

Education Demand and The Future of American Labor Markets

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Jeff Strohl

Prepared for Putting America to Work: The Essential Role
of Federal Labor Market Statistics

Brookings Institution

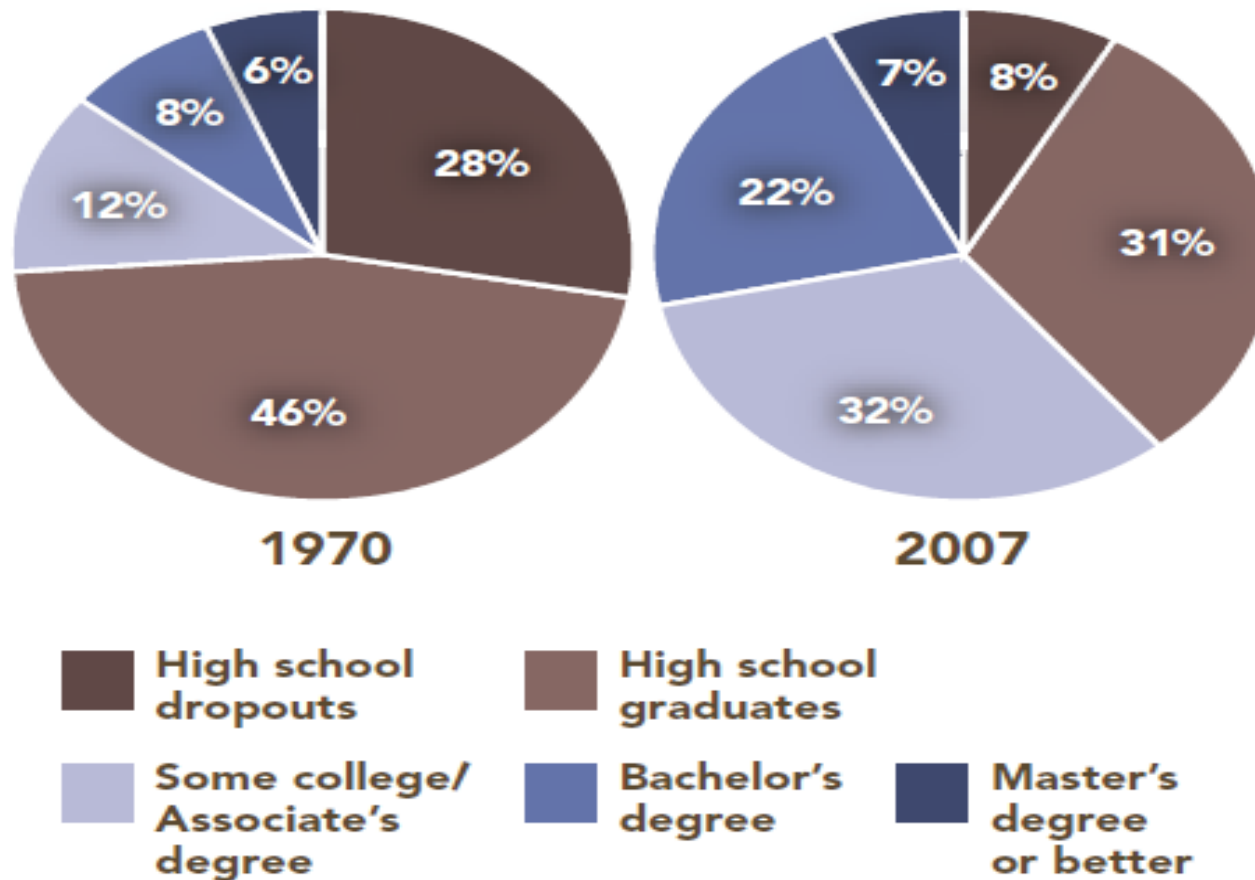
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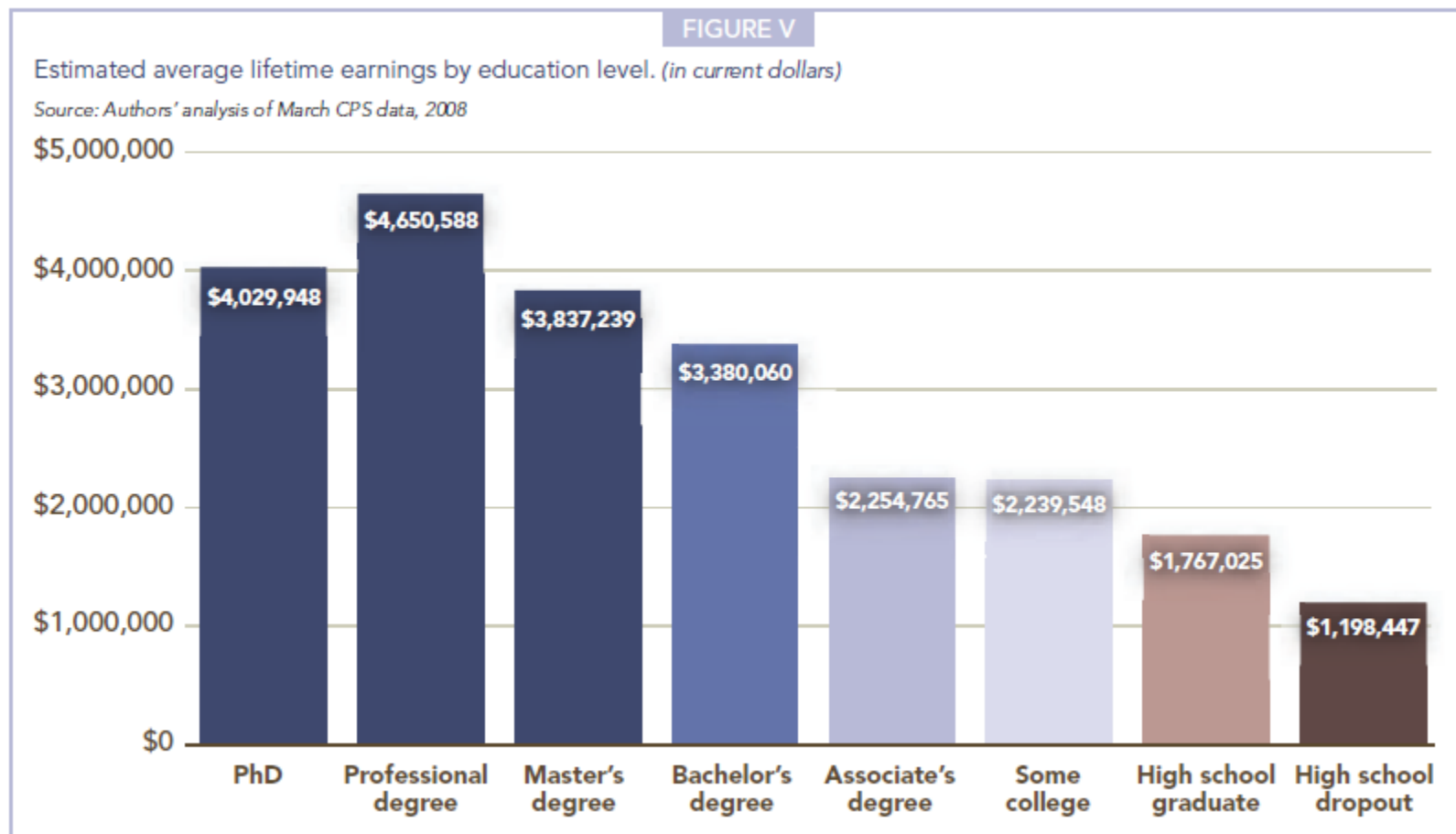
GEORGETOWN UNIVERSITY

