>
<td>9%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>$100,000 - $249,999</td>
<td></td>
<td></td>
<td>20%</td>
<td>12%</td>
<td>10%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>$250,000 or more</td>
<td></td>
<td></td>
<td>14%</td>
<td>15%</td>
<td>17%</td>
<td>17%</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Have Retirement Plan defined as respondent or spouse having at least one of the following: IRA, DC plan, or DB plan
Retirement Age

Retirees report having retired earlier than workers expect to retire

Realistically, at what age do you expect to retire?/How old were you when you retired?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Workers (n=801)</th>
<th>Retirees (n=530)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 55</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>55-59</td>
<td>6%</td>
<td>19%</td>
</tr>
<tr>
<td>60-61</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>62-64</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>65</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>66-69</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>70 or older/ Never Retire</td>
<td>38%</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Median**

- Workers: 65
- Retirees: 62
Nearly half of retirees retired earlier than planned

Did you retire earlier than you planned, later than you planned, or about when you planned? (2017 Retirees n=589)

Health problems are the predominant reason for early retirement

Did you retire earlier than you planned because…? (Retirees retiring earlier than planned n=280, percent yes)
Feelings About Current Finances

For the most part, workers and retirees feel financially secure, though not very secure

How financially secure, if at all, do you feel these days? (Workers n=1,082, Retirees n=589)
Retirees are more likely to think their financial situation is very good or excellent

In general, how would you rate your financial situation? (Workers n=1,082, Retirees n=589)

Workers are most concerned about future, unexpected, and healthcare expenses and about investments

How concerned, if at all, are you about your ability to…? (Workers n=1,082)
Retirees express concern about unexpected and healthcare expenses, though less than workers

How concerned, if at all, are you about your ability to…? (Retirees n=589)

<table>
<thead>
<tr>
<th></th>
<th>Very concerned</th>
<th>Somewhat concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover unexpected expenses</td>
<td>13%</td>
<td>35%</td>
</tr>
<tr>
<td>Pay for healthcare expenses</td>
<td>10%</td>
<td>32%</td>
</tr>
<tr>
<td>Cover future expenses</td>
<td>11%</td>
<td>34%</td>
</tr>
<tr>
<td>Grow your investments</td>
<td>11%</td>
<td>30%</td>
</tr>
<tr>
<td>Pay off any debt</td>
<td>11%</td>
<td>18%</td>
</tr>
<tr>
<td>Pay your current expenses</td>
<td>10%</td>
<td>18%</td>
</tr>
<tr>
<td>Cover your housing expenses</td>
<td>10%</td>
<td>18%</td>
</tr>
<tr>
<td>Pay for any educational expenses</td>
<td>5%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Workers more likely than retirees to describe debt as a problem

Thinking about your current financial situation, how would you describe your level of debt? (2017 Workers n=1,082; Retirees n=589)

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers</th>
<th>Retirees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>2012</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>2015</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>2016</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>2017</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>
3 in 10 workers worry about personal finances while at work
Do you worry about your personal finances while you are at work? (Employed full-time or part-time, Workers n=799, Retirees n=29); How often do you worry about your personal finances while you are at work? (Worries about finances at work, Workers n=233)

Worries About Finances While at Work

<table>
<thead>
<tr>
<th>Percent Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
</tr>
<tr>
<td>30%</td>
</tr>
</tbody>
</table>

Frequency of Worrying About Finances

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very often</td>
<td>31%</td>
</tr>
<tr>
<td>Somewhat often</td>
<td>39%</td>
</tr>
<tr>
<td>Every once in a while</td>
<td>29%</td>
</tr>
</tbody>
</table>

Over half agree they would be more productive at work if they were not worried about their finances
To what extent, if at all, do you think you would be more productive at work if you did not spend time worrying about personal finances? (Worries about finances at work, Workers n=233)

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much more productive</td>
<td>18%</td>
</tr>
<tr>
<td>Somewhat more productive</td>
<td>35%</td>
</tr>
<tr>
<td>No more productive</td>
<td>32%</td>
</tr>
<tr>
<td>Don't know</td>
<td>14%</td>
</tr>
</tbody>
</table>
Retirement and financial planning programs could help increase productivity at work

How helpful, if at all, do you think the following programs would be for increasing your productivity at work…? (Employed, Workers n=799)

<table>
<thead>
<tr>
<th>Program</th>
<th>Very helpful</th>
<th>Somewhat helpful</th>
<th>Overall helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirement planning</td>
<td>16%</td>
<td>36%</td>
<td>53%</td>
</tr>
<tr>
<td>Financial planning</td>
<td>14%</td>
<td>34%</td>
<td>49%</td>
</tr>
<tr>
<td>Healthcare planning</td>
<td>12%</td>
<td>35%</td>
<td>47%</td>
</tr>
<tr>
<td>Budgeting</td>
<td>12%</td>
<td>31%</td>
<td>43%</td>
</tr>
<tr>
<td>Prioritizing savings</td>
<td>12%</td>
<td>29%</td>
<td>41%</td>
</tr>
<tr>
<td>Expense management</td>
<td>9%</td>
<td>31%</td>
<td>40%</td>
</tr>
<tr>
<td>Debt counseling</td>
<td>7%</td>
<td>22%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Retirement, financial, and health planning programs may also do the most to help ease workers’ minds

How helpful, if at all, do you think the following programs would be for increasing your mental health…? (Employed, Workers n=799)

