PATHWAYS TO PROSPERITY: FROM REPORT TO ACTION

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Education Level of U.S. Labor Force

- No High School: 8%
- High School Diploma / GED: 24%
- Some College, No Degree: 14%
- Associate's Degree: 10%
- Certificate: 12%
- Bachelor's Degree: 21%
- Graduate Degree: 11%

Source: Georgetown Center on Education and the Workforce, 2012
U.S. On-Time Completion Rates Are Alarmingly Low

Note: Four-year schools have a six-year graduation window; two-year schools have a three-year graduation window. Source: Condition of Education, NCES, 2013
By 2020, College for All ≠ BA for All
65% of All Jobs Do Not Require a BA

Source: Recovery 2020, Georgetown Center on Education and the Workforce, 2013
Examples of Jobs that Require Middle Skills

<table>
<thead>
<tr>
<th>Sector</th>
<th>Type of Job</th>
<th>Number of Openings</th>
<th>Median Annual Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers &amp; IT</td>
<td>Computer Support Specialists</td>
<td>607,100</td>
<td>$46,260</td>
</tr>
<tr>
<td>Engineering</td>
<td>Electrical Technicians</td>
<td>151,000</td>
<td>$56,040</td>
</tr>
<tr>
<td>Health Care</td>
<td>Respiratory Therapists</td>
<td>112,700</td>
<td>$54,280</td>
</tr>
<tr>
<td>Life, Physical &amp; Social Sciences</td>
<td>Environmental Science Technicians</td>
<td>29,000</td>
<td>$41,380</td>
</tr>
<tr>
<td>Production</td>
<td>Semiconductor Processors</td>
<td>21,100</td>
<td>$33,130</td>
</tr>
</tbody>
</table>

Data from Occupational Outlook Handbook, U.S. BLS, 2010*
In the Face of Increasing Demand for Skilled Workers, We Are Unable to Keep Up…

TODAY:

14 million people unemployed ↔ 3 million jobs vacant

In a 2011 McKinsey survey of 2,000 U.S. companies, two thirds reported difficulty in filling job vacancies for reasons including:

- insufficient job experience
- unsuitable work habits
- insufficient educational qualifications
- poor communication ability
Occupation Matters

• 43% of young workers with Licenses and Certificates earn more than those with an Associate’s degree

• 27% of young workers with Licenses and Certificates earn more than those with an Bachelor’s degree

• 31% of young workers with an Associate’s degree earn more than those with an Bachelor’s degree
STEM Opportunities Abound

Previous STEM studies have neglected the many blue collar and technical jobs that require considerable STEM knowledge. But this study finds that **50%** of STEM jobs **do not require** a bachelor’s degree. As a result, STEM knowledge plays a much larger role in our economy than previously thought:

- **There are 26 million** STEM jobs in the U.S.
- **STEM jobs comprise 20%** of all U.S. jobs.
- The share of jobs requiring STEM knowledge has **doubled** since the Industrial Revolution.

**Source:** The Hidden STEM Economy, Brookings, 2013.
In Many OECD Countries, >50% of Upper Secondary Students are in VET (CTE)

Source: Education at a Glance 2008, OECD Indicators, Table C1.1
Availability of CTE in Secondary Schools Increases Graduation Rates

Share of Upper Secondary Students in Career Tech

Source: OECD Education at a Glance
School Completion: Dramatic Change in Global Skill Supply; U.S. Stagnation

Source: Schleicher (2007) based on OECD data. Approximated by percentage of persons with high school or equivalent qualifications in the age groups 55-64, 45-55, 35-44, and 25-34 years
A Graduation Uptick

After a lengthy stagnation, graduation rates among young adults surged between 2000 and 2010, especially among blacks and Hispanics.

US College Attainment Rates Lag As Well

The U.S. is 11th in degree attainment among young adults, Ages 25-34

Youth Unemployment in OECD Countries

Source: OECD Labour Force Statistics Database.
Global Innovation and Competitiveness: Switzerland at the Top

<table>
<thead>
<tr>
<th>Rank</th>
<th>European Innovation Scoreboard 2010</th>
<th>WEF Global Competitiveness Index 2011-2012</th>
<th>IMD World Competitiveness Scoreboard 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Switzerland</td>
<td>Switzerland</td>
<td>Hong Kong</td>
</tr>
<tr>
<td>2</td>
<td>Sweden</td>
<td>Singapore</td>
<td>USA</td>
</tr>
<tr>
<td>3</td>
<td>Denmark</td>
<td>Sweden</td>
<td>Switzerland</td>
</tr>
<tr>
<td>4</td>
<td>Germany</td>
<td>Finland</td>
<td>Singapore</td>
</tr>
</tbody>
</table>

Sources:
EIS: European Innovation Scoreboard, 2012
WEF: Global Competitiveness Report, 2012
IMD: World Competitiveness Yearbook, 2012
“And so tonight, I ask every American to commit to at least one year or more of higher education or career training. This can be community college or a four-year school; vocational training or an apprenticeship. But whatever the training may be, every American will need to get more than a high school diploma.”

