

The Rapidly Changing U.S. Labor Market

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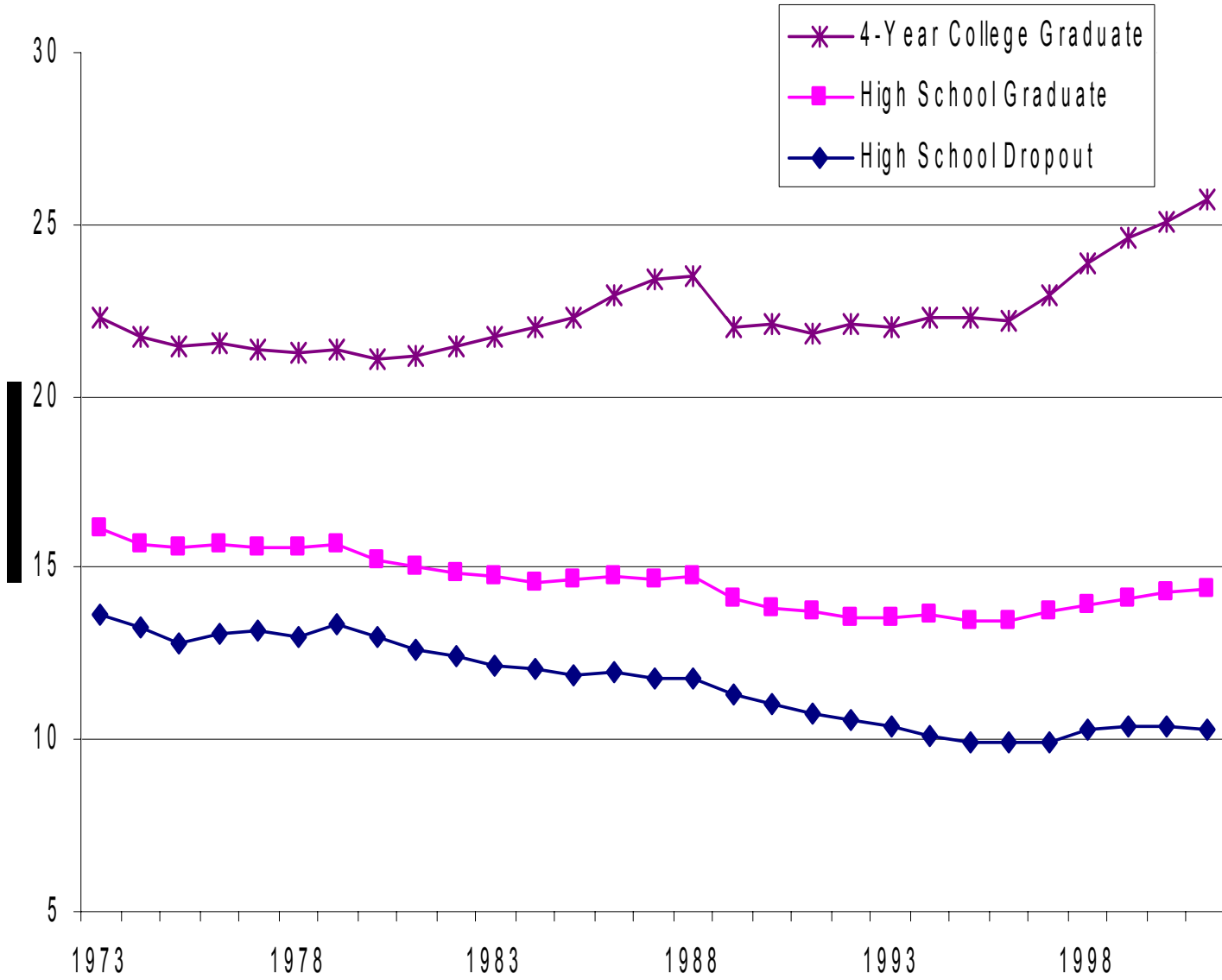
Harvard Graduate School of Education