Center on Education and the Workforce

The high school economy has become the college economy – access to the middle class is becoming denied to workers with high school and less



Life-time earnings are much higher for workers with post secondary education

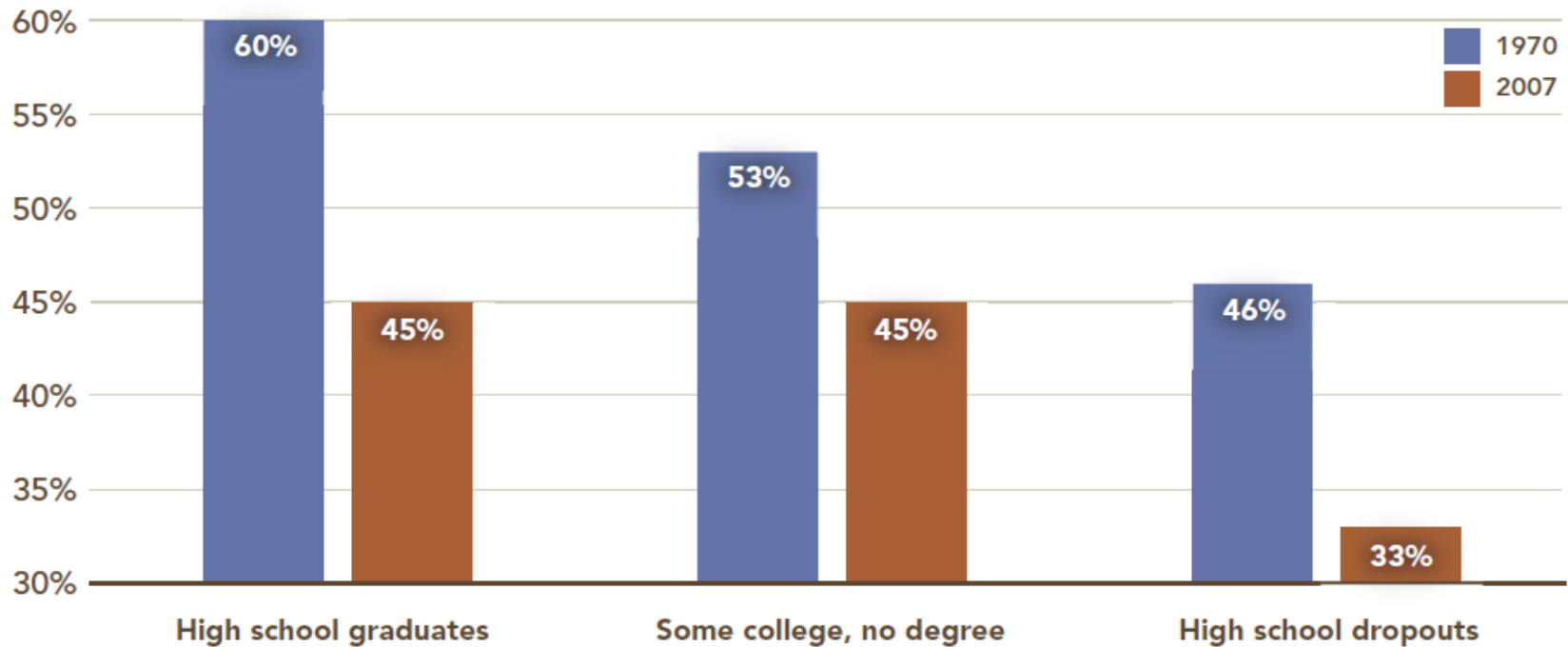


Its just not your grandfather's high school economy anymore Economic opportunity is now defined by post secondary education

FIGURE 3

People who do not complete postsecondary education are falling out of the middle class.*

Source: Authors' analysis of March CPS data, various years; Center on Education and the Workforce forecast of educational demand to 2018

