

*innovation* OVERLOAD

**Technology, Jobs and the Future**  
David Smith

**SocialCare™**

## Work

“No other technique for the conduct of life attaches the individual so firmly to reality as laying emphasis on work:

For work at least gives one a secure place in a portion of reality, in the human community.”

**Sigmund Freud**

**The product of work contributes to health, well-being and economic & social stability.**

## Changes to the Future of Work



# Consider this...



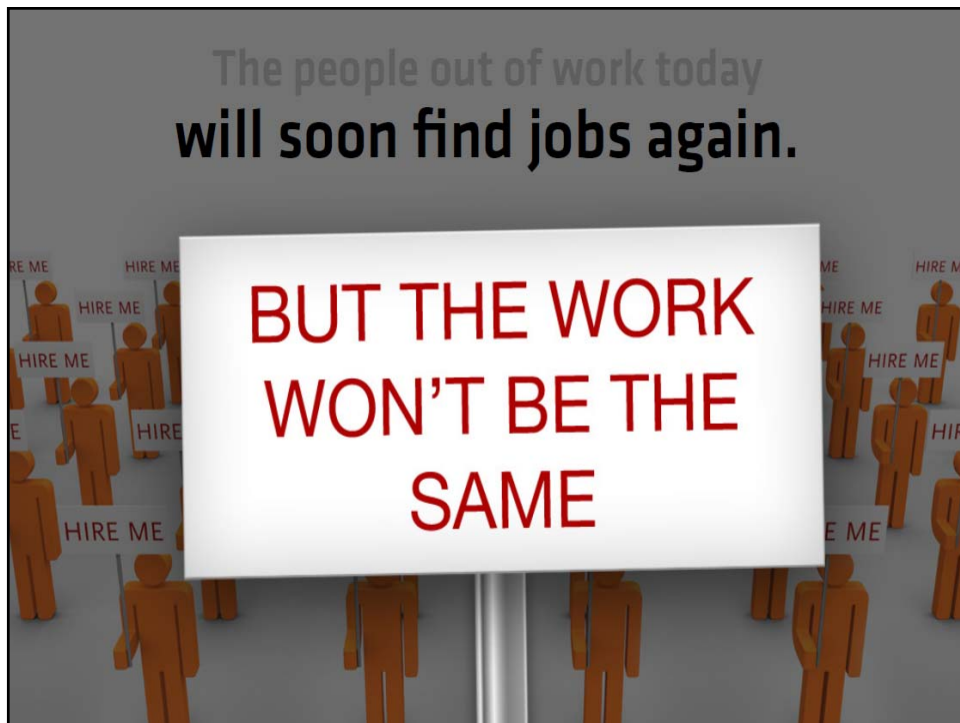
Ten years ago there were  
**no social networks.**



Ten years before that  
**we didn't have the Web.**





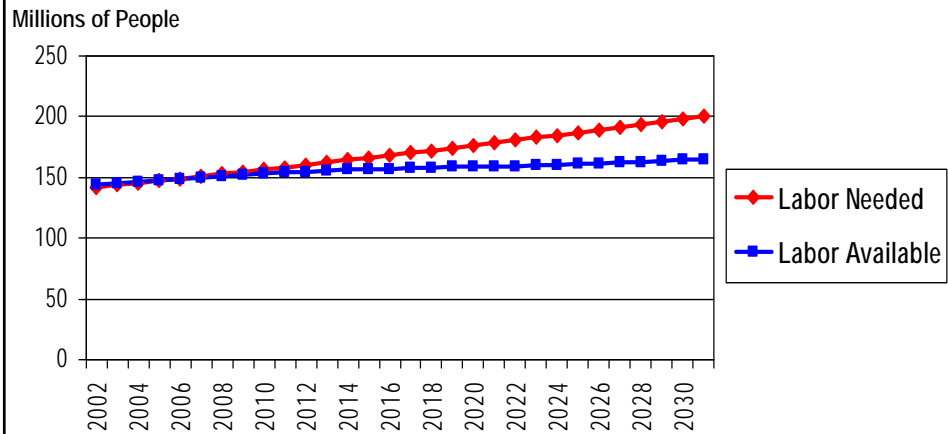




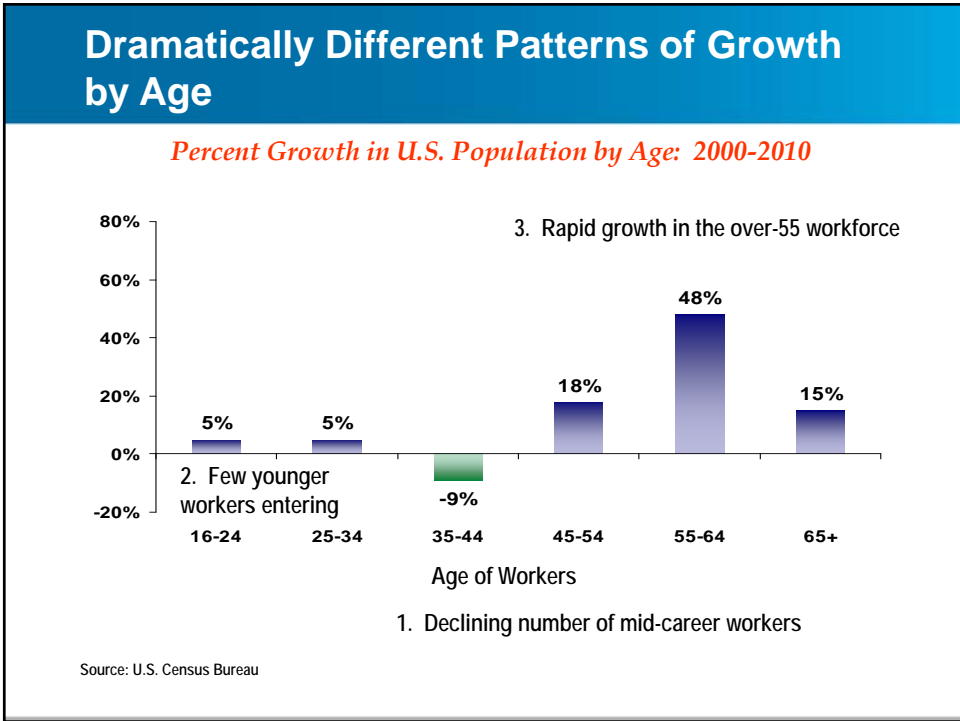
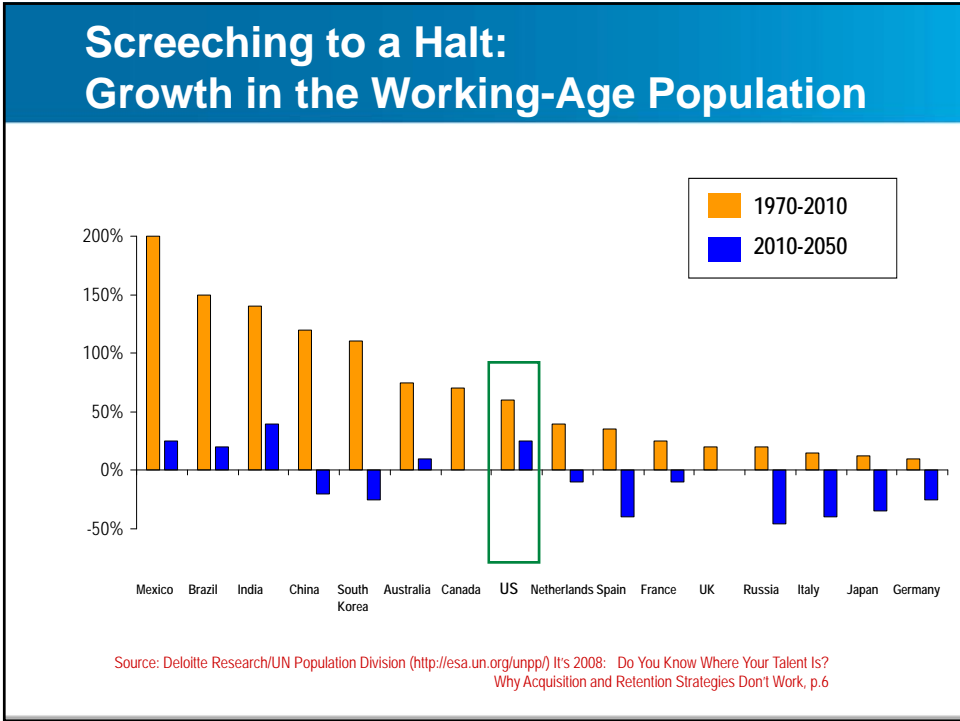


