

Skill Gaps, Skill Shortages, and Skill Mismatches

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The answer relates to three potential policy questions:

- Skills shortage – occupational skills at market price....
 - Periodic labor shortage arguments
- Skill gap – basic skill shortfalls
- Skill mismatch – not overall level but mix between specific supply and specific demand

How this became a political issue....

- The traditional consensus:
 - Public sector provides education, employers provide training
- The stakeholders –
 - Labor – parents/students – employers:
 - Govt as the broker
- The political issue: ***Who pays for skills?***
 - ***Changing political power alters the answer***

The peculiarities of the US case – spreading to the Anglo community....

- The role of ideology
 - Those who benefit should pay
- Education is a state and local responsibility
 - Employers playing off local govts
 - Colleges and for-profits as lobbyists
- The collapse of a labor voice/massive business investments in shaping public policy
- The rise of fake news:

The “Skill Gap” Myth and the rise of “fake news”

- The role of “fake research” –
 - Political foundations and think-tanks
 - The role of consulting firms in producing employer-sponsored reports or employer-targeted
- The perception that public education is “failing”
- The upskilling job myth

Is Education the Problem or the Answer?

- Need more STEM degrees
 - Every report from the business community says this
 - Six separate reports from the National Academy of Sciences assert a problem – but hard evidence is lacking
- Bill Clinton – more four year degrees: President Obama – at least one year of post grad for everyone

Being overqualified: College grads bump high school grads
 (educational attainment of persons in jobs requiring
 less than a high school diploma, 2010, for Wisconsin)

JOB Title	% WITH SOME COLLEGE	%=BA	% Total
Parking Lot Attendants	56.1	4.1	60.2
Retail Salespersons	40.8	19.3	60.1
Bartenders	43.9	12.7	56.6
Waiters and Waitresses	41.9	7.0	48.9
Counter and Retail Clerks	37.2	10.5	47.7
Stock Clerks	33.1	6.9	40.0
Cashiers	33.1	6.1	39.2
Ushers, Lobby Attendants and ticket takers	23.0	14.3	37.3

SOURCE: Marc V. Levine The Skills Gap and Unemployment in Wisconsin: Separating Fact from Fiction. University of Wisconsin at Milwaukee, Center for Economic Development 2013

Will there be a college shortage?

Most New Jobs

BY SOURCE | BY EXTREMITY | BY

Most new jobs: 20 occupations with the highest projected numeric change in employment.

Click on an occupation name to see the full occupational profile.

OCCUPATION	NUMBER OF NEW JOBS (PROJECTED), 2012-22	2012 MEDIAN PAY
Personal care aides	580,800	\$19,910 per year
Registered nurses	526,800	\$65,470 per year
Retail salespersons	434,700	\$21,110 per year
Home health aides	424,200	\$20,820 per year
Combined food preparation and serving workers, including fast food	421,900	\$18,260 per year
Nursing assistants	312,200	\$24,420 per year
Secretaries and administrative assistants, except legal, medical, and executive	307,800	\$32,410 per year
Customer service representatives	298,700	\$30,580 per year
Janitors and cleaners, except maids and housekeeping cleaners	280,000	\$22,320 per year
Construction laborers	259,800	\$29,990 per year
General and operations managers	244,100	\$95,440 per year
Laborers and freight, stock, and material movers, hand	241,900	\$23,890 per year
...	218,200	\$39,940 per year