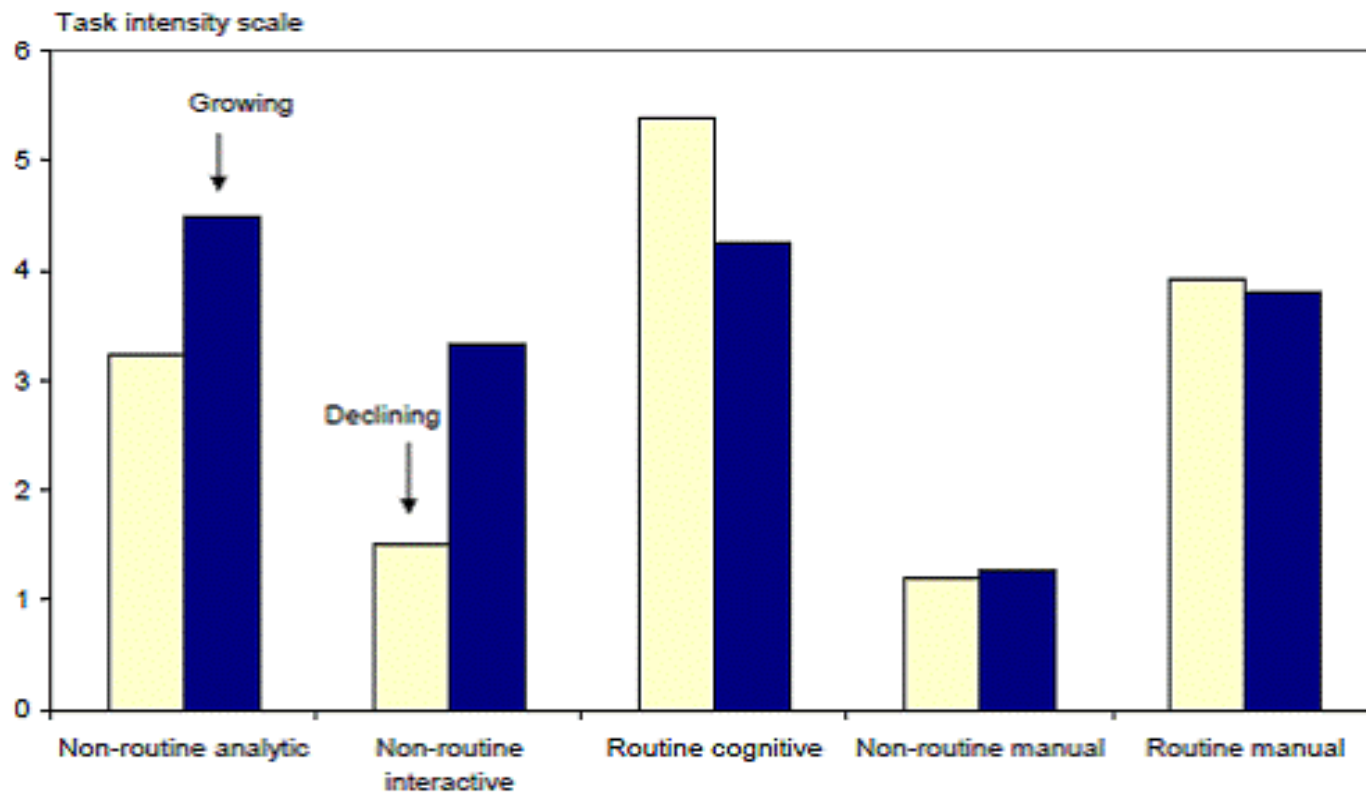


*Middle class is defined as the middle four family income deciles (\$30,000-79,000).



Growth in the US economy dovetails with the increasing complexity of work

Figure 5: Task Intensity of Declining vs Growing Occupations, 1992 - 2002



Source: CEA calculations using data on task intensity from Autor, Levy, and Murnane (2003) and CPS data.



We are in a recession

Should we believe in more jobs, let alone the need for more post secondary?

Yes, of course

1. The long run trend in the united states is increasing demand for workers with post secondary education
2. Post-secondary wages have held strong and have grown while high school wages have been flat
3. Katz and Goldin suggest we've been underproducing post-secondary degrees for at least 30 years
4. Overqualification is not a significant problem. Wage analysis at our Center, supported by unpublished work of Neumark and Johnson (2010), show we do not have too many degrees. The Murray and Vedder arguments are just bunk. (Why would employers pay for what they don't need?)
5. Autor et al, detail work tasks are becoming more complex, our work with O*Net reinforces this



Help Wanted

Projections of Education Demand

Builds projections of education demand using BLS's robust employment projections, augmented with additional data on the recession.

Model uses time trend information to capture changing skill requirements within occupations as well as demand changes brought about by changes in competition

Enables an analysis of:

- Education demand by occupation and industry
- Will soon be enhanced with a detailed sub-state analysis.



Our report documents a method to project education demand

For example our projections model accounts for upskilling like that observed for what were once ‘auto mechanics and repairmen’ and are now “automotive technicians”.

EXHIBIT A Distribution of education among auto mechanics in three eras.²

	1968–1971	1988–1991	2004–2007
High school dropouts	58%	29%	19%
High school graduates	34%	52%	47%
Some college/Associate’s degree	6%	16%	30%
Bachelor’s degree or better	1%	3%	4%