## Growing Shortage of U.S. Workers

### Expected Labor Force and Labor Force Demand

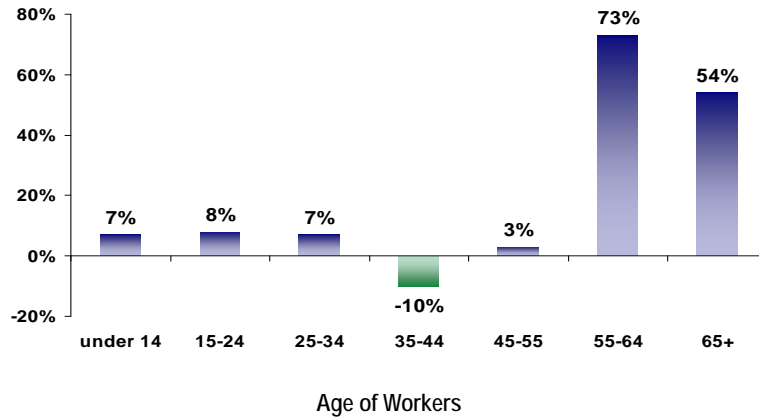


Source: Employment Policy Foundation analysis and projections of Census/BLS and BEA data.



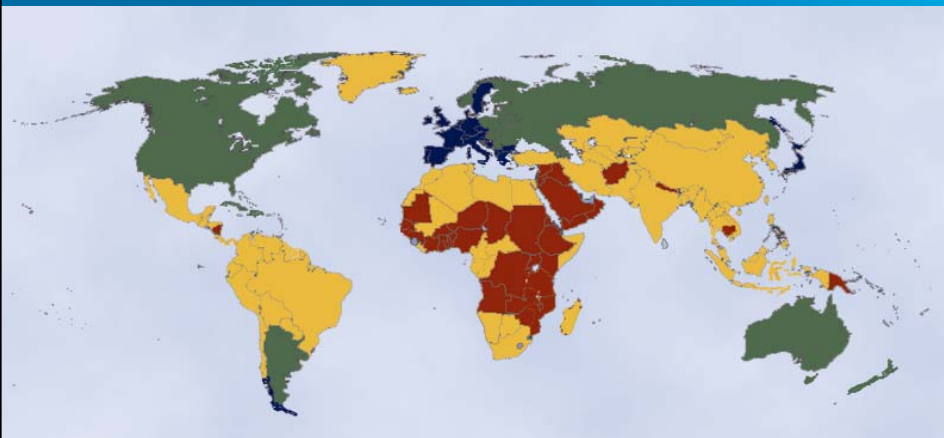
## ... Continuing Into the Future

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



Source: U.S. Census Bureau

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

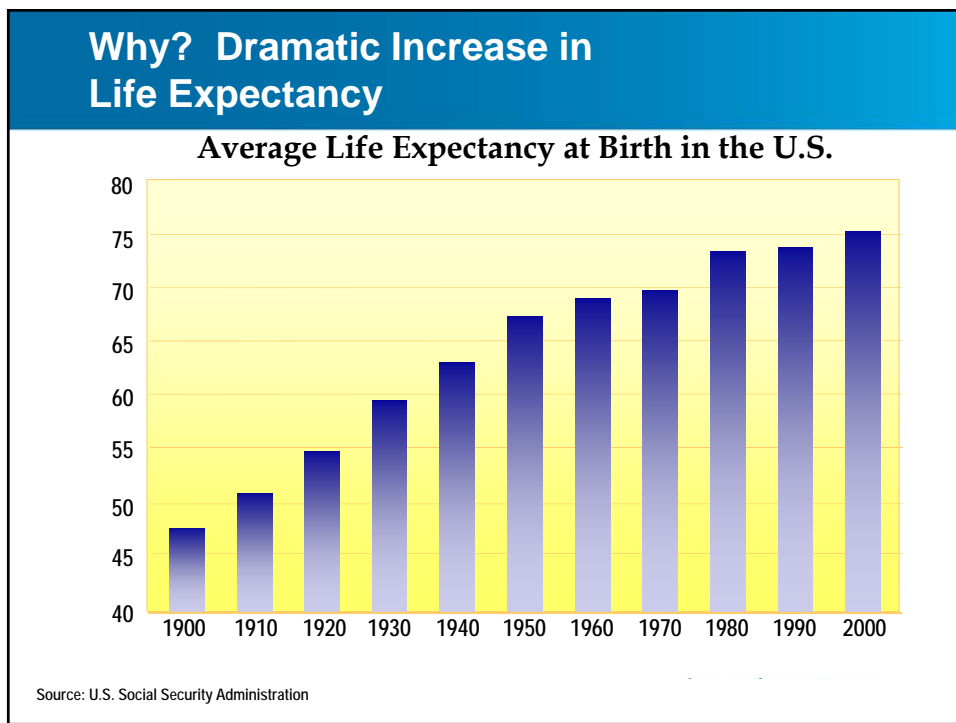
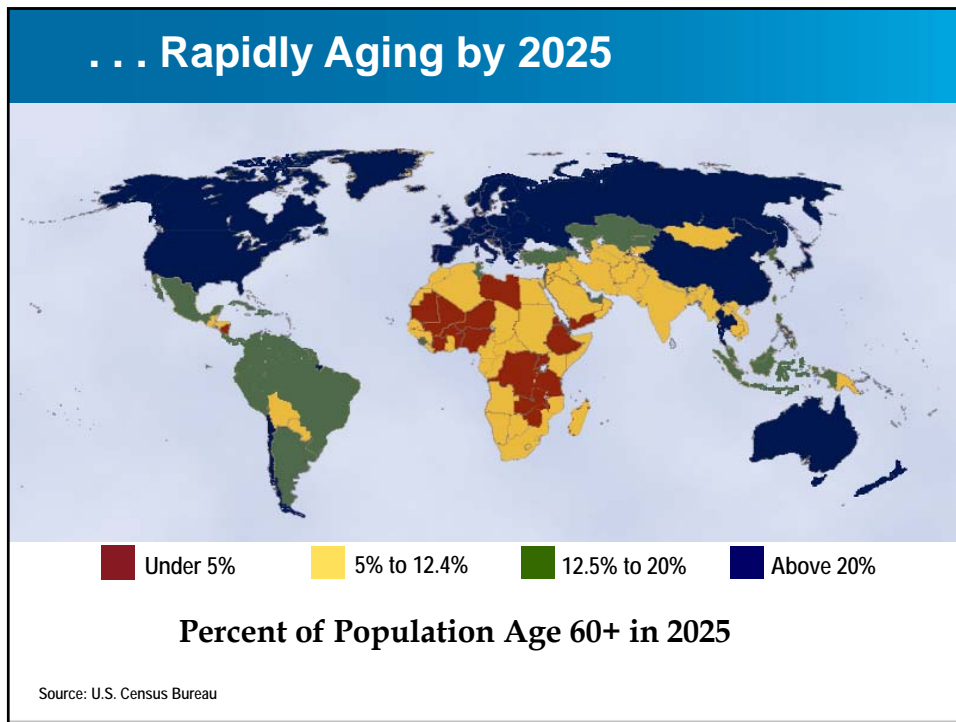


