

Global Manufacturing: It's Not Our Father's Industry

***How the NAM Is Helping To Change
The Image of Manufacturing***

***Stacey Jarrett Wagner, Managing Director,
Center for Workforce Success for the
ATE Centers Conference: Strategies for Promoting
Technology Careers to Students***

Headline (then):
The Washington Post

December 3, 2002

*Dow Slips As Factory Output
Disappoints*

The Dow Jones industrial average declined for a second day after an industry report showed that manufacturing unexpectedly dropped in November. Johnson & Johnson, 3M and Caterpillar helped drag down the average.

Headline (now):
The Washington Post

September 3, 2007

***In North Carolina, A Second Industrial
Revolution: Biotech Surge Shows
Manufacturing Still Key to U.S.
Economy***

***The United States makes more manufactured goods today
than at any time in history – measured by the dollar value
adjusted for inflation.***

Today's Manufacturing: Strong Pillar of the U.S. Economy

Engine Of Economic Growth

High Productivity

Excellent Compensation

Jobs Multiplier

Innovation

**Strong Contributor To International
Trade**

But Storm Clouds Loom

**Multiple Workforce Challenges
Threaten U.S. Manufacturing**

Workforce Challenges That Threaten U.S. Manufacturing

- **Retirements: Going or Staying?**
- **Education: Not Getting Us To The Post**
- **And What About Higher Education?**
- **America Looks Different (Again)**
- **Negative Industry Image**

Headline:
The Washington Post
September 3, 2001

In America; On the Way to Nowhere

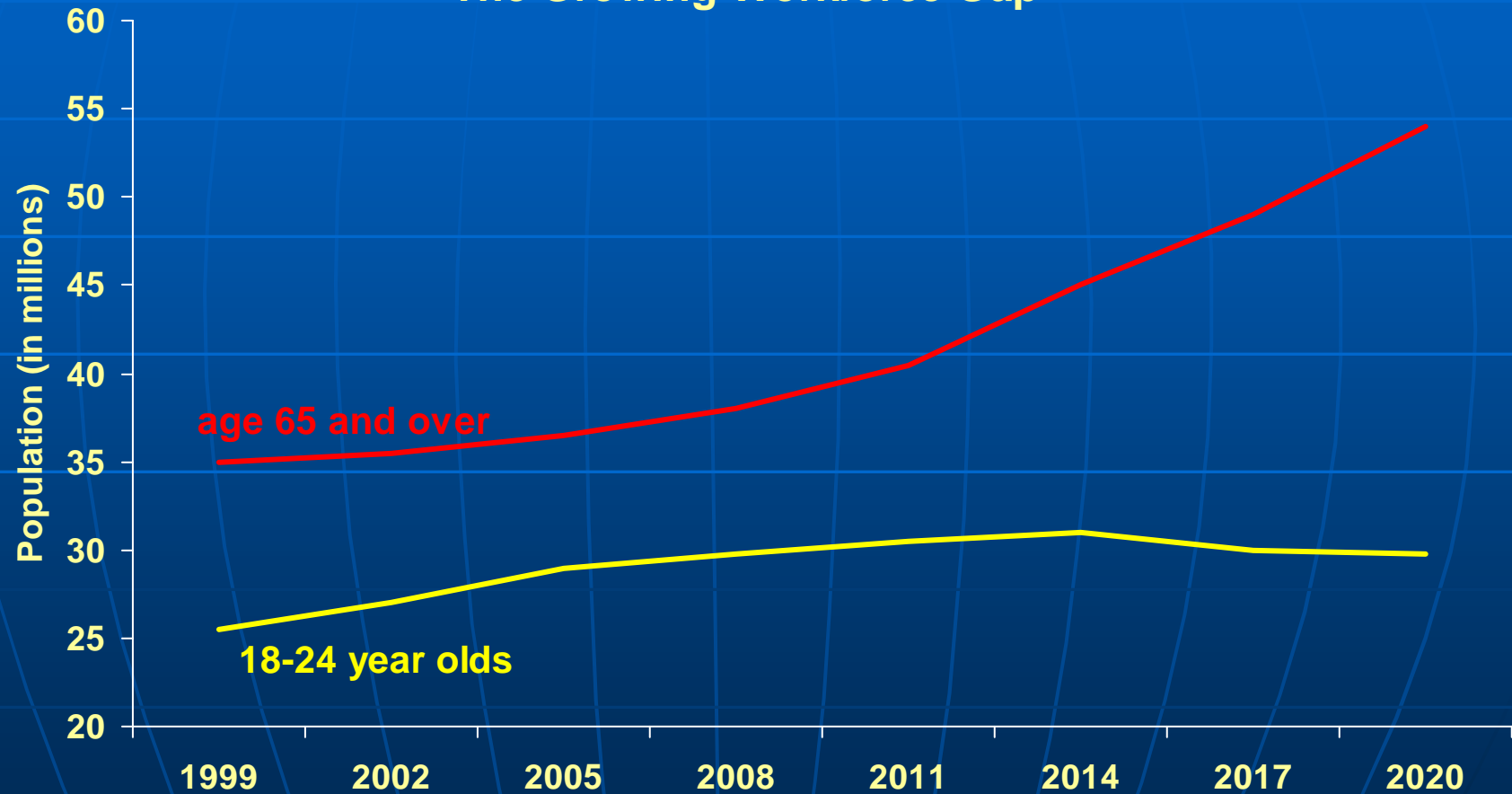
Bob Herbert's Op-Ed column says that millions of inner-city young people remain undereducated, unemployed and dangerously disconnected from nation's social and economic mainstream