<table>
<thead>
<tr>
<th>Program</th>
<th>Very helpful</th>
<th>Somewhat helpful</th>
<th>Overall helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial planning</td>
<td>14%</td>
<td>37%</td>
<td>51%</td>
</tr>
<tr>
<td>Retirement planning</td>
<td>14%</td>
<td>37%</td>
<td>51%</td>
</tr>
<tr>
<td>Healthcare planning</td>
<td>15%</td>
<td>36%</td>
<td>50%</td>
</tr>
<tr>
<td>Budgeting</td>
<td>14%</td>
<td>31%</td>
<td>44%</td>
</tr>
<tr>
<td>Prioritizing savings</td>
<td>12%</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>Expense management</td>
<td>11%</td>
<td>32%</td>
<td>43%</td>
</tr>
<tr>
<td>Debt counseling</td>
<td>10%</td>
<td>24%</td>
<td>34%</td>
</tr>
</tbody>
</table>
3 in 10 workers stressed about preparing for retirement

Currently, how stressed are you mentally or emotionally, if at all, about preparing for retirement? (Workers n=1,082)

- Very stressed: 7%
- Somewhat stressed: 24%
- Not too stressed: 44%
- Not at all stressed: 25%

Workers who are stressed about retirement preparation tend to be older and have lower incomes

Characteristics of Workers Who Are Stressed About Preparing for Retirement

- Median Age
  - Stressed (n=330): 46
  - Not Stressed (n=749): 42

- College degree or higher education
  - Stressed (n=330): 30%
  - Not Stressed (n=749): 38%

- Household income of $75,000 or more
  - Stressed (n=330): 36%
  - Not Stressed (n=749): 52%
Stressed workers have greater debt and feel less financially secure; more likely to worry about their personal finances at work

Financial Situation of Workers Who Are Stressed About Preparing for Retirement

<table>
<thead>
<tr>
<th></th>
<th>Stressed (n=330)</th>
<th>Not Stressed (n=749)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel very/somewhat financially secure</td>
<td>30%</td>
<td>71%</td>
</tr>
<tr>
<td>Debt is a major problem</td>
<td>30%</td>
<td>12%</td>
</tr>
<tr>
<td>Worry about personal finances at work</td>
<td>63%</td>
<td>17%</td>
</tr>
</tbody>
</table>

2 in 10 retirees stressed about preparing for retirement, though many don’t recall when they began to worry

Before you retired, did you ever feel mentally or emotionally stressed about preparing for retirement? (Retirees n=589); How many years before retirement would you say you began to feel mentally or emotionally stressed about preparing for retirement? (Retirees who felt stressed n=133)

Felt Stressed About Retirement

- Yes, 22%
- No, 78%

When Started Feeling Stressed

- Less than 5 years before retirement: 19%
- 5 to 9 years before retirement: 16%
- 10 years or more before retirement: 16%
- Not sure: 49%
Takeaways

• Confidence is linked to retirement plan ownership
  • Those with a retirement plan have saved much higher amounts than those without a plan (those without a plan have a very high likelihood of having very small savings amounts)

• Only 40% of workers have done a retirement needs calculation
  • Those who have done a calculation are more confident and have higher reported expected savings needs

• Expecting to work longer is a risky retirement strategy as nearly 50% of retirees retired earlier than expected
  • Many because of their health or a relative’s health or changes at their workplace

• Workers are concerned about future or unexpected costs
• Those with debt are less confident and less financially secure
• Financial security and retirement preparation can have an impact on worker productivity and/or mental health
The Case for Right-shifting/Right-sizing

By Steve Vernon
Research Scholar
Stanford Center on Longevity
April 2017

Life expectancy M/F combined, 1900-2060, total years

Life expectancy increased by 30 years during the 20th Century; gains are projected to continue.

Source: Historical figures from U.S. Social Security Administration
Retirement now lasts more than 20 years

Retirement age and life expectancy at age 65, men

Good health and functional independence will last well into the 70s and 80s for many people


Source: Heterogeneity in Healthy Aging, Journal of Gerontology, June 2013
Lowsky, Olshansky, Bhattacharya, and Goldman
Good health and functional independence will last well into the 70s and 80s for many people

**Percent not reporting assistance with IADLs or ADLs**

Source: Heterogeneity in Healthy Aging, Journal of Gerontology, June 2013
Lowsky, Olshansky, Bhattacharya, and Goldman

---

**Percent with no health-based limitation in work or housework**

Many Boomers have inadequate savings

![Figure 1. Median Home Equity and Financial Wealth of Households Ages 65-69 in 2012 by Wealth Quintile, Thousands of 2015 Dollars](source image)

Source: Is Home Equity an Underutilized Retirement Asset? Boston College Center for Retirement Security, March 2017

Many Boomers want to work

The desired transition to retirement

![Bar chart showing percentages of workers choosing different retirement options](source image)

Source: 17th Annual Transamerica Retirement Survey
The **right-shifting** idea:

1. Earn just enough from work to cover basic living expenses
2. Allow Social Security and savings to grow

---

**One example**

- Couple age 65 with $500,000 in retirement savings
- $75,000 salary of primary wage-earner
- $57,400 estimated annual retirement income if:
  - Both claim Social Security at age 65
  - Spouse doesn’t have earned benefit – receives just spousal benefit
  - Buy 100% J&S annuity at age 65
One example (cont.)