“Skill Shortages” is mainly
about occupational skills

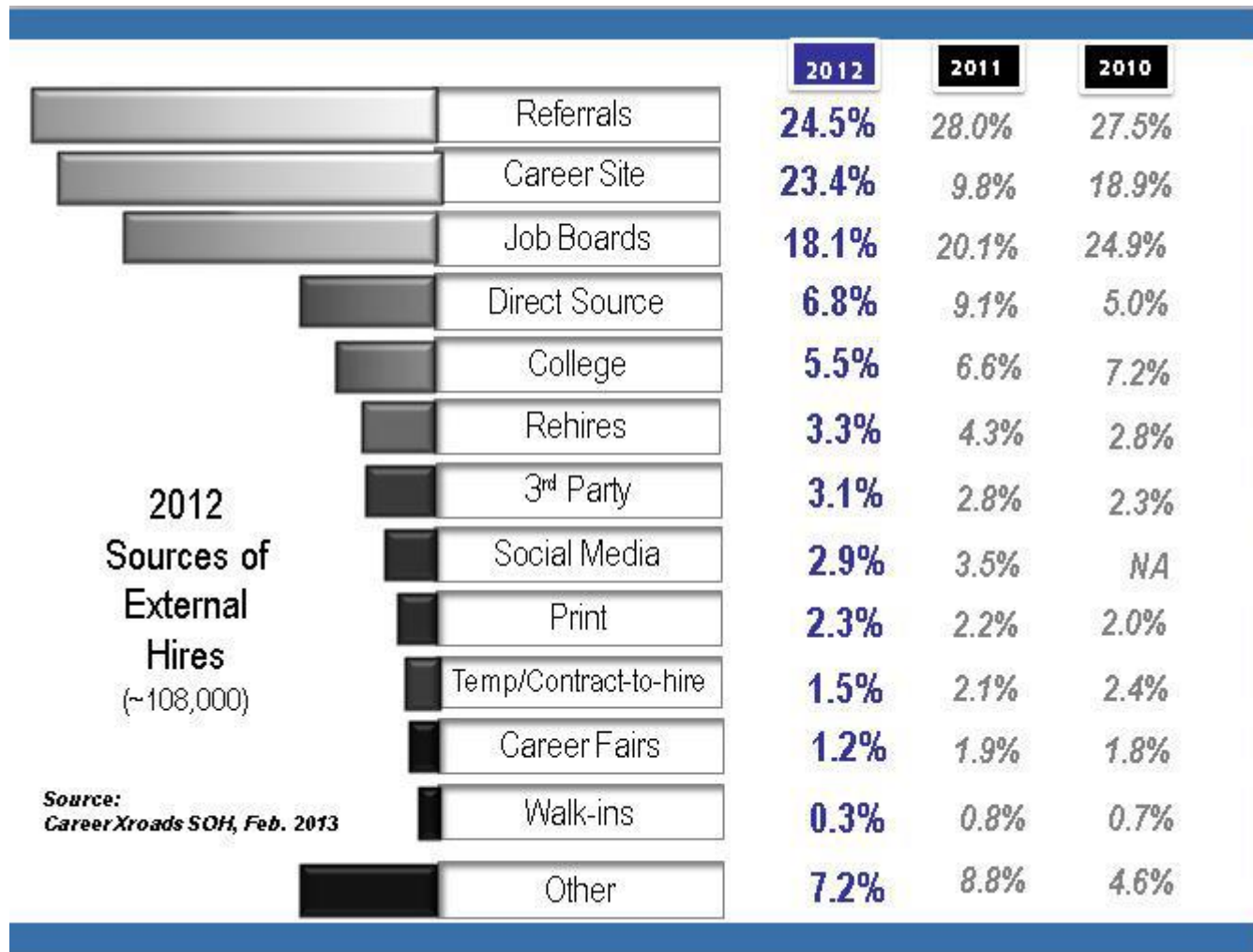
A plug-and-play labor market:

Most hiring is for experienced workers, not school leavers

- * 10% jobs filled from outside/entry-level before 1980*
- * 60-70% filled externally now.*



Hiring from college is no longer a big practice...



*Less Than Half as Many 16-24 yr olds are in Registered Apprenticeships Now Compared to 1950.**

Trends in Apprenticeship . . . ; U.S., Department of Labor, Number of Registered Apprentices Reaches 18-Year High, Release, USDL-8218, April 17 1967. and http://www.doleta.gov/OA/data_statistics.cfm.