Good-Bye! (Don't Go!)



Retirement Means Loss of Skilled Workers

The Growing Workforce Gap



Source: Social Security Administration

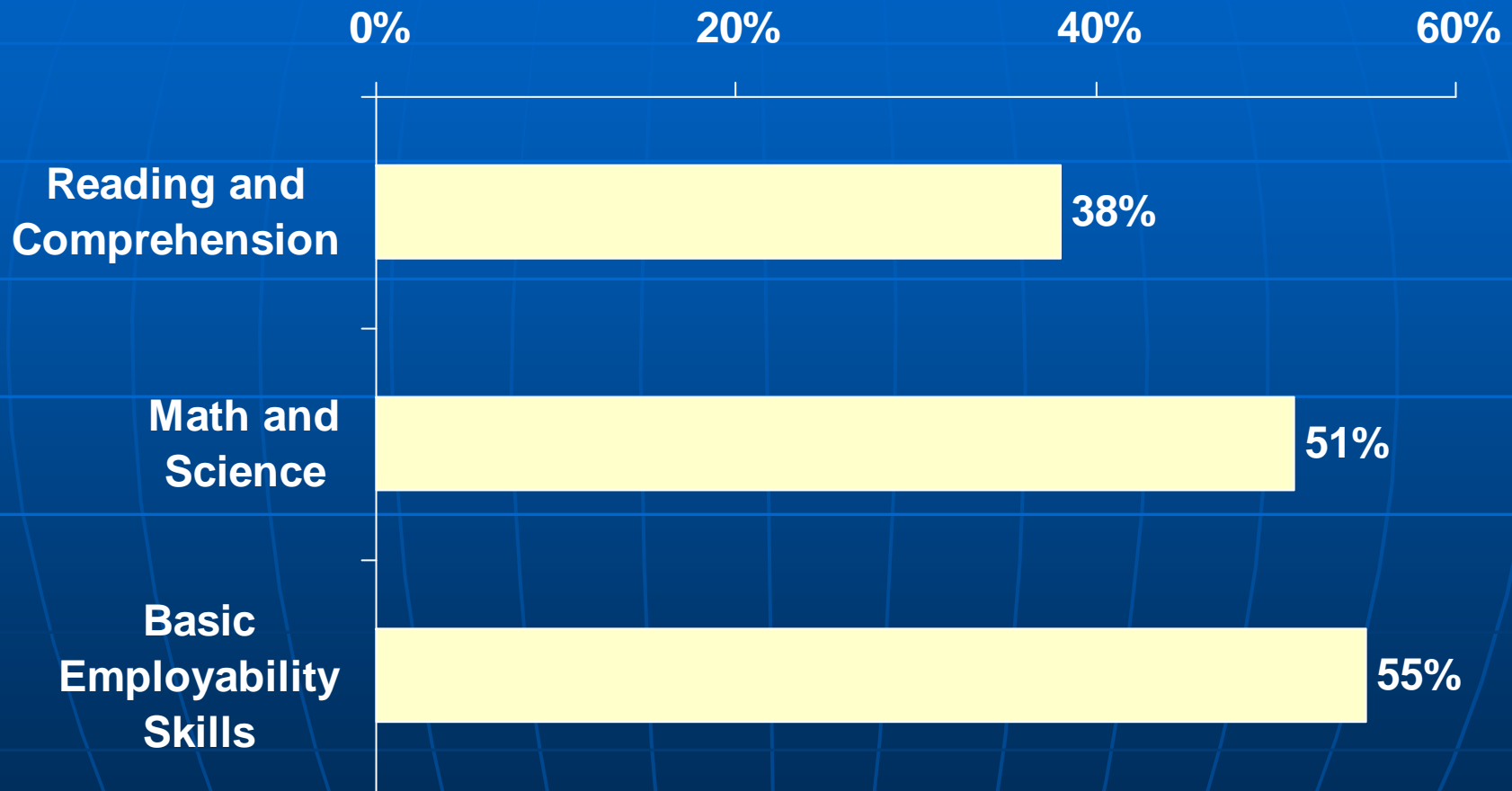
Students Don't Make It Out

National H.S. Graduation Rate: 69.9%

- **Graduation rates are consistently low for males, racial-ethnic minorities, urban, impoverished, and segregated communities**
- **More than one-third of the loss occurs in transition from 9th to 10th grade**

Source: Education Week's Diplomas Count 2007; Bill and Melinda Gates Foundation

Schools Fail to Prepare Students In Basic Education, Say Manufacturers



Source: 2005 Skills Gap Report

Not To Mention Math and Science

U.S. International Rankings

| | 4th Grade | 8th Grade | 12th Grade |
|---------|-----------|-----------|------------|
| Math | 12th | 19th | 19th |
| Science | 6th | 18th | 16th |

