

# Job Creation, Education and Entrepreneurship in the Emerging Knowledge Economy

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# Overview

- **Environment: prolonged high unemployment**
  - Primarily affecting middle class: mid skill, mid pay
  - Large companies taking advantage of technology advances and globalization to improve productivity
  - Shrinking public sector
- **Good jobs increasingly require post secondary education**
  - Unemployment rates fall rapidly with educational attainment
  - Need to make quality postsecondary education affordable to many
- **Rise of entrepreneurial economy**
  - Job growth likely to come more “bottoms up” than “top down”
  - High-tech “Silicon Valley” model doing well, but has limited applicability
  - Need more scalable, mid-tech entrepreneurial model aimed at middle class
- **Innovation and entrepreneurship in large metropolitan areas**
  - Large consumer and economic base
  - Mid tech, mid skill oriented
  - Requires close partnership with government, business and academia

# An Economy that Works: Job Creation and America's Future

McKinsey Global Institute

- US jobs have declined by 7 million since December 2007
- 20% of men are not working today, up from 7% in 1970
- There has been a 23% drop in new business creation since 2007
- The jobless recovery is projected to last 60 months
- 10% of Americans move annually, down from 20% in 1985
- The US needs 21 million jobs by 2020 to return to full employment, - the 5% pre-recession unemployment level
- The job-growth scenarios range from 9.3 to 22.5 million, so only their most optimistic high growth scenario gets us back to full employment
- In 2020, there will likely be a 1.5 million shortage of college graduates in the workforce
- Even today, 40% of companies have had job openings for six months that they have not been able to fill due to lack of the proper skills
- 58% of employees said that they will hire more temporary and part-time workers

# The Evolving Structure of the American Economy and the Employment Challenge

Michael Spence, Sandile Hlatshwayo, NYU

Two distinct segments in economy: *tradable* and *nontradable*.

The *tradable sector* includes those parts of the economy most subject to global competition from foreign companies and suppliers, - e.g., manufacturing, energy, back-office services. It significantly improved its productivity, but had negligible incremental employment, primarily because of technology advances and rapid globalization

The *nontradable sector* includes those parts of the economy which must be produced and consumed locally, - e.g., government, health care, construction. It had virtually all the job growth during this period but significantly lower value-added.

Given the prospect of slowing employment growth in nontradables and rising competitive pressure on tradables, major employment problems in the near future are a certainty.

# The Polarization of Job Opportunities in the US Labor Market

David Autor, MIT

The structure of job opportunities in the United States has sharply polarized over the past two decades:

- High skill, high wage jobs, where opportunities continue to expand, with the earnings of the college educated workers needed to fill such jobs rising steadily over the past thirty years
- Low skill, low wage jobs, which have also been expanding, and have particularly dominated employment growth over the past decade
- Mid skill, mid wage jobs which have been declining, and their wages have risen significantly slower than those at the two ends of the spectrum.

# The Polarization of Job Opportunities in the US Labor Market

David Autor, MIT

“Concretely, employment and earnings are rising in both high-education professional, technical, and managerial occupations and, since the late 1980s, in low-education food service, personal care, and protective service occupations.

Conversely, job opportunities are declining in both middle-skill, white-collar clerical, administrative, and sales occupations and in middle-skill, blue-collar production, craft, and operative occupations.

The decline in middle-skill jobs has been detrimental to the earnings and labor force participation rates of workers without a four-year college education, and differentially so for males, who are increasingly concentrated in low-paying service occupations.

Demand for middle-skill jobs is declining, and consequently, workers that do not obtain postsecondary education face a contracting set of job opportunities.”

# Unemployment and education

- US Bureau of Labor Statistics, August 2011
  - 9.1% Overall unemployment rate
  - Unemployment rate by educational attainment
    - 4.3%: Bachelor's degree or higher (~30% of population over 25)
    - 8.2%: Associate degree, vocational degree or some college (~27%)
    - 9.6%: High school graduates, no post-secondary education (~32%)
    - 14.3% No high school diploma (~ 11%)



# Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Postsecondary Education

*Clay Christensen, Michael Horn, Louis Caldera, Louis Soares*

“Our country’s dominant higher education policies have focused on expanding access for more than half a century - allowing more students to afford higher education.

Yet changing circumstances mandate that we shift the focus of higher education policy away from how to enable more students to afford higher education to how we can make a *quality* postsecondary education *affordable*.”

Two key ingredients for disruptive innovation in post secondary education:

A disruptive technology: Online learning

A disruptive business model: Highly structured programs targeted at jobs and career preparation



# Innovation and Entrepreneurship in Large Metro Areas

- High-tech entrepreneurship, e.g., Silicon Valley, Boston area, . . .
  - Generally centered near top engineering university, e.g., Stanford, MIT, . . .
  - Community of technologist, entrepreneurs, VCs, IP lawyers, . . .
  - VCs provide both funding and expertise
  - Focused on *The Next Big Thing*
- Characteristics of large metro areas, e.g., New York, London, . . .
  - Large population base - over 20 million in NY metro area
  - Wealth - \$1.5 trillion aggregate GDP in NY metro area
  - Talent base, including immigrants from all over the world
- Mid-tech entrepreneurship and innovation
  - Access to technologies, skills, administrative capabilities, and global reach that were previously only available to larger companies
  - Focus on market-facing and business oriented innovation to serve consumer base, large companies, health care, public sector, . . .
  - Requires close partnership with government, business and academia

# Enabling Middle Class, Mid-tech Oriented Entrepreneurship

- **Safety nets**
  - Safety nets are necessary to encourage risk taking in a dynamic economy
  - Key services like health insurance and retirement cannot be linked to one employee given job
- **Streamline regulatory environment**
  - Eliminate/reduce unnecessary regulations to make it easier to start a business
  - Develop smart tools to help entrepreneurs through necessary bureaucracy
- **Access to financing**
  - Help properly vetted entrepreneurs obtain access to low interest loans
  - Develop innovative funding/investment mechanisms for mid-tech sector
- **Relationships with larger companies**
  - Encourage large companies to work closely with startups and make them part of their ecosystem and supply chains as appropriate
  - Provide access to services and expertise to ecosystem members
- **Education and expertise**
  - Provide access to proper education and training in key skills
  - Develop appropriate collaborative institutions so entrepreneurs can meet and help each other

# An Economy that Works: Job Creation and America's Future

McKinsey Global Institute


“Waiting for the US job market to correct itself and depending on the solutions of the past will not hasten the return to full employment or set the stage for sustained job creation in the years to come.

To create the jobs that America needs to continue growing and to remain competitive, leaders in government, business, and education will have to be creative - and willing to consider solutions they have not tried before.

Workers themselves will need to acquire the right skills and to adapt to a future of lifelong learning and new ways of working.

The old paradigm of a life with a single employer has faded into history. In this decade, we see that the traditional 9-to-5, Monday-to-Friday work week may fade, too - along with the traditional office and the customary relationship between employee and employer.

For a growing proportion of the labor force, the jobs that workers find in the coming years - and those they hold now - may look nothing like what they are used to.”



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