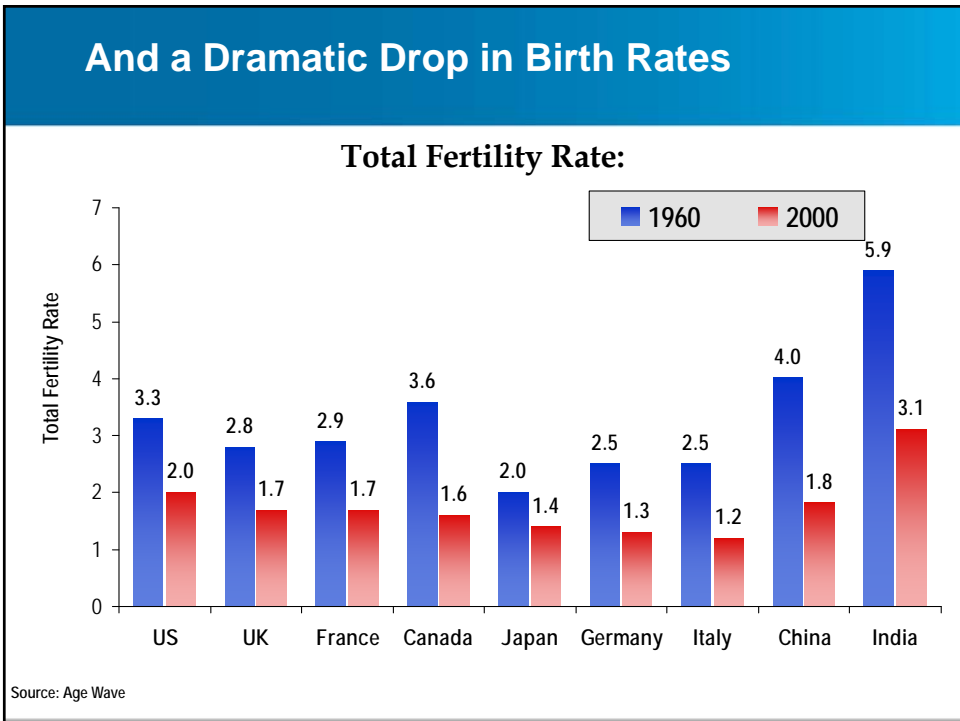
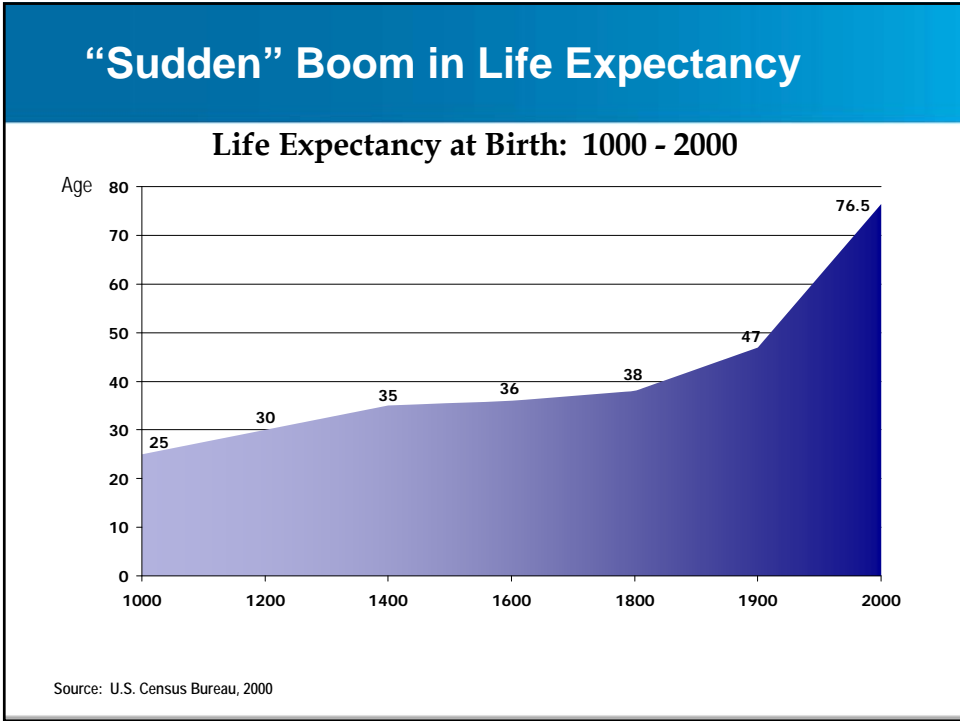
■ Under 5%    
 ■ 5% to 12.4%    
 ■ 12.5% to 20%    
 ■ Above 20%

**Percent of Population Age 60+ in 2000**

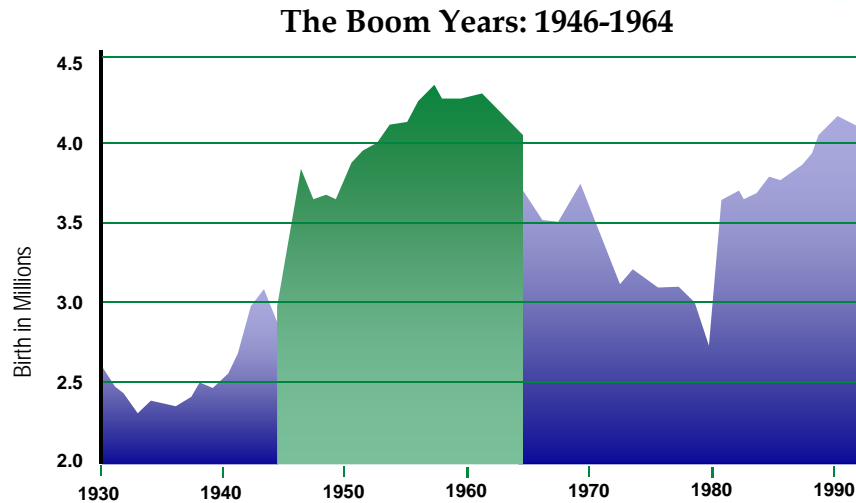
Source: U.S. Census Bureau







## Why? The Baby Boom Pattern



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

Source: In part, The Seventh-Annual Workplace Report, Challenges Facing the American Workplace, Summary of Findings, Employment Policy Foundation, 2002; India Daily, October 12, 2005, citing McKinsey & Co. Research; Computing Research Association, March 2005; Information Week, August 16, 2004; Holding on to Global Talent: Foreign-born stars are heading home. How to keep them working for you” by Anne Fisher, *Fortune Magazine*, October 19, 2005. Organization for Economic Co-operation and Development

**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***



Source: "The New York Times' Thomas Friedman on Globalization," CIO Magazine, March 25, 2005

## U.S. 21<sup>st</sup> 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

## “Multi-Generational” Workforce

Traditionalist



Born: 1928-1945

Boomer



Born: 1946-1964

Generation X



Born: 1965-1980

Generation Y



Born: 1980-2000

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

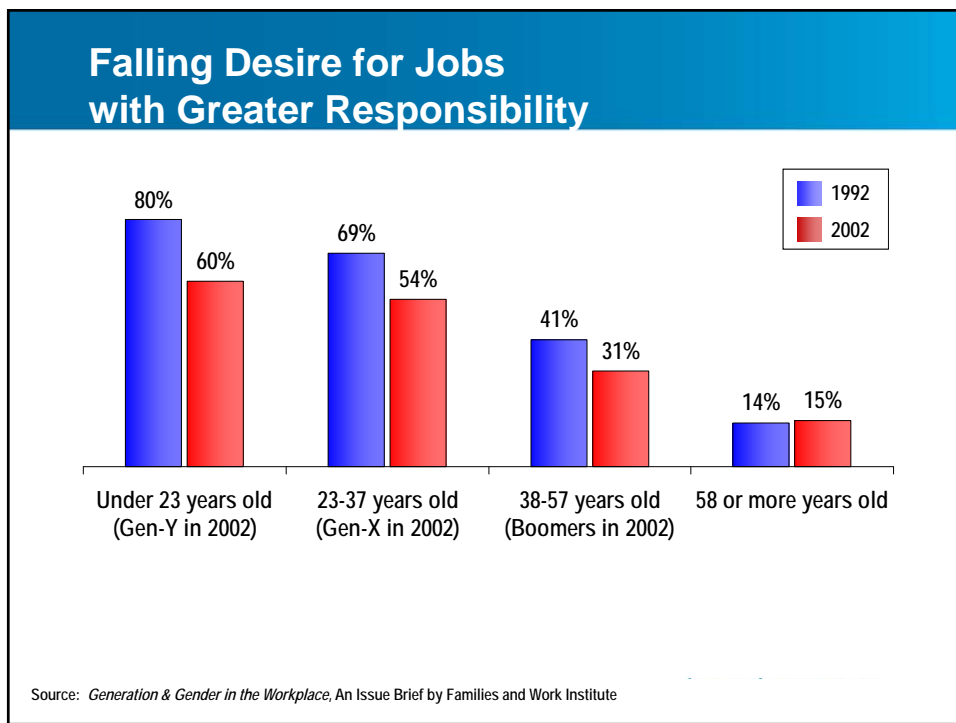
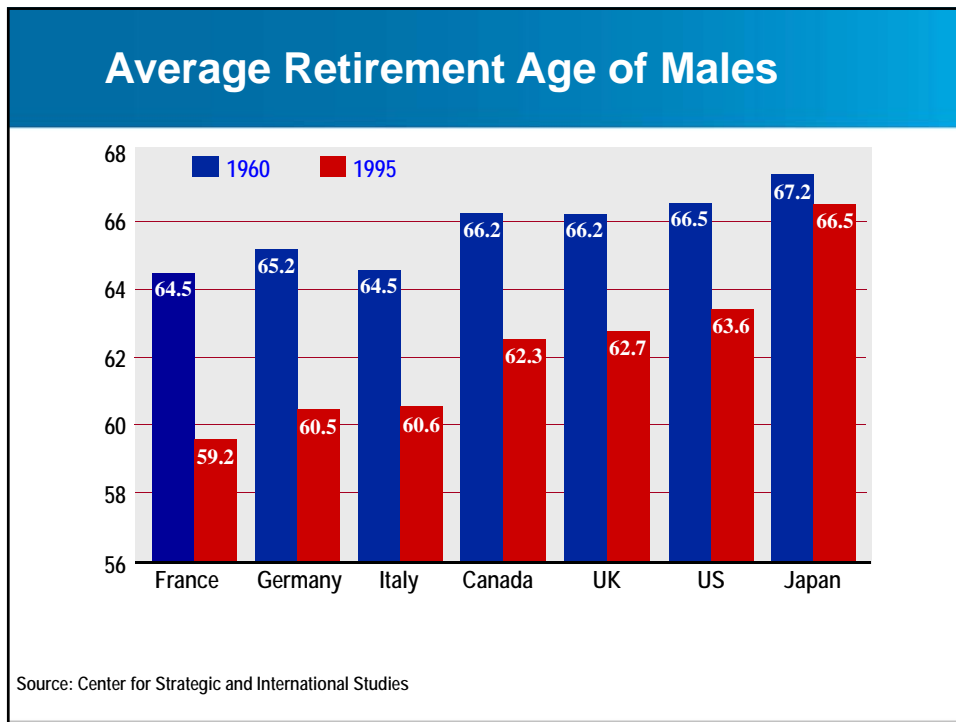
Source: Based in part on "Meeting the Challenges of Tomorrow's Workplace," CEO Magazine, 2005