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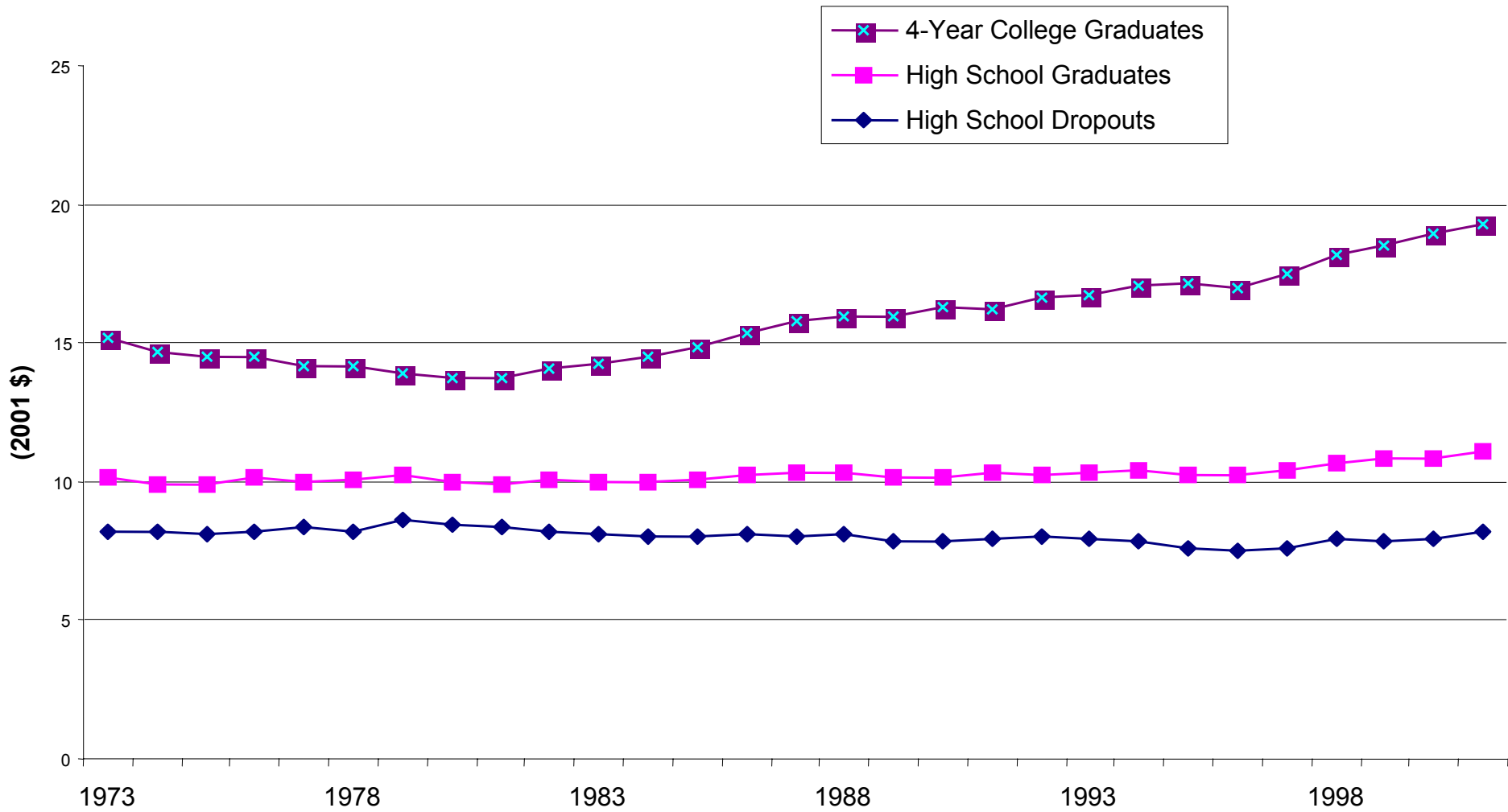
Comments are based on Frank Levy's and my book (Princeton University Press and Russell Sage Foundation, June 2004)