- $81,200 annual income (40% increase) if:
  - Both claim SS at age 70
  - Savings earn 3%/year between age 65 and 70
  - Buy 100% J&S annuity at age 70
  - No additional contributions

More evidence for the advantage of delaying retirement

Delay starting retirement income from age 65 to 70 increases projected retirement incomes by 25% to 34% or more

http://longevity3.stanford.edu/publications/
1. What are the barriers to right-shifting/right-sizing?
2. What descriptive terms would help?
3. What research might enhance our understanding?
Perspectives on Retirement: Baby Boomers, Generation X, and Millennials
Stanford’s Working Longer and Retirement Conference
April 27-28, 2017
Catherine Collinson

Mission
Nonprofit TCRS is dedicated to educating the public on emerging trends surrounding retirement security in the U.S. Its research emphasizes employer-sponsored retirement plans, including companies and workers, and the implications of legislative and regulatory changes.

Outreach Activities
- Annual Transamerica Retirement Survey: Now in its 17th year, it is one of the most comprehensive and widely referenced surveys of its kind. Annual thematic releases spotlighting specific segments of the population include:
  - Saver’s Credit Guide
  - Women and Retirement report
- Other Surveys include Retirees survey in 2015 and an upcoming survey of unpaid Caregivers.
- Educational Materials have been designed for general public use.
- ClearPath – Your Roadmap to Health & Wealth bi-weekly radio show discusses issues related to retirement and financial literacy.

Audience includes employers, retirement providers and professionals, the general public, policymakers, academics, and the media.

Website: www.transamericacenter.org
Twitter: @TCRStudies
The following is an excerpt from:

**Perspectives on Retirement: Baby Boomers, Generation X, and Millennials**  
*The 17th Annual Transamerica Retirement Survey*

Workers Are Dreaming of an Active Retirement

“Traveling” (65 percent) is workers’ most frequently cited retirement dream, followed by “spending more time with family and friends” (56 percent), “pursuing hobbies” (49 percent), “doing volunteer work” (27 percent). A sizeable percentage of workers (28 percent) are planning on doing some form of work in retirement, including “pursuing an encore career” (13 percent), “continuing to work in the same field” (12 percent), and/or “starting a business” (11 percent).

How do you dream of spending your retirement?

**All Workers (%)**

- Traveling: 65%
- Spending more time with family & friends: 56%
- Pursuing hobbies: 49%
- Doing volunteer work: 27%
- Pursuing an encore career: 13%
- Continuing working in the same field: 12%
- Starting a business: 11%
- Other: 7%
- None of the above: 4%

**NET = Working > 28%**
**Majority of Workers Are Planning to Work Past Age 65**

The majority of workers (54 percent) plan to work past age 65 or do not plan to retire. However, expectations differ across generations. Sixty-six percent of Baby Boomer workers expect to or are working past age 65 or do not plan to retire. Many of Generation X (55 percent) also plan to do so. In contrast, the majority of Millennials (60 percent) plan to retire at 65 or sooner.

**Many Workers Plan to Work in Retirement**

Many workers (55 percent) plan to continue working after they retire, including 38 percent who plan to work part-time and 13 percent full-time. Only 27 percent of workers do not plan to work after they retire, and 22 percent are not sure. Baby Boomers, Generation X, and Millennials are strikingly similar in their expectations, but noting that Millennials (17 percent) are more likely than the older generations to plan to work full-time when they retire.
Reasons for Working in Retirement Range from Need to Enjoyment

Sixty-three percent of workers who plan to work in retirement and/or past age 65 cite reasons for doing so that are related to income and health benefits. Baby Boomers and Generation X (66 percent, 68 percent respectively) plan to do so for those reasons, a higher response rate than that of Millennials (57 percent). Interestingly, many Millennials (40 percent) plan to work in retirement for enjoyment.

---

Most Workers Envision a Phased Retirement

Forty-two percent of workers envision a phased transition into retirement during which they will reduce work hours with more leisure time to enjoy life, or work in a different capacity that is less demanding and/or brings greater personal satisfaction. Only 23 percent expect to immediately stop working when they retire, and 13 percent are “not sure.” Twenty-two percent plan to continue working as long as possible until they cannot work any more.
Employers Do Little to Facilitate Transitioning into Retirement

Workers may encounter difficulties in accomplishing a phased transition into retirement at their current employers. Twenty-six percent of workers say their employers don’t offer any of the listed ways to facilitate transition. Twenty percent say their employers offer flexible work schedules and arrangements and 20 percent are offered the ability to move from full- to part-time. However, 30 percent of workers are “not sure” what their employer offers, suggesting dialog between employees and employers is necessary.

Workers Are Taking Some Proactive Steps to Work Past 65

Aspirations and expectations of working past age 65 require that workers remain healthy enough to do so and have access to employment opportunities. The survey asked workers what steps they are taking to help ensure they can continue working. A majority says they are staying healthy (60 percent), while 52 percent are performing well at their current job and 42 percent are keeping job skills up to date. Response rates were much lower for networking (19 percent), scoping out the employment market (17 percent), and going back to school (12 percent). Baby Boomers, the generation nearing and entering retirement, are somewhat more proactive than other generations.
Are Baby Boomers Being Proactive Enough to Work Past 65?

To better understand the extent to which Baby Boomers are proactively preparing themselves to help ensure they can continue working past age 65, an analysis of the survey responses found that 93 percent of Baby Boomers have taken at least one of the six steps identified in the survey question. Slightly more than half (54 percent) had taken two steps, 33 percent had taken three steps, 11 percent four steps, and five percent five steps. Only one percent of Baby Boomers have taken all six steps.