## Webster's Definition of Retirement

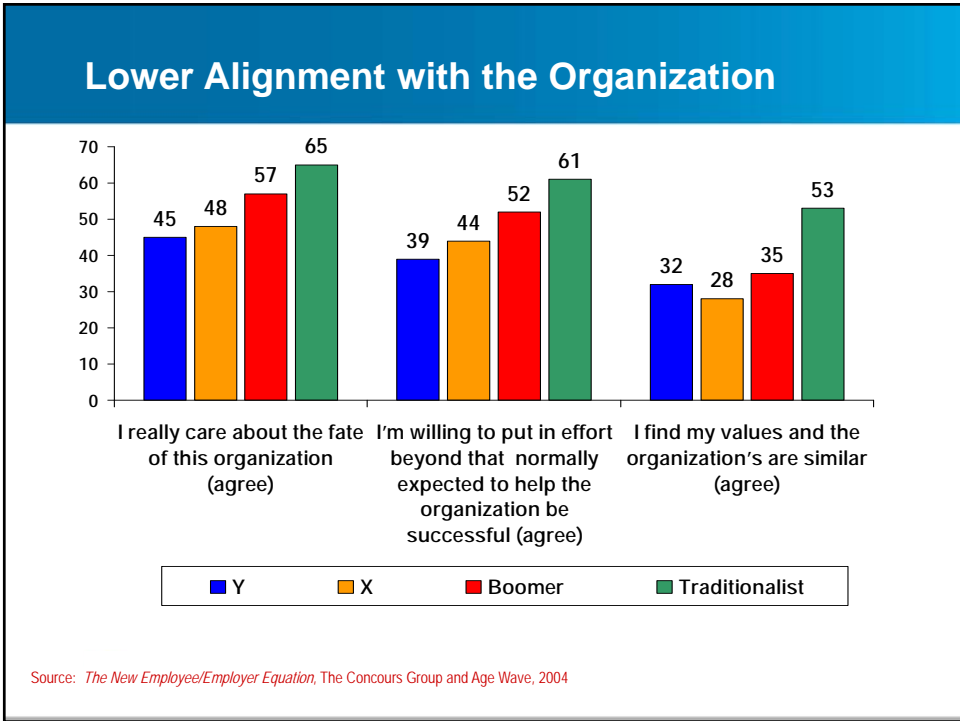
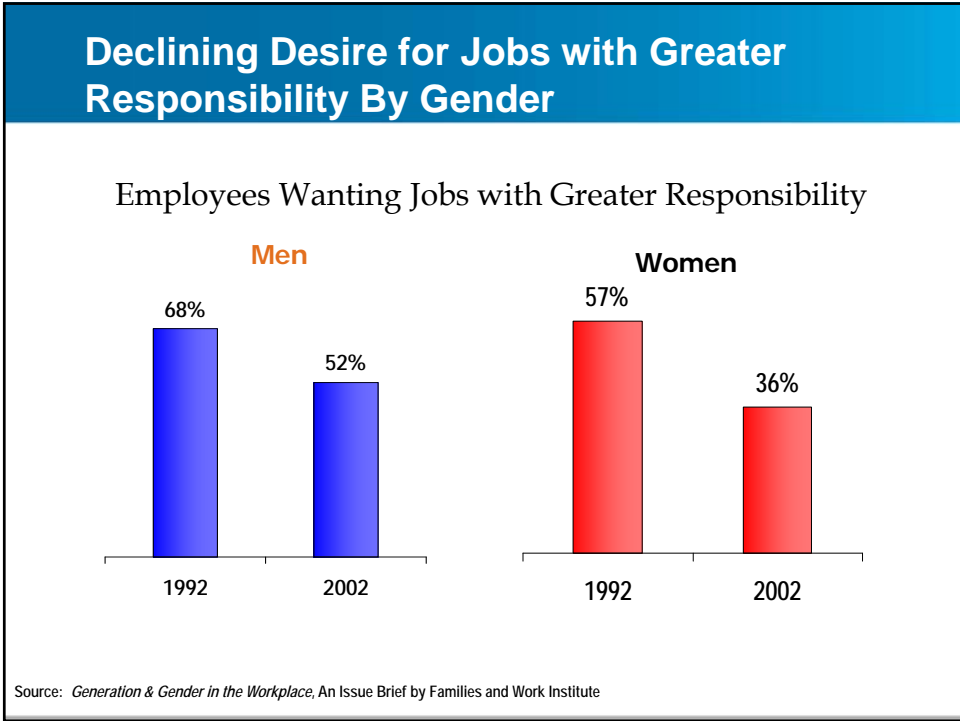
- *to disappear*
- *to go away*
- *to withdraw*

