

Prevention & Compensation: Challenges and Opportunities

Ohio Safety Congress & Expo

30 March 2011

Greater Columbus Convention Center

John Howard
National Institute for Occupational Safety and Health
U.S. Department of Health and Human Services
Washington, D.C.

Triangle Shirtwaist Factory Fire

- March 25, 1911
- 146 immigrant garment workers died from the fire or jumped to their deaths
- Led to:
 - State & Federal *safety* legislation
 - State & Federal compensation legislation
 - International Ladies' Garment Workers Union

Future of Work Challenges

- **Hazards**
 - NIOSH-OBWC
 - Small Business
- **Employment**
 - New arrangements
 - Misclassification
- **Workforce**
 - Tenured Workers
 - Newer Workers
 - Returning Workers



NIOSH – OBWC Partnership

- NIOSH is an Ohio employer
 - Our job is finding ways to prevent worker injury and illness so employers & employees can thrive
 - Data analysis, intervention evaluation and small business assistance
- OBWC
 - Protect Ohio workers from workplace injury and illness
- Partnership Activities
 - Signed in April 2010
 - Focused on prevention and intervention evaluation
 - NIOSH Health Hazard Evaluation Program



Innovative Employment Arrangements

- New Employment Arrangements
 - Flexible (employer) v. Precarious (employee)
 - Even “permanent” workers work without promise of longevity enjoyed years ago
- Contingent workers at higher risk for injury:
 - Outsourcing of more hazardous jobs to contingent workers
 - Lack of experience and familiarity with operations in a dangerous workplace
 - Inadequate safety training and protective equipment
 - Limited access to preventive measures such as medical screening programs.
 - Components of current health and safety regulations and the workers' compensation system, which were designed during a different economic era, also play a role.

Can the Law Recognize an Employee When It Sees One?

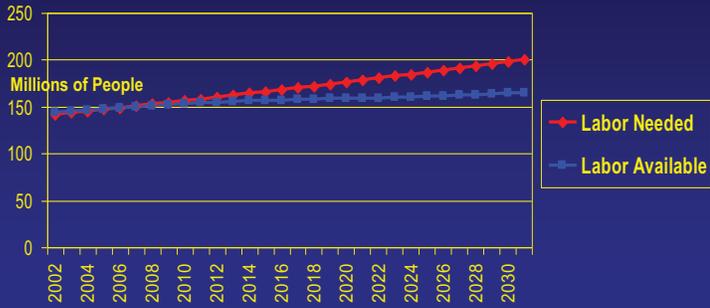
- Employee vs. Independent Contractor
 - Different government agencies use different tests to make the distinction
 - Tax agencies, employment agencies
- Misclassification Consequences
 - Employer
 - Can be penalized for failure to provide workers' compensation or pay employment taxes
 - Worker
 - Thinking she is an employee and covered by workers' compensation, can be surprised by not being covered for an workplace injury
 - Government
 - Can lose revenue

Occupational Safety & Health Act 29 U.S.C. 651(b)

- 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*

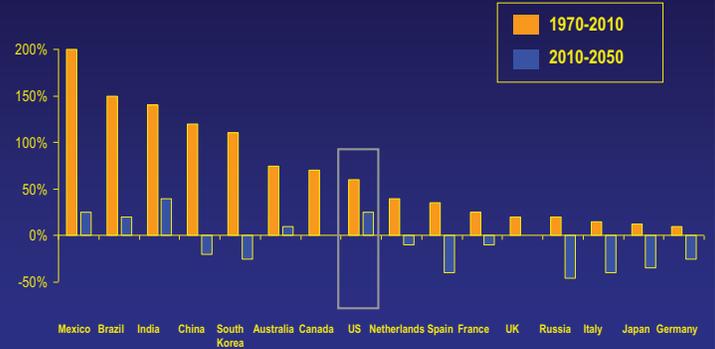
Growing Shortage of U.S. Workers

Expected Labor Force and Labor Force Demand



Source: Employment Policy Foundation analysis and projections of Census/BLS and BEA data

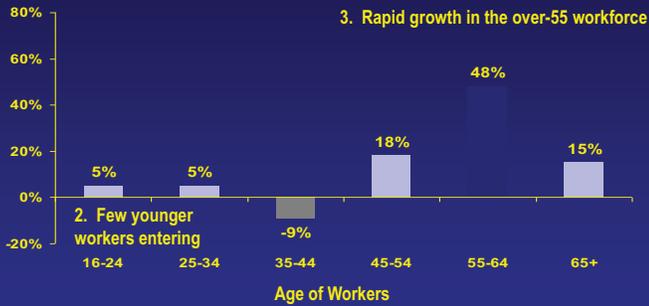
Screeching to a Halt: Growth in the Working-Age Population



Source: Deloitte Research/UN Population Division (<http://esa.un.org/unpp/>) It's 2008: Do You Know Where Your Talent Is? Why Acquisition and Retention Strategies Don't Work, p.6