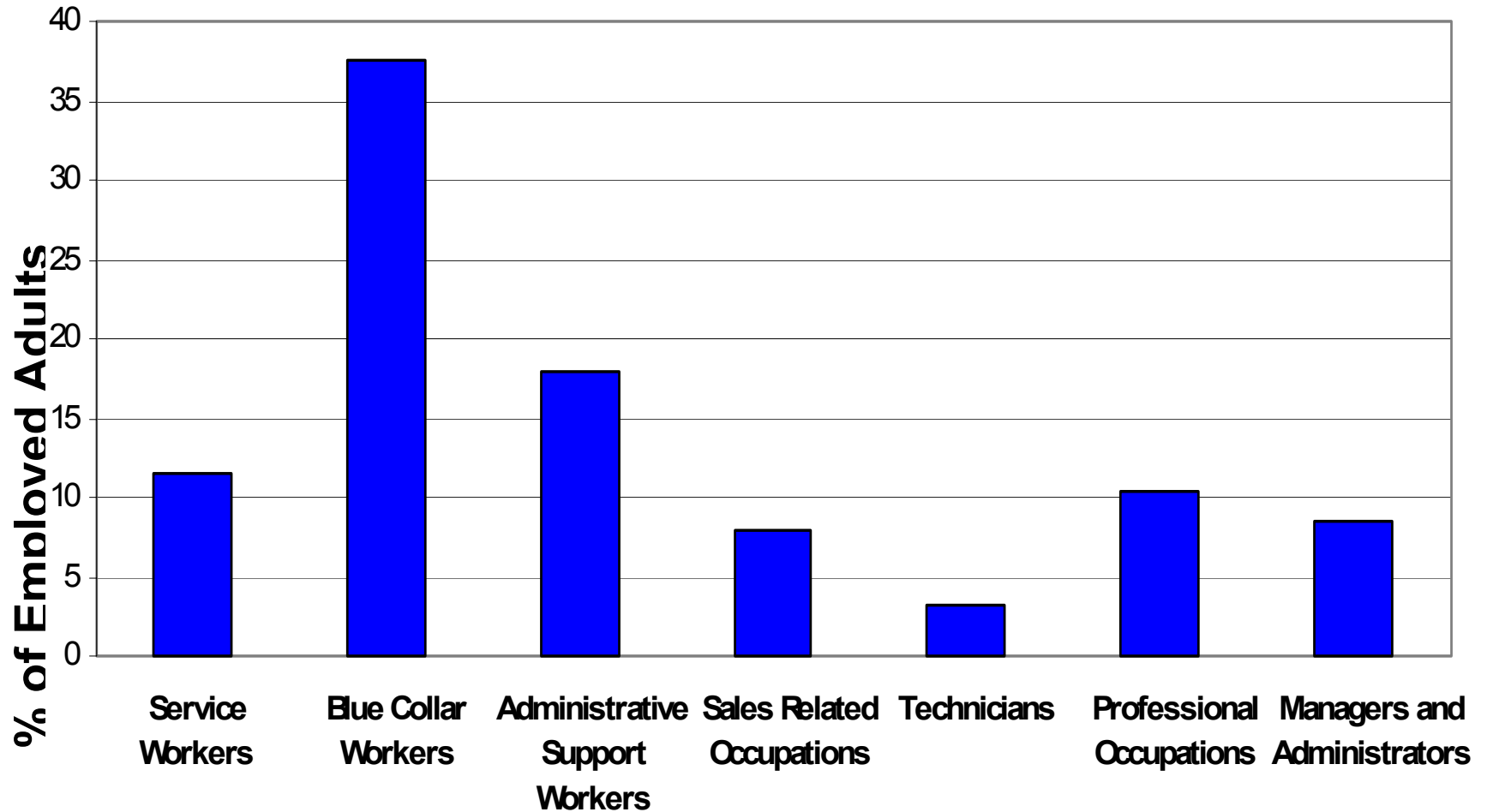
Real wage trends for males 1973-2001, by education group



