The Future of Work

Small Business Panel
Occupational Safety and Health Administration
2 July 2009

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Public Health Law Program
Centers for Disease Control and Prevention
U.S. Department of Health and Human Services
Washington, D.C.
Changes to the Future of Work

- **Workforce**
  - Age
  - Gender
  - Culture

- **Employment**
  - Precarious
  - Benefits
  - Global & Virtual

- **Hazards**
  - New Technologies
  - Organization of Work
  - Stress
Occupational Safety and Health Act

“Congress declares it to be its purpose and policy …

– To assure as far as possible every working man and woman in the Nation safe and healthful working conditions and

– To preserve our human resources--”

• By providing for research in the field of occupational safety and health, including the psychological factors involved, and by developing innovative methods, techniques, and approaches for dealing with occupational safety and health problems.”
"What we are looking for is somebody about twenty five with forty years' experience."
## Unknowns About 21st Century Workforce

### Immigration
- Will nations change policies to encourage or discourage immigration?

### Outsourcing
- How fast will it develop? Where?

### Retirement
- Will more retirees remain active and “recareer” in later life?
- Will the average retirement age change because of social policy changes?
Growing Shortage of U.S. Workers

Expected Labor Force and Labor Force Demand

Source: Employment Policy Foundation analysis and projections of Census/BLS and BEA data.
Screeching to a Halt: Growth in the Working-Age Population

Dramatically Different Patterns of Growth by Age

Percent Growth in U.S. Population by Age: 2000-2010

1. Declining number of mid-career workers
2. Few younger workers entering
3. Rapid growth in the over-55 workforce

Source: U.S. Census Bureau
Continuing Into the Future

Percent Growth in U.S. Workforce by Age: 2000-2020

Age of Workers

Source: U.S. Census Bureau
In 2000, A Fairly “Young” World . . .

Percent of Population Age 60+ in 2000

Source: U.S. Census Bureau
Rapidly Aging by 2025

Percent of Population Age 60+ in 2025

Source: U.S. Census Bureau
Why? Dramatic Increase in Life Expectancy

Average Life Expectancy at Birth in the U.S.

Source: U.S. Social Security Administration
“Sudden” Boom in Life Expectancy

Life Expectancy at Birth: 1000 - 2000

Source: U.S. Census Bureau, 2000
And a Dramatic Drop in Birth Rates

Total Fertility Rate: 1960 and 2000

Source: Age Wave
Why? The Baby Boom Pattern

The Boom Years: 1946-1964

Birth in Millions

Source: U.S. Census Bureau International Data Base
Skill Mismatch Ahead in the U.S.

- Over the next decade, only 30% of US 20 year-olds will obtain a college degree, but 2/3’s of new jobs will require a college degree

- Key skill sets will be in critically short supply:
  - # students that declared their major in computer science has declined for past 4 years—now 39% lower than in 2000
  - Other shortages: engineering, physical & biological sciences

- A growing number of high school dropouts
- Fewer high school graduates with vocational training
- Labor “imports” decreasing due to security restrictions and opportunities in rapidly developing countries

When I was growing up, my parents used to say to me, "Tom, finish your dinner. People in China and India are starving."

Today I tell my girls, "Finish your homework. People in China and India are starving for your jobs."

—Thomas Friedman, The World is Flat

U.S. 21st Century Workforce Challenges

- Chronologically older
- Limited availability
- Key skills lacking
- Global & Virtual
- Diverse
  - Race
  - Gender
  - Age Generations
  - Culture

Source: Testimony by Tamara J. Erickson to the U.S. Senate Committee on Health, Education, Labor and Pensions, May 2005
Average Retirement Age of Males