**Possible Proactive Steps Listed in Question (Select All That Apply)**
- Staying healthy so I can continue working
- Performing well at my current job
- Keeping my job skills up to date
- Networking and meeting new people
- Scoping out the employment market and opportunities available
- Going back to school and learning new skills

**Number of Proactive Steps Taken to Remain Employed Past 65 or in Retirement**

<table>
<thead>
<tr>
<th>Steps Taken</th>
<th>Baby Boomers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Step</td>
<td>93</td>
</tr>
<tr>
<td>Two Steps</td>
<td>54</td>
</tr>
<tr>
<td>Three Steps</td>
<td>33</td>
</tr>
<tr>
<td>Four Steps</td>
<td>11</td>
</tr>
<tr>
<td>Five Steps</td>
<td>5</td>
</tr>
<tr>
<td>Six Steps</td>
<td>1</td>
</tr>
</tbody>
</table>

© Transamerica Institute, 2016
ALTERNATIVE RETIREMENT TRAJECTORIES: THE POTENTIAL OF PART-TIME WORK

Retirement and Part-Time Work

• Potential for individual and societal benefit
• Initiatives targeting employers for a decade (e.g., AARP)
• Formal structures just emerging
  • New programs for federal workers to partially retire (2014)
  • 30% of large corporations now offer flexible retirement/work options
  • Only 6-12% have formal phased retirement options
• About 2/3 of current workers indicate interest in scaling back before full retirement
• There is a lot we don’t know about post-retirement part-time work
Overview

- Exploring older workers observed working for at least four years who transition out of full-time work
- Data drawn from the Health and Retirement Study
- Three related studies:
  1. How have older workers utilized alternative retirement trajectories post-recession?
  2. Is post-retirement work good for our brains?
  3. Does job environment keep older workers with chronic pain engaged in paid work after retirement?
Focus

- Alternative retirement trajectories post-recession
- Full-time workers, transition in 2008 from full-time work
- Engage in post-retirement work 2008-2014 (about 40%)

Key Measures

- **Partial Retirement**: Not full-time, “retired”
- **Part-Time Worker**: Not full-time, not “retired”

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time</td>
<td>Full-Time</td>
<td><strong>Full-Time</strong></td>
<td>Full-Time</td>
<td>Full-Time</td>
<td>Full-Time</td>
</tr>
<tr>
<td>Part-Time</td>
<td>Part-Time</td>
<td>Part-Time</td>
<td>Part-Time</td>
<td>Part-Time</td>
<td>Part-Time</td>
</tr>
<tr>
<td>Partially Retired</td>
<td>Partially Retired</td>
<td>Partially Retired</td>
<td>Partially Retired</td>
<td>Partially Retired</td>
<td>Partially Retired</td>
</tr>
<tr>
<td>Fully Retired</td>
<td>Fully Retired</td>
<td>Fully Retired</td>
<td>Fully Retired</td>
<td>Fully Retired</td>
<td>Fully Retired</td>
</tr>
</tbody>
</table>
Shift to Part-time Work

40%

Shift to Partial Retirement

28%

Part-time Work to Retirement

12%

Phased Partial to Full Retirement

20%

Tenure at Job Prior To Transition

9.9

14.7

13.9

17.8
### Average Age at Transition

<table>
<thead>
<tr>
<th>58.8</th>
<th>63.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.2</td>
<td>65.7</td>
</tr>
</tbody>
</table>

### Percent With Mobility Limitation

<table>
<thead>
<tr>
<th>28%</th>
<th>23%</th>
</tr>
</thead>
<tbody>
<tr>
<td>46%</td>
<td>25%</td>
</tr>
</tbody>
</table>
Focus

• Population data suggests retirement may lead to a decline in cognitive performance…but what about alternative retirement pathways (i.e., unretirement and partial retirement)? Does the type of work matter?
Key Measures

- **Cognitive performance**: immediate and delayed recall of 20 words
  - 6-year change pre- post-retirement
- **Cognitive Complexity**: job characteristics defined by the Department of Labor – low, moderate, high
  - Making Decisions and Solving Problems
  - Thinking Creatively
  - Coaching and Developing Others
  - Frequency of Decision-Making
  - Freedom to Make Decisions

Returning To Work Relates to 70% Reduction Relative To Fully Retiring, Similar To Staying Full-Time

![Graph showing change in cognitive performance across different retirement scenarios]
Alternative Work Trajectories Are Not Beneficial For Low Complexity Job Workers, *Four To Six Fold* Increase in Cognitive Decline

Retiring and Returning to Work Results in *162% Less* Loss
FULL-TIME WORKERS WITH CHRONIC PAIN: WORK ENVIRONMENT AND TRANSITIONING TO PART-TIME WORK

Focus

- Full-time workers who indicate that they have problems with (moderate/severe) chronic pain

25% 35% 65%

- <2 Chronic Conditions
- Multiple Chronic Conditions

Chronic Pain
No Chronic Pain
Key Measures

1. **Supportive Work Environment**: with those who score in the top quartile as “high” and all others “low/moderate”

   - I have too much work to do everything well (reverse)
   - I have a lot to say about what happens on my job
   - Promotions are handled fairly
   - I have the training opportunities I need to perform my job safely and competently
   - The people I work with can be relied on when I need help

1. **Multiple Chronic Conditions**: having two or more: lung, heart, high blood pressure, psychological, arthritis, cancer, diabetes, stroke

---

Those in Highly Supportive Vs. Low/Moderately Supportive Work Environments Significantly More Likely To Keep Working

![Graph showing comparison between Low/Mod Support Job and High Support Job regarding retirement options. Low/Mod Support Job: 63% Full Retirement, 16% Partial Retirement, 21% Part-time. High Support Job: 50% Full Retirement, 17% Partial Retirement, 33% Part-time.](image)
These Effects Are Even More Significant For Those Dealing With Multiple Chronic Illnesses

<table>
<thead>
<tr>
<th>Low/Mod Support Job</th>
<th>High Support Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>69% Full Retirement</td>
<td>50% Full Retirement</td>
</tr>
<tr>
<td>14% Partial Retirement</td>
<td>12% Partial Retirement</td>
</tr>
<tr>
<td>17% Part-time</td>
<td>38% Part-time</td>
</tr>
</tbody>
</table>

What Do We Still Need To Know?

