



# DISRUPTION AND THE ECONOMY

## THE ROGUE VALLEY NOW AND TOMORROW

Jon Roberts  
TIP Strategies  
January 26, 2017

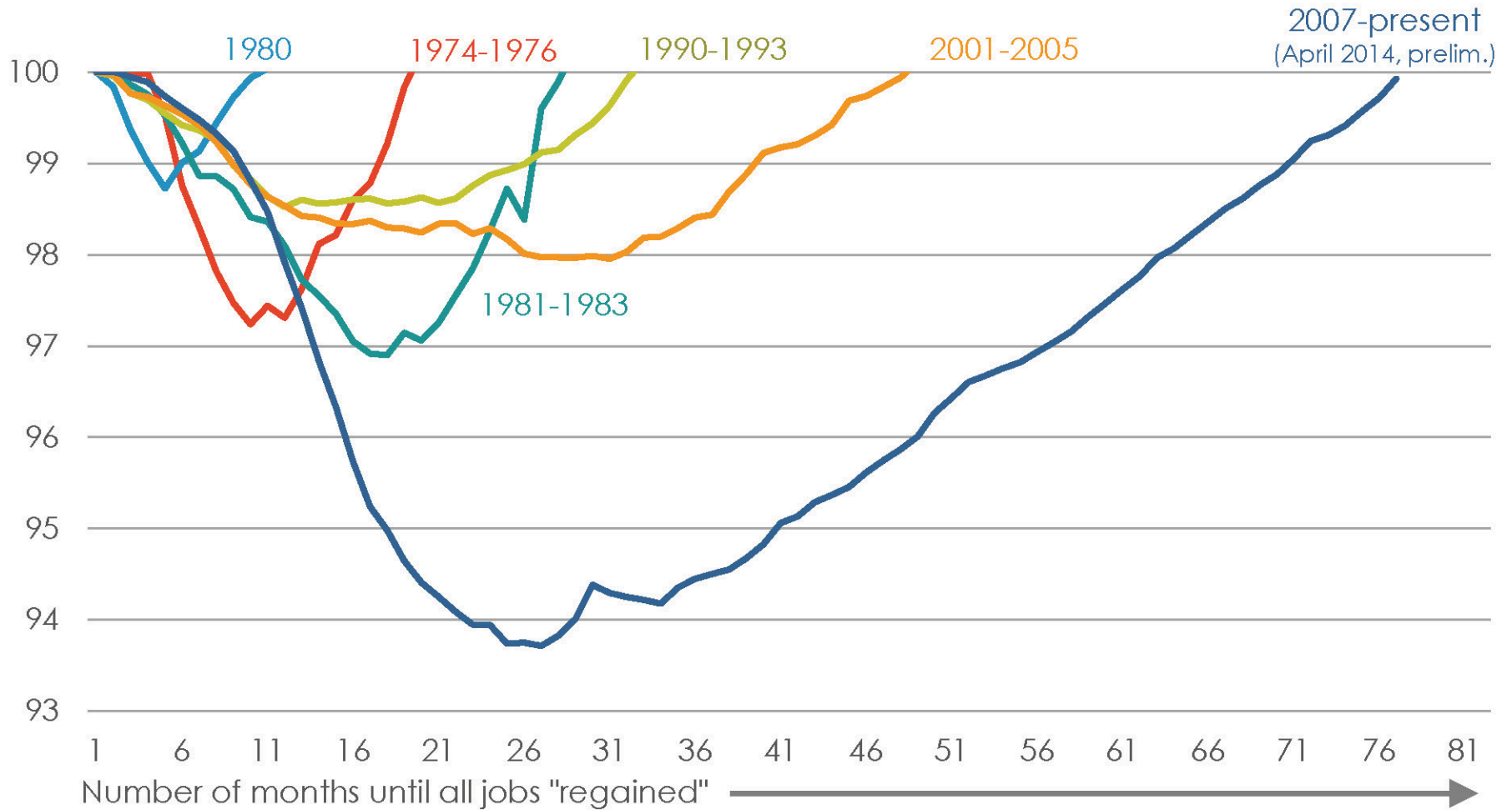


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Our economy now

# RECESSIONS COMPARED

## Recessionary employment trends

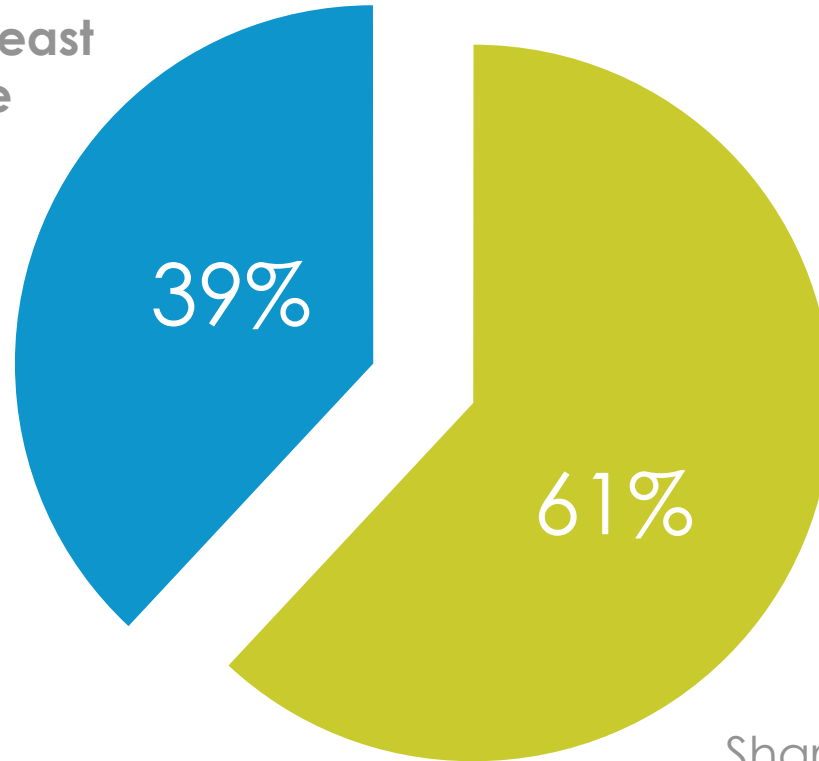


Source: U.S. Bureau of Labor Statistics, Current Employment Statistics (seasonally adjusted)

