

**The National Academies  
Center for Education**

**Workshop on Research Evidence related to Future Skill Demands  
May 31<sup>st</sup>-June 1<sup>st</sup>, 2007**

**Room 100, The Keck Center of the National Academies  
500 Fifth St., NW  
Washington, DC 20001**

**Preliminary Agenda**

**Thursday, May 31<sup>st</sup>**

- 8:00 am**     *Working Breakfast and Welcome*
- 8:30**         **Michael Feuer**, DBASSE  
**Martin Orland**, Center for Education  
**Bruce Fuchs**, National Institutes of Health  
**Eric Wanner**, the Russell Sage Foundation
- Workshop Goals and Context*  
**Richard Murnane**, Harvard Graduate School of Education, moderator
- 8:45**         *Debates about U.S. Workforce Skills and Competitiveness*  
**David Finegold**, Rutgers University
- Questions and Discussion
- 9:10**         *The Current Labor Market*  
**Peter Cappelli**, University of Pennsylvania, moderator
- 9:15**         *Overview of occupational projections to 2014*  
**Dixie Sommers**, Bureau of Labor Statistics
- 9:30**         **Response: Sam Leiken**, Council on Competitiveness
- 9:35**         *Presentation on polarization in the U.S. labor market*  
**David Autor**, MIT
- 9:50**         **Response: Janis Houston**, Personnel Decisions Research Institute (PDRI)
- 9:55**         Discussion among presenters and discussants
- 10:10**        Questions from the Steering Committee and Audience
- 10:25**        Moderator reflections  
**Peter Cappelli**, University of Pennsylvania, moderator
- 10:35**        *Break*
- 10:50**        *Skill Demands of Knowledge Work*  
**Beth Bechky**, University of California-Davis, moderator

***Guiding Questions for Session***

- What are “knowledge workers”? How many people are employed in these occupations and how are these occupations projected to grow over the next decade?
- What are the strengths and weaknesses of the available research on skill demands among knowledge workers?
- What does the available research tell us about factors that may affect the future skill demands of knowledge occupations generally, and biotechnology occupations in particular?
- What does the available research tell us about current and projected future skill demands among knowledge workers?
- What types of broad skills, such as technical/scientific, cognitive, and communications skills—if any—appear to be most in demand?
- What are the implications for education, including continuing education, of knowledge workers?

**10:50**      ***The Knowledge Worker and the Future Skill Demands of the U.S. Workforce***  
**Asaf Darr**, University of Haifa

**11:05**      **Response: Ken Kay**, Partnership for 21<sup>st</sup> Century Skills

**11:10**      ***Future Skill Demands in Biotechnology***  
**Fiona Murray**, MIT

**11:25**      **Response: David Finegold**, Rutgers University

**11:30**      Discussion among presenters and discussants

**11:45**      Questions from the steering committee and audience

**12:00**      Moderator Reflections  
**Beth Bechky**, University of California-Davis

**12:10**      ***Working Lunch***  
***The Globalization of Knowledge Work***  
**Martin Kenney**, University of California-Davis

Questions and Discussion

**1:20**      ***Skill Demands in Growing Service Sector Jobs***  
**Peter Cappelli**, University of Pennsylvania, moderator

***Guiding Questions for Session:***

- How many people are employed in non-professional service sector occupations and how are these occupations projected to grow over the next decade?
- What are the strengths and weaknesses of the available research on skill demands of non-professional service sector workers?
- What does qualitative research tell us about the skill demands of elder care occupations?
- What does the available research tell us about factors that may affect the future skill demands of service sector jobs generally, and elder care jobs in particular?

- In those settings where skill demands have increased, what types of skills are most in demand, including both technical and general/transferrable skills?
- What are the implications for continuing education of current service sector workers, including elder care workers? What opportunities do they have to develop new skills, through internal job ladders and training systems or access to external education providers, such as community colleges?
- What are the implications for K-12 education of future service workers?
- What are the implications for education of managers of service workers?