• What factors increase the likelihood of older workers choosing alternative transitions?
• What post-retirement work trajectories relate to the best health outcomes?
• What can we do to help “vulnerable” older adults stay engaged in paid work rather than fully retiring and still maintain/enhance wellbeing?
THANK YOU!
dccarr@fsu.edu

EXTRA SLIDES
PREFERENCES FOR WORK AT OLDER AGES

Nicole Maestas, Ph.D.
Harvard University

Stanford University Center on Longevity, Conference on Working Longer and Retirement: Applying Research to Help Manage an Aging Workforce
April 27-28, 2017

WHAT IS RETIREMENT?
Only about 40-50 percent of retirees retired in the traditional way of stopping work altogether.


<table>
<thead>
<tr>
<th>Retirement Status Defined By</th>
<th>Hours and Self-Report</th>
<th>Hours Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work → full retirement → full retirement</td>
<td>52.2</td>
<td>40.4</td>
</tr>
<tr>
<td>Work → full retirement → parttime work</td>
<td>12.9</td>
<td>13.0</td>
</tr>
<tr>
<td>Work → full retirement → fulltime work</td>
<td>6.3</td>
<td>10.8</td>
</tr>
<tr>
<td>Work → partial retirement → partial retirement</td>
<td>7.7</td>
<td>6.6</td>
</tr>
<tr>
<td>Work → partial retirement → fulltime work</td>
<td>13.7</td>
<td>13.2</td>
</tr>
<tr>
<td>Partial retirement → full retirement</td>
<td>7.2</td>
<td>16.0</td>
</tr>
</tbody>
</table>

Number of observations: 1,092, 1,502

Notes: Retirement path categories are mutually exclusive. Sample is all respondents observed at least six years after their first retirement. Work refers to either part-time or full-time work.


40 percent of older workers say they have retired at some point in the past.

Source: Maestas, Nicole, Kathleen Mullen, David Powell, Till von Wachter, Jeffrey Wenger, 2016.
**Share of Men Working and Estimated Additional Work Capacity, by Age**


![Graph showing share of men working and estimated additional work capacity by age.](image)

**Nearly one-half of older individuals who are not working say they would return to work “if the right opportunity came along.”**

Source: Maestas, Nicole, Kathleen Mullen, David Powell, Till von Wachter, Jeffrey Wenger, 2016

**How to Unlock Employment Potential at Older Ages?**

![Graph showing percentage who would return to paid employment or become self-employed in the future if had the right opportunity, overall and by age.](image)
WHAT ABOUT WORKING CONDITIONS?

- Wage/salary
- Hours
- Control over hours
- Location of work
- Paid time off
- Pace
- Autonomy
- Stress
- Physical demands
- Social support at work
- Learning on the job
- Meaningful work

Less educated workers are twice as likely as the more educated to have the most restrictive schedules.

Schedule limitations tend to persist with age.

Source: Maestas, Nicole, Kathleen Maline, David Powell, Till von Wachter, Jeffrey Wenger, 2016
Older workers have more flexibility than others, but a substantial percent still report difficulties taking time off when needed. Less educated workers report the most difficulty taking time off for personal/family matters.

**NEED FOR FLEXIBILITY**

Younger, less educated men have the most physical jobs. Age gradient reflects changing job demands with experience, as well as selection out of physically demanding jobs. Physical demands unevenly distributed by education.

**PHYSICAL DEMANDS**
Substantial share of Americans perceive they do not have enough time to do their jobs. Work intensity persists with age, true for both education groups, but type of pressure differs.

**Figure 4.7. Percent Reporting Not Enough Time to Finish Work, by Age, Gender and Education**

![Bar chart showing percent reporting not enough time to finish work by age, gender, and education level.](chart.png)

Source: Maestas, Nicole, Kathleen Mullen, David Powell, Till von Wachter, Jeffrey Wenger, 2016

**Desired Job Attribute**

<table>
<thead>
<tr>
<th>Desired Job Attribute</th>
<th>% Lack Attribute AND Rate Essential/ Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allows to provide for self and family financially</td>
<td>8%</td>
</tr>
<tr>
<td>Job security</td>
<td>6%</td>
</tr>
<tr>
<td>Right number of hours</td>
<td><strong>39%</strong></td>
</tr>
<tr>
<td>Opportunities for career advancement</td>
<td>21%</td>
</tr>
<tr>
<td>Opportunities to learn new things</td>
<td>10%</td>
</tr>
<tr>
<td>Control over how you do your work</td>
<td>9%</td>
</tr>
<tr>
<td>Not stressful</td>
<td>12%</td>
</tr>
<tr>
<td>Control over schedule</td>
<td>12%</td>
</tr>
<tr>
<td>Allows to work at own pace</td>
<td>5%</td>
</tr>
<tr>
<td>Morally, socially, personally, or spiritually significant</td>
<td>1%</td>
</tr>
<tr>
<td>Opportunities to work with others</td>
<td>5%</td>
</tr>
<tr>
<td>Not physically demanding</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Many Lack Job Attributes They Value Highly**

65% lack at least one highly valued job attribute. Rises to 75% if include fringe benefits.