Source: Center for Strategic and International Studies

<table>
<thead>
<tr>
<th>Country</th>
<th>1960</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>64.5</td>
<td>66.5</td>
</tr>
<tr>
<td>Germany</td>
<td>65.2</td>
<td>67.2</td>
</tr>
<tr>
<td>Italy</td>
<td>64.5</td>
<td>63.6</td>
</tr>
<tr>
<td>Canada</td>
<td>66.2</td>
<td>62.7</td>
</tr>
<tr>
<td>UK</td>
<td>66.2</td>
<td>62.3</td>
</tr>
<tr>
<td>US</td>
<td>66.5</td>
<td>60.6</td>
</tr>
<tr>
<td>Japan</td>
<td>66.5</td>
<td>59.2</td>
</tr>
</tbody>
</table>

Source: Center for Strategic and International Studies
“Multi-Generational” Workforce

Traditionalist | Boomer | Generation X | Generation Y
---|---|---|---

Four generations (cultures) are being asked to coexist in the early 21st century workplace

Source: Based in part on “Meeting the Challenges of Tomorrow’s Workplace,” CEO Magazine, 2005
Falling Desire for Jobs with Greater Responsibility

Source: Generation & Gender in the Workplace, An Issue Brief by Families and Work Institute
Declining Desire for Jobs with Greater Responsibility By Gender

Employees Wanting Jobs with Greater Responsibility

Men

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>68%</td>
</tr>
<tr>
<td>2002</td>
<td>52%</td>
</tr>
</tbody>
</table>

Women

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>57%</td>
</tr>
<tr>
<td>2002</td>
<td>36%</td>
</tr>
</tbody>
</table>

Source: Generation & Gender in the Workplace, An Issue Brief by Families and Work Institute
Lower Alignment with the Organization

1. I really care about the fate of this organization (agree)
   - Y: 45
   - X: 48
   - Boomer: 57
   - Traditionalist: 65

2. I’m willing to put in effort beyond that normally expected to help the organization be successful (agree)
   - Y: 39
   - X: 44
   - Boomer: 52
   - Traditionalist: 61

3. I find my values and the organization’s are similar (agree)
   - Y: 32
   - X: 28
   - Boomer: 35
   - Traditionalist: 53

Source: The New Employee/Employer Equation, The Concours Group and Age Wave, 2004
Webster's Definition of Retirement

- to disappear
- to go away
- to withdraw
Shifting the Old Work/Life Paradigm...

Source: Demography is Destiny,
The Concours Group and Age Wave, 2003
. . . To a “Cyclic” Life Paradigm

Source: *Demography is Destiny*, The Concours Group and Age Wave, 2003
. . . Evolving to a “Blended Lifestyle”

Source: Demography is Destiny, The Concours Group and Age Wave, 2003
Cutting Back Has New Meaning: Cyclic Work

The most popular pattern for working after “retirement” is not part-time, but moving back and forth between periods of working and not working.

- Working full-time: 12%
- Working part-time: 39%
- Moving back and forth between working full-time and not working: 49%

Source: The New Employee/Employer Equation, The Concours Group and Age Wave, 2004
More Years Spent in “Retirement” After Your First Corporate Career

Years

1900 1980 1990 2000 2010

1.2 13.6 19.4 20-25 30 +

Source: Age Wave, based on U.S. data, and The Concours Group
Aging Productively

“Older Workers on the Move: Recareering in Later Life,” by R. Johnson, J Kawachi & E. Lewis of the Urban Institute for the AARP Public Policy Institute
The changing demographics in the workforce mean that we all need to be thoughtful about how to age and work productively.
National Research Council Study (2004)
Commissioned by NIOSH

● Characterize the older adult workforce over next 20-30 years

● Identify the key policy and research issues

● Address retirement patterns and characteristics of the older adult workforce and their jobs

● Conduct workshop on differential effects of environmental hazards
National Research Study (2004)

- Life course perspective emphasizes *aging* productively versus *age*.
- Beginning clearly to detect age-related changes.
- Can address disease risk factors to extend years of healthy living.
- Promote research to capture precursors of age-related changes.
Proportion of 50 yr-olds Still Employed at Subsequent Ages by Age Attained and Class (U.S.)
Aging: A Balance of Factors

• Possible Limitations
  – Mental Capacity
  – Chronic Conditions
  – Physical Capacity

• Compensating Factors?
  – Attitude
  – Judgment
  – Flexibility
  – Interest in learning new things
Mental Capacity

Does long work experience advantage older workers in thinking through problems in comparison to new workers?