Dramatically Different Patterns of Growth by Age

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

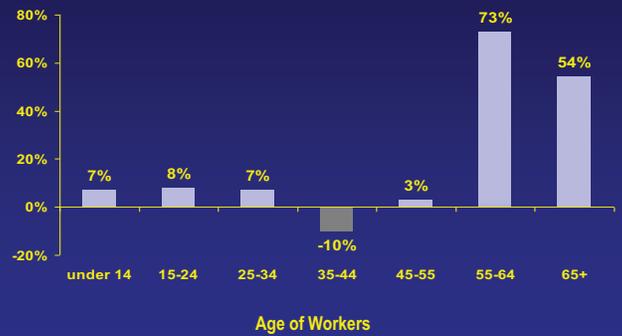


1. Declining number of mid-career workers

Source: U.S. Census Bureau, 2009

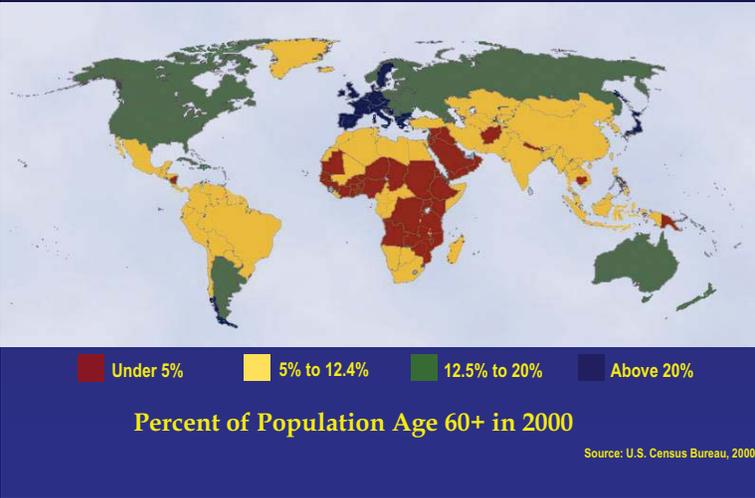
... Continuing Into the Future

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

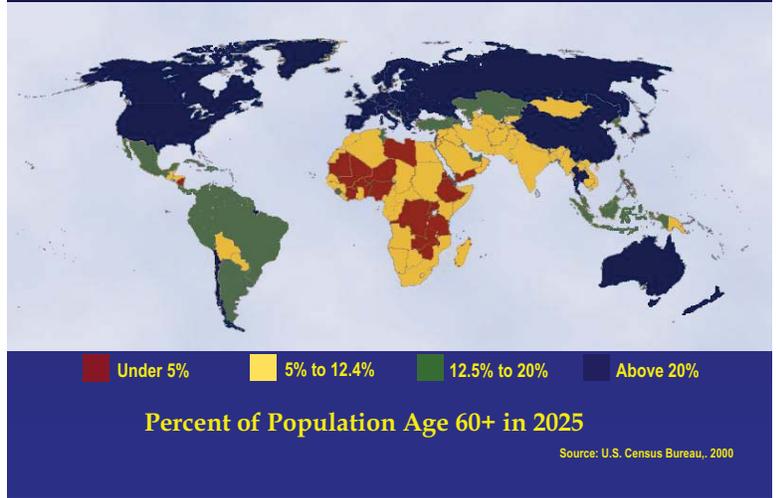


Source: U.S. Census Bureau

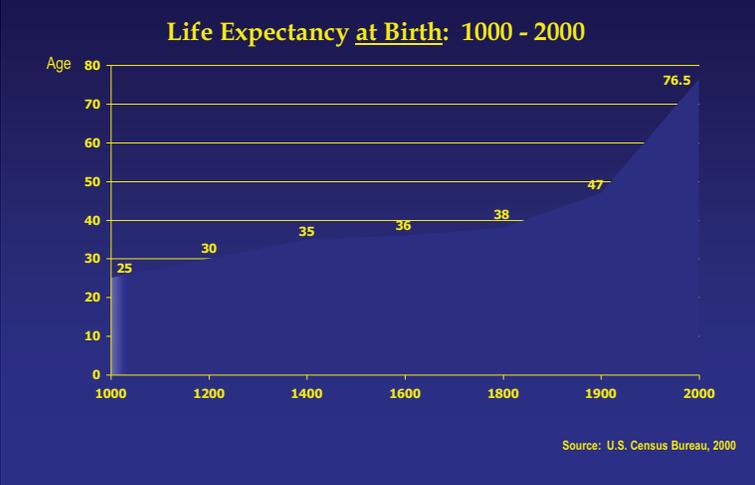
In 2000, A Fairly “Young” World . . .