Source: Maestas, Nicole, Kathleen Mullen, David Powell, Till von Wachter, Jeffrey Wenger, 2016
Job Preferences by Age Group

- Paid Time Off
  - 20 days PTO
  - 10 days PTO
  - 0 Days PTO

- Flexibility
  - Set Own Schedule
  - Schedule set by manager

- Pace
  - Relaxed
  - Fast-Paced

- Autonomy
  - Choose How to Work
  - Tasks well-defined

- Physical Demands
  - Heavy Physical Activity
  - Moderate Physical Activity
  - Mostly Sitting

- Meaningfulness
  - Frequent Opportunities to serve community
  - Occasional Opportunities to serve community

- Training
  - Training Opportunities
  - Already have skills

- Telecommute Option
  - Telecommute? Yes
  - No

- Hours
  - Full Time
  - Part Time
  - Differences in Log(Hours)

- Work with Others
  - Team-Based, Evaluate Team
  - Team-Based, Evaluate Own
  - Work by Self

Source: Maestas, Nicole, Kathleen Mullen, David Powell, Till von Wachter, Jeffrey Wenger, 2016

Paid Time Off

Interpretation: Must offer older individuals 37% higher wage to accept a job with no paid time off compared to 20 days of paid time off.
**Flexibility**

Interpretation: Must offer older individuals 16% higher wage to accept jobs where schedule is set by manager.

**Physical Demands**

Interpretation: Must offer older individuals 36% higher wage to accept jobs requiring intensive physical activity. Moderate physical activity preferred to mostly sitting.
Pace

Interpretation: Must offer older individuals 12% higher wage to accept jobs requiring working at a fast pace.

THANK YOU!

maestas@hcp.med.harvard.edu
### WORKING CONDITIONS IN THE U.S.

<table>
<thead>
<tr>
<th>Disagreeable Condition</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work 10+ hours for 10+ days/month</td>
<td>18.1</td>
</tr>
<tr>
<td>Work schedule set by employer (no possibility for changes)</td>
<td>36.3</td>
</tr>
<tr>
<td>No option to telecommute</td>
<td>77.5</td>
</tr>
<tr>
<td>Work at very high speed (1/2 time+)</td>
<td>66.1</td>
</tr>
<tr>
<td>No choice of methods of work</td>
<td>28.3</td>
</tr>
<tr>
<td>Carrying or moving heavy loads (1/2 time+)</td>
<td>30.3</td>
</tr>
<tr>
<td>No very good friends at work</td>
<td>15.2</td>
</tr>
<tr>
<td>Did not receive training from employer (past 12 months)</td>
<td>56.6</td>
</tr>
<tr>
<td>No feeling of positive impact on community or society</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Source: Maestas, Nicole, Kathleen Mullen, David Powell, Till von Wachter, Jeffrey Wenger, 2016
Older Workers and Health Insurance

Gopi Shah Goda
SIEPR, Stanford University

Outline

• Health insurance and retiree health insurance for older workers
• Implications of the Affordable Care Act for older workers
• Recent research insights and implications for older workers and policy
History of Employment-Based Insurance in the United States

- Wage controls during World War II created incentives for employers to think of other ways to attract employees, making fringe benefits more popular
- 1943/1954: IRS ruled that employer-based health insurance should be tax-free for workers
- Led to tremendous growth in employment-based health insurance

![Insurance Coverage in the ACS in 2010](chart.png)
Sources of health insurance for older individuals

- Employer-sponsored health insurance contingent on continued employment
  - May be able to continue post-retirement via COBRA for limited time
- Employer-sponsored post-retirement health insurance
  - Similar to employer-sponsored health insurance before age 65
  - May transition to supplemental insurance when eligible for Medicare
- Medicare
  - Individuals over the age of 65
  - DI recipients who are under the age of 65
- Medicaid
- Individual health insurance → more prevalent now due to ACA
The share of large firms (200 or more workers) offering retiree health benefits to active workers has declined, 1988-2013

Forty-five percent of all retirees ages 55 to 64 have retiree health coverage, 2012

NOTE: Numbers do not sum to 100 percent due to rounding.
ACA Provisions Affecting Labor Supply

1. The subsidies for health insurance purchased through exchanges;
2. The expansion of Medicaid eligibility;
3. The penalties on employers that decline to offer insurance; and
4. The new taxes imposed on labor income.


Supreme Court decision on ACA’s Medicaid expansions

• Constitutional challenge to ACA’s Medicaid expansion filed by Florida and joined by 25 additional states

• On June 28, 2012, the Supreme Court ruled that the ACA’s Medicaid expansion was “unconstitutionally coercive”

• The Supreme Court’s remedy was to “constrain the Federal government’s power in enforcing state compliance”
Calculation of subsidies under the ACA

1. Determine income as a percentage of the FPL (varies based on family size).
2. Determine maximum percentage of income one is responsible for paying towards the cost of health insurance (varies from 2 percent at 100% FPL to 9.5% at 400% FPL).
3. Multiply this percentage by the cost of the 2\textsuperscript{nd} lowest cost “silver tier” plan available on the exchange to determine the maximum premium payment the person is responsible for.
4. Subsidy = cost of 2\textsuperscript{nd} lowest cost “silver tier” plan – maximum premium payment
A CA Subsidy by Income

Note: Subsidy calculated for single 60-year-old in 2015.

A CA Subsidy by Income and Age

Note: Subsidy calculated for single person in 2015 for all scenarios.
CBO Projections

“CBO estimates that the ACA will reduce the total number of hours worked, on net, by about 1.5 percent to 2.0 percent during the period from 2017 to 2024, almost entirely because workers will choose to supply less labor—given the new taxes and other incentives they will face and the financial benefits some will receive.