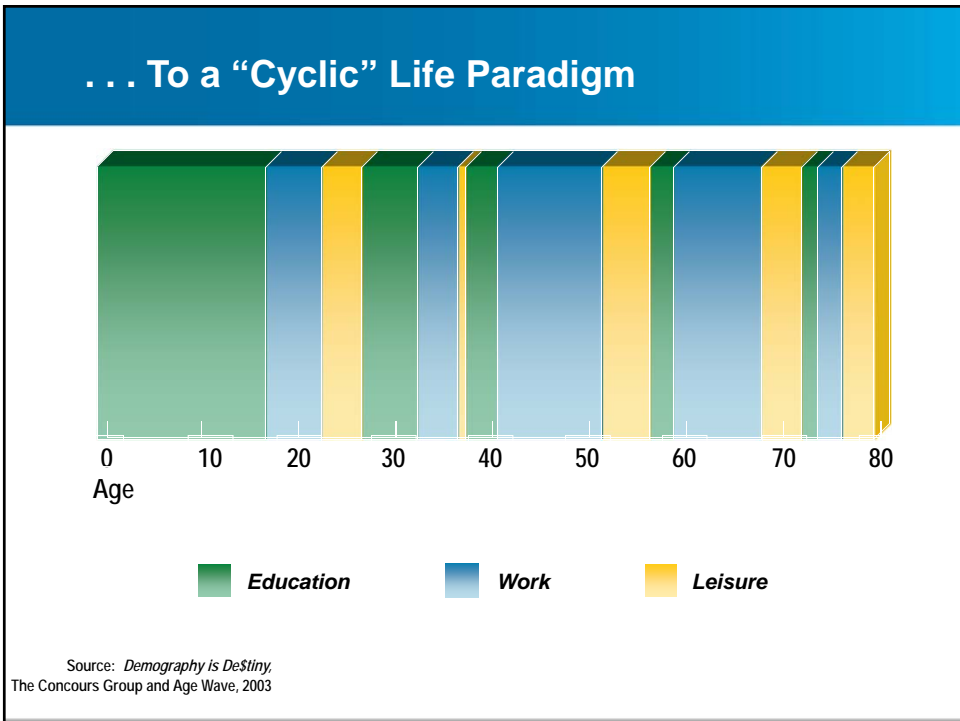
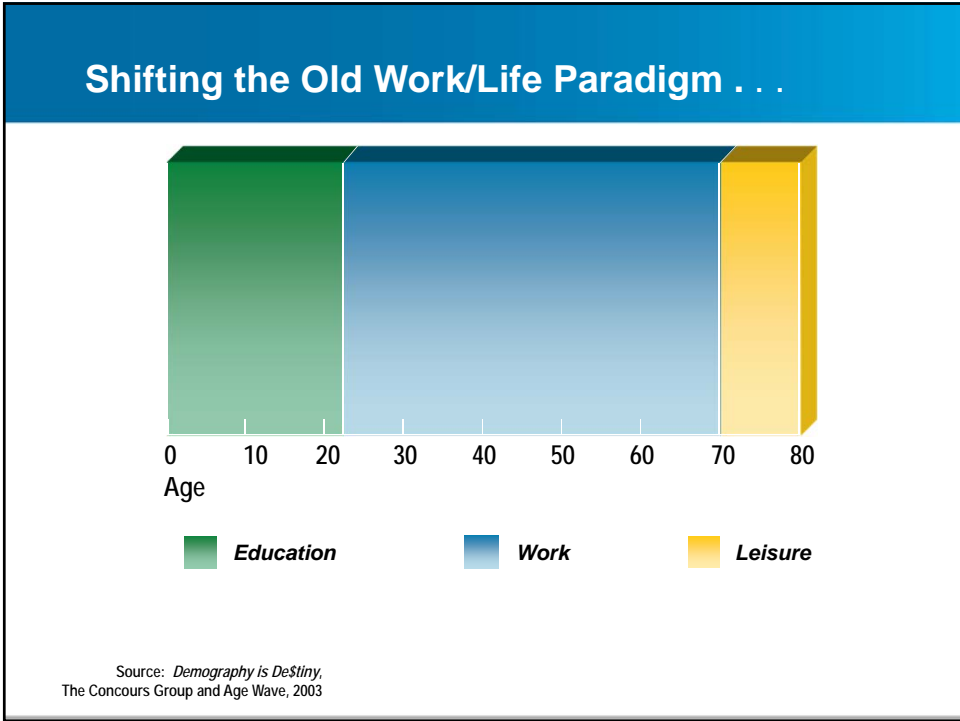


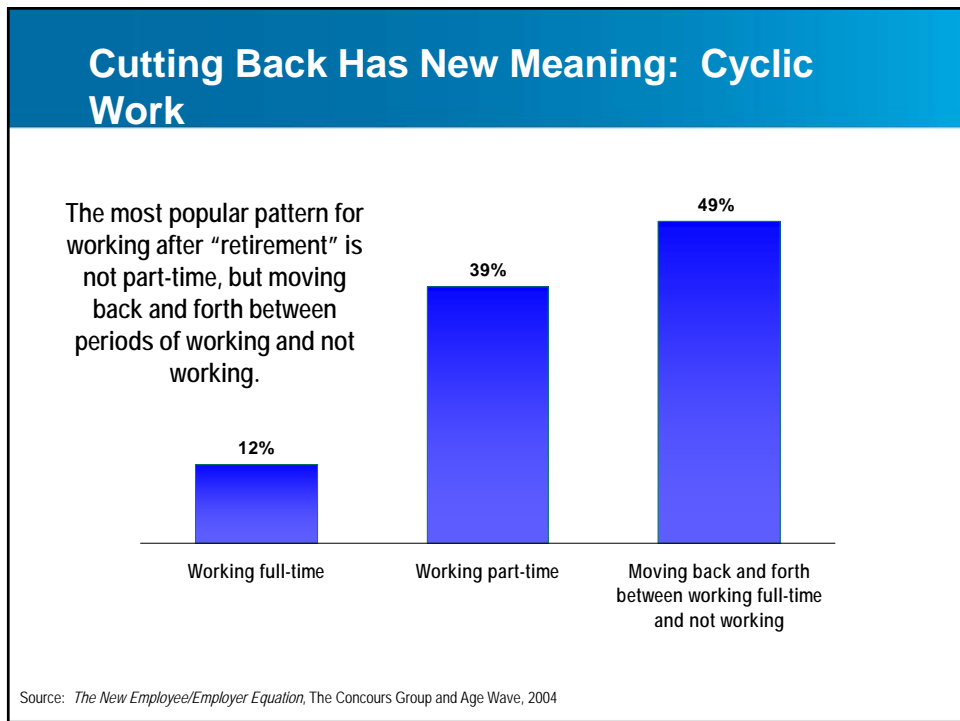
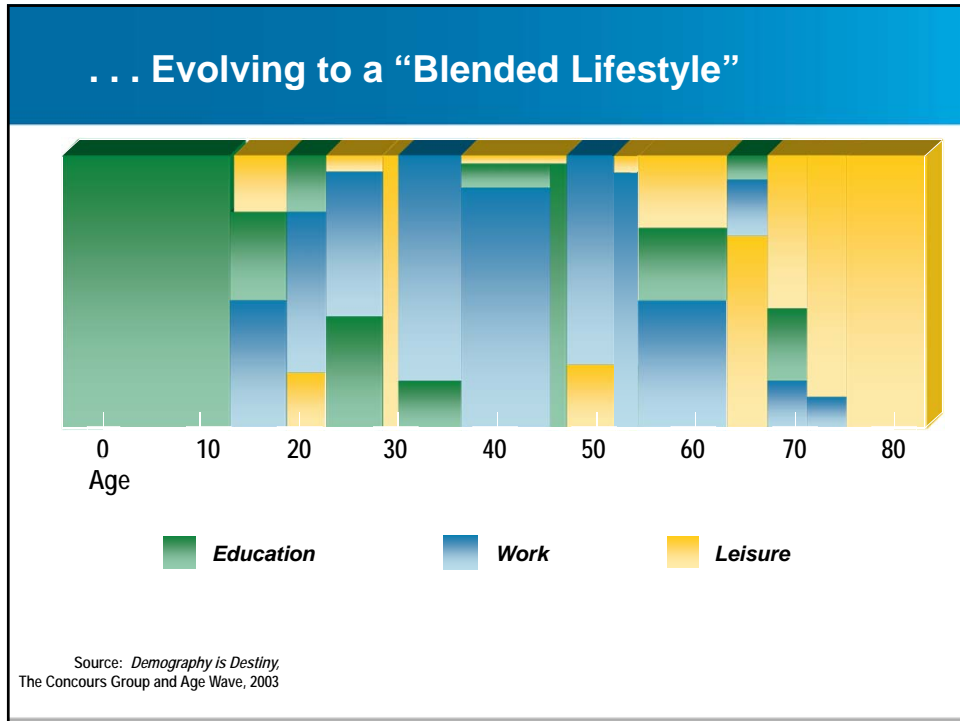
Source: Webster's New Twentieth Century Dictionary