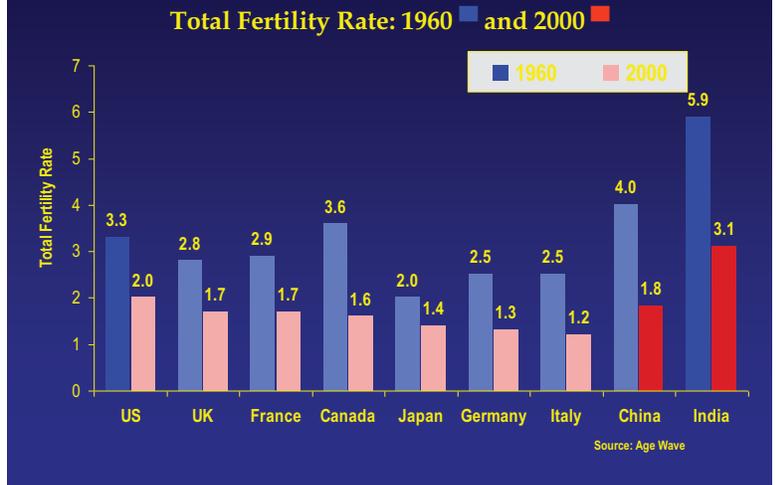
. . . Rapidly Aging by 2025



Why? “Sudden” Boom in Life Expectancy

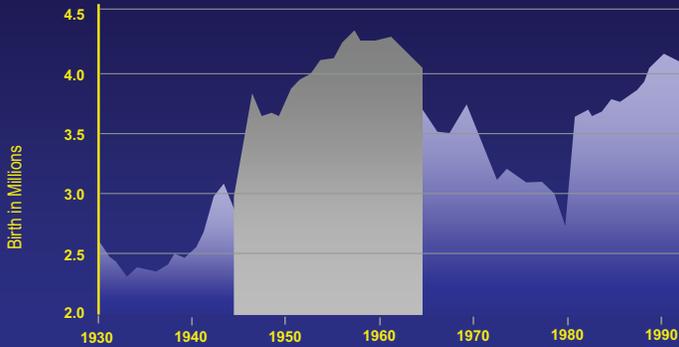


And a Dramatic Drop in Birth Rates



Why? The Baby Boom Pattern

The Boom Years: 1946-1964



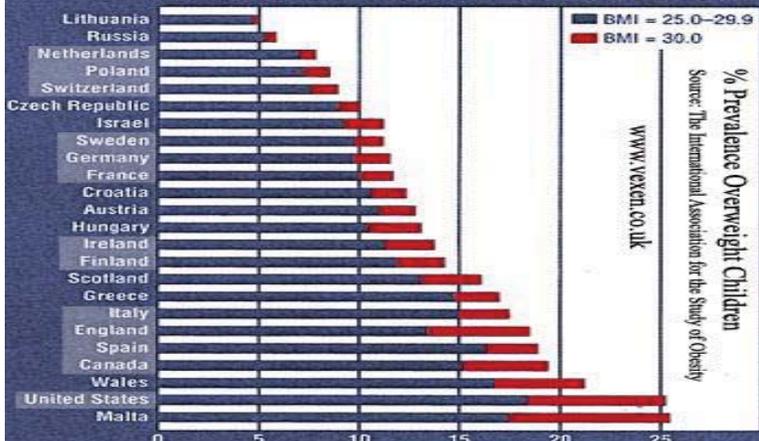
Source: U.S. Census Bureau International Data Base

Health-Challenged Young Workers

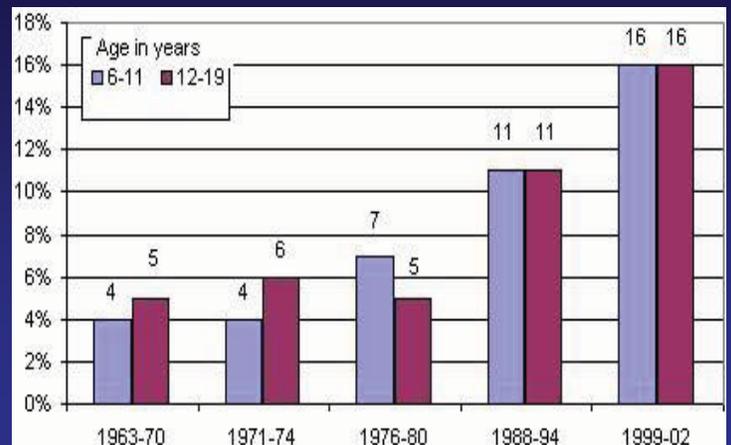


Childhood Obesity by Country

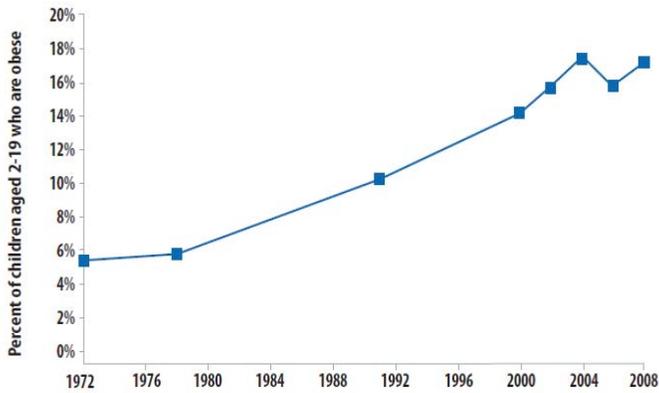
Prevalence of overweight and obesity in schoolchildren aged 10-16 years, as defined by body mass index, 2001-2