The reduction in CBO’s projections of hours worked represents a decline in the number of full-time-equivalent workers of about 2.0 million in 2017, rising to about 2.5 million in 2024.”

Reasons why ACA could affect older workers in particular

1. Effective subsidies are highest for near-elderly workers
2. Rating regulations limit the ability of insurers to vary premiums by age
3. Evidence that labor supply elasticities are higher for individuals nearing retirement

Research questions

What impact does the tie between health insurance and labor markets and retiree health insurance have on employment outcomes and retirement decisions?

What do we currently know about the effects of ACA’s provisions on labor markets?
Naïve method

• Suppose we compare the age that people retire in firms that offer retiree health insurance vs. firms that do not offer retiree health insurance
• Since workers may select firms based on whether they offer retiree health insurance, the comparison above can be contaminated by “selection bias”

Overview of research findings: retiree health insurance

• Early work examined the effect of continuation-of-coverage mandates on retirement behavior and found that this form of RHI led to 28% higher rates of retirement
• Recent research on Medicare eligibility shows that retirement still spikes at 65 for those with RHI (despite the increase in FRA)
• Other work shows that subsidized retiree health coverage reduces time worked over ages 62-64 by 14.2% and reduces the expected age of retirement by ~3 months.
• Research on public school employees finds that the introduction of a retiree health insurance program reduces the “Medicare effect” and increases early retirements

Overview of research findings:
health insurance and employment (pre-ACA)

• A Medicaid contraction in Tennessee led to a marked increase in employment among those whose benefits were affected, with larger effects among 40-64 year olds

• The implementation of a waitlist for Medicaid in Wisconsin led to a 10% increase in the probability of working among those waitlisted

• More modest effects of a lottery for Medicaid in Oregon on labor supply

Sources: Garthwaite, Gross and Notowidigdo (2014), Dague, DeLeire and Leininger (2014), Baicker et al. (2014)

The Effect of the Affordable Care Act on Health Insurance Coverage and Labor Market Outcomes

Mark Duggan, Gopi Shah Goda,
Emilie Jackson
Thought experiment

- Compare regions in the U.S. that have a high proportion of people that would be eligible for Medicaid expansions and/or subsidies relative to regions where the proportion is low
- Do regions with high potential effects of ACA have bigger changes in health insurance? Labor market outcomes?
Heterogeneity in ACA-induced change in health insurance coverage

<table>
<thead>
<tr>
<th>Change due to ACA</th>
<th>Percent increase in health insurance coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Expansion States</td>
</tr>
<tr>
<td>All</td>
<td>4.78</td>
</tr>
<tr>
<td>Non-minority</td>
<td>2.69</td>
</tr>
<tr>
<td>Minority</td>
<td>5.16</td>
</tr>
<tr>
<td>Childless Adult</td>
<td>4.79</td>
</tr>
<tr>
<td>Has Child Under 18</td>
<td>4.80</td>
</tr>
<tr>
<td>HSQ or less</td>
<td>5.03</td>
</tr>
<tr>
<td>Some College or More</td>
<td>3.83</td>
</tr>
<tr>
<td>Male</td>
<td>4.92</td>
</tr>
<tr>
<td>Female</td>
<td>4.64</td>
</tr>
<tr>
<td>Young (26-44)</td>
<td>4.59</td>
</tr>
<tr>
<td>Near Elderly (45-64)</td>
<td>4.75</td>
</tr>
<tr>
<td>Subsidies Above Median</td>
<td>4.81</td>
</tr>
<tr>
<td>Subsidies Below Median</td>
<td>4.42</td>
</tr>
</tbody>
</table>

Overall Results (HI)

- Overall health insurance coverage
  - Increased by 4.2 p.p. in states that did not expand Medicaid, 5.4 p.p. in states that did
  - ACA accounts for a large share of the increase in health insurance coverage
  - Larger increases in places with higher share uninsured and < 138% FPL for expansion states only
  - Larger increases in places with higher share uninsured and 139-399% FPL for both groups of states
- Medicaid coverage
  - Decreased by 0.1 p.p. in non-expansion states, 3.0 p.p. increase in expansion states
  - Larger increases in places with higher share < 138% FPL and uninsured in expansion states only
- Privately purchased health insurance coverage
  - Increased by 0.9 p.p. in expansion states, 2.4 p.p. in non-expansion states
  - Larger increases in places with higher share uninsured and 139-399% FPL for both groups of states
Results (LM)

– Some suggestive evidence that ACA-induced coverage through the exchanges reduced participation in the labor force, increased part-time work, and reduced hours worked, though no evidence that employment or self-employment changed
– No evidence that employment outcomes change due to ACA-induced Medicaid coverage
– Limiting sample to subsets of workers who may be more susceptible to changes (e.g., older workers, less educated, etc.) does not provide conclusive evidence

Policy implications

• ACA had a large impact on coverage, but the level and composition varied in expansion vs. non-expansion states
• Little evidence for impacts on labor market outcomes thus far
References

Employer Concerns When Workers Delay Retirement

Robert L. Clark
Zelnak Professor of Economics
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Living Longer, Working Longer?

- As life expectancy increases, how will individuals allocate their additional years of life?
- Individuals want to divide extra years between working longer and extended retirement but how do employers feel about later retirement.
Delayed Retirement: The Players and Their Preferences

• Individuals:
  ▫ Greater life expectancy means individuals must either:
    ▪ Save more while working
    ▪ Have lower consumption in retirement
    ▪ Delay retirement and work more years

  Working until older ages is one of the most efficient methods for many individuals to finance increased number of years in retirement

  ▫ Thus, one can expect that many individual will have a preference for working until older ages.