## Cutting Back Has New Meaning: Cyclic Work

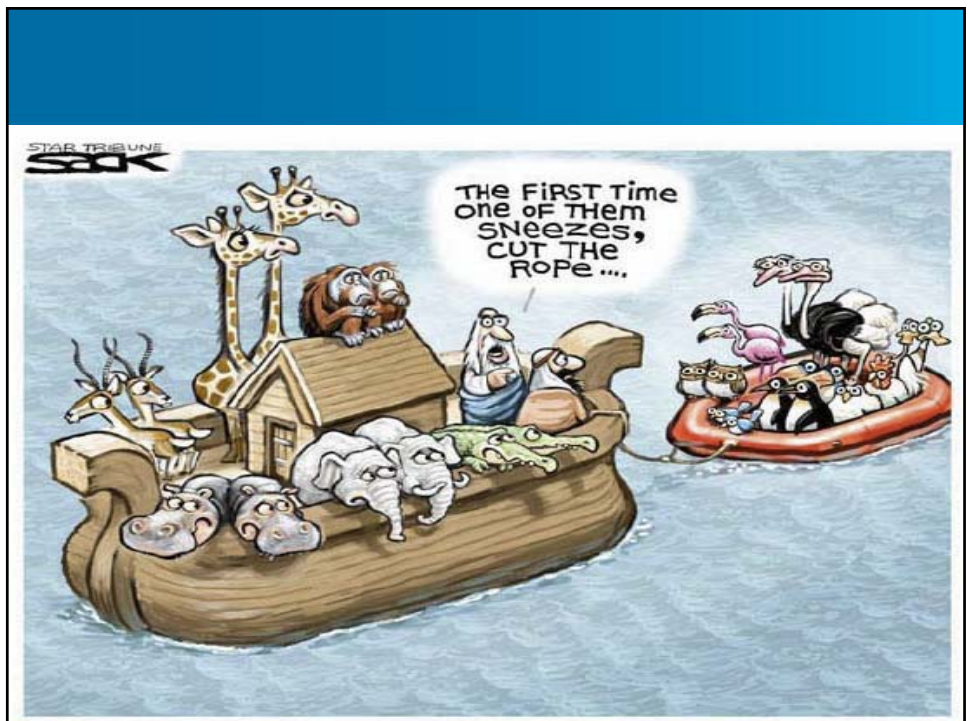
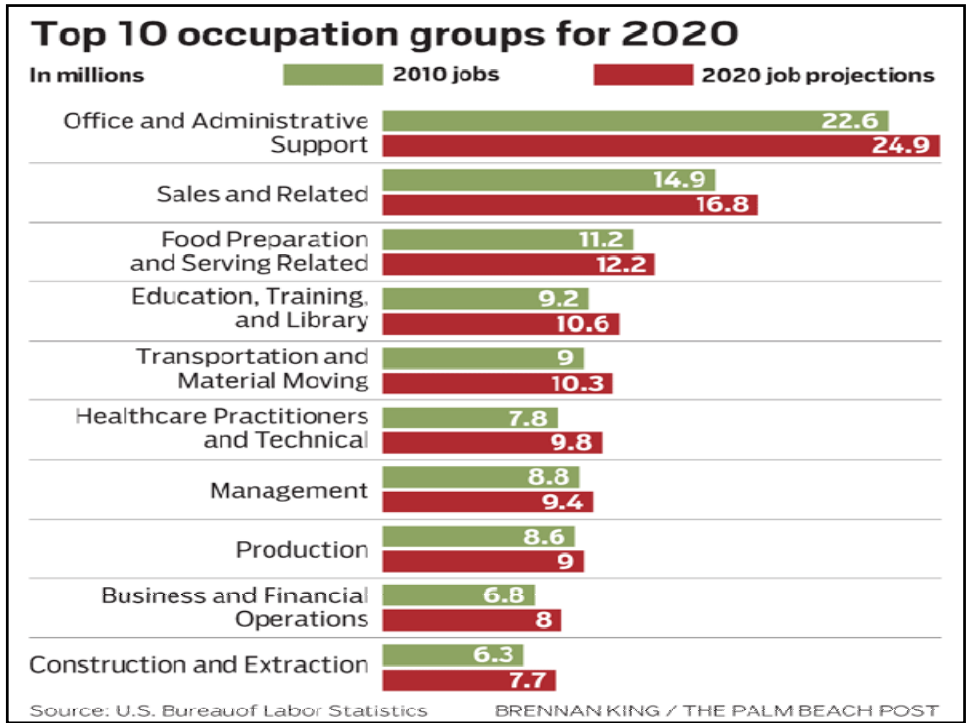


between working full-time and not working

Source: *The New Employee/Employer Equation*, The Concoors Group and Age Wave, 2004

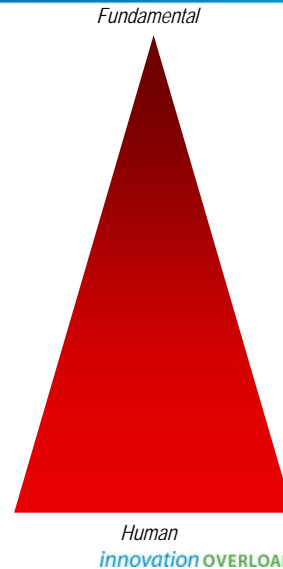
## Part-Time America





## The Limits of Technology

- The laws of physics
- The laws of software
- The challenge of algorithms
- The difficulty of distribution
- The problems of design
- The importance of organization
- The impact of economics
- The influence of politics
- The limits of human imagination



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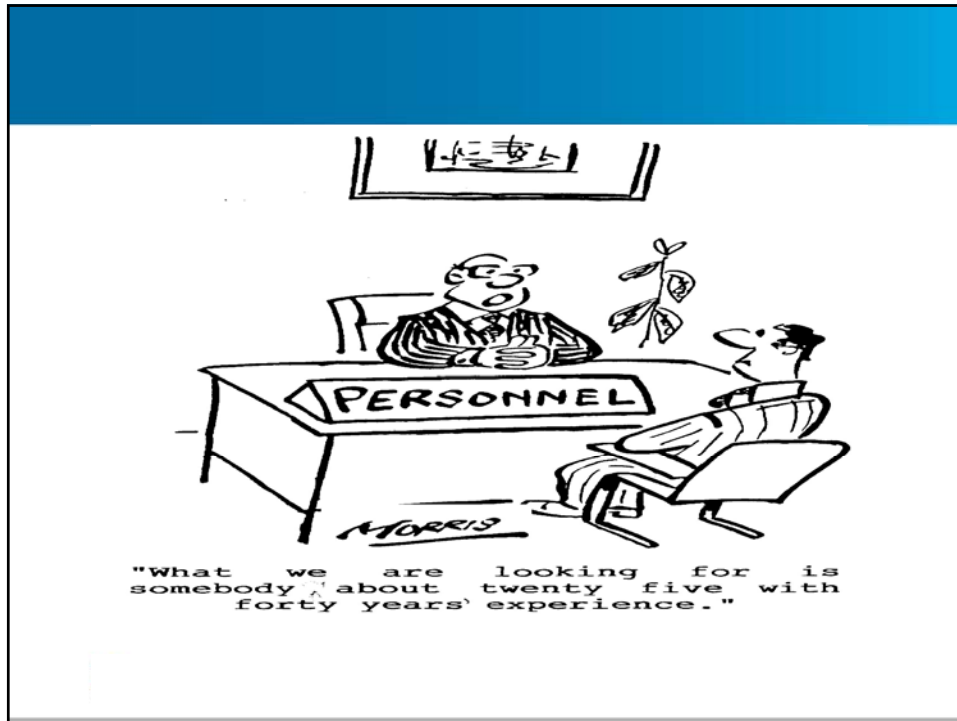
## The Open Economy

- New business models based on collaboration, co-creation & sharing
- Transparency as a normal practice
- Conversations (two way communication)
- Open interfaces to partners, vendors, suppliers, customers
- Common technology and business standards
- Service and Experience Mentality