US Childhood Obesity: 1960 - 2002



Growth in Childhood Obesity, 1971 to Present

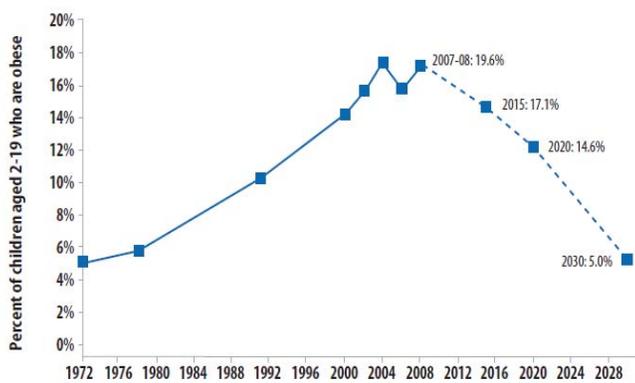


Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Surveys.
 Note: Obesity is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts

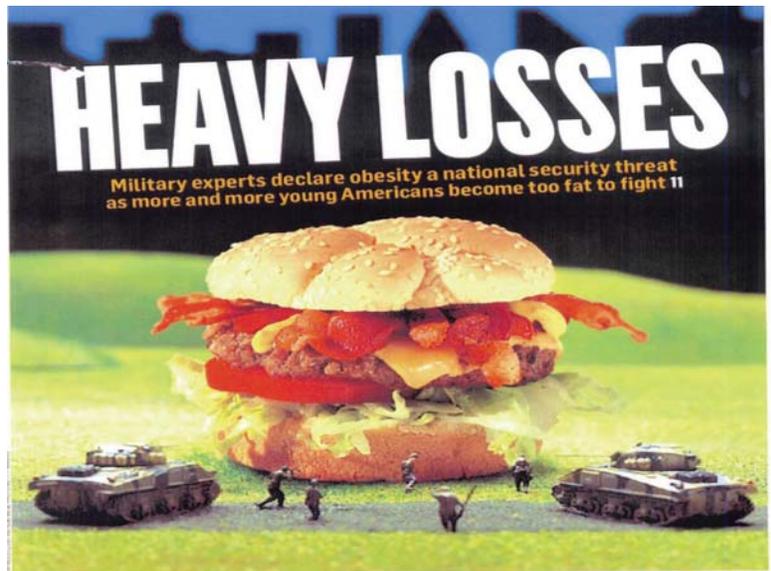
Diabetes and the *Future Workforce*

- 39 States with 40% of young adults considered to be overweight or obese in just last decade!
 - In Kentucky, Alabama and Mississippi, >50% young adults are overweight
- Medical Consequences:
 - High Blood Pressure
 - High Fats in the Blood
 - Type 2 Diabetes (formerly called adult-onset)
 - Hepatic steatosis epidemic (fat deposits in the liver)
 - Sleep apnea (too much fat around the upper airway)
- Psychological stress
- Musculoskeletal disorders
 - what all age workers have in common

Bending the Curve: Childhood Obesity, 1972 to 2030



Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Surveys.
 Note: Obesity is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.



Too Fat to Fight

- Reasons for Rejection
 - Education, criminal record, medical
- Since 1995, proportion of recruits who failed their physical exams because they were overweight has risen by nearly 70%
- Being overweight is now the leading medical reason for rejection.

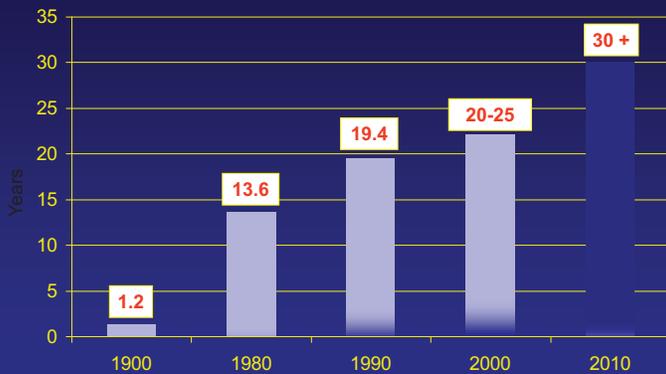
Webster's Definition of Retirement

- *to disappear*
- *to go away*
- *to withdraw*



Source: Webster's New Twentieth Century Dictionary

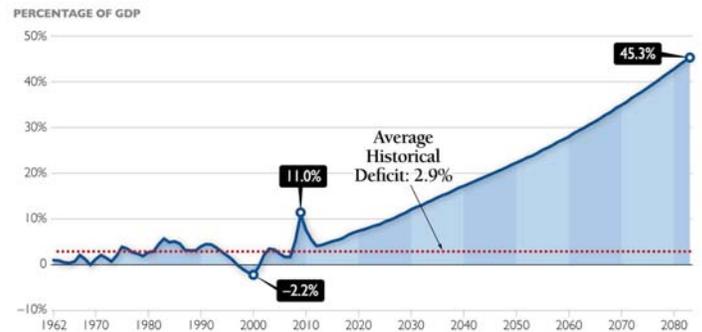
More Years Spent in "Retirement" After First Career



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

Federal Budget Deficits Will Reach Levels Never Seen Before in the U.S.