**1:25** *Future Skill Demands of Service Work*  
Mary Gatta, Rutgers University

**1:40** **Response: David Autor**, MIT

**1:45** *Future Skill Demands in Elder Care*  
Chris Wellin, Miami University

**2:00** **Response: Peter Kemper**, Pennsylvania State University

**2:05** Discussion among presenters and discussants

**2:25** Questions from steering committee and audience and general discussion

**2:45** Moderator Reflections  
**Peter Cappelli**, University of Pennsylvania

**2:55** **Break**

**3:10** *Promising Methods for Studying Future Skills*

*Guiding Questions for Session*

- What questions about possible future skill demands can we answer now?
- What questions remain unanswered?
- What kinds of data and resources do we need to help answer questions about future skill demands?

**Christopher Sager**, University of Central Florida, moderator

**3:15** *The Feasibility of Using O\*NET Data to Study Changes Over Time in Workforce Skill Demands*  
**Suzanne Tsacoumis**, Human Resources Research Organization

**3:30** *Projecting the Impact of Computers on Work in 2030*  
**Stuart Elliott**, Center for Education

**3:45** **Response: Kenneth Spenner**, Duke University

**3:55** *Skills, Technology, and Management Practices*  
**Michael Handel**, Northeastern University

**4:10** **Response: Arne Kalleberg**, University of North Carolina-Chapel Hill

**4:15** Discussion among presenters and respondents

- 4:30** Questions from Steering Committee and Audience
- 4:45** Moderator reflections  
**Christopher Sager**, University of Central Florida, Moderator
- 5:00** **Adjourn Day 1**

<b>Friday, June 1<sup>st</sup></b>
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**8:00** *Working Breakfast: Discussion of Future Skill Demand*

**Arne Kalleberg**, University of North Carolina, moderator

**8:25** Reflections on Emerging Skill Demands (from Day 1), **Arne Kalleberg**

**8:45** Panel Discussion of Skill Supply and Demand

*Guiding Questions for Panel Discussion:*

- What is known about the future supply of skills in the U.S. (including demographic trends, trends in educational attainment, and immigration trends) and what remains unknown?
- Are there possible gaps or mismatches between projected future skill demands and the future skill supply, based on what is known?
- What is known about the dynamics of the labor market and the economy, including possible responses to any skill shortfalls and/or to any increases in the supply of skills?
- Are policy interventions (e.g., improvements in education, changes in immigration law) needed to balance skill supply and demand?

*Panelists*

- **Peter Cappelli**, University of Pennsylvania
- **Harry Holzer**, Georgetown University and the Urban Institute
- **B. Lindsay Lowell**, Georgetown University

**9:30** Questions from steering committee and audience

**9:45** Moderator reflections  
**Arne Kalleberg**, University of North Carolina

**9:55** *Break*

**10:10** *Implications for Education and Training*

**David Finegold**, Rutgers University, moderator

*Guiding Questions for Panel Discussion:*

- What forms of education and/or workplace training are likely to be most effective in addressing future skills gaps or mismatches?
- Can we distinguish between skills that are best developed in education and those that are best developed on the job?
- How can research on future skill demands/skills gaps be used to inform curriculum development?

- If the supply of skills changes independent of demand, will this affect the future design of jobs and the skills jobs require? (For example, will improving the science and math skills of the workforce lead to creation of more high-skill jobs?)

*Panelists*

- **Susan Traiman**, the Business Roundtable
- **Peter McWalters**, Rhode Island Commissioner of Education
- **Paul Osterman**, MIT Sloan School of Management
- **Tom Bailey**, Columbia University

**10:10** Opening Comments from Panelists (5 minutes)

**10:30** Panel Discussion

**11:00** Questions from Steering Committee and Audience

**11:15** Moderator Reflections  
**David Finegold**, Rutgers University

**11: 25** *Lessons Learned and Next Steps*  
**Richard Murnane**, Harvard Graduate School of Education, moderator

*Guiding Questions for Session:*

- What have we learned over the past day and a half about the strengths and weaknesses of the available research on future skill demands?
- What support does the research provide for the proposition that future skill demands will be significantly higher than at present, either generally or within groups of jobs, such as knowledge workers and service workers?
- What support does the research provide for the proposition that major changes in education and training are required to meet future skill demands? What types of changes may be required?
- What questions remain unanswered, both about future skill demands and education and training required to meet those demands?
- What further research or studies are needed to answer these unanswered questions?

Moderator Reflections  
**Richard Murnane**, Harvard Graduate School of Education

**11:40** *Working Lunch and Steering Committee Reflections*

**12:30** Audience Questions, Comments, and Final Observations

**12:45** *Adjourn*