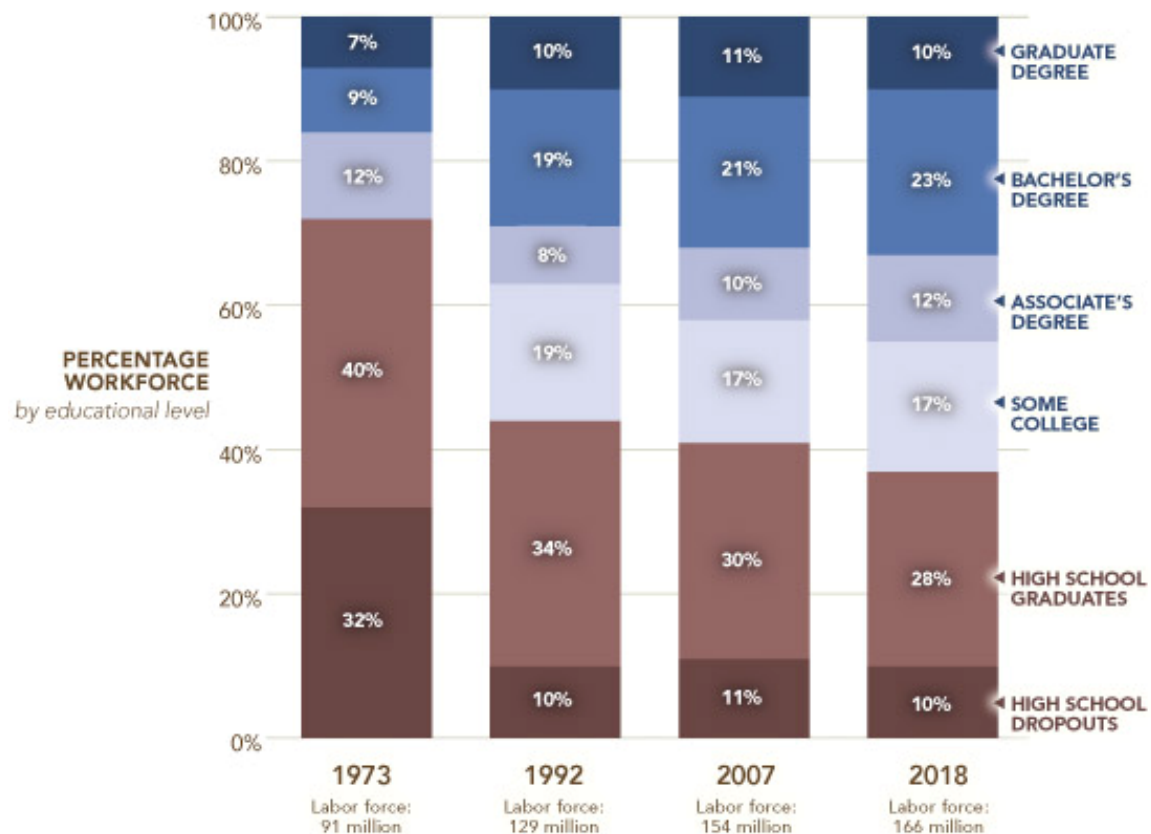
Author’s analysis of March CPS data, various years



The historic trend in the US is increasing demand for education and training beyond high school.

Why should we be surprised the future is similar?