Can older workers be trained in new technologies?

Is the modern workplace too complex or too technical for the older workers?

Do older workers bring more experiential intelligence to the job?
Mental Capacity

• Laboratory Tests
  – Cognition speed
    • Information retrieval slower, unless material is familiar
  – Learning and recall slower, but equally successful in the end
  – Greater retention, higher learning achievement and more likely to complete a new field of study than younger workers
Mental Capacity:
Relevance to On-the-Job Performance

• Lab tests do not translate well to actual work settings
• Factors other than psychometric cognitive abilities appear important to perform well at work
  – How well worker gets along with co-workers
  – Desire to perform well
• Individual measures are quite sensitive to occupational class
Age and Chronic Conditions: How healthy are older workers?
Diagnoses Among Disability Female Pensioners by Age
(Sweden 1990-1993)

Höög & Stattin, 1996

Psych Disorders  Cardiovascular  MSD

<29  30-44  45+

Höög & Stattin, 1996
Workers with >1 Chronic Condition by Age (U.S.)

HRS 1998
Physical Capacity: Can Older Workers Keep Up?

• Physiology
  – Maximal strength at 20-30 years
  – $O_2$ uptake reduced to 70% (max) by 65 years
  – Older adults work closer to capacity

• Match Ability to Job Requirements
  – Change in industry from manufacturing to services
  – Change in job duties from physical to mental
Work Settings: Employing Older Workers

• Decreased performance
  – For physically demanding work only

• Work *uncommonly* demands maximal effort

• Non-physical advantages that older workers bring to a job are rarely measured

• Workers abilities matched to the job results in less morbidity
  – Accommodation thinking rare in industry\(^1\)
    • May change with ADA Amendments Act of 2008
    • Workers are changing (aging) and jobs are changing

\(^1\) Eur J App Phys 2003 89:536
Trends in Workplace Physical Stressors

As the U.S. service sector increases and manufacturing jobs decrease, are physical stressors decreasing in US jobs?
Exposure to Physical Hazards (EU) By Type of Work Contract (1995)

- Repetitive Tasks
- Repetitive Movement
- Painful/Tiring Work Postures

- Permanent Employment
- Fixed-term
- Temporary

Working Conditions in the EU – Euro. Fnd.
Aging Productivity

• Injury risk and its consequences differ in older workers

• Medical costs rise with age
  – Estimated 25% increase from age 40 to 50 to 35% from age 50 to 60

• BUT, age is less a factor in health care costs than the presence of such risk factors as smoking, obesity, lack of exercise, and diabetes!

• There is such a thing as “aging productively” or “healthy aging”!
Essentials

• Do aging workers need special accommodations?
  – A well-designed workplace benefits everyone
  – Work stations and job tasks need to be matched to the capacity of each worker
  – There should be no conflict between ergonomic principles vs. reasonable accommodations

• Are there any specific health and safety concerns related to aging workers?
  – Older workers have fewer injuries, but when one occurs, that injury tends to be more severe and it takes worker longer to get better.
  – Injuries differ in older workers—there are more musculoskeletal injuries (especially involving the low back)
  – No consistent relationship between aging and work performance!
Future Research Needs

• Conduct Longitudinal Studies of Older Workers
  – Impact of work risks on older workers
  – Interactions with chronic health conditions
  – Socio-Economics Status relationships to:
    • Hazardous employment
    • Retirement decisions and barriers to continued work

• Surveys
  – Update National Occupational Exposure Survey (NIOSH and OSHA)
  – Develop a new Quality of Employment Survey (NIOSH and OSHA)

• Develop ability to measure rates by age, gender and ethnicity (BLS)

• Aging Productively Management Programs
Older Workers: Some Best Practices and Strategies for Engaging and Retaining Older Workers
GAO-07-433T February 28, 2007