President Barack Obama
Speech to Joint Session of Congress, February 2009
Pathways to Prosperity Network

AN INITIATIVE OF JOBS FOR THE FUTURE AND THE HARVARD GRADUATE SCHOOL OF EDUCATION
Pathways Sponsorship Varies Across the Network

• **Illinois**: Governor, Illinois Pathways Interagency Committee

• **Massachusetts**: Secretaries of Education, Housing and Economic Development, and Labor and Workforce Development

• **Missouri**: Commissioner and Associate Commissioner of Education

• **Tennessee**: Commissioner of Education, state CTE director

• **California**: Senate President pro Tem

• **Georgia**: State School Superintendent

• **New York**: Commissioner of Education

• **Ohio**: Columbus Compact
Four Levels of Pathways Work

- Regional Level
- State Level
- Multistate Network
- National & Federal Levels
Key Implementation Levers

- Intermediary links between education and employers
- Early, sustained career counseling and information
- Engaged employers offering WBL and internships
- Committed state leaders and favorable policy environment

9-14 Pathways linked to careers
Sample State Strategies

- **Massachusetts:**
  - Community colleges, WIBs, and employer associations leading the work in the regions
  - Three secretariats co-lead at the state level

- **Illinois:**
  - IL Pathways Interagency Committee
  - Statewide Learning Exchanges

- **Tennessee:**
  - Rural economic and community development strategy
  - Science park, strong employer partners (VW, Wacker)
Sample Regional Strategies

Hampden County (MA)
Advanced manufacturing pathway launched for 60 HS freshman co-sponsored by regional manufacturing association, employment board, and community college

Long Beach (CA)
Regional intermediary org under development to support expanded internships, WBL for 20,000 students in Linked Learning academies

Metro Columbus (OH)
13 districts working with regional community college in state-funded consortium to expand access to high-value technical pathways leading to certifications or postsecondary certificates or degrees
Key Functions of Learning Exchanges:

1. Provide Curriculum Resources
2. Expand Access to Equipment
3. Support Peer-to-Peer Networks
4. Provide Work-Based Learning
5. Sponsor Challenges
6. Provide Professional Development
7. Provide Career Development
8. Review Program of Study Model
9. Review P-20 Pipeline Performance
Exemplary State Policies, Resources, and Initiatives

• New model legislation in some states, such as:
  – AB 790 and SB 1070, CA (support Linked Learning approaches and expansion of career pathways)
  – Career Clusters/Pathways, HB 186, GA

• New resources at state level, such as:
  – Innovation Campuses, MO
  – P-TECH Replications, NY
  – California Career Pathways Trust Fund, AB 86, CA

• Employers driving interest in advanced manufacturing and IT pathways, such as:
  – Volkswagen and Wacker in TN
  – Cisco, IBM, Microsoft, Motorola, SAP, and Verizon in IL
  – Southwire in GA
Most Prevalent Career Areas of Focus and Greatest Pipeline Development Need

Information Technology
Cross-cutting and key to all 21st century careers, not just in IT fields

Health Careers
Growing field, career paths must be carefully chosen

Advanced Manufacturing
Few know the opportunities and salaries, stigma attached
Challenges to Pathways Systems-Building

• Early Career Advising
  – Most districts lack a systemic strategy to introduce young people to the world of careers beginning in middle grades

• 9-14 Pathways
  – Few 9-14 pathways align and integrate high school career pathways with community college
  – Community colleges’ “high demand” career programs are not accessible to young entrants; therefore, integrated 9-14 programs of study must be built
Challenges to Pathways Systems-Building

• Intermediaries
  – Communities lack organizations to serve as the “glue” between schools, colleges and employers: to convene, muster resources, align education with labor market needs. Chambers, sector organizations need to step up.

• Employer Engagement
  – Employers are not interested in general “please engage with schools” requests; instead, we need to engage employers to build talent pipelines for young professionals into specific career areas by partnering with community colleges and providing internships and other forms of work-based learning opportunities.
Next Steps for the Network

- **State and regional work plans**
  - One- and three-year implementation metrics and goals
  - Place-based strategies with practices, processes, and principles that can be scaled statewide

- **Cross-site work on key levers**

- **Customized TA and support from JFF, Harvard, and other expert consultants around implementation**
  - Based on work plan needs, with capacity-building focus
  - Webinars, convenings, site visits, coaching

- **Community of practice and Network collaboration**
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