

# THE JOBS REVOLUTION

Changing Expectations of Higher  
Education

*21<sup>st</sup> Century Liberal Education...  
Core Competencies for All Students*

ACI Annual Symposium

*Roberts T. Jones*

*Education and Workforce Policy*

*April 12, 2007*

# The Global Reality

- American Economic Perspective(1945-2000)
  - American Dominance...No Competition
  - Unskilled Jobs with Good Pay and Benefits
  - High Standard of Living
  - Universal Education, HE Ed Access, & R&D Investments
  - Flexible Labor Market Policies
- Growth in Global Competition(1970 forward)
  - Population Larger, Younger, & More Urban (51%)
  - Availability of Technology and Financial Mobility
  - Political and Economic Stability
  - Education & R&D Investments
  - New Trade and Economic Partnerships

# Developing Nations

- 1970 2 Times
- 2005 5 Times
- 2025 9 Times

# Education Gains

		<u>1990</u>	<u>2004</u>
Botswana	Adult Lit	68.1	81.5
Ethiopia	Primary	31.8	77.0
Vietnam	Secondary	47.0	73.5
Chile	Tertiary	21.3	43.0
Kuwait	Primary	60.2	96.5
	Secondary	42.9	89.9
	Tertiary	12.1	22.9

# DEVELOPING NATIONS CONSTITUTE...

40% of the Worlds 50 Largest Economies

70% of the 20 Fastest Growing in Industrial Output

5.5% Annual Growth in HE Grads vs 1% in Developed

20% of the 50 Largest R&D Investors

**China #2 by 2006**

Meanwhile....

**US Primary/Secondary Ed**  
**From #1 to #9 to #19**

**US College Attendance**  
**Was 1<sup>st</sup> now down to 14<sup>th</sup> in World**

“The United States Can Still Prosper  
In a World Where Its Labor Costs  
Are Higher Than The Competition’s,

*But It cannot Do That If The  
Cheaper Workers Abroad Are  
Also Better Educated”*

NY Times, Sept 6



# ***CHALLENGE TO AMERICA***

***Economic Impact of Changing  
Demographics***

# Future US Labor Force...

- Demographics

- Slow Population Growth (1% PY)
  - .03% by 2030
- Slow Labor Force Growth (Less than 1% yr)
- Aging Population (Fewer Working Age)
- Growth in Minorities and Immigrant Population

- Illinois Population Growth .05% PY

*Older---Smaller---Less Educated*

# 'More Diverse'

	<u>1980</u>	<u>2020</u>	<u>2050</u>
<u>US</u>			
White	82%	63%	53%
Minority	18%	37%	47%
<u>III</u>			
White	80%	64%	
Minority	20%	38%	

IDES/BLS

# Illinois Labor Force.... *'Smaller & Older'*

	<u>2000</u>	<u>2030</u>
<u>18</u> & Under	26.1%	24.3%
19-64	<b>61.8%</b>	<b>57.7%</b>
65+ yrs	12.1%	18.0%

US Census

# 'Less Educated'

- **Loss** in Workforce with BA or Higher Degrees

	<u>1980</u>	<u>2020</u>	<u>2050</u>
Majority	82%	63%	53%
	(30% BA+)		(III 40.%)

- **Growth** in Workforce With **Lowest** Level Education

Minority	18%	37%	47%
	(15% Black)		(16%)
	(11% Hispanic BA+)		(13%)

NCPPHE

# Economic Impact

- Decrease in Better Educated Workforce
- Growth in Less Prepared Workforce
- Impact on Personal Income!!

1980 to 2000	+41%
2000 to 2020	-02%

- Significant Loss of:
  - Tax Revenue
  - Consumer Spending, etc
  - Support for Higher Education
- ***-5.6% Shortfall in Illinois State Revenue by 2014***



**CHANGING JOBS, SKILLS,  
AND EMPLOYMENT  
RELATIONSHIPS**

# Projected Job Growth

- 1.4% Job Growth PY vs 1.0% Pop Growth
  - III 1.0% Job Growth vs .05% Pop Growth
- 85% of New Jobs Require Some Post Sec Ed
- 12% Unskilled & Dropping to 2%

Bureau of Labor Statistics

# Future US Labor Markets (continued)

## ■ Shortages

- *Demand for Skilled Labor Continues to Grow*  
*Labor Shortage of 7 million by 2010*  
*21 million in 2020*