• Key Obstacles
  – Employer perceptions
  – Age discrimination
  – Strong financial incentives to retire
  – Jobs with inflexible schedule or unmodified physical demands

• Best Practices
  – Non-traditional recruiting techniques
  – Flexible work schedules
  – Adapt to “retirement” schedules

• Strategies
  – Make federal government model employer for older workers
  – Consider specific legislation
2009 Aging Worker Legislation

- **Older Worker Opportunity Act of 2009**
  - Would diminish barriers to part-time work for older workers such as loss of health coverage and decreased pension benefits by providing a tax credit to hire older workers

- **S. 469/H.R. 1198**
  - Would make it easier for feds to rehire fed retirees part-time without forcing worker to reduce their salary by their pension amount

- **Phased Retirement Bill**
  - Would allow phased retirement for feds

- **Health Care & Training for Older Workers Act of 2009 (S.281)**
  - Would extend COBRA from time of retirement until seniors become eligible for Medicare at age 65
The reward for work well done is the opportunity to do more.

- Jonas Salk (1914 - 1995)
References

- Johnson, Richard et al. Older Workers on the Move: Recareering in Later Life (2009), AARP Public Policy Institute
- Tamara Erickson, The Concourse Group, tjerickson@concoursgroup.com
OSHA adds value to business, work, and life.
Can a Business Case Be Made for 50+ Workers?

The Aging Workforce: Moving Forward in a New Age

OSHA Small Business Forum, July 2, 2009
Presented by Phyllis Cohn, Project Manager, AARP
Reinventing Retirement

- Boomers much less likely to associate retirement with the traditional retirement age of 65.

- Nearly 70% of workers who have not retired report that they plan to work into their retirement years or never retire.

- Almost half of workers 45-70 indicate that they envision working into their 70s or beyond.
Myths about older workers

- Can older workers adapt?
- Can they handle new technologies?
- Are their job skills up to date?
- Can they get along with younger bosses?
Positive Perceptions of Older Workers

> Loyalty and dedication to the company
> Come to work on time; low absenteeism
> Commitment to doing quality work
> Someone you can count on in a crisis
> Solid performance record
> Solid experience in job/industry
> Basic skills in reading, writing, arithmetic
> Getting along with co-workers
Are Employers Ready?

60% of CEOs indicate their companies do not account for workforce aging in their long-term business plans.

Employers are anxious about the future

> Lost knowledge can hurt financially
> Harder to find qualified employees
> Need to do more to retain workers
> Need to establish formal programs to address retention and recruitment of 50+ workers
50+ Workers: AARP’s Social Impact Plan and Resources

- AARP Workforce Assessment Tool
- AARP Best Employers for Workers Over 50
- Managing a Multi-generational Workforce
- AARP Executive Insights
- National Employer Team
- Real Relief
- Retirement Planning
- Publications
AARP Workforce Assessment Tool
http://www.aarpworkforceassessment.org

> Employee Age Demographic and Skill Shortage Projections
> Knowledge Retention
> Flexible Work Arrangements
> Training and Development Benefits
> Workplace Accommodations
> Positive Work Environment
> Recruitment
<table>
<thead>
<tr>
<th>Registration</th>
<th>Workplace Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capturing your Employee Age Demographics</td>
<td>Has your organization used any of the following sources of information to reduce job-related injuries, enhance productivity, and enable people to stay on the job longer? (Yes/No)</td>
</tr>
<tr>
<td>Assessing for Potential Skill Shortages</td>
<td>Workers' compensation claims</td>
</tr>
<tr>
<td>Knowledge Retention</td>
<td>Formal/informal feedback from employees on their workplace accommodations needs (e.g., surveys, focus groups, or other methods)</td>
</tr>
<tr>
<td>Flexible Work Arrangements</td>
<td>Consultation from an ergonomics expert who has examined your workplace to assess workplace safety and ergonomics</td>
</tr>
<tr>
<td>Training and Development Opportunities</td>
<td>Has your organization made any of the following workplace modifications such as: (Yes/No)</td>
</tr>
<tr>
<td>Benefits: Health and Financial</td>
<td>Provided equipment or technology to assist workers with vision or hearing impairments</td>
</tr>
<tr>
<td>Workplace Accommodations</td>
<td>Redesigned jobs or adapted equipment to reduce physical strain</td>
</tr>
<tr>
<td>Positive Work Environment</td>
<td>Installed access ramps and/or elevators</td>
</tr>
<tr>
<td>Recruitment</td>
<td>Made case-by-case workplace modifications to address individual needs or disabilities</td>
</tr>
</tbody>
</table>