# EDUCATIONAL ATTAINMENT OF LABOR FORCE

Share of the population age 25 years and older

Share of the labor force that has earned **at least a bachelor's degree**



Share of the labor force over 25 that **does not have a 4-year degree**

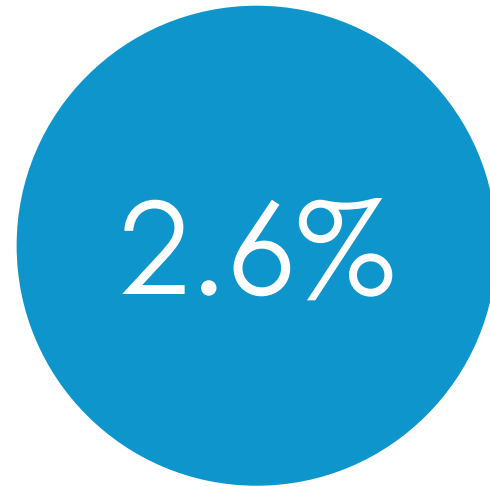


# SKILLS GAP: UNEMPLOYMENT RATE

Share of the population age 25 years and older

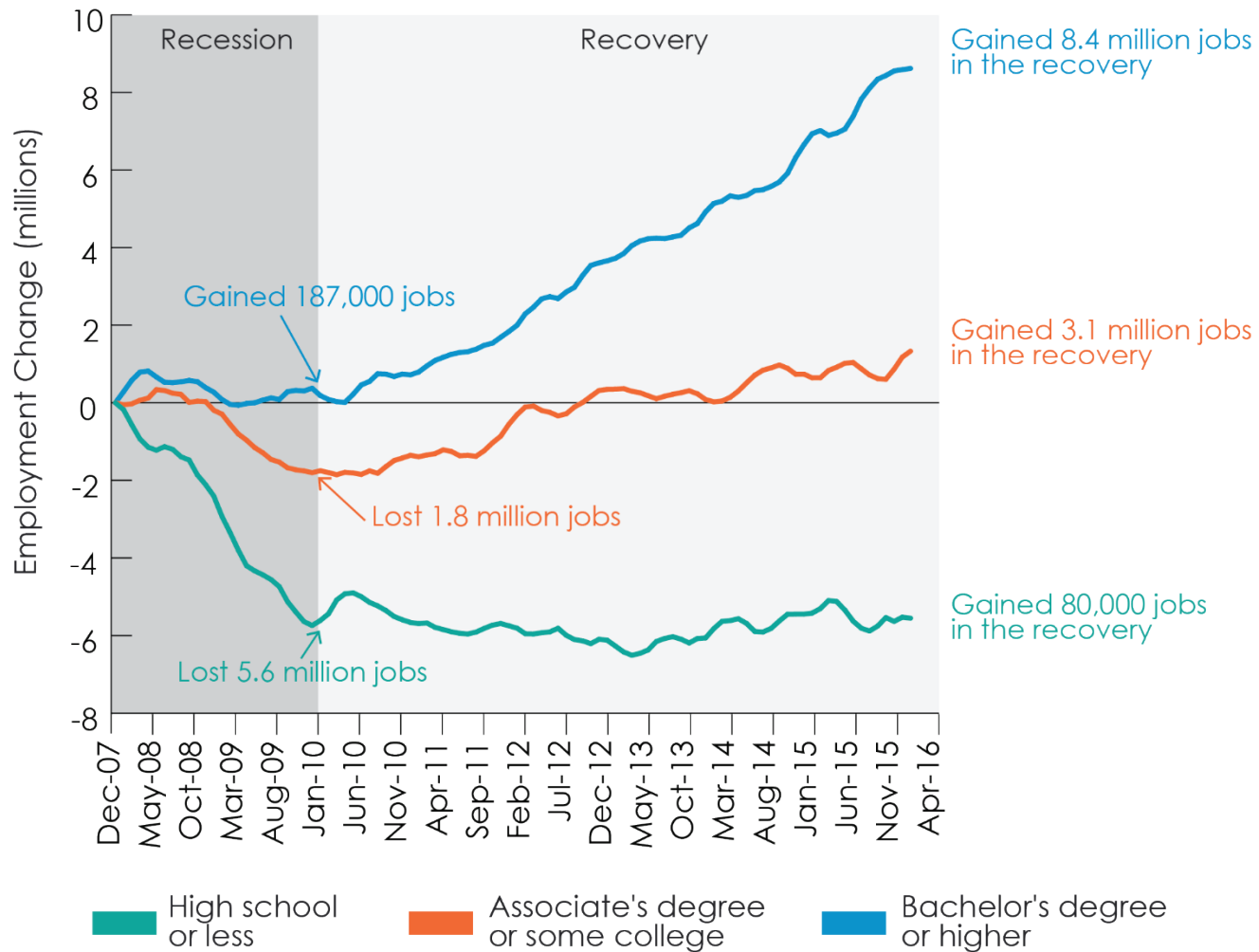


Unemployment rate for the share of the labor force over 25 **without a four-year degree**



Unemployment rate for the share of the labor force over 25 that has **earned at least a bachelor's degree**