Health Care  
Engineers  
Teachers  
Manufacturing

*Technology*  
Technicians  
Services  
Corrections

## - Illinois Reports Shortages:

Technology  
Engineering  
Manufacturing

Health  
Services  
Teachers

# Impact of Productivity

## ■ Job Loss

- Productivity 90%
- Outsourced 10%

## ■ From Low-skill to Knowledge Jobs:

- *Complex Knowledge-based*
- *Higher-level Academics*
- *Cognitive/ Problem-solving*

## ■ Reorganization of Work:

- *Multi-task & Cross-Functional*
- *Adaptable skills*
- *Increased Responsibility*

# Employer 'Projections'

- Competitive Advantage by 2020
  - 98% Quality of Management
  - 95% Skills of Workforce
  - 92% Cross-functional Application
- Greatest Workforce Growth
  - 85% Complex Knowledge-Based Role
  - 85% Developed Communication & Judgment
- Major Change in Next 20 years
  - 95% Point to Skills of Workforce

# Employer 'Expectations'

- Integrative Learning
- Knowledge of Human Cultures, Physical, and Natural World
- Intellectual and Practical Skills
- Personal and Social Responsibility

# The New Reality...

Growth In High Skill Jobs

Half Life of Jobs, Skills, and Companies is Shorter

Loss of High Skilled Workforce

Growth in Less Educated Workforce

Growth in Wage Gap and Unemployment

Economic Development Dependent on the Success of  
Increasing Minority Achievement

*Education Key to Personal Security*

*Standard of Living*

*Economic Growth*

# K-12 EDUCATION

Are We Ready?

# Current K-8 System...

- All Students Not Brought to Standard
- Not Taking Rigorous Course

	(US)	(Ill)
Taking Algebra I	35%	?
Low Income 'Proficient'	23%	10%

- 8<sup>th</sup> Grade Achievement\*

■ Proficient in Math	30%	29%
■ Proficient in Reading	31%	31%
■ Proficient in Science	42%	27%
■ Proficient in Writing	41%	?

- Illinois Ranks Very Low in Academic Achievement of Low-Income and Minority Students\*\*

- 14% of Hispanic 4<sup>th</sup> Grds at or above Math Proficiency

\*NAEP

\*\* US Chamber State Rept Card

# Current K-12 System...

- 40% Students Unprepared for College/Wk
- Only 56% Take Core Curriculum (46% III)
- 51% Reading at College Level
- ACT Test Takers Ready for College Level Work

	(US)	(III)
■ Biology	26%	25%
■ Algebra	41%	38%
■ English	68%	63%
■ Social Sci	51%	45%
■ All Fields	21%	20%

ACT

# K-8 Education

## Changing the Culture

- Accountability for 'All' Students to Standard by 3<sup>rd</sup>, 6<sup>th</sup>, and 9<sup>th</sup> Grade
- Remedial Investments
- Increased Number of 8<sup>th</sup> Graders Taking Higher Level Math and Science
- Principals Must Have Management Flexibility for:
  - Teacher Assignment
  - Alternative Learning Systems

# K-12 EDUCATION

## New American High School

- 'Core' Curriculum for All Students
- 'All' Students Brought to Standard
  - Focus on Low Income, Minority, and Low Achievers
- Increased Investments in Remediation and Student Support
- Lines Blurred Between High School/College
- Accountability and Flexibility for Principals
- Data Tracking for All Students/Schools

# **READY FOR COLLEGE AND READY FOR WORK: Same or Different?**

- ACT Study Brings Closure to the Argument About College vs Workforce Preparation.
  - College Without Remediation or..
  - Work With Sustainable Living Wage... Carpenter, Electrician, Plumbers
- Require The 'Same' Rigorous Core Curriculum and High Achievement Standards For ***ALL Students***

# Increasing Minority/Low Income Participation and Success

- College Entrance, Retention, and Achievement Directly Correlated to:
  - Core Curriculum
  - College Readiness in all Four Disciplines
- Academic Preparation Trumps Race and Income

	CRB	All Minority
• Attendance	79%	49%
• Retention	85%	70%

ACT

# K-12

## New Teacher Expectations

- New Learning Paradigm
  - 'All' Students Meet Succeed ('No Curve')
    - Time and Support are Variable
  - New Learning Technologies
- Core Curriculum For All
- Increased Teacher Support
- Teacher Preparation
  - Prepared For New Learning Models
  - Prepared For New Student Populations
  - New Organizational Model
  - Increased Financial and Personnel Support

# Illinois's Challenge

- 13% Drop in HS Grad Rates
  - 75% of 9<sup>th</sup> Grade Complete HS
  - Minority Less Than 50%
- Less Than 50% Core Curriculum
  - 37% Black
  - 39% Hispanic
- Ready For College/Work?
  - 65% High Income..20% Low Income
  - 11% Black and 17% Hispanic
- Lowered 8<sup>th</sup> Grade Math Test Score
- Illinois Lacks Student Tracking System



Higher Education

Are We Ready?