BY 2018, 30 MILLION NEW AND REPLACEMENT JOBS WILL REQUIRE SOME COLLEGE OR ABOVE

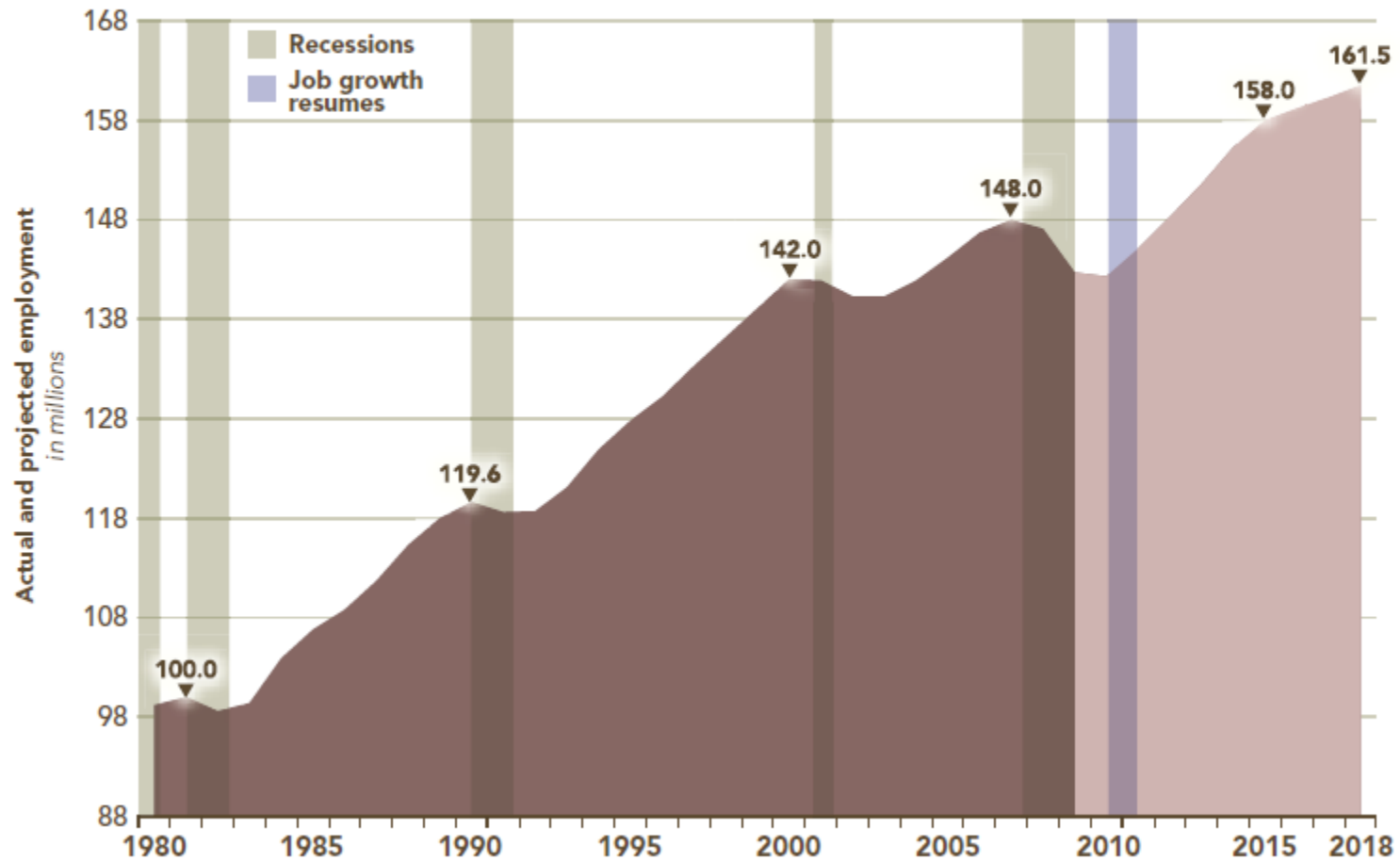


Yes it is bad but like other recessions – growth will resume

FIGURE 1.3

Employment growth is set to resume in 2011, but the economy will not reach full employment until 2015. (non-farm payroll employment, plus self-employed)

Source: Authors' analysis of March CPS data, various years; Center on Education and the Workforce forecast of educational demand through 2018.



What do we find?

Increasing Post-secondary Education Demand

63% of all employment will require post-secondary education

More than 30 million of the estimated 47 million new and replacement jobs will require post-secondary education

Changing occupational composition benefits workers with post-secondary education

The fastest growing and largest growing occupations have some of the highest levels of post-secondary requirements

We will fall short at least 3 million post-secondary degrees

We will need an additional 4.7 million postsecondary vocational certificates

Estimated 1-1.5 million shy on certificates



The Economy Evolves – Recession might accelerate ongoing trend

The number of jobs by educational demand in 2018 (thousands)

Source: Center on Education and the Workforce forecast of educational demand through 2018