# RECOVERY BY EDUCATIONAL ATTAINMENT



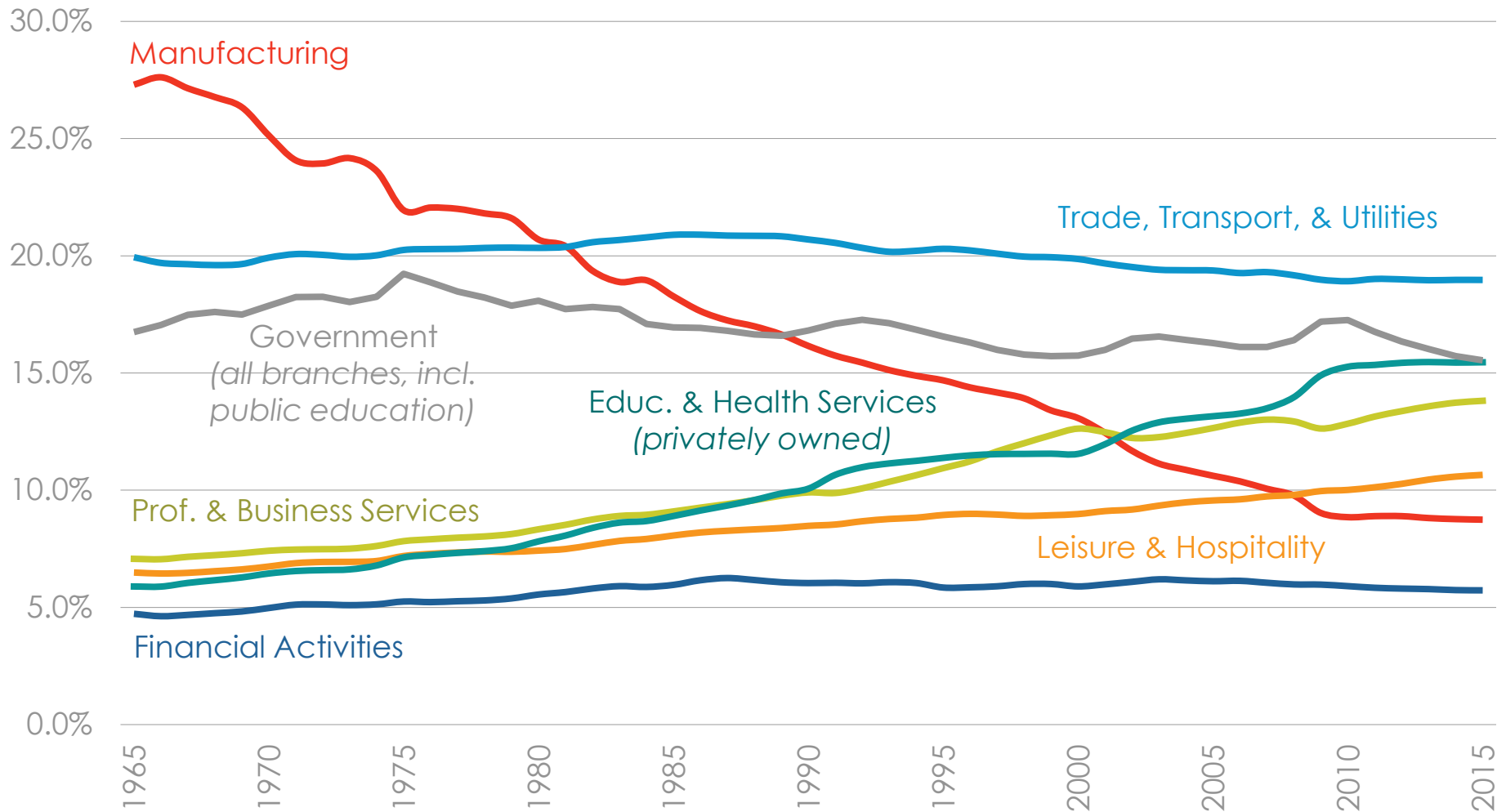
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey* (CPS) data, 2007-2016. From *America's Divided Recovery: College Haves and Have-Not's*, 2016.

Note: Employment includes all workers age 18 and older. The monthly employment numbers are seasonally adjusted using the U.S. Census Bureau X-12 procedure and smoothed using a four-month moving average.

Manufacturing dropped  
from 26% to 9% of all jobs in  
30 years.

# INDUSTRY SHARE OF EMPLOYMENT

Share of total US nonfarm employment—annual average for selected sectors, 1965 to 2015





The View from Jackson  
County...

# DISTRIBUTION OF JOBS BY MAJOR SECTOR

## Jackson County, Oregon (15 largest sectors)

NAICS Code & Description			Jobs	% of Total	LQ (US=1.00)	Average Earnings
1	62	Health Care and Social Assistance	16,016	17%	1.31	\$56,401
2	44	Retail Trade	14,001	14%	1.38	\$34,447
3	90	Government	12,333	13%	0.83	\$63,235
4	72	Accommodation and Food Services	9,366	10%	1.14	\$19,601
5	31	Manufacturing	8,113	8%	1.07	\$54,529
6	81	Other Services (except Public Administration)	5,373	6%	1.16	\$24,264
7	23	Construction	5,052	5%	0.97	\$44,120
8	56	Administrative and Support Services	4,465	5%	0.74	\$28,169
9	54	Professional, Scientific, and Technical Services	3,538	4%	0.57	\$48,863
10	48	Transportation and Warehousing	3,259	3%	1.01	\$53,293
11	11	Crop and Animal Production	2,552	3%	2.17	\$38,011
12	52	Finance and Insurance	2,541	3%	0.68	\$73,932
13	42	Wholesale Trade	2,481	3%	0.67	\$55,614
14	71	Arts, Entertainment, and Recreation	2,009	2%	1.23	\$25,252
15	53	Real Estate and Rental and Leasing	1,504	2%	0.95	\$32,259

EMSI 2016.4 – QCEW Employees, Non-QCEW Employees, and Self-Employed. Average earnings represent total industry earnings for a region (including wages, salaries, benefits and proprietor's income) divided by number of jobs. Figures are not equivalent to the wages paid to workers. Industries with earnings above the Jackson County average for all industries (\$45,490) are highlighted.

# LOCATION QUOTIENTS (4-DIGIT NAICS)

## Jackson County, OR (15 largest industries)

NAICS Code & Description			Location Quotient (US=1.00)	Jobs	Average Earnings
1	1153	Support Activities for Forestry	86.98	994	\$43,866
2	3212	Veneer, Plywood, & Engineered Wood Products	33.40	1,537	\$60,392
3	1132	Forest Nurseries & Gathering of Forest Products	26.98	42	\$21,087
4	1131	Timber Tract Operations	13.73	31	\$54,548
5	3114	Fruit & Vegetable Preserving & Specialty Foods	11.45	1,216	\$42,968
6	4541	Electronic Shopping & Mail-Order Houses	9.05	2,263	\$38,068
7	1133	Logging	8.52	376	\$48,182
8	3259	Other Chemical Product & Preparation Mfg.	6.27	318	\$72,852
9	3159	Apparel Accessories & Other Apparel Mfg.	5.80	42	\$48,725
10	7111	Performing Arts Companies	4.91	448	\$42,543
11	3219	Other Wood Product Mfg.	3.61	511	\$41,505
12	6233	Retirement Communities/Assisted Living Facilities	3.29	1,791	\$33,299
13	4885	Freight Transportation Arrangement	3.22	444	\$72,505
14	3369	Other Transportation Equipment Mfg.	3.14	63	\$72,505
15	4812	Nonscheduled Air Transportation	2.75	75	\$85,955

EMSI 2016.4 – QCEW Employees, Non-QCEW Employees, and Self-Employed. Average earnings represent total industry earnings for a region (including wages, salaries, benefits and proprietor's income) divided by number of jobs. Figures are not equivalent to the wages paid to workers. Industries with earnings above the Jackson County average for all industries (\$45,490) are highlighted.