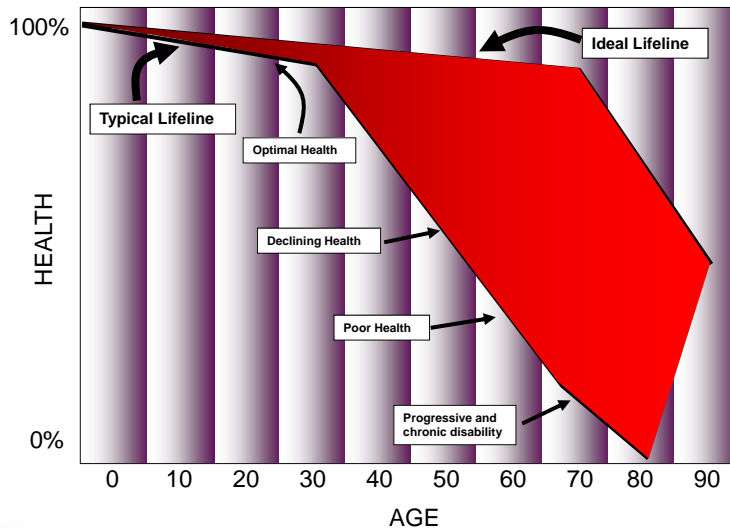


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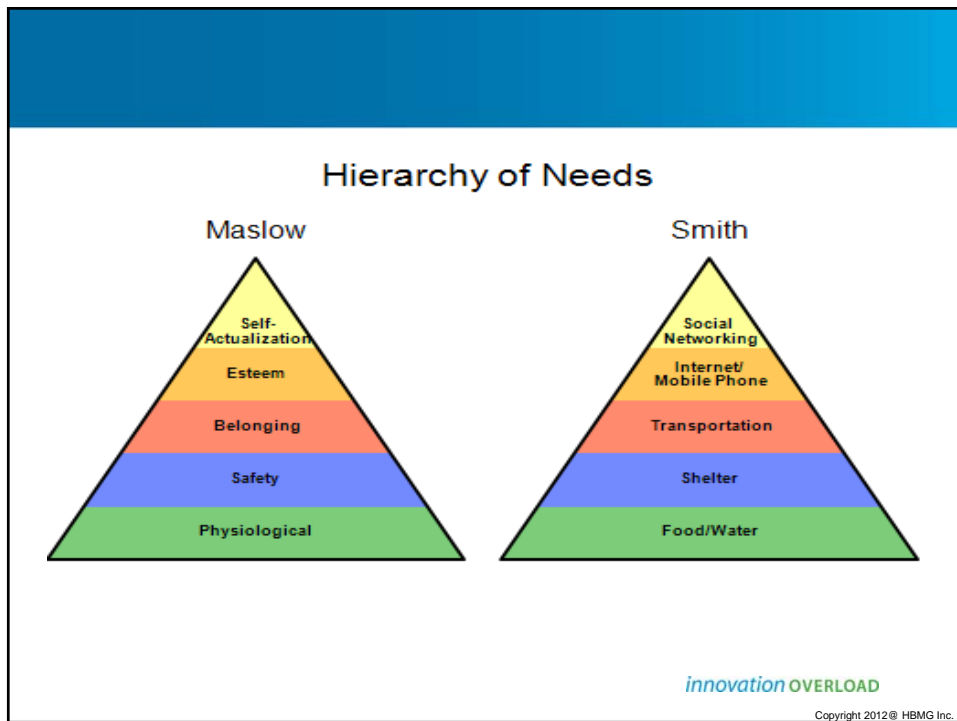
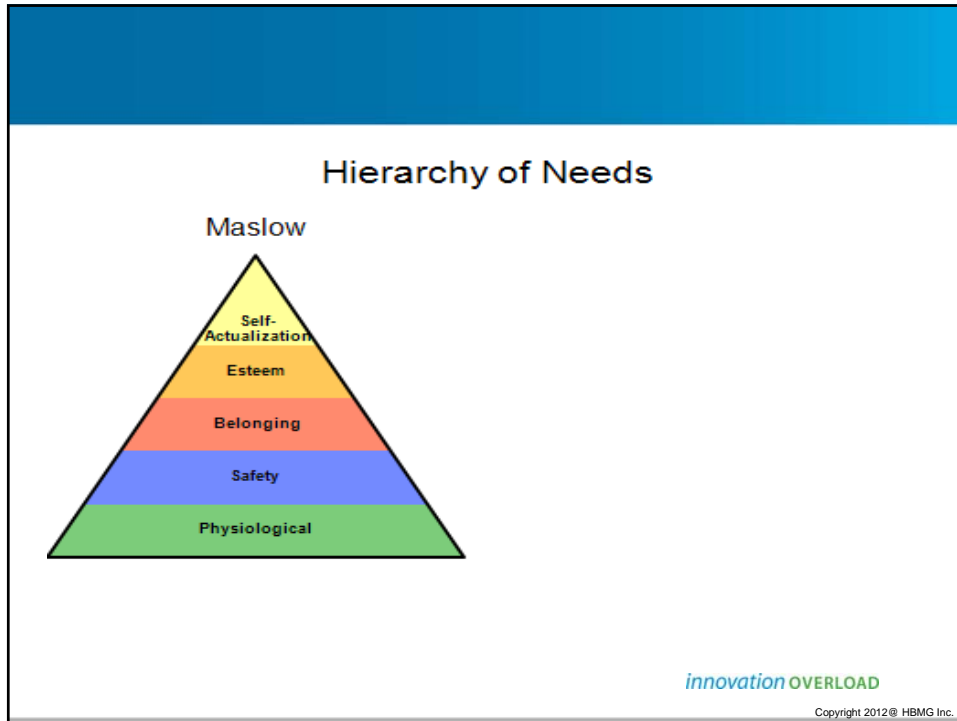




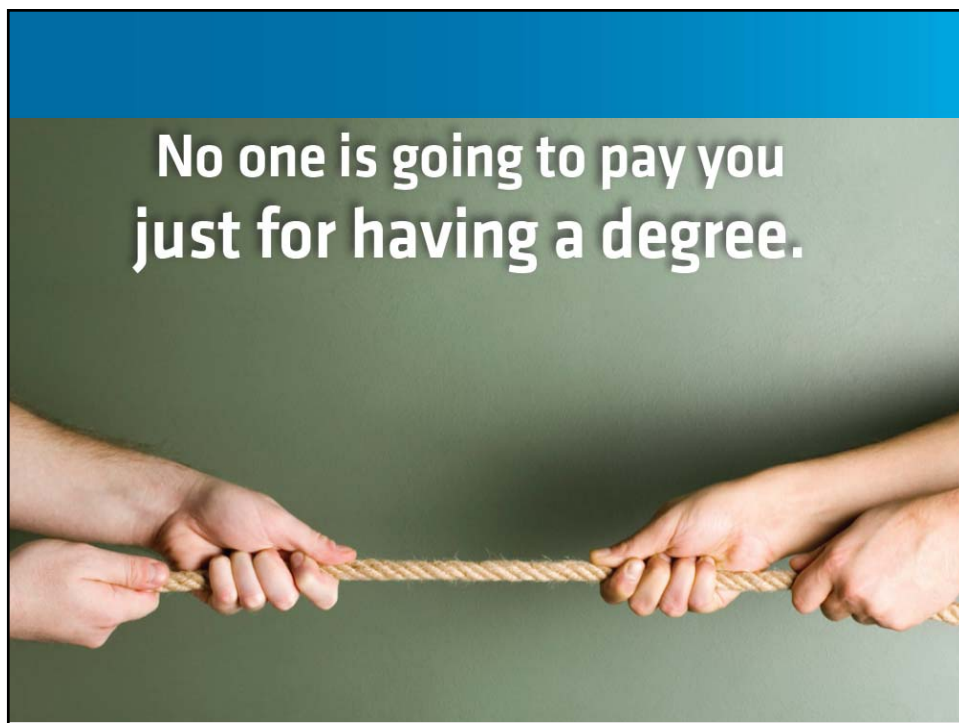
## Impact of Lifestyle on Health and Work