Recent budget deficits have reached unprecedented levels, but the future will be much worse. Unless entitlements are reformed, spending on Social Security, Medicare, and Medicaid will drive deficits to unsustainable levels.



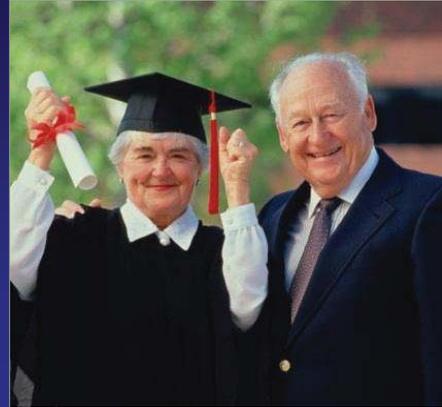
Source: Congressional Budget Office (Alternative Fiscal Scenario).

Debt and Deficits Chart 5 • 2010 Budget Chart Book heritage.org

Aging Workforce & Retirement

- Social Security Act of 1935
 - In 1935, average life span at birth was 62
 - Retirement benefits started at 65!
 - Now, life expectancy is causing \$\$\$ strain
- Responses:
 - Nations are banning early retirement
 - Raising eligibility age for retirement
 - Greece
 - Raised age to 63 and banned early retirement at 55 altogether
 - Riots ensued throughout Greece
 - France
 - Raised age to 62 by 2018
 - France paralyzed by strikes
 - U.S.
 - Disadvantages workers in physically demanding jobs?

Aging Productively



Aging: A Balance of Factors

- Possible Limitations
 - Mental Capacity & Cognitive Limitations
 - Chronic Conditions
 - Physical Capacity
- Compensating Factors?
 - Attitude
 - Judgment
 - Flexibility
 - Interest in learning new things

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 socioeconomic class

FIG. 2-4
STRESS ON THE JOB, BY AGE: 2002
(Percent saying that their job involves "a lot of stress")

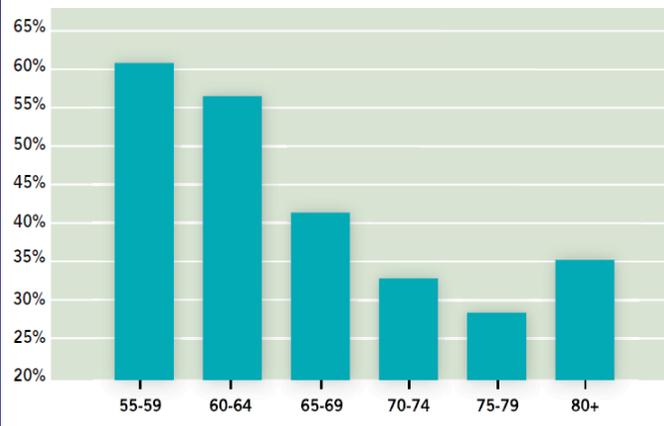
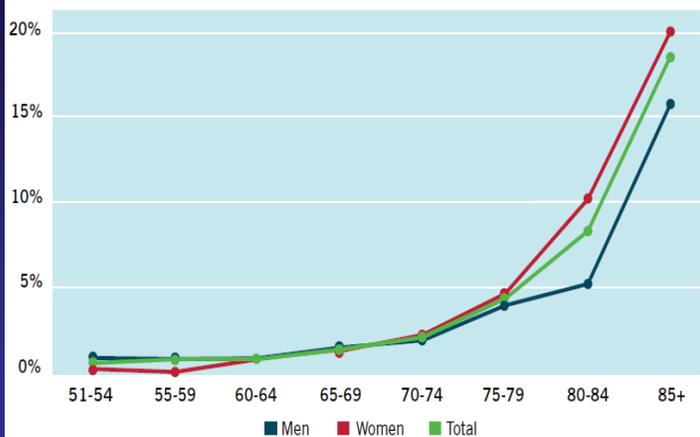


FIG. 1-4
SEVERE COGNITIVE LIMITATION, BY AGE AND GENDER: 1998

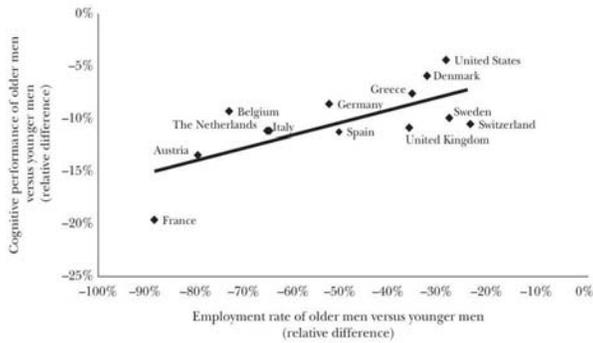


What About Mental Retirement?