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A disrupted economy



# Convergence of three disruptive trends :


- Asset-light business model
- Gig economy
- Non-ownership model



By 2020, the US economy is expected to create 55 million job openings: 24 million of these will be entirely new positions.

-Georgetown Center on Education and the Workforce



A photograph of a large, multi-story industrial building in a state of severe disrepair. The building's exterior is a mix of weathered grey metal siding, brickwork, and wooden siding, many of which are missing or peeling away. Windows are boarded up with plywood, and some are completely missing. A street in the foreground is blocked by wooden barriers with yellow and black striped safety posts. Two white signs with black text reading "ROAD CLOSED" are placed on either side of the barrier. The sky is overcast and grey.

# SUPPLY CHAIN

Entire business units cease to exist  
and secondary providers disappear

ROAD  
CLOSED

ROAD  
CLOSED





# THE LABOR POOL

Massive disruption in the number of workers  
and the skill sets they require



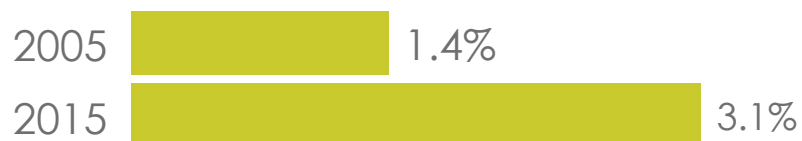
# THE GROWTH OF ALTERNATIVE WORK IN THE US

## 2005 to 2015

### INDEPENDENT CONTRACTORS



### WORKERS PROVIDED BY CONTRACT FIRMS



### ON-CALL WORKERS



### TEMP. HELP AGENCY WORKERS



# SOCIAL NORMS

Culture shock around changing behaviors.

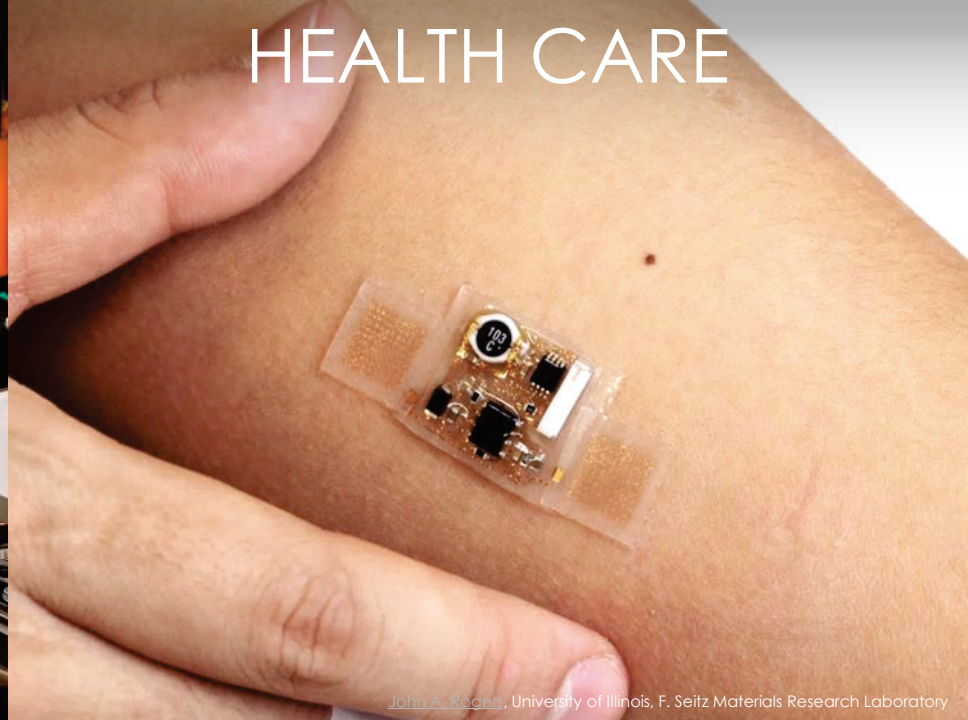




# MANUFACTURING



# HEALTH CARE



John A. Rogers, University of Illinois, F. Seitz Materials Research Laboratory

Google



# ENTERTAINMENT



# TRANSPORTATION

3

Case study



# WHAT WILL AUTONOMOUS VEHICLES MEAN TO THE ECONOMY?





Uber

# 'We're just rentals': Uber drivers ask where they fit in a self-driving future

With Uber set to deploy autonomous cars in Pittsburgh, some drivers for the company wonder if they've been expendable all along

Julia Carrie Wong in San Francisco

@juliacarrier

Friday 19 August 2016 06.00 EDT



Shares Comments

2,720 446

Save for later



A self-driving Ford Fusion hybrid car is test driven in Pittsburgh. Uber said that passengers in Pittsburgh will be able to summon rides in self-driving cars in the next several weeks. Photograph: Jared Wickerham/AP