At this time, how important is it to your organization to address workplace accommodations? (Check one.)

- Top Priority
- Important
- Not Important at this time
- Don't Know - Need to...
Workforce Assessment Report

The following report provides a summary of your aging workforce demographics, current workplace practices, potential challenges, and projected hiring needs. The information provided here can serve as the foundation for developing your short and long-term staffing strategies. This report should be an evolving document, constantly updated as more information is available and as your staffing strategies are developed and implemented.

Your first step is to create internal awareness of any current skill shortages and potential challenges as a result of aging workforce trends in your organization. Circulate this report and its recommendations among your leadership and management to initiate your workforce planning discussions and strategies. While these summaries and projections are approximations, you should focus on patterns versus exact numbers.

Table of Contents

- Summary of Priority Concerns
- Understanding your Employee Age Demographics
- Skill Shortages
- Knowledge Retention
- Flexible Work Arrangements
- Training and Development Opportunities
- Benefits: Health and Financial
- Workplace Accommodations
- Positive Work Environment
- Recruitment
- Leveraging Your Organization’s Strengths
- Workplace Strengths Inventory
- Resources
AARP Best Employers for Workers Over 50

- Announced in 2001
- Recognize companies with exemplary policies and practices for 50+ workers
- Communicates best practices to employers facing similar challenges of an aging workforce
- Over 400 employers recognized
- 2009 application closed in February
- Next application period – 2011

http://www.aarp.org/bestemployers
Who Can Apply?

Any employer with at least 50 employees based in the United States, including:

- For-profit companies
- Not-for-profit organizations
- Government employers at the state, local and federal levels
Best Practices – Workplace redesign

- Baptist Health South Florida
  - Hydraulic beds

- International Trucking
  - Supporting mechanics

- Pinnacol Assurance
  - Ergonomics program reduced workman’s compensation costs by 33%
Safe Patient Handling Program
Bon Secours Richmond Health System

Patient Mobility Teams & Injury Reduction
July 2, 2009
An opportunity existed to reduce the # of patient handling injuries occurring with hospital staff and retain experienced nurses leaving the profession due to the physical demands of the job.

In September 2007 we implemented the Patient Mobility Team program in three Bon Secours Richmond hospitals. A review of injury data for Bon Secours Richmond showed that patient handling was the highest risk activity for nurses getting injured on the job.
Mobility Teams Assist with:

• Patient repositions (2 hour turns)
• Vertical and Lateral Transfers (Bed to Stretcher, Bed to Chair)
• Patient Falls
• Demand lifts
• Staff training on safe patient handling techniques

Teams circulate every 2 hours throughout the units to perform these patient handling tasks. The teams utilize lift equipment and friction reducing devices.

Teams operate 7am-11pm Monday-Friday and 7am-5pm Saturday-Sunday. The Teams are performing the following/month:

36,178 repositions; 4,931 transfers; 1631 assists
Current Facts About Nurses

- There is a national shortage of nurses
- 12% of nurses leave the profession annually as the results of back injury
- Nursing injury rates rank higher than
  - Manufacturing
  - Mining
  - Construction
- Average nurse lifts more than 6,600 pounds/shift
- #1 reason nurses leave the profession is due to physical demands of the job
- Average age of a nurse in Bon Secours Richmond is 48
Successful Outcomes for the PATIENT HANDLING PROGRAM

47% ↓ Patient Handling Injuries
49% ↓ Cost Of Pt Handling Injuries
>90% overall Nursing Satisfaction
Impact on Nursing Turnover & Retention

8% ↓ Nursing turnover on units with Teams

Survey Results
1. Have you considered leaving your job due to the physical demands of the job?
2. Has implementation of the Mobility Teams impacted your decision to leave your position?