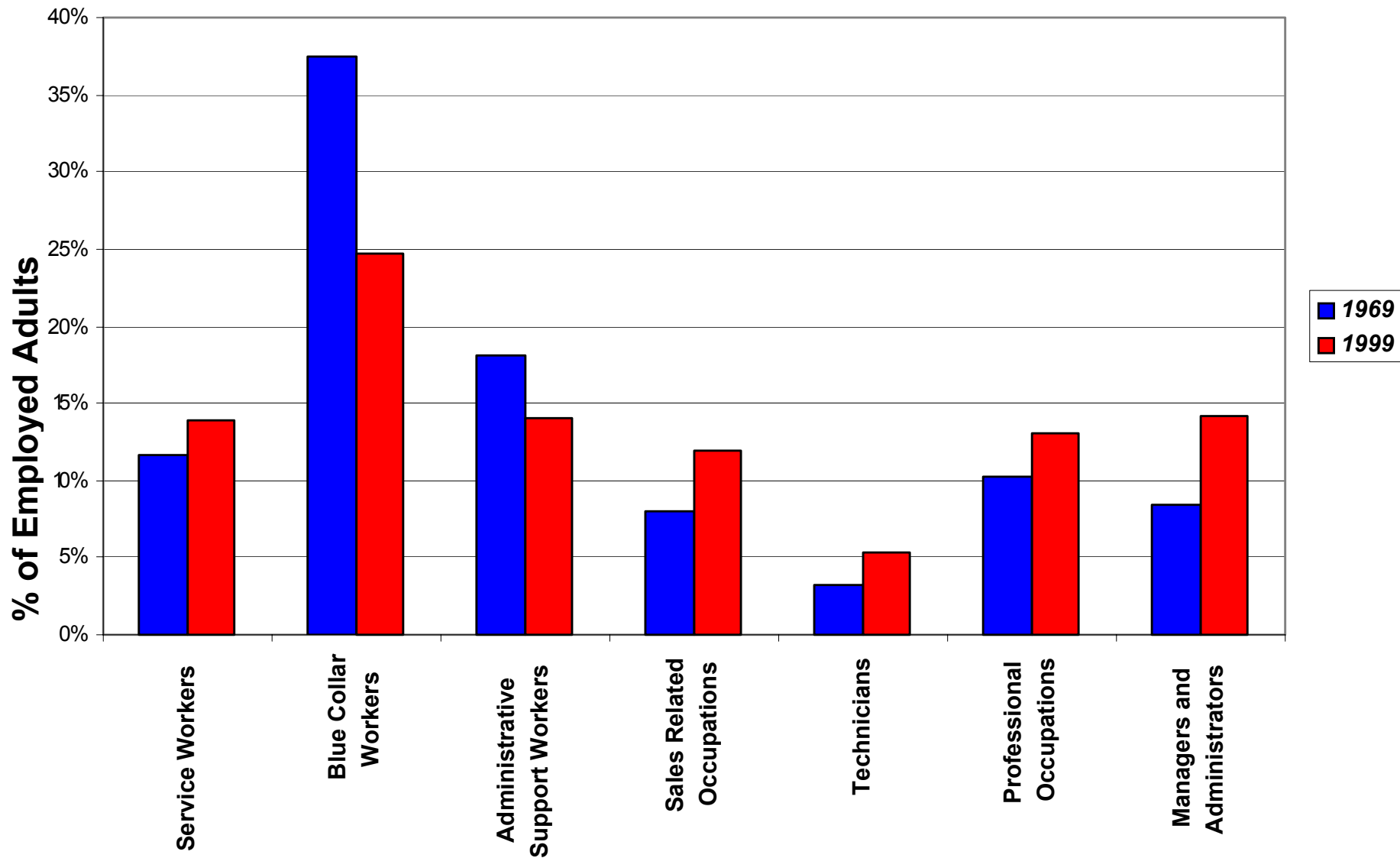
Real wage trends for females 1973-2001, by education group