Source: International Association for the Evaluation of Educational Achievement

U.S.: A Coat of Many Colors

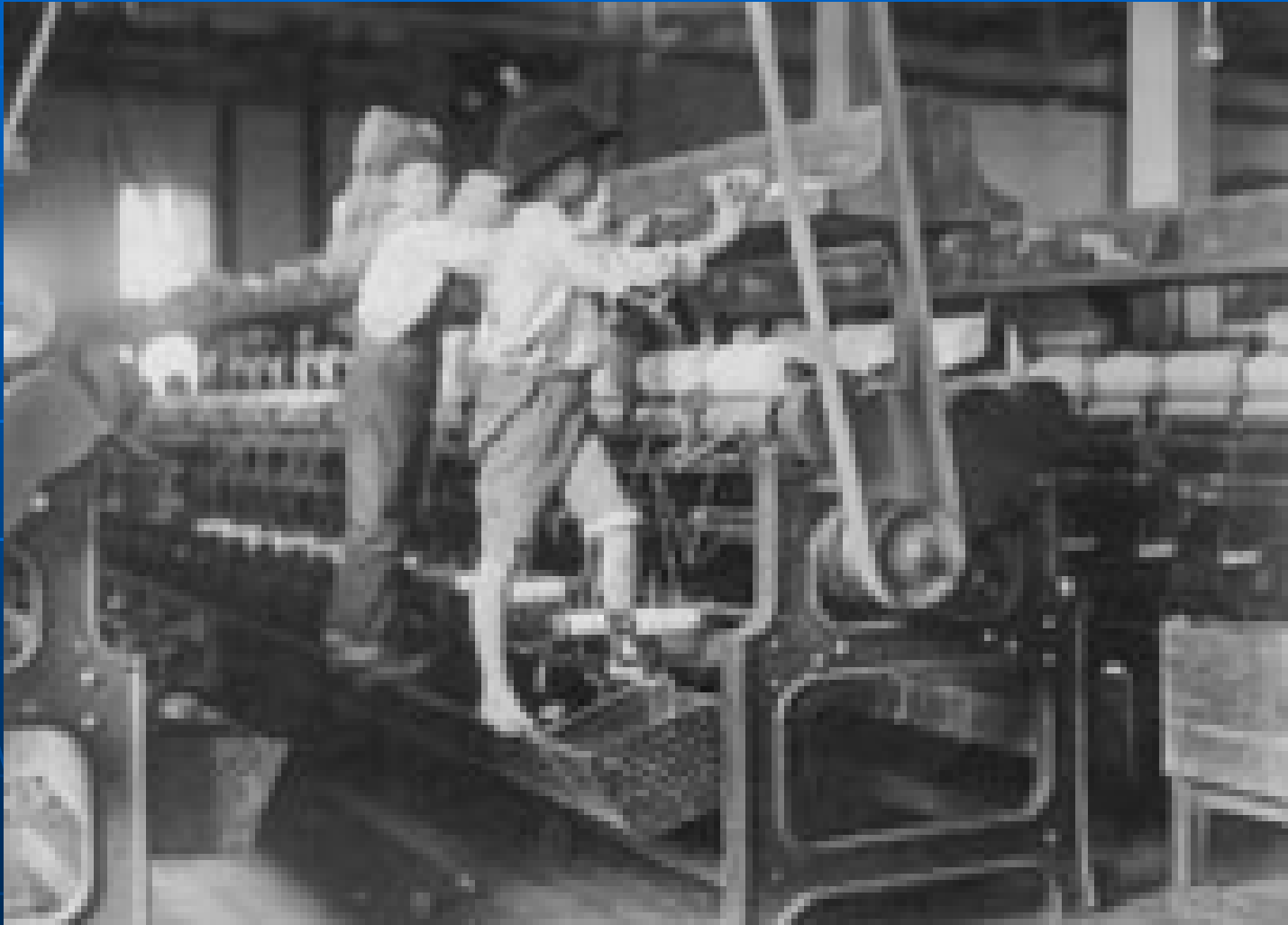


U.S. Immigrant Workforce

- **More than one of every seven people working in the United States was born elsewhere; only a decade or so earlier, only one in ten workers was foreign born.**
- **Immigrants, representing 15% of the total labor force, account for over 70% of workers with no more than an eighth grade education.**
- **One third of the new immigrants lack a high school diploma (three times higher than the native workforce) though 27% of new immigrants hold a bachelors degree or higher.**
- **63% of foreign-born workers work in service, manufacturing or agricultural occupations.**

Source: *Closing the Immigrant Skill Gap Report*, Literature Search 2005

Dark, Dirty, Dangerous, and Dead-End



Dealing With A Negative Image

Young people said that job opportunities in manufacturing are:

| | |
|------------------------|-----|
| <u>Not Challenging</u> | 50% |
| <u>Not Well-paying</u> | 61% |
| <u>Not Rewarding</u> | 67% |
| <u>Not Creative</u> | 67% |
| <u>Not Interesting</u> | 68% |

- *Source: Manufacturing Institute Benchmarking Results in Kansas City, MO*

Facing Disappearing Jobs?