*50% decline just since 2003
Employer-provided training down 20% from 2002-2008*

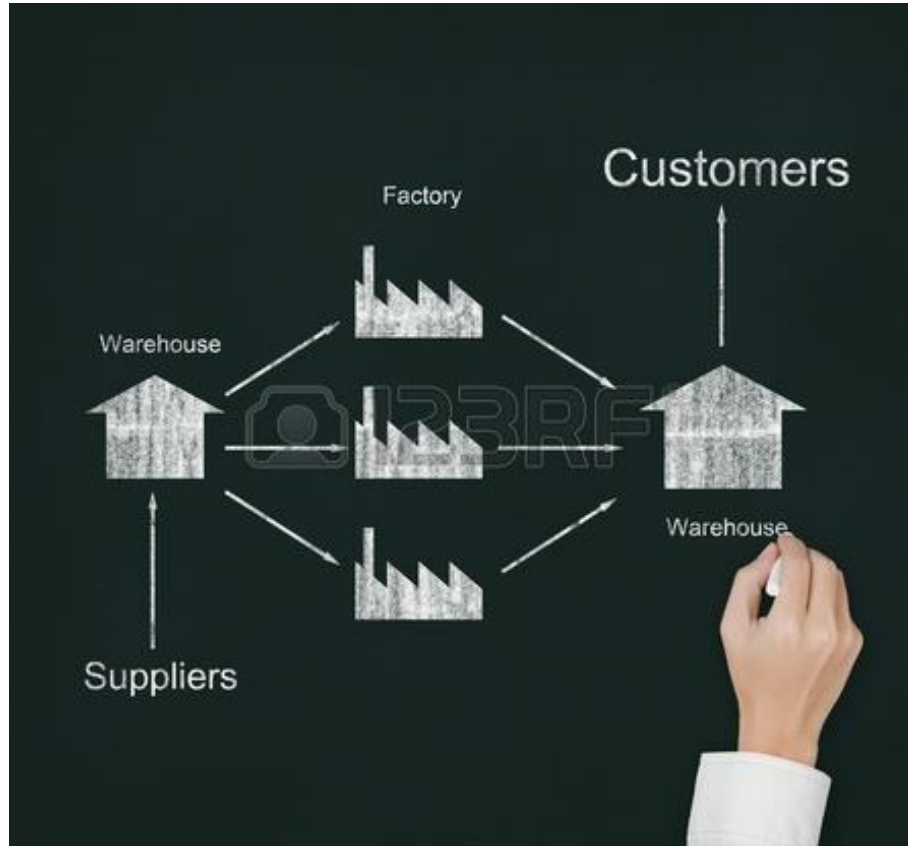


The special case of the IT industry....

- Little if any employer training
- BUT considerable hiring from college
- Constant complaints that colleges aren't producing what they need
 - What they want changes year-by-year, unpredictable, jobs don't last long,
- Lobbying for immigration –
 - Mainly “guest workers” – H1B visas
 - 70% from India, mainly IT, top 4 users are Indian IT outsourcers!

Colleges want to fill the gap

Now we have a supply chain problem!



Time lags 4+ years are long
in this supply chain

And the lags exacerbate disequilibrium...

Highest paying majors 2013– *all in the most cyclical occupations*

Major	Average Starting Salary
Petroleum Engineering	\$96,200
Computer Engineering	\$70,300
Chemical Engineering	\$66,900
Computer Science	\$64,100
Aerospace/Aeronautical/Astronautical Engineering	\$63,900
Mechanical Engineering	\$63,900
Electrical/electronics and Communications Engineering	\$62,500
Engineering Technology	\$60,900
Management Information Systems/Business	\$60,300
Logistics/Materials Management	\$59,500

Degrees that look like job titles....

- Business is by far the biggest major – 3x liberal arts
- Education is second – tight link to teaching
- “Liberal arts” is shrinking all the time
 - Adventure tourism?
 - Turf management?
 - Casino construction?
 - Pharmaceutical marketing?

Why it is a bad idea for colleges to provide practical job skills

1st – they aren't good at it. Classrooms are a bad way to do it

2nd – it's really expensive for parents who now have to front-load the costs of learning