- "Use it or lose It" (in the popular literature)
 - Stave off normal cognitive aging or dementia by engaging in cognitively demanding activities
 - Converse: Un-demanding environment may fail to impede or even accelerate the process of cognitive decline
- Hypothesis that people can maintain their cognitive abilities through mental exercise is not proven, but suggestive
- 2010 *Journal of Economic Perspectives*' paper addresses the question of whether retirement leads to cognitive decline
 - Uses cross-national comparable surveys of older persons from US, UK and eleven EU countries in 2004

Mental Retirement

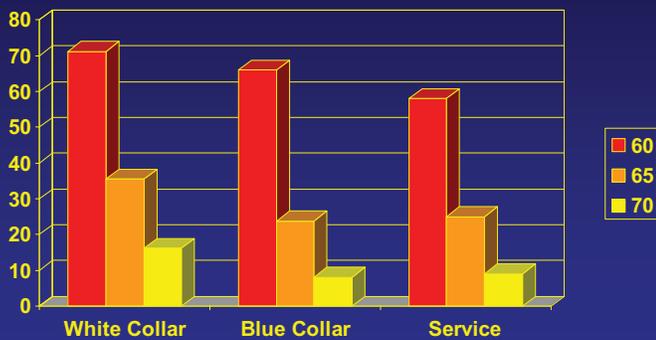
Figure 1
Drop in Cognitive Performance as a Function of Drop in Employment Rate between Men 50-54 and 60-64 Years Old



Age and Chronic Conditions: How Healthy are Mature Workers?

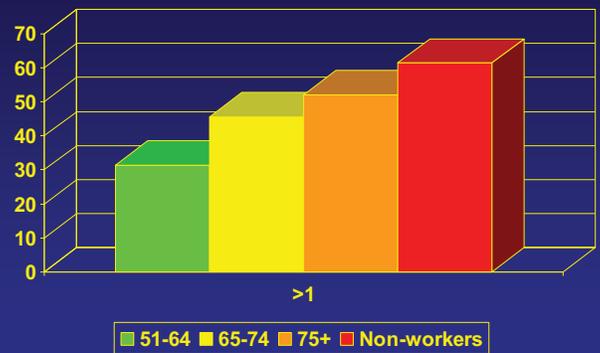


Proportion of 50 yr-olds Still Employed at Subsequent Ages by Age Attained and Class (U.S.)



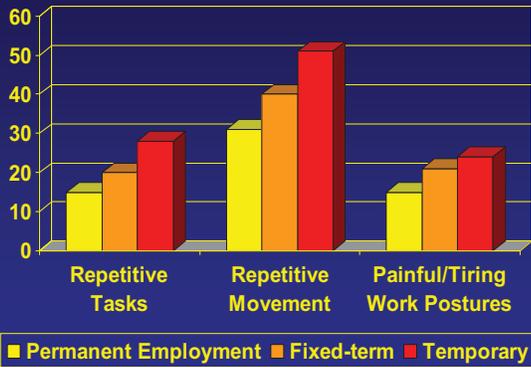
US Bureau of Census 1981-2000

Workers with >1 Chronic Condition by Age (U.S.)



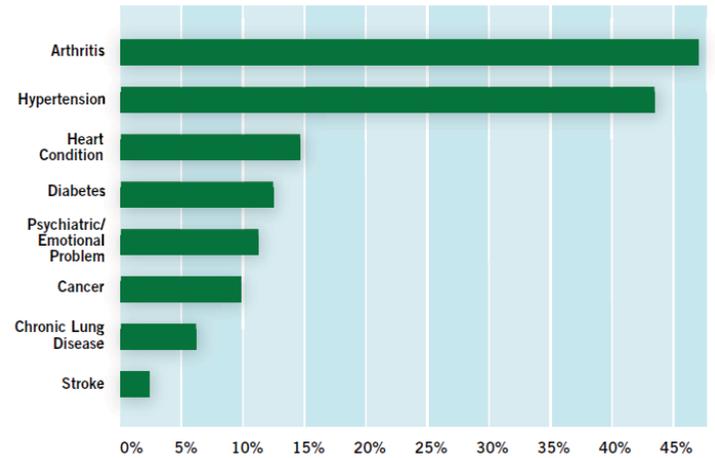
HRS 1998

Exposure to Physical Hazards By Type of Work Contract



Working Conditions in the EU – Euro. Fnd.

FIG. 1-16
HEALTH CONDITIONS AMONG WORKERS AGE 55 AND OVER: 2002



Physical Capacity: Match Task to Ability

- Maintaining musculoskeletal health will be increasingly important
- Workers abilities matched to the job
 - Results in less morbidity
 - Based on practical ergonomic principles
 - Accommodations thinking/practice lags:
 - ADA Amendments Act of 2008
 - Increases chances lawsuit will go to trial
 - OSH practitioners knowing how to advise about accommodations that are reasonable

Essential Points About Aging Workforce

- **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 at all ages
- **Are there any specific health and safety concerns related to aging workers?**
 - No consistent relationship between aging and work performance!
 - Older workers have fewer injuries, but when one occurs, that injury tends to be more severe and it takes worker longer to get better.
 - Value of return to work (RAND)



EVALUATION OF EMPLOYEE WELLNESS PROGRAMS — DO THEY WORK?