**OTTO**

**OTTO**  
OTTOMOTTO LLC

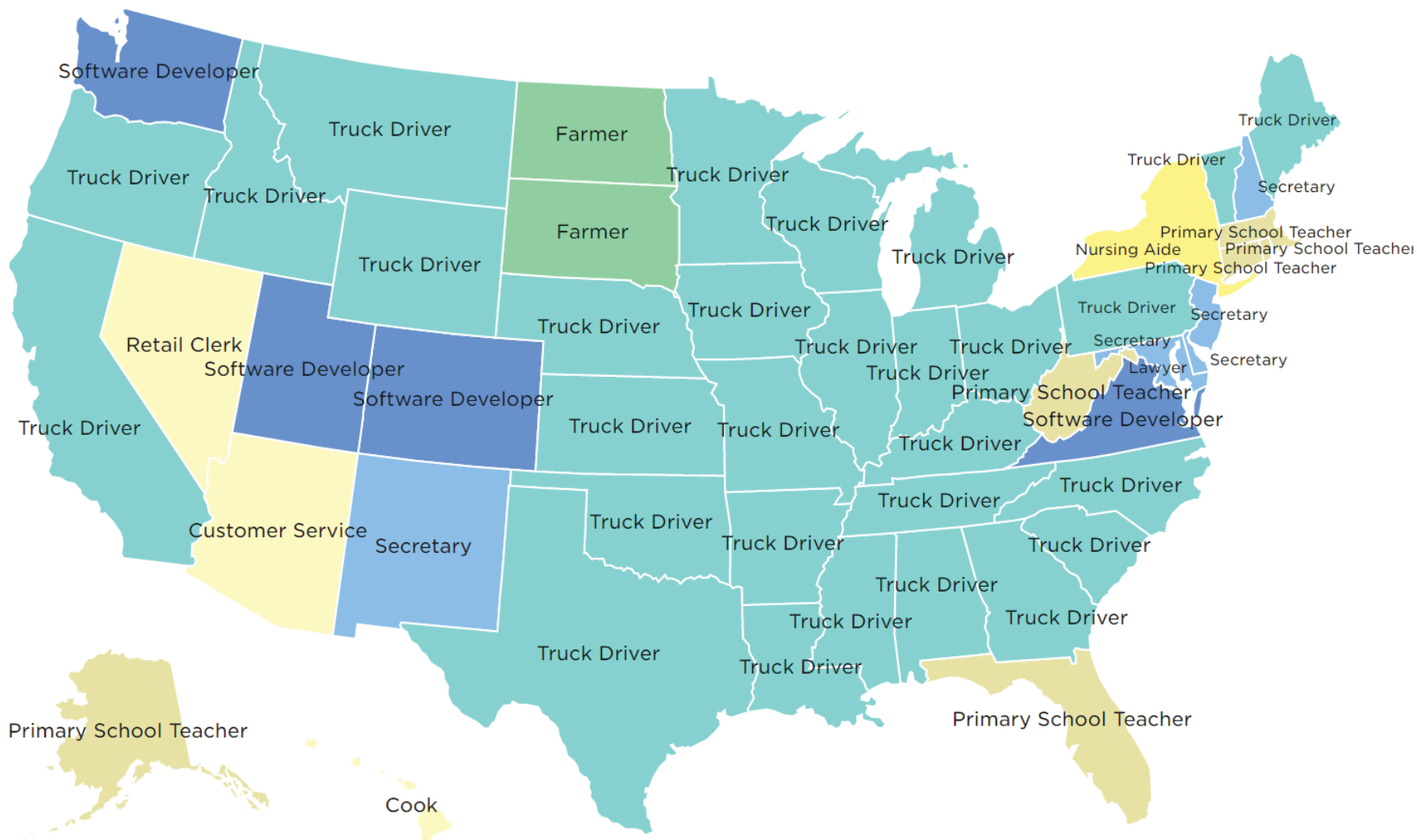
US DOT 2860272  
CA 484480

**OTTO**

PRIVATE MOTOR CARRIER  
NOT FOR HIRE

9F50695

# THE MOST COMMON\* JOB IN EACH STATE 2014



Source: IPUMS-CPS/ University Of Minnesota via [NPR.org](http://NPR.org) Credit: Quoctrung Bui/NPR

\*Note: Data from the Census Bureau includes two catch-all categories: "managers not elsewhere classified" and "salespersons not elsewhere classified." Because those categories are broad and vague to the point of meaninglessness, they were excluded from the map.

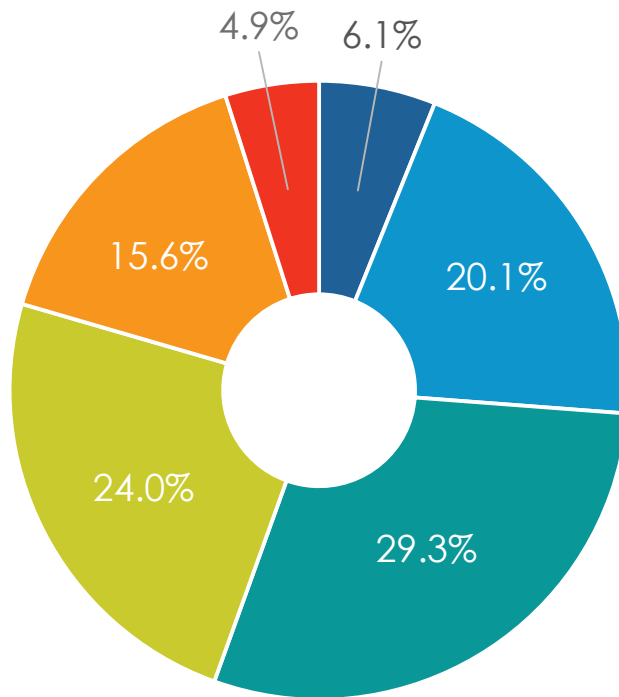
# TRUCKING JOBS

## AGE OF TRUCKERS

A “trucking generation” of 45-to-54 year olds is the largest of any other age group in the industry.

### AGE RANGE

- 65+
- 55-64
- 45-54
- 35-44
- 25-34
- 20-24



**48,000**

current driver openings

**890,000**

total driver openings forecast through 2025

-American Trucking Association

**\$19.36**

median hourly wage for heavy and tractor-trailer truck drivers

**\$21.37**

national average hourly wage for production and nonsupervisory employees in private, nonfarm jobs.

-Bureau of Labor Statistics

# 2016 EMPLOYMENT (# JOBS) IN US

Selected industries/occupations affected by autonomous driving



**3.3M**

TRUCK & DELIVERY  
DRIVERS



**943.2K**

TAXI DRIVERS,  
CHAUFFEURS, & BUS  
DRIVERS



**206.1K**

AUTOMOTIVE  
EQUIPMENT RENTAL  
& LEASING



**1.8M**

CAR DEALERSHIP &  
AUTOMOTIVE PARTS  
STORES



**476.3K**

DIRECT PROPERTY &  
CASUALTY INSURANCE  
CARRIERS

IT DOESN'T END THERE...