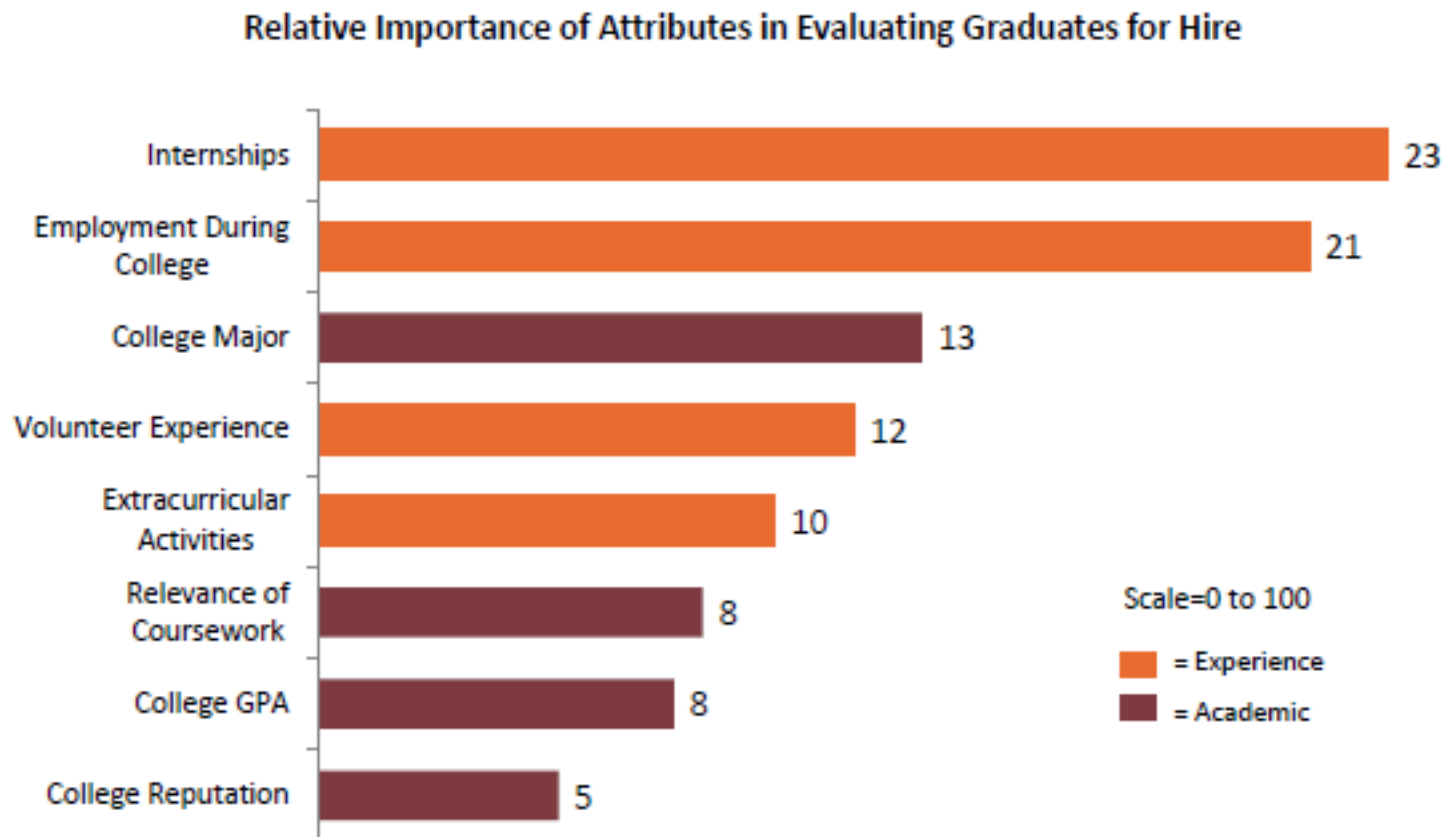
3rd – students and their parents take a lot of risk: No promise of jobs in these “hot” fields

4th – who do you trust for info on job prospects from different fields?

5th - the entire focus here is on the first job. Who is thinking longer-term?

Education isn't the issue even for school leavers!