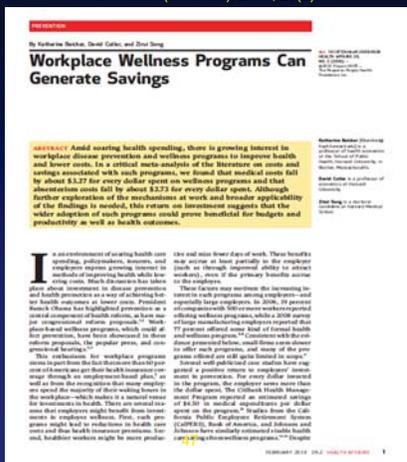
Employee Wellness Practices: What's the Evidence?

- Evidence:
 - More than opinion, anecdote or testimonial
- "...Growing body of *empirical* evidence*"
 - Large proportion of diseases are preventable (risks are modifiable)
 - Risk-dependent diseases are costly & reduce worker productivity *within short time window*
 - Targeting risk can decrease costs/increase productivity
 - Worksite health promotion and disease prevention programs save companies money and produce + ROI

* Goetzel & Reuters, Value in Health Care, Institute of Medicine (2010)

HEALTH AFFAIRS ROI LITERATURE REVIEW

Baicker K, Cutler D, Song Z. Workplace Wellness Programs Can Generate Savings. Health Affairs(Millwood). 2010; 29(2).



WHEN EVALUATING EMPLOYEE WELLNESS PROGRAM

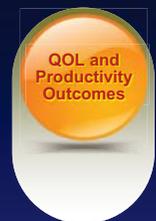


Cost savings, return on investment (ROI) and net present value (NPV).
Where to find savings

- Medical costs
- Absenteeism
- Short term disability (STD)
- Workers' comp
- Presenteeism



Adherence to evidence based medicine.
Behavior change, risk reduction, health improvement.



Improvement in quality of life. Improved "functioning" and productivity.

Harvard Business Review

- 6 Pillars of Wellness Program
 - Multi-level leadership
 - Alignment with Identity of firm
 - Scope, relevance and quality
 - Accessibility
 - Partnerships
 - Communications
- “Fruits of Workplace Wellness”
 - Lower costs
 - Claims 1,500K higher in non-participants (H-E-B)
 - Moving 10% from high/medium risk to low yields ROI estimates of 6 to 1.
 - Greater productivity – Lost productivity costs 2.5 x higher than medical costs) Loeppke et al. (2009); Dow Study (2002)
 - Higher morale – no data

Berry, Mirabito & Baun, What's the Hard Return on Employee Wellness Programs? HBR (Dec. 2010)

NIOSH *Total Worker Health*

- **Reverse** alarming trends in population health:
 - In improving the health profile of children, adolescents & young adults to ensure their role as America's future workforce
 - In ensuring that older adults age productively and can continue to make a contribution to the Nation
- **Develop** an evidence-based *prevention* framework for health **and** work that will be effective as employer-sponsored health insurance was for *rescue* medicine.
- **Promote** a multi-member team approach to worker health that **integrates** traditional health protection and wellness promotion

Integrating Promotion & Protection

- Workers' (modifiable) disease risks increased by exposure to occupational risks
 - Health can be influenced by aspects of work environment beyond safety conditions
 - Organizational practices
 - Design and content of jobs
 - Organization of work itself
- Workers at highest risk of work hazards are more likely to engage in (modifiable) life risks.
- For workers' at highest risk, integrating protection and promotion increases wellness participation & program effectiveness
- NIOSH – best practices to small employers

Total Worker Health: Integrating Health Protection and Promotion

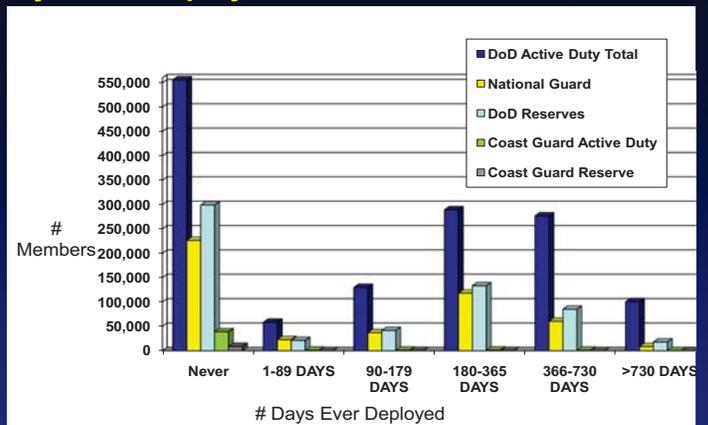
- Integrating protection and promotion:
 - Respiratory protection programs that address tobacco use
 - Ergonomics programs that discuss joint health and arthritis management
 - Stress management efforts that seek to diminish workplace stressors, personal stressors AND build human resiliency
- Comprehensive health screenings for WorkLife risks
- Full integration of all our efforts:
 - Safety and health protection efforts (workers' compensation)
 - Health promotion efforts (health care insurance) and
 - Injury prevention efforts through compensation assistance efforts

The Reserve Components of the U.S. Armed Forces (~1.3M)

- Air Force Reserves
- Air National Guard
- Army Reserves
- Army National Guard
- Navy Reserves
- Coast Guard Reserves
- Marines Corps Reserves