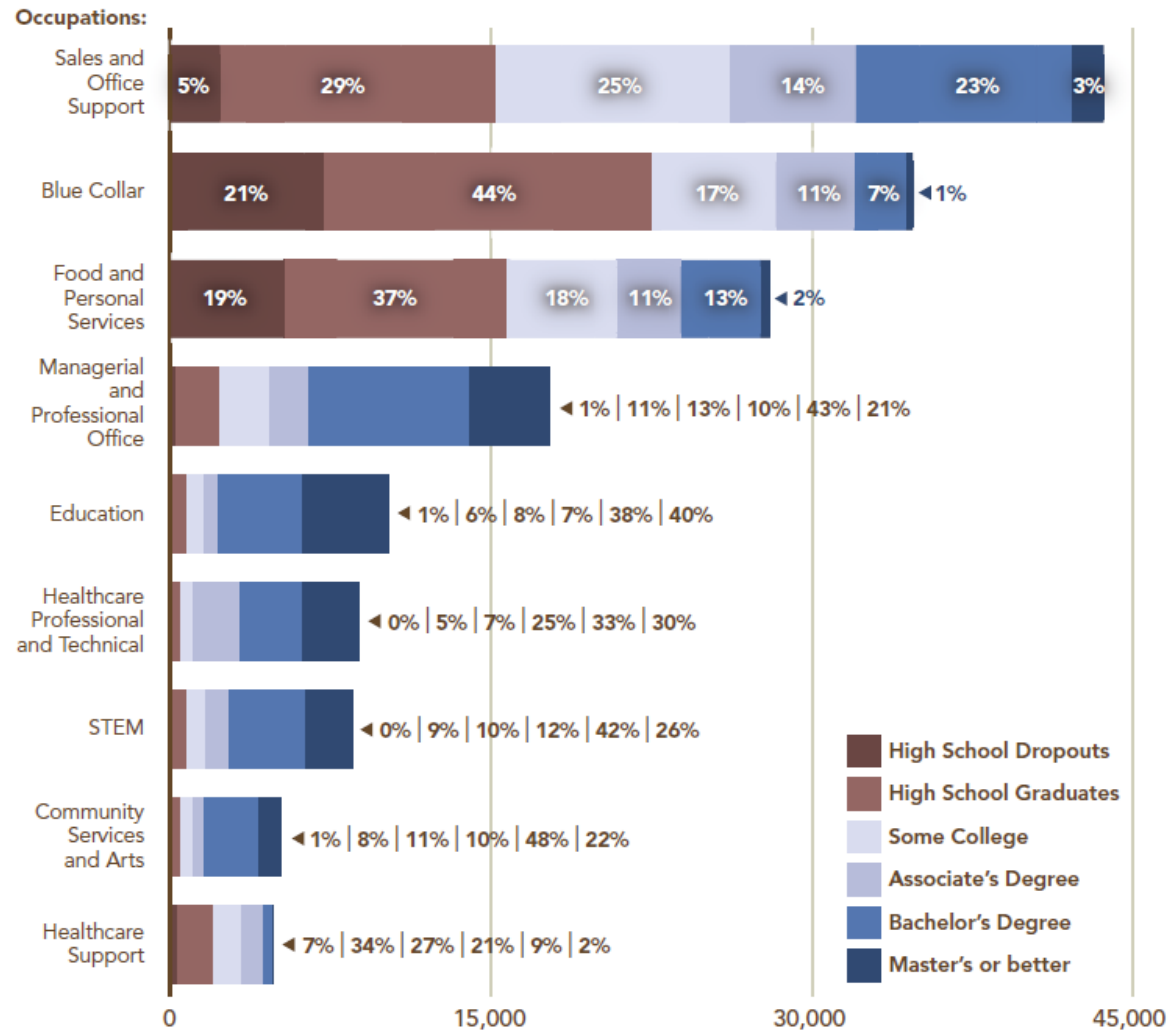
OCCUPATIONS:	Total Employment		High School Dropouts		High School Graduates		Some College		Associate's Degree		Bachelor's Degree		Master's Degree or Better	
	#	Rank	#	Rank	#	Rank	#	Rank	#	Rank	#	Rank	#	Rank
Sales and Office Support	43,543	1	2,326	3	12,838	2	10,909	1	5,902	1	10,070	1	1,499	5
Blue Collar	34,641	2	7,123	1	15,323	1	5,805	2	3,665	2	2,388	8	338	8
Food and Personal Services	27,996	3	5,312	2	10,376	3	5,176	3	2,954	3	3,706	4	472	7
Managerial and Professional Office	17,684	4	254	5	2,033	4	2,340	4	1,767	5	7,519	2	3,772	2
Education	10,234	5	60	6	654	7	826	7	675	8	3,906	3	4,113	1
Healthcare Professional and Technical	8,813	6	0	9	450	8	611	8	2,161	4	2,924	6	2,667	3
STEM	8,553	7	28	8	729	6	866	6	1,054	6	3,615	5	2,262	4
Community and Arts	5,209	8	41	7	411	9	584	9	526	9	2,521	7	1,126	6
Healthcare Support	4,826	9	316	4	1,650	5	1,316	5	1,015	7	433	9	95	9