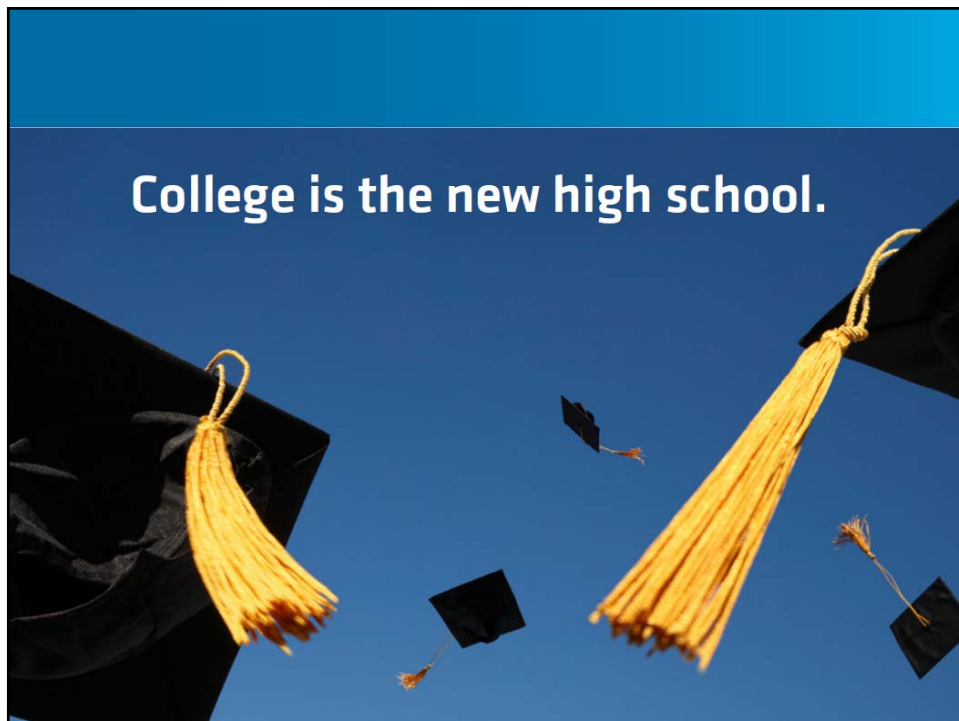
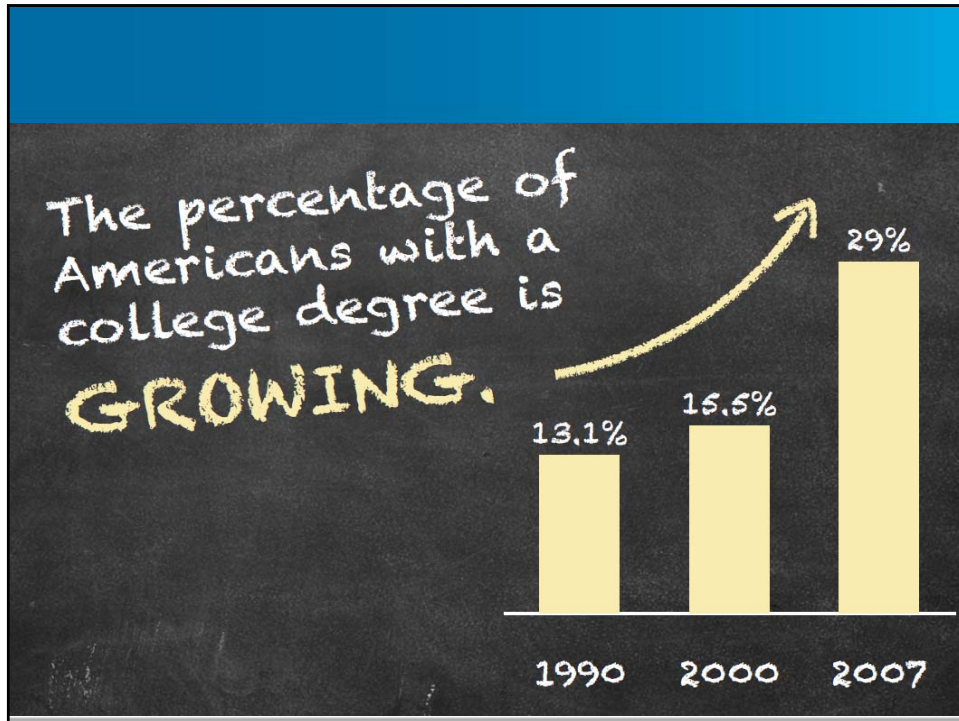


What is healthy aging in the 21st century? Westendorp RGJ Am J Clin Nut, Vol 83, No. 2, 404S-409 (2006)

















**One in four organizations plans to increase spending on outsourcing by 25% or more this year.**



**According to interviews  
with more than 500  
executives, the key  
benefit of outsourcing  
isn't saving money...**



**...it's innovation.**

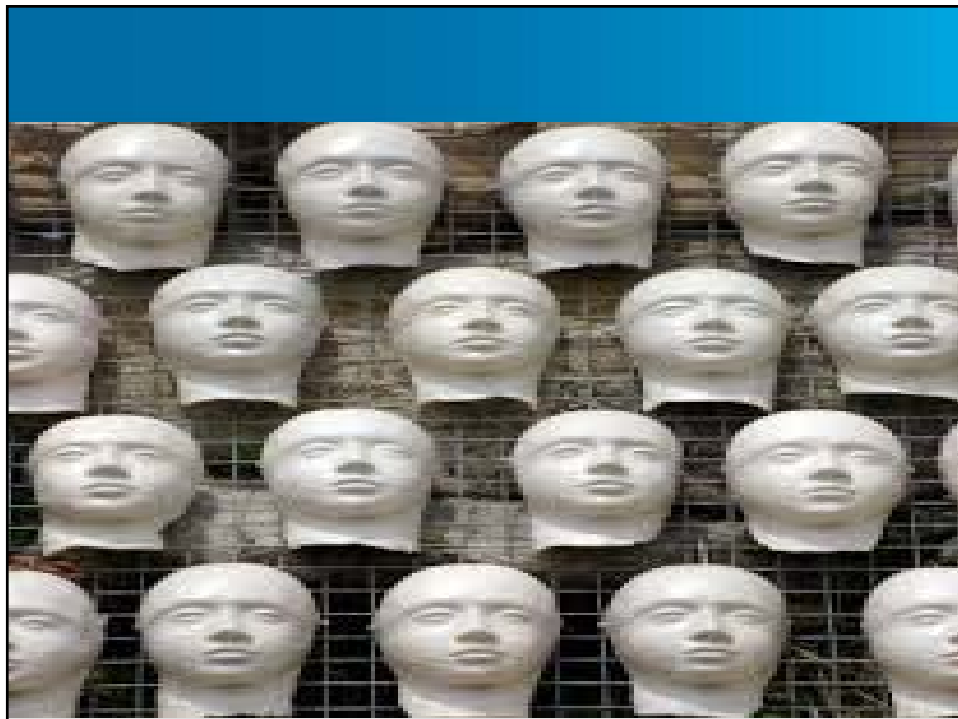


Many businesses are choosing  
**contract relationships**  
over hiring new employees.

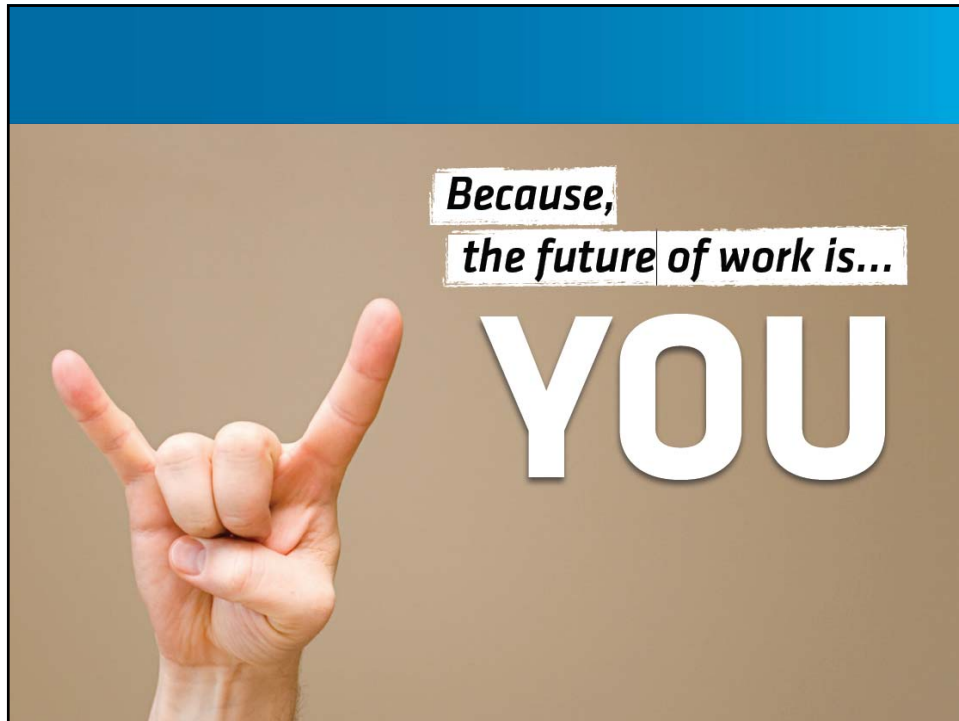


**The word “career”**  
is as outdated as the word “typewriter”.









***The reward for work well done is the opportunity to do more.***

*- Jonas Salk (1914 - 1995)*

## In Parting: Be Paranoid

▪ *“Sooner or later, something fundamental in your business world will change.”*

▪ — Andrew S. Grove, Founder, Intel  
“Only the Paranoid Survive”

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