*The ripple effects of autonomous vehicles are profound.*





PRIVATE OWNERSHIP





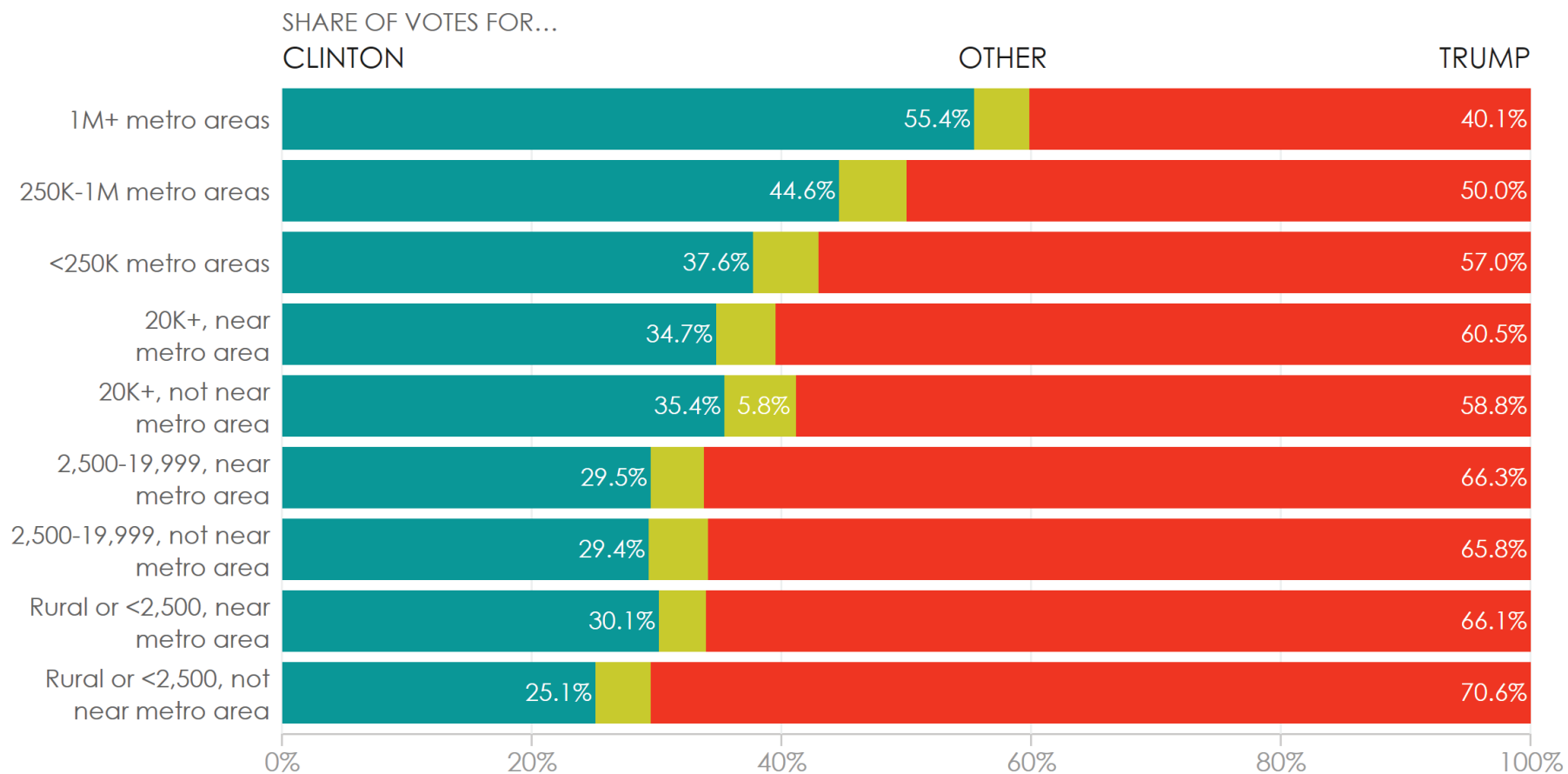
# MASS TRANSIT

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Lessons from the election and what to expect from the new administration



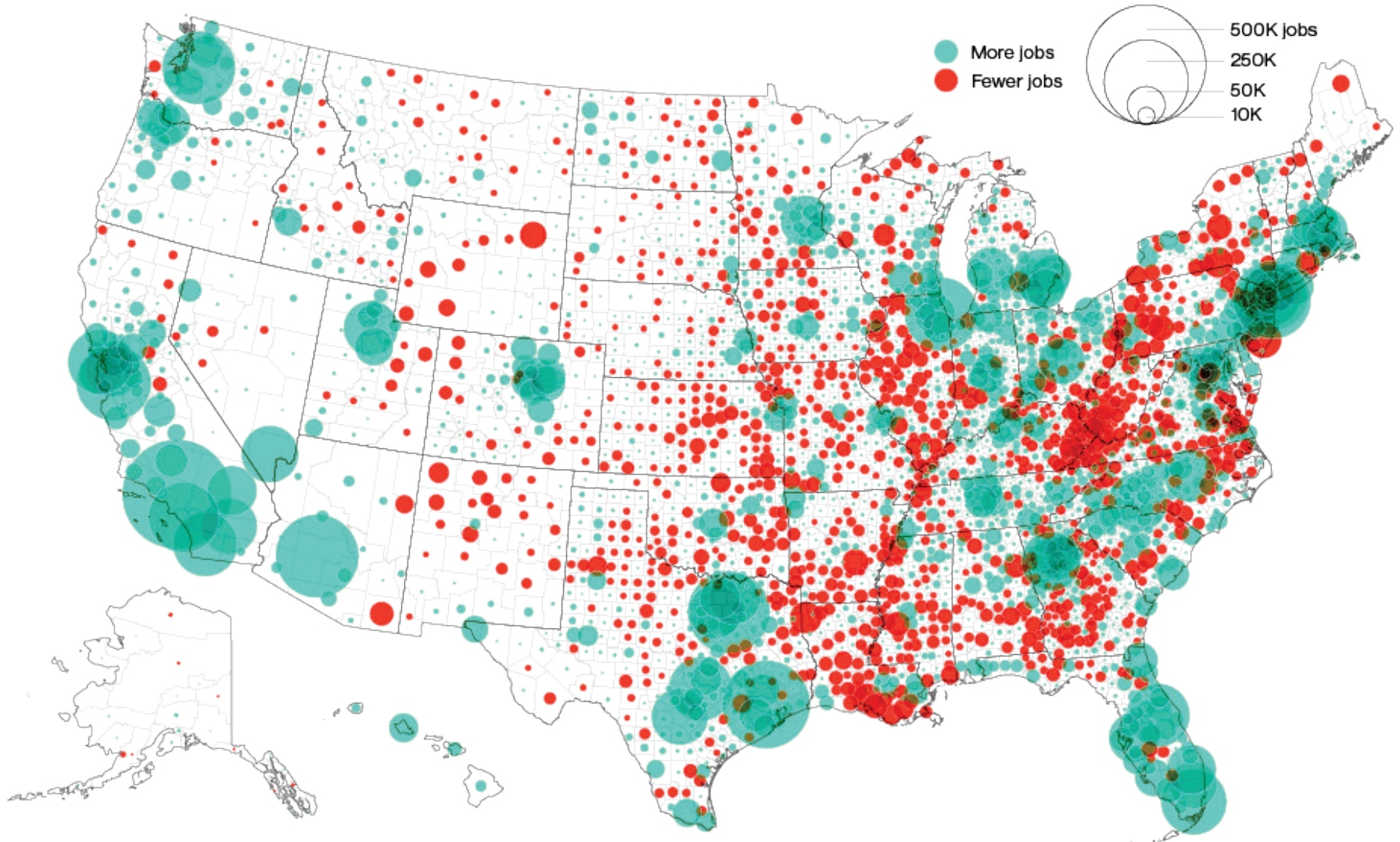
# HOW THE 2016 VOTE WENT, BY POPULATION AREA



Source: NPR analysis of AP data, using [Rural-Urban Continuum Codes](#) from the U.S. Department of Agriculture.  
Credit: Tyler Fisher and Alyson Hurt/NPR

# WHERE JOBS WERE GAINED AND LOST UNDER OBAMA

## Change in total employment from June 2009 to June 2016



Source: Ingold, David. "A Tale of Two Economies." *Bloomberg*, January 19, 2017. Data from U.S. Bureau of Labor Statistics.