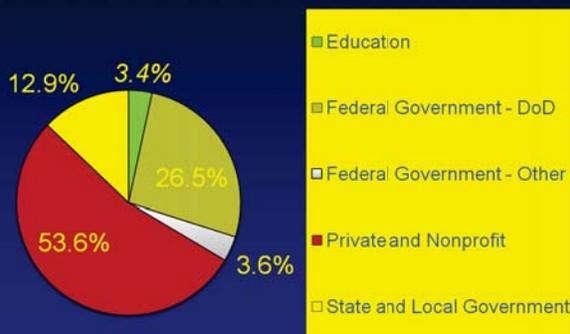


Days Ever Deployed: Active vs. Reserve, Guard



*Based on the current strength (and current category assignment) and whether or not they have ever been deployed (under any banner) and if so for what length. 2009

54% of Selected Reserves Work in the Private And Nonprofit Sectors



Source: CEI 2010, DMDC – represents 70% Selected Reserves

Re-Integration Issues I

- More frequent, longer deployments, with less advance notification
- Resultant changes in health, functionality, attitude, or world view may impact civilian job
- Added demands on employers
 - Productivity and process disruption (economy)
 - Retraining or work accommodations

Re-Integration Issues II

- Time needed for return to prior job performance level
- Stability of employment and career progression
- Treatment or job support needs
 - Acute, cumulative, cascading or latent impacts
- Barriers to care or job support
 - Timing of outreach and member readiness to utilize services
- Usefulness of treatment or job support services

Psychological and Behavioral Outcomes May Affect Work Performance & Risk Injury

- PTSD or other anxiety disorder
- Depression
- Substance abuse
- Traumatic brain injury (TBI)
- Adjustment disorder
- Alterations in attitude or world view

Work Performance Context

- Ability to get along with others
 - Irritability and impulse control
- Taking initiative
- Problem solving
- Safety compliance
- Absenteeism or *presenteeism*
- *Chronic medical conditions affect compensable injuries?*

Laws and Regulations

- State
- Federal

Applied Ergonomics: Safe Patient Handling

- MSDs in nurses
 - 1 in 10 serious back injuries involved nursing personnel
 - 12% leave the profession because of back injuries
- Washington State (2006)
 - Safe Patient Handling Law (HB1672)
 - Tax credit for purchase of patient handling equipment (\$1000 per acute bed)
 - Fund had \$10 million (8.9m claimed as of 2011)
 - Nursing homes not included, a natural *comparative* study of applied ergonomics
 - Reduced premiums available to participating hospitals

Safe Patient Handling: Impact

- Comparison study begun in 2006
- Preliminary MSD findings published January 2011:
 - Lost time workers compensation claim rates for back injuries related to patient handling
 - Decreased 2.4 times greater in hospitals (31.6% less) than for nursing homes (12.9% less) between 2006 and 2009.
 - Shoulder claim rates have been relatively flat
 - Cost impacts still under study

Congressional Activities

- Aging workforce
 - *Older Worker Opportunity Act of 2011*
 - Senate Bill 145
 - 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
 - *Health Care & Training for Older Workers Act*
 - Senate Bill 150
 - Clearinghouse of best practices for retaining older workers

National Commission on Workers' Compensation

- H.R. 623
 - National Commission on State Workers' Compensation Law
 - Introduced in the 112th Congress (H.R. 623)
- Would establish a separate body to evaluate state workers' compensation laws in order to determine if these laws provide an adequate, prompt, and equitable system of compensation and medical care for injury or death arising in the course of employment.

Cost Shifting

- States have been:
 - Limiting compensation for:
 - Permanent disability
 - When injury aggravates pre-existing condition
 - Share of medical costs employer/insurer pays
 - Excluding claims that are part of the “natural aging process” (KY, MO, WY)
- Downward ratcheting of benefits described by some academics as a “race to the bottom”

Cost Shifting

- Data developed by National Academy of Social Insurance
 - SSDI payments have an inverse relationship to workers compensation benefit payments as a percentage of overall wages
- Are retrenchments in workers’ compensation causing increasing costs for SSDI?
- Congress asked the GAO in December of 2010 to study whether the changes in state workers compensation laws affecting SSDI outlays constitute a cost-shift from insurance carriers or self-insured plans to the Federal government

Impairment Ratings: AMA Guides

- 13 states use the 5th Edition (2000):
 - California, Delaware, Georgia, Hawaii, Idaho, Iowa, Kentucky, Nevada, New Hampshire, North Dakota, Ohio, Vermont and Washington
- 6th Edition (2007)
 - Alaska, Arizona, Connecticut, Indiana, Louisiana, Massachusetts, Mississippi, Montana, New Mexico, Oklahoma, Pennsylvania, Rhode Island, Tennessee and Wyoming
- Congress has expressed concern about the procedures used to develop the 6th edition
 - Evidence base for the numeric quantification of impairment in the 6th edition
 - Hearing on November 17, 2010

NIOSH – OBWC Partnership

- Develop industry specific best practices based on NIOSH research
- Improve injury & illness prevention strategies based on the needs of Ohio’s employers and employees





*Thank you
for your
attention!*