# Current HE System..

- Increasing Enrollments
- Only 6 of 10 Graduate in 6 Years
- Only 54% of Low Income Obtain Deg
- 53% Remediation
- Graduate Competency Has Dropped
- 33% Decrease in Sci/Math/Eng
- Popular Majors Vs Strong Liberal Education
- Affordability Dilemma

# Higher Ed NAEP... College Credentials in Question..

	1992	2003
Prose Literacy	40%	31%
Document Literacy	37%	25%
Quantitative Literacy	31%	31%

NAEP

# Illinois HE System

	Illinois	Top States
Community College Return	53%	63%
4 Yr College Return	79%	84%
BA Within 6 Yrs	58%*	64%
Certs & Degrees <small>Per 100 Students</small>	17	21
Working Age Adults	4.9%	5.4%

\*Hispanics 50% Less Likely to Complete

NCPPE

# Affordability and Access Illinois's Dilemma

- State Support for HE Reduced in last 25 years.

- Resulting in Shift to Increased Tuition Funding

- Percent of Family Income for Tuition  
Out of Step with Other States.

	Illinois	Top States
• Comm College	21%	15%
• Public 4 yr	30%	16%
• Private 4 yr	62%	32%

- Same Time Illinois's Per Capita Income Is Decreasing

- HE Least Affordable for Those Most In Need of HE Access

# Higher Education

## *Renewed Commitment*

### ■ **Liberal Education for the 21<sup>st</sup> Century**

- Knowledge of Human Cultures, the Physical, and Natural World
  - Science, Math, Social Sci, Humanities, History, Language, and Arts
- Intellectual and Practical Skills
  - Critical and Creative Thinking
  - Writing and Oral Communication
  - Information and Quantitative Literacy
  - Team Work and Problem Solving
- Personal and Social Responsibility
  - Civic, Ethical, and Intellectual Knowledge/Action
- Integrative Learning
  - Cross Functional Applications

# HIGHER EDUCATION

- **Access**
  - **Minority/Low Income Participation and Graduation**
  
- **Accountability**
  - Clearly Defined Core Curriculum
    - Harvard
  - Competency Expectations
    - Cal State
  - Assess and Remediate
    - Students, Curriculum, and Professoriate
  - Changing Expectations of Accreditation
  
- **Alignment of Education Pipeline**
  - K-16 Council
    - Financing, Standards, Curriculum, and Assessments
    - Teachers
    - Curriculum and Assessments

# HE Continued...

## ■ **Affordability**

- Constraining Escalating College Costs
  - Joint Venture, Partnerships, Teaching Vs Research
- Increased 'Economic' Investment in HE
  - State, Federal, and Private
- Increase Needs Based Support
  - Increase Access To Comm College (Low Income & Minority)

## ■ **Continuous Improvement**

- Continual Updating of Curriculum, Standards, Application, and Professors
- Partnerships
  - Business, NGO's, Non-Profits, Education, etc
- New and Flexible Learning Options
- HE Must Work to Reflect The World In Which Students Will Enter

Comm on Higher Ed



# ILLINOIS' COMMITMENT TO HIGH SKILLS AND HIGH WAGES!

Opportunities and Challenges

# Illinois' Future...

- Flat Population Growth
- Flat Labor Force Growth
- Loss of High Wage...Low Skill Jobs
- Growing Demand of High Skill Jobs with PS Education
  
- A New Commitment of HE..
  - K-16 Alignment
  - Increased Access
  - Accountability for Achievement and Completion
  - Continuous Improvement

*Economy Depends on Raising Academic Achievement of Low Performing Students*

# Education Must Be Recognized AS....

The #1 **Economic** Issue For America's  
Future

No Longer Relegated to  
"One of Many Priorities"  
"Discretionary Spending"

# THANK YOU

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