43 nurses changed their decision to leave!
Cost of replacing a nurse = 1-3x salary
Average salary of RN = $54,000

Replacement costs of 43 RN’s
$2,322,000 - $6,966,000
Next Steps

- Continue to train staff on best practices for Safe Patient Handling (SPH) skills
- Implement Teams on night shifts
- Evaluate future equipment needs - Ceiling lifts
- Initiate SPH initiatives in Ancillary departments
- 5 Year Plan
Fitness is GOOD for Business

- Productivity losses cost U.S. employers $1,685 per employee per year, or $225.8 billion annually
- 28% reduction in sick leave absenteeism
- 26% reduction in health costs
- 30% reduction in workers’ compensation and disability management claim costs
- $5.93-to-$1 savings-to-costs

*Partnership for Prevention (www.prevent.org)
Percentage of Employers Offering Wellness Programs

Companies of all sizes implement wellness programs with the larger ones showing a slightly higher percentage. On average, 62% of all companies offer a wellness program.
Wellness Program Savings

A three year study conducted at a health system in Minneapolis found that health risks decreased after the implementation of a comprehensive worksite wellness program. This led to increased savings due to reduced health care costs, absenteeism, and workers’ compensation claims each year of the program.

Source: Fairview Alive Program Evaluation (StayWell, 2004)
Benefits of Worksite Wellness Programs

Companies receive many benefits after implementing a worksite wellness program in addition to reducing costs. They include increases in employee morale, improved employee health, reduction in workers compensation claims, reductions in absenteeism, and increases in productivity.

Source: National Business Group on Health, 2005
Looking at a Multigenerational Workforce

> Boomers will remain in the workplace longer
> Four generations in the workplace for the first time
> Need for meeting the needs of different generations
Four Generational Cohorts

Common Experience + Shared Values = Your Generation

- Each generational group has different needs shaped by their collective experience.

- Each generational group has different expectations for their managers.

- Challenge: Build management capability and culture to respond to expectations of age cohorts

# Four Generational Cohorts

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Size - in Millions</th>
<th>Born</th>
<th>Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterans or Traditionalists or Silent Generation:</td>
<td>75</td>
<td>1922-1942</td>
<td>(86-66)</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td>Boomers:</td>
<td>80</td>
<td>1943-1960</td>
<td>(65-48)</td>
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<tr>
<td>2.</td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Millennials or Generation Y:</td>
<td>76</td>
<td>1982-2000</td>
<td>(26-)</td>
</tr>
<tr>
<td>4.</td>
<td></td>
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</tr>
</tbody>
</table>

Root Causes of Conflict

- Work ethic
- Technology
- Perspective
- View of Authority
- Relationships
- Outlook
- Leadership
Communication

> WWII Generation
  > Logical, linear, conservative
> Baby Boom Generation
  > Personable; Information = Reward
> Generation X
  > Direct, straightforward, results-oriented
> Millennial Generation
  > Positive, motivational, personal goal-oriented
Turn-Offs

WWII Generation
> Profanity, slang, poor grammar, disrespect

Baby Boom Generation
> Brusqueness, one-upmanship

Generation X
> Using time poorly, corporate-speak

Millennial Generation
> Cynicism, sarcasm, condescension
AARP Resources for Employers

Employer Resource Center
http://www.aarp.org/employerresourcecenter/

Workforce Assessment Tool
http://www.aarpworkforceassessment.org

AARP SmartBrief
Bi-weekly E-newsletter/Clipping Service
http://www.smartbrief.com/aarp

AARP Website
http://www.aarp.org
AARP Resources for Employers

“Prepare to Care Guide”
www.aarp.org/foundation/preparetocare

“Healthy Behaviors”
www.aarp.org/health

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THANK YOU!