Headlines: The New York Times

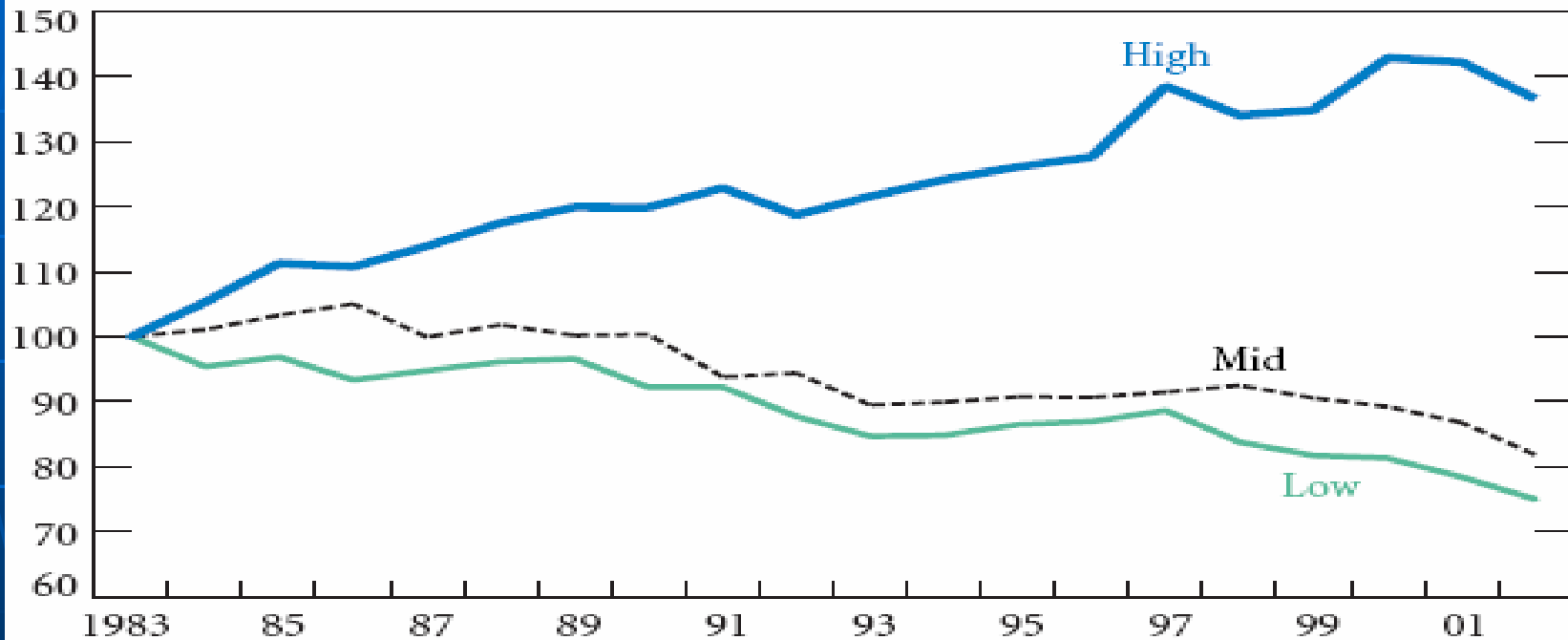
- *The Autoworkers' Pain (Feb 16, 2007)*
- *Workers at Mitsubishi Plant Accept Cuts in Pay and Benefits (Sept 2, 2006)*
- *Kimberly-Clark Announces Plans to Cut 6,000 Jobs and Close 20 Factories (July 23, 2005)*
- *Carrier Is Cutting 600 Jobs At 2 Sites In Tennessee (Aug 31, 2001)*
- *Kodak Plans More Job Cuts (July 22, 1999)*

Not Disappearing, But Changing

Chart 1

Manufacturing Employment by Skill Group, 1983 to 2002

Index: 1983=100



Source: U.S. Bureau of the Census, Current Population Survey.

Manufacturing experienced 37% growth in demand for high skilled workers while demand for low skilled workers declined

What Manufacturers Say About Workforce Shortages

(from 2005 Skills Gap Report)

90% - a moderate to severe shortage of
qualified skilled production workers;

65% - a moderate to severe shortage of
scientists and engineers;