Post Secondary Requirements Prevail

Occupational employment in 2018 and educational demand within occupations

Source: Center on Education and the Workforce forecast of educational demand through 2018

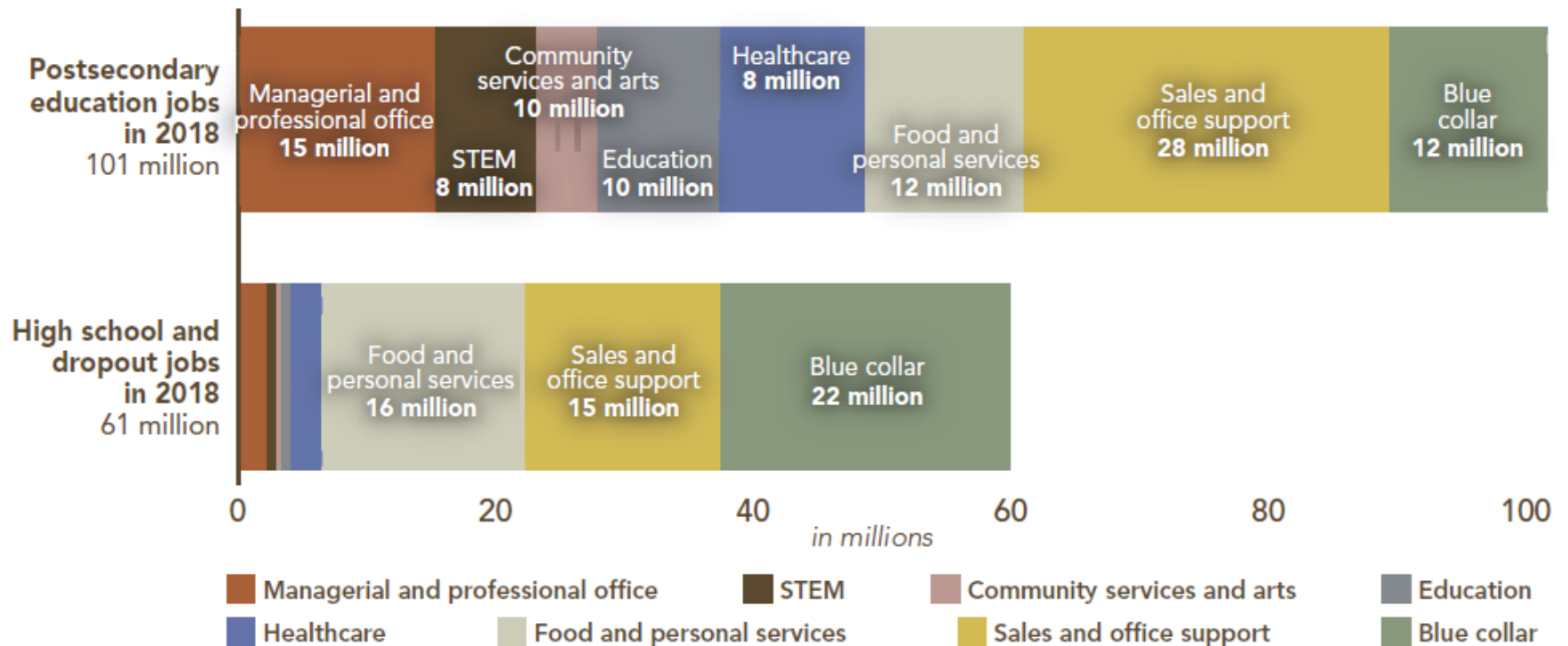


Workers with High School and Less will continue the trend to being concentrated in declining occupations or those paying low wages; or both –(see also Mckinsey)

FIGURE 1

Postsecondary education provides access to occupations across the economy, while workers with a high school diploma or less are largely limited to three occupational clusters that are either declining or pay low wages.

Source: Authors' analysis of March CPS data, various years; Center on Education and the Workforce forecast of educational demand to 2018



Why do we care?

Achieving the American Dream of a middle class life style is become determined by educational attainment

Occupational shifts in the economy and increasing demand for skills and thus creates opportunity for workers

Access to post-secondary education is increasingly the key to economic opportunity, family sustaining earnings, and middle class incomes