The Adult Occupational Distribution: 1969

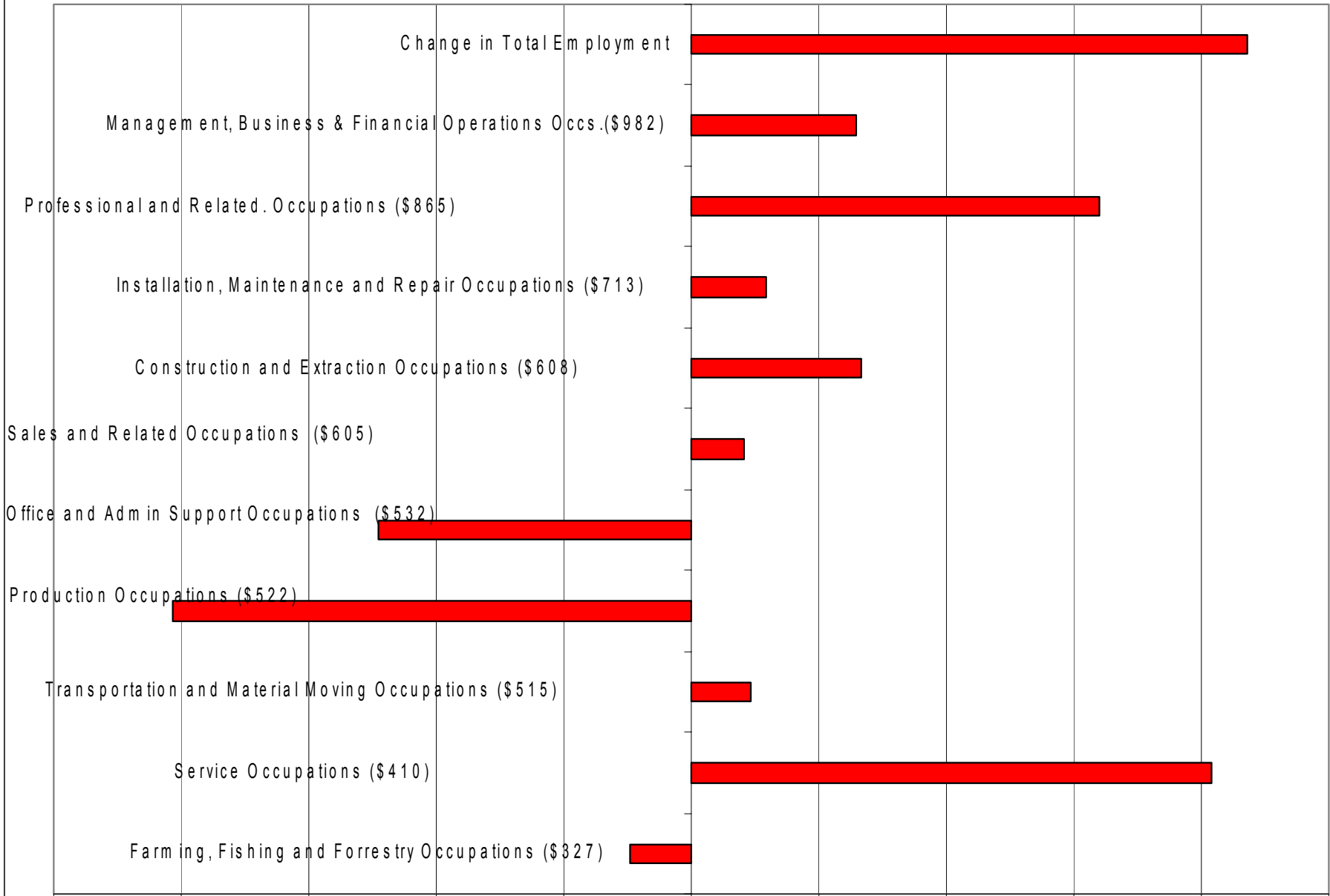


The Adult Occupational Distribution: 1969 and 1999



Occupational Change May 2000 - March 2005

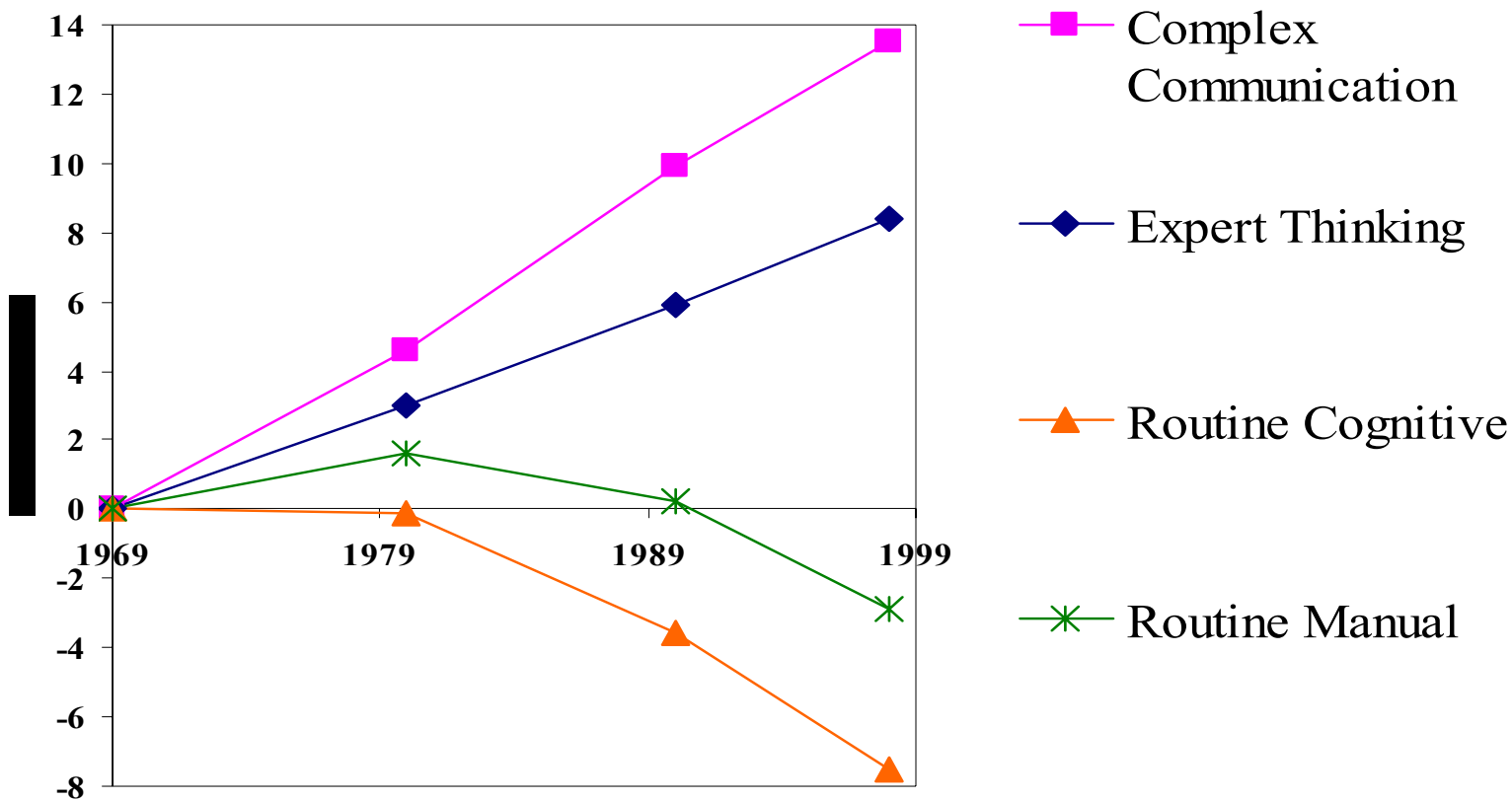
Changes in 1000's of persons. Dollar figures are 2004 median weekly earnings as of 1'st Quarter 2004
- souce: Current Population Survey as reported on BLS web site