• Governments:
  ▫ Individuals who remain working past traditional retirement ages continue to pay taxes and contribute to national output
  ▫ These individuals are less reliant on national retirement programs – SS and Medicare along with other transfer programs
  ▫ Delayed retirement increases tax revenues and reduces spending on retirement programs
Delayed Retirement: The Players and Their Preferences

• Employers:
  ▫ Demand for labor is an essential input in the production process.
  ▫ Firms seek to have the optimal size and composition of their labor force.
  ▫ Cost and productivity of older workers determine the impact on firms of delayed retirement.
  ▫ Key question is whether, employers will want to facilitate delayed retirement or attempt to retard the trend toward later retirement.

Individuals: Living Longer, Working Longer?

• From a lifecycle perspective it seems like a reasonable prediction that individuals with longer lifespan will want to divide these extra years of life into more work years and more years of retirement.
Individuals Are Living Longer and Working Longer

• But throughout the 20th century, the opposite occurred: life expectancy increases and retirement ages declined.

• What drove the trend toward early retirement?
  ▫ Rising real income
  ▫ Economic incentives in SS and defined benefit

How can individuals extend worklife?

• Remain on career job
• Shift to phased retirement with career employer
• Move to new jobs: shorter hours, less stress
• Focus of this presentation is on challenges for employers when workers seek to delay retirement from their career jobs
Governments Face Funding Challenges for Retirement Programs

- Governments develop policies to encourage delayed retirement
  - Older ages of eligibility for retirement benefit programs
  - Reduced retirement benefits encouraging delayed retirement
  - Age discrimination policies

Employer Objectives

- Objectives of employers are often ignored in the assessment of delayed retirement as analysts focus on individuals and their desire for later retirement

- Will employers be willing to accommodate delayed retirement with the same working conditions as currently are in place?
Employer Concerns

- Optimal size and age structure of labor force
- Total compensation of older workers relative to younger employees
- Age profiles for cost and productivity
- Promotional prospects for younger workers

Age Structure of Labor Force

- Do firms care about the age structure of their workforce? Or are they only interested in the number of employees?
  - Older workers are different from younger workers: vintage of human capital, experience
  - Different: not necessarily better or worse but different age/experience workers bring different skills to the job
Age Structure of Labor Force

• Elasticity of old and young workers is not infinite
• Firms will want to have an optimal mix of young and old workers
• When retirement is delayed, the firm will have more older workers and fewer younger workers; how will this affect production costs?

Age Structure of Labor Force

• The optimal mix of young and old workers is a function of relative prices of employing each type of worker
• Important to consider the full cost of employment
  ▫ Salary
  ▫ Pensions
  ▫ Health insurance
Impact of Delayed Retirement

- Production function
  \[ Q = f(K, L(j), L(b), L(s)) \]

- Organizations determine the number of each type of workers needed to maximize profits and develops compensation policies that allow firm to hire the optimal number of each type of workers

Policy Dynamics

- Workers decide that they want to delay retirement
- As older workers remain on the job, the firm can afford to hire fewer L(j)s
- The firm may have the right number of workers but a suboptimal mix of the type of workers
Policy Dynamics

- In an effort to restore the optimal age structure management may decide to adopt new retirement policies to discourage older workers from remaining on the job
- Firm may adopt early retirement incentive plans
- Fewer workers delay retirement and firm once again achieves the desired age structure of its workforce

Adjusting the labor force

- Do organizations and firms really care about the age structure of their workforce?
  - YES
- Do HR and compensation policies influence worker decisions?
  - Yes
Compensation and Productivity

- But labor markets can adjust!
  - With more older workers seeking to remain on the job, the age compensation profile could flatten at older ages making older workers relatively less expensive

Delayed Retirement and Promotional Prospects

- How will delayed retirement be managed?
  - If older workers remain on their same job with the same level of responsibilities, there will be fewer promotional opportunities for younger workers
  - Will an older age of retirement make a career at firms more or less desirable to job candidates?
Delayed Retirement and Promotional Prospects

- Will firms be able to develop employment contracts that allow workers to delay retirement but with reduced responsibility and lower compensation?
- Will such human resource policies be legal or viewed as age discrimination?
- Will phased retirement policies become the new norm?

Government Policy Changes

- The federal government could adopt policies that would reduce the employer cost of increased retirement ages
  - Eliminate payroll taxes for SS and Medicare once workers achieve the normal retirement ages
  - Make Medicare the primary payer for workers as well as retirees after age 65
Labor Market Responses

- Labor markets are dynamic
- Relative wages change with market conditions
- If the relative wage of older workers declines, firms will be more willing to raise retirement ages

Final Thoughts

- Workers of different ages and with different vintages of human capital and different levels of experience are not perfect substitutions.
- Thus, firms will seek to obtain and retain an optimal age structure of their workforce.
Final Thoughts

• The optimal age structure depends on relative productive (the age productivity profile), the degree of substitutability, and the relative cost of different types of workers.
• Labor markets are dynamic and relative prices can change making one type of worker relatively cheaper over time.

Final Thoughts

• Employment contracts and job responsibilities can be altered but will this be viewed as age discrimination?
• Governments can encourage firms to hire more older workers
• Workers can accept alternative working conditions
Remember the Employer

- If work life is to be extended and retirement delayed, the interest of the employer must be considered.
- Will employers seek to accommodate the desire of individuals to remain on the job longer or will they adopt policies to make this more difficult?