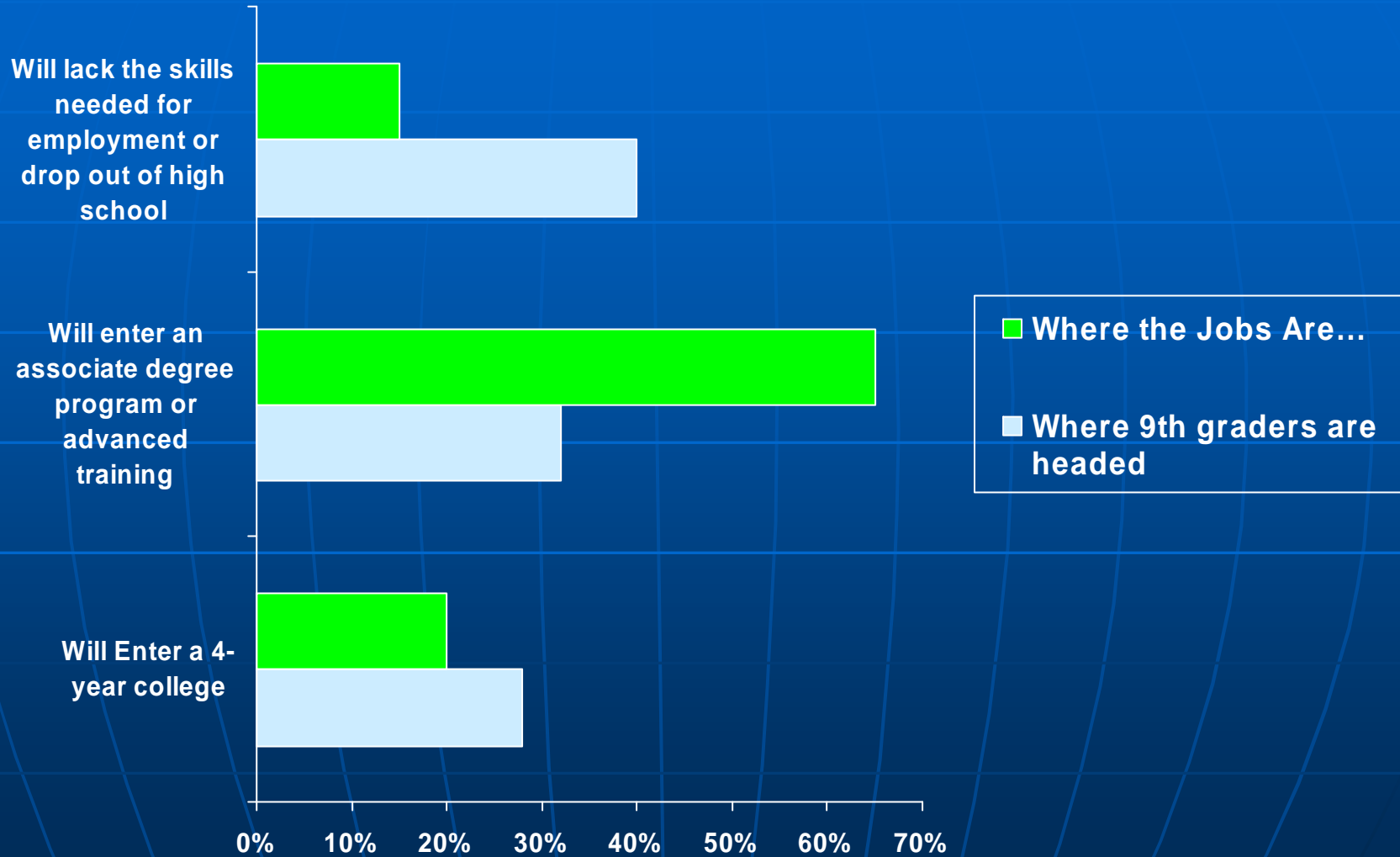
39% - a moderate to severe shortage of
qualified unskilled production workers.