Four Kinds of Workplace Tasks

- Routine Cognitive (filing, bookkeeping)
- Routine Manual (assembly line work)
- Expert Thinking (identifying and solving new problems)
- Complex Communication (eliciting critical information and conveying a convincing interpretation of it to others)

Table 3.5: Economy-Wide Measures of Routine and Non-Routine Task Input: 1969 - 1998 (1969 = 0)



Key Elements of Expert Thinking:

- A great deal of well organized knowledge about the problem (not memorized facts, but well understood relationships).
- Skill at pattern recognition
- Initiative
- Metacognition

Key elements of Complex Communication

- Observing and listening.
- Eliciting critical information.
- Interpreting the information.
- Conveying the interpretation to others.

Implications for *American* education

The Three Rs are not less important, but they need to be tools for knowledge acquisition and communication.

Implications for American education

Expert Thinking and Complex

Communication are not new subjects to add to the curriculum. They should be at the center of instruction in every one of the existing subjects.

What was the date of the battle of the Spanish Armada?

Student 1: 1588.

Q. How do you know this?

It was one of the dates I memorized for the exam.

Q. Why is the event important?

I don't know.

Student 2: It must have been around 1590.

Q. How do you know this?

I know the English began to settle in Virginia just after 1600, although I'm not sure of the exact date. They wouldn't have dared start overseas explorations if Spain still had control of the seas. It would have taken a little while to get expeditions organized, so England must have gained naval supremacy somewhere in the late 1500's.

Q. Why is the event important?

It marks a turning point in the relative importance of England and Spain as European powers and colonizers of the New World.

This example is taken from Bransford, Brown and Cocking (eds.)

Implications for American education

Computer use in school should focus on using computers as tools to develop expert thinking and complex communication skills in the core subjects.

Herb Simon, writing in 1960

“[I]n the entire occupied population, a larger fraction of members than at present will be engaged in occupations where “personal service” including face-to-face human interaction is an important part of the job. I am confident of stating this conclusion; far less confident in conjecturing what these occupations will be.”

Themes

As a result of technological change and globalization, the mix of jobs in the U.S. is changing rapidly.

Jobs that can be described as following a sequence of rules are disappearing, either through automation or by moving to lower-wage countries.

Increasingly important are jobs that require expert thinking and/or complex communication.

The problem created by technical change is not an insufficient number of jobs, but a mismatch between skill demands and skill supply, with dramatic consequences for the distribution of earnings.