# THE SIGNALS



Oil & Gas



Environmental  
Regulation



Increase in  
Privatization



Corporate  
Tax Rates



Health Care



Immigration



Organizational  
Restructuring



Federal  
Stimulus

# CONSTRAINTS



Technology



Demographics



Federal Deficit



Changing  
Consumer  
Preferences



Political Forces



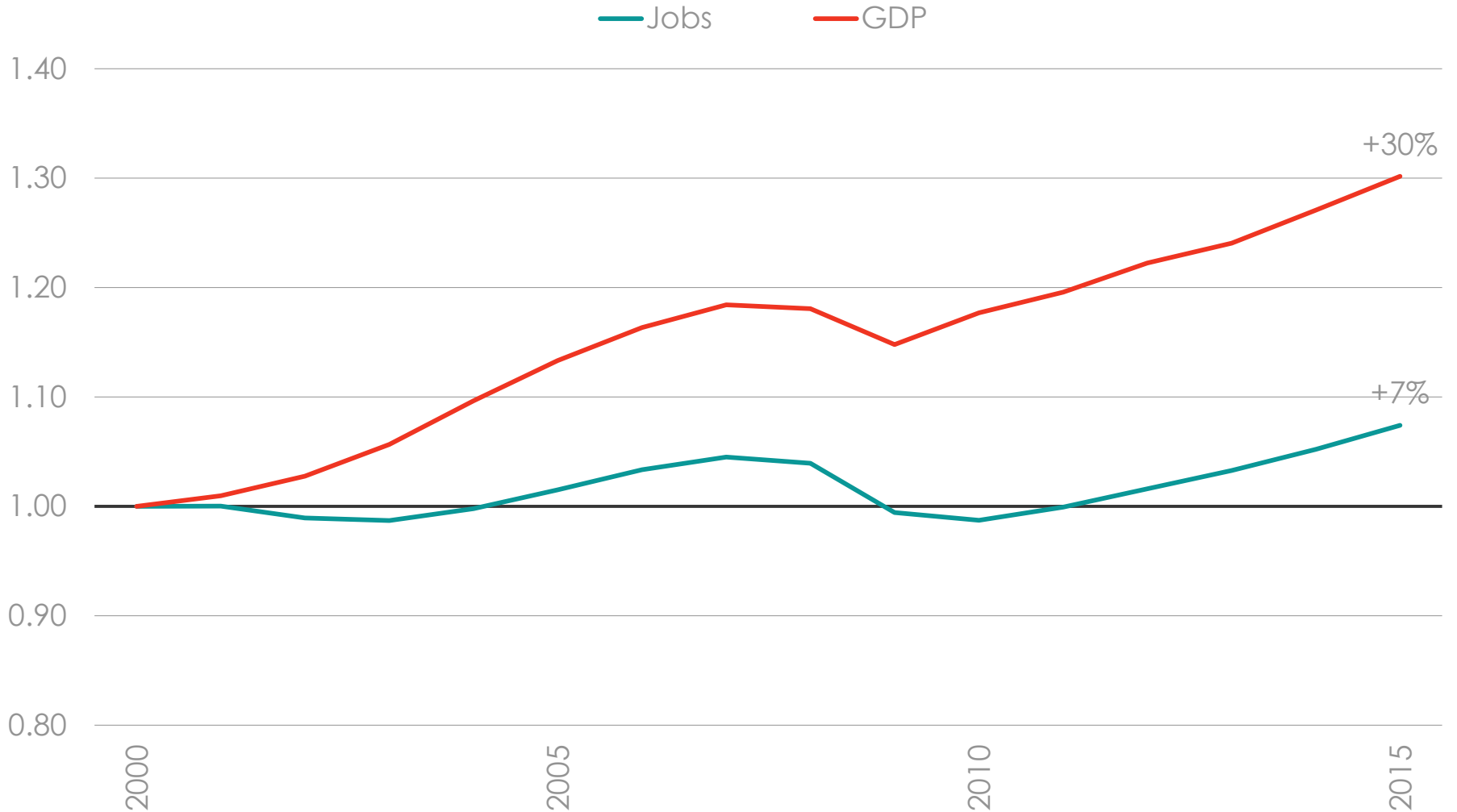
Existing  
International  
Agreements

5

What does it mean for ED?

# GDP/JOB GAP INDEX

Average annual total nonfarm employment compared with average annual GDP, Indexed to 2000



Source: Accessed via Moody's: U.S. Bureau of Labor Statistics (BLS): Current Employment Statistics (CE) [Series ID = CES0000000001] and U.S. Bureau of Economic Analysis (BEA): National Income and Product Accounts (NIPA) [Table 1.1.6, 1.2.6, 1.3.6, 1.4.6, 1.5.6, 1.7.6, 1.8.6, 1.17.6] Notes: Jobs are seasonally adjusted monthly figures averaged by Moody's. GDP is quarterly figures averaged by Moody's and presented in billions of chained 2009 US

Innovation will destroy  
millions of jobs...