Everyone Should Graduate

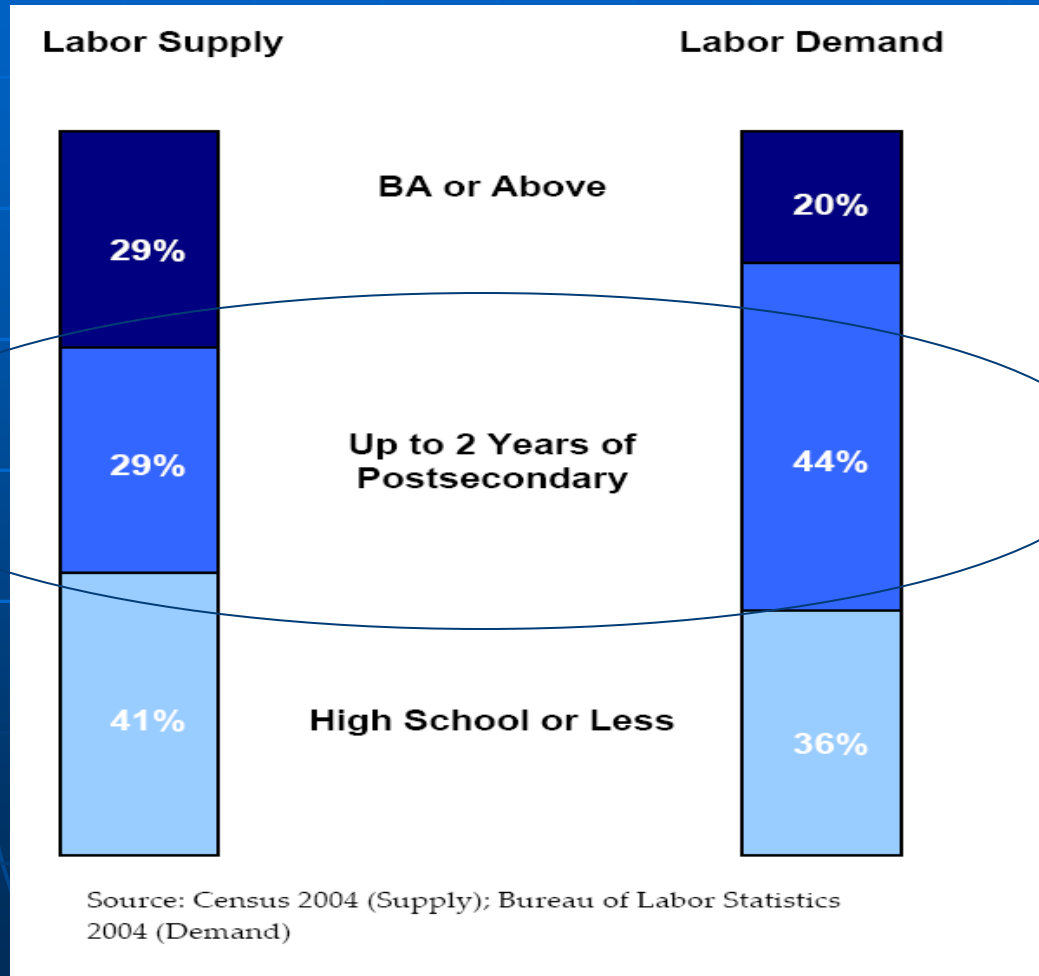
- **Without a HS diploma, the average adult earns only \$19,365 annually**
- **With some post-secondary education, the average adult earns \$33,633 annually**
- **But how much post-sec do you need?**

Source: Education Week's Diplomas Count 2007; Bill and Melinda Gates Foundation

How Much Is Enough?



America's Skills Gap is in the Middle of the Labor Market



Addressing Workforce Challenges

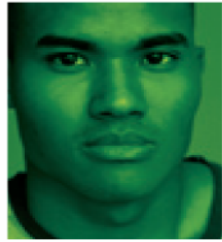
Lots of moving parts:

- **Definition of needed skills**
- **Educating and training for those skills**
- **Assessing and certifying those skills**
- **Getting manufacturers on board**
- **Using resources wisely (public and private)**
- **Changing Our Image!**

Addressing Workforce Challenges

The National Association of Manufacturers'
unique solutions:

- **Dream It Do It Careers Campaign**
 - **Business Champions**



Dream!t Do!t™

**A Pro-Manufacturing Economic
Development and Awareness
Campaign**

Why A Campaign?

- **Promote accurate vision** of today's advanced manufacturing as vibrant source of economic growth and its great jobs
- **Align goals** of economic development entities, workforce and education development systems with industry
- Develop local education and training strategies for manufacturing that **fill skills gaps**
- Provide **career information**, guidance, and links to training, internships and jobs

What Is The Campaign?

A Partnership Among:

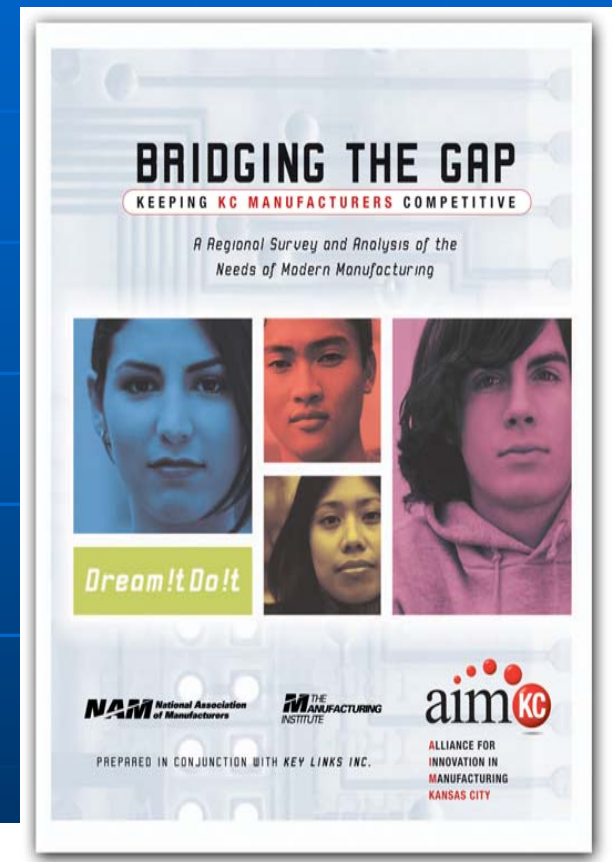
Collaborations of regional manufacturers, civic leaders, educators, economic developers, workforce development leaders, manufacturing extension partnerships, community-based organizations (now a national network)