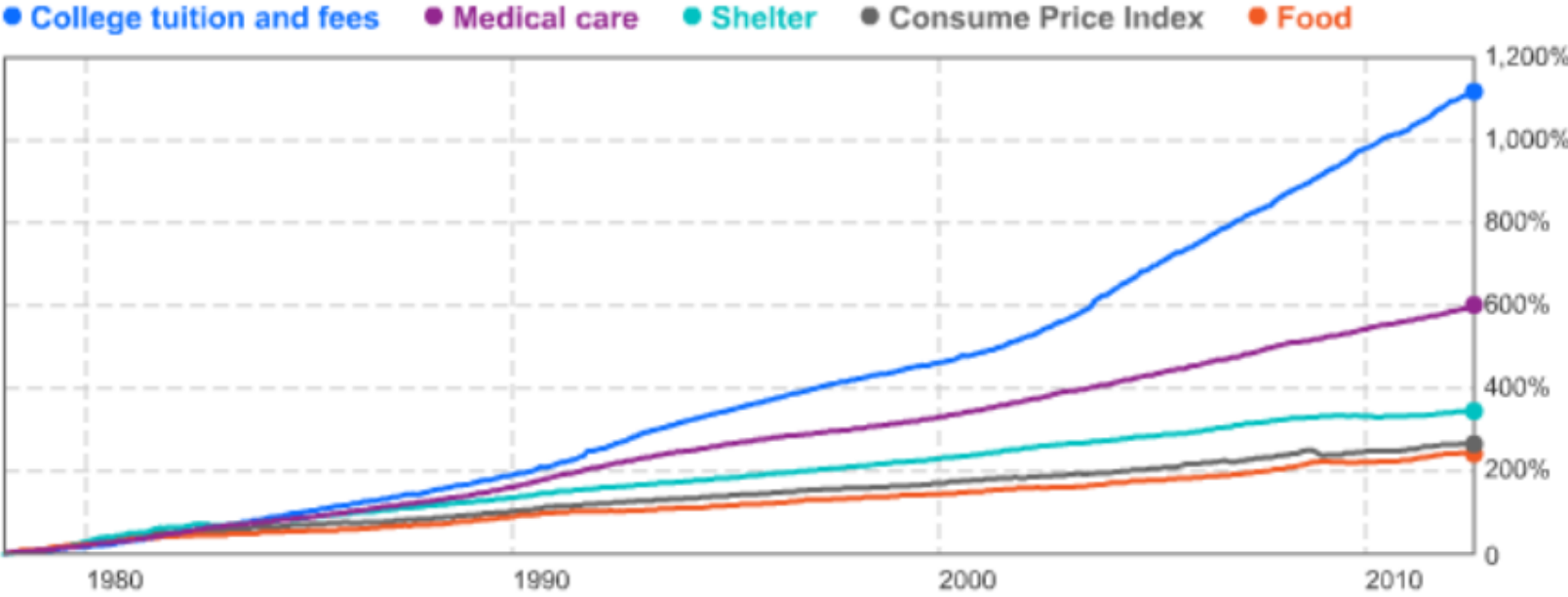
Internships and employment during college rose to the top of the list as the most heavily weighted attributes considered by employers.



US Families Pay 8x OECD Average for College, Costs have risen 4x inflation

Source: <http://www.bloomberg.com/news/2012-08-15/cost-of-college-degree-in-u-s-soars-12-fold-chart-of-the-day.html>

Percent change since January 1978



Skill Mismatches -

- Focus of most mismatch work is with education:
 - Reason for that is public pays for education
- General finding in developed countries other than Italy is over qualification:
 - US, about 1/3rd more education than O*Net job requirements and growing
- US is a big labor market, mismatches are likely to be local rather than national
- Post-recession job distribution looks like pre-recession

Now we start to see the new model...

- Wages are stagnant – no evidence of shortage from that
- Recruiting efforts per applicant have declined
- Employers want “hit the ground running” skills –work-based, on-the-job skills
 - Very specific jobs requiring experience
- “Entry-level” jobs are now rare
 - Training seems to be disappearing
- Colleges are rushing to provide them

What can be Done?

1st – shorten the supply chain

- Employers and colleges – get close: What do you need this year?
- Students – delay picking majors and job – specific courses until the very end
 - Play down job-specific degrees
- Expand any program that integrates school and work
 - Apprenticeships – push throughout the developed world
 - Internships
 - Coops

2nd - employers have to provide work experience and training

- Consulting firms, accounting firms, all make money doing it and still lose virtually all their trainees!
 - It's about work-based learning, learn as you earn
- Requiring course work in advance
- Support retraining!
 - IBM story

Yes, we can afford to train

- Consulting firms, accounting firms, all make money doing it and still lose virtually all their trainees!
- Training wages are legal
- Requiring course work in advance
- Set up arrangements with not-for-profits