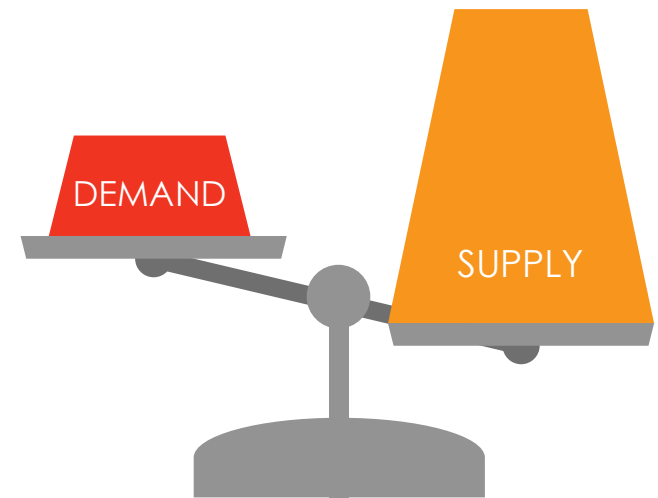
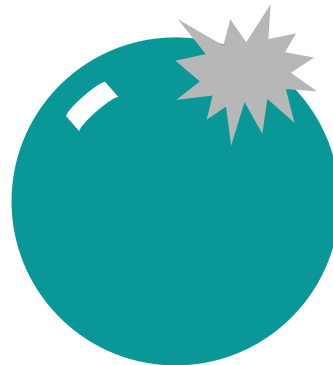
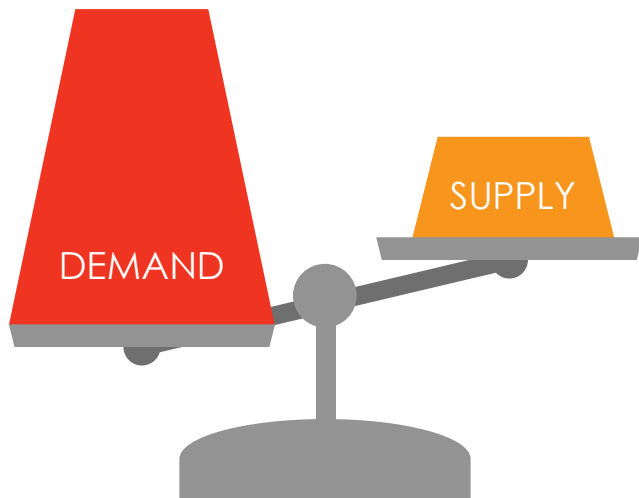
what will replace them?

What are the industries and the  
jobs of the future?



# UNDERSTANDING THE BUBBLE

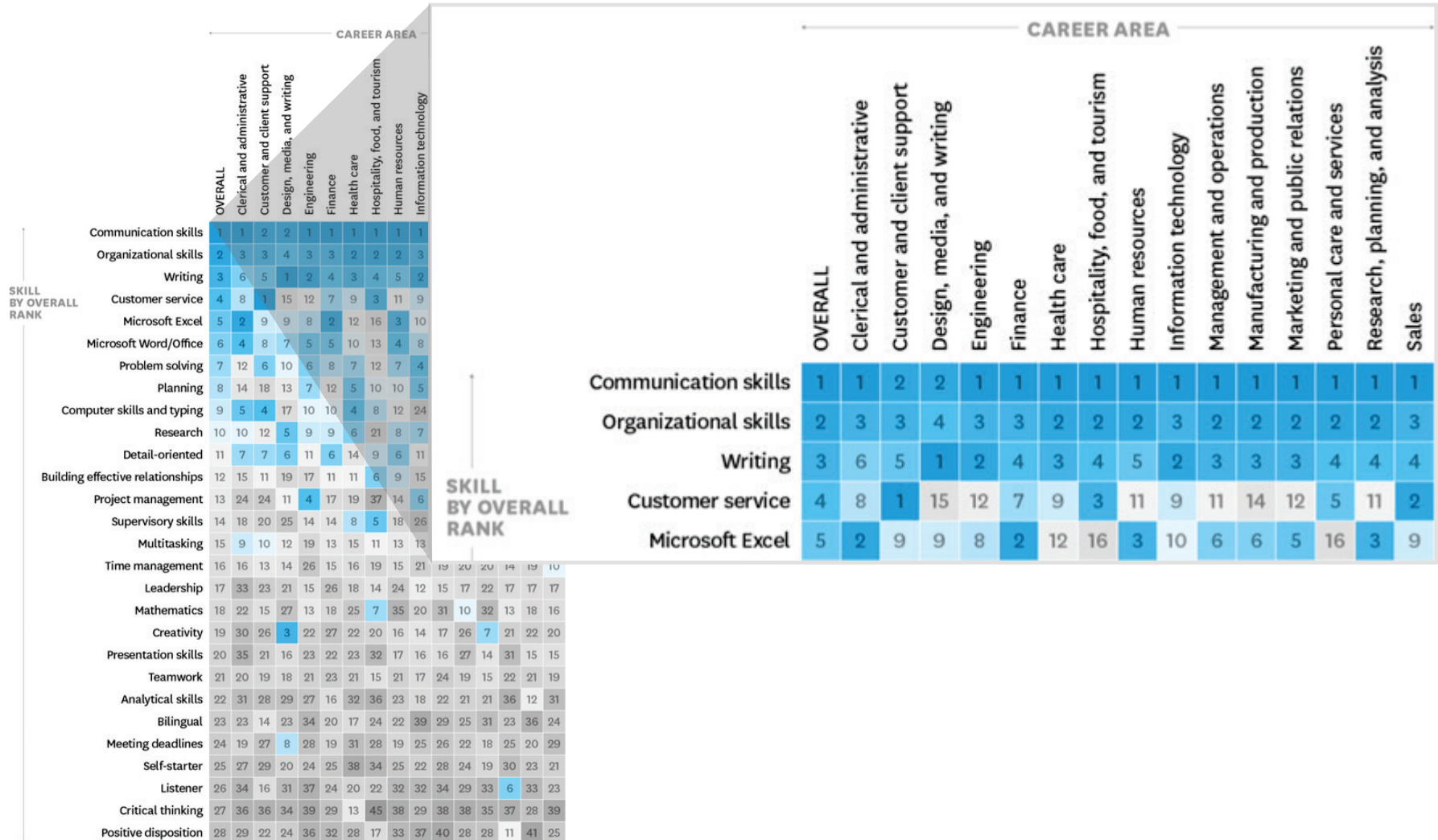
Why targeted industry and workforce initiatives fail



How should the economic  
development and  
workforce communities  
respond?

# THE MOST IN-DEMAND SKILLS IN 15 BUSINESS FUNCTIONS

Based on nearly 25 million job postings collected between Sept 2014 and Aug 2015



Source: "The Human Factor," by Burning Glass Technologies, November 2015

# WHAT DO WE DO NEXT?



If productivity doesn't bring job gains, what are we incentivizing?

***New incentive policy.***



I can't find workers!

***Fresh approach to the labor market.***



My metrics aren't telling me what I need to know.

***New benchmarks.***



My marketing isn't reaching the audience I want.

***Rethink channels.***





thank you.



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