National Association of Manufacturers (NAM)

The Manufacturing Institute/Center For Workforce Success

How Do We Assist?

- Site Readiness Assessment
- Benchmarking Study
- Skills Gap Study
- Campaign Flowchart/Timeline
- Style Branding Guide
- Local Events Structure
- Speakers Kit/Media Kit
- Media Plan
- Interested Party Referral System
- Award-winning Website
- National Partnerships



Dream!t Do!t

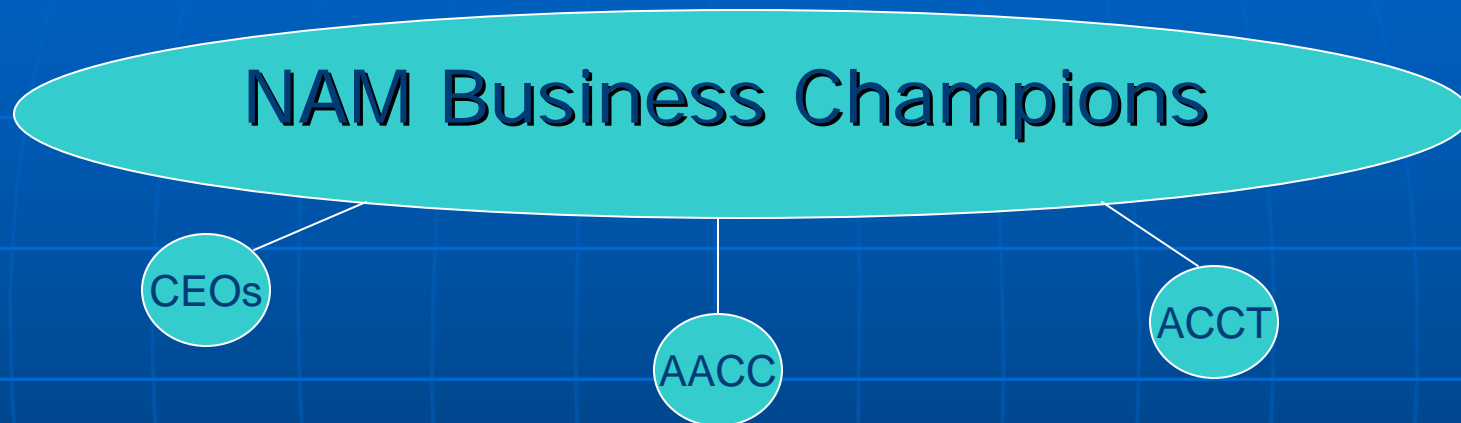
Where Are We Working and On What?

- **Indiana**
- **Virginia**
- **Washington**
- **Texas**
- **Nebraska**
- **Ohio**
- **Arizona**
- **Missouri**
- **Illinois**
- **Partnerships**
- **Certifications**
- **Positive Image**
- **Regional Clusters**
- **Career Pathways**
- **Curricula Development**
- **Economic Development**
- **Integrated Systems**

What Has Been Accomplished?

- Recognition: Money and Awards for Development
- Alliances: Manufacturers and Others
- Attention: National and Regional Media and by Governments
- Skilled Workers: Training and Education
- Enhanced Image: Positive Reactions to Messages

Changing Post-Secondary Education Policies



- **Inform on Issues of Post-Secondary Education and 21st Century Workforce Needs**
- **Connect Business Leaders To Colleges And Policymakers**

And The NAM Has Many Workforce Resources



Dream! Do!™

