Jobs, Entrepreneurship and Firm-Level Analysis

Carol Caldwell
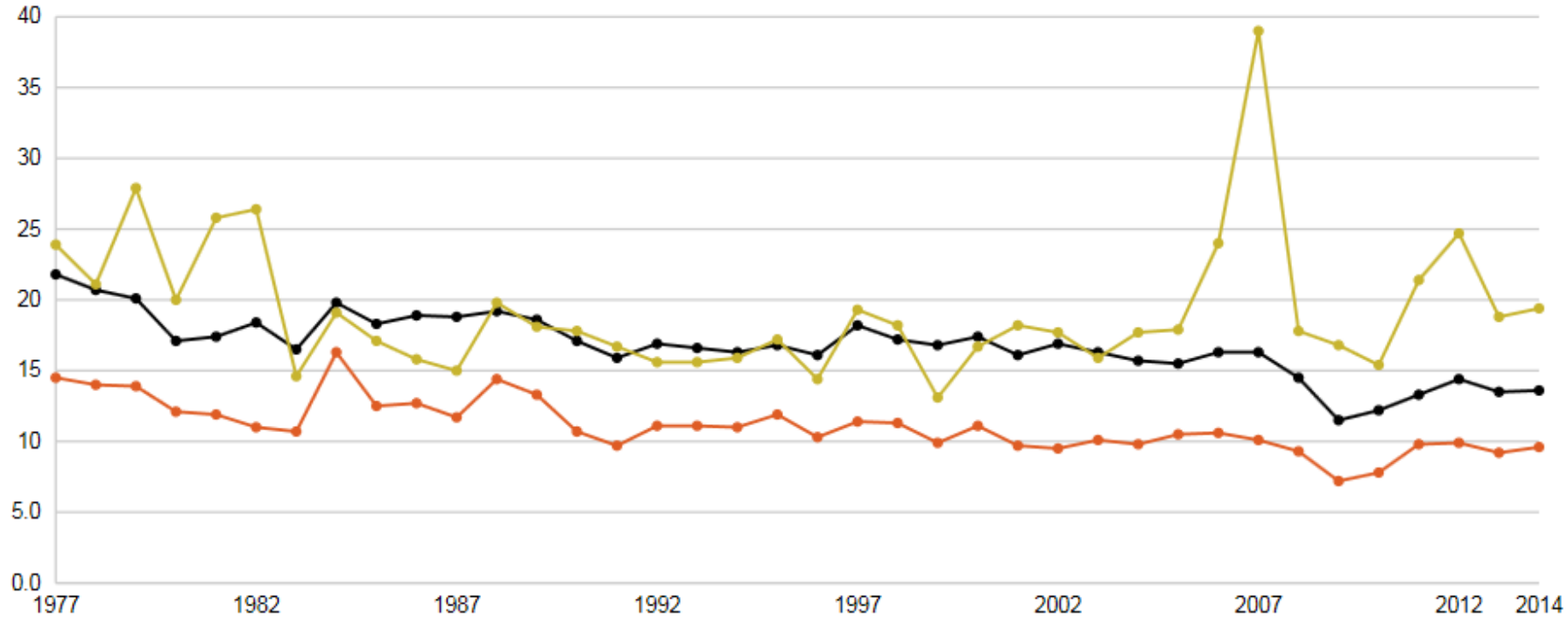
US Census Bureau

Ken Robertson
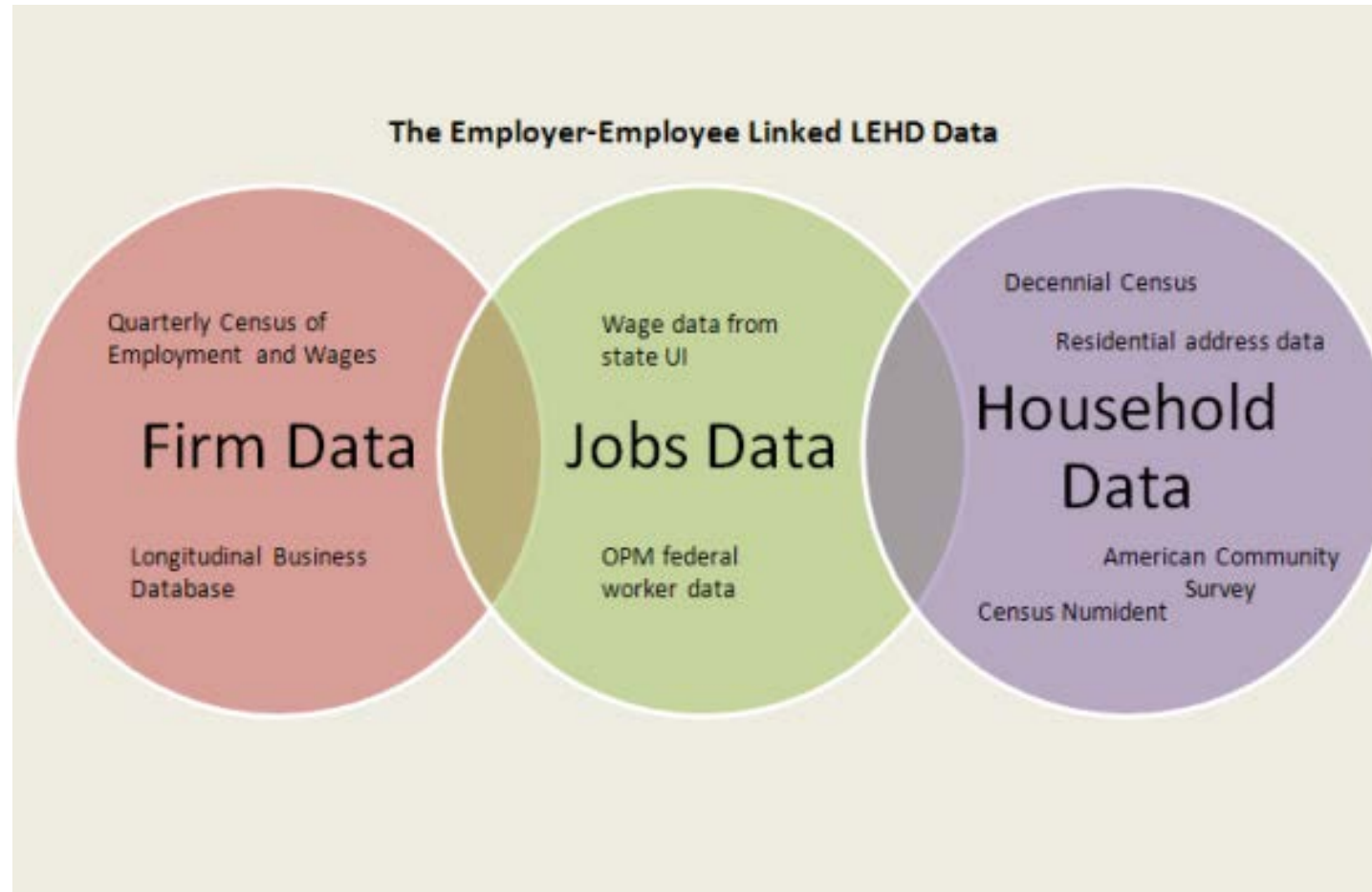
US Bureau of Labor Statistics

Business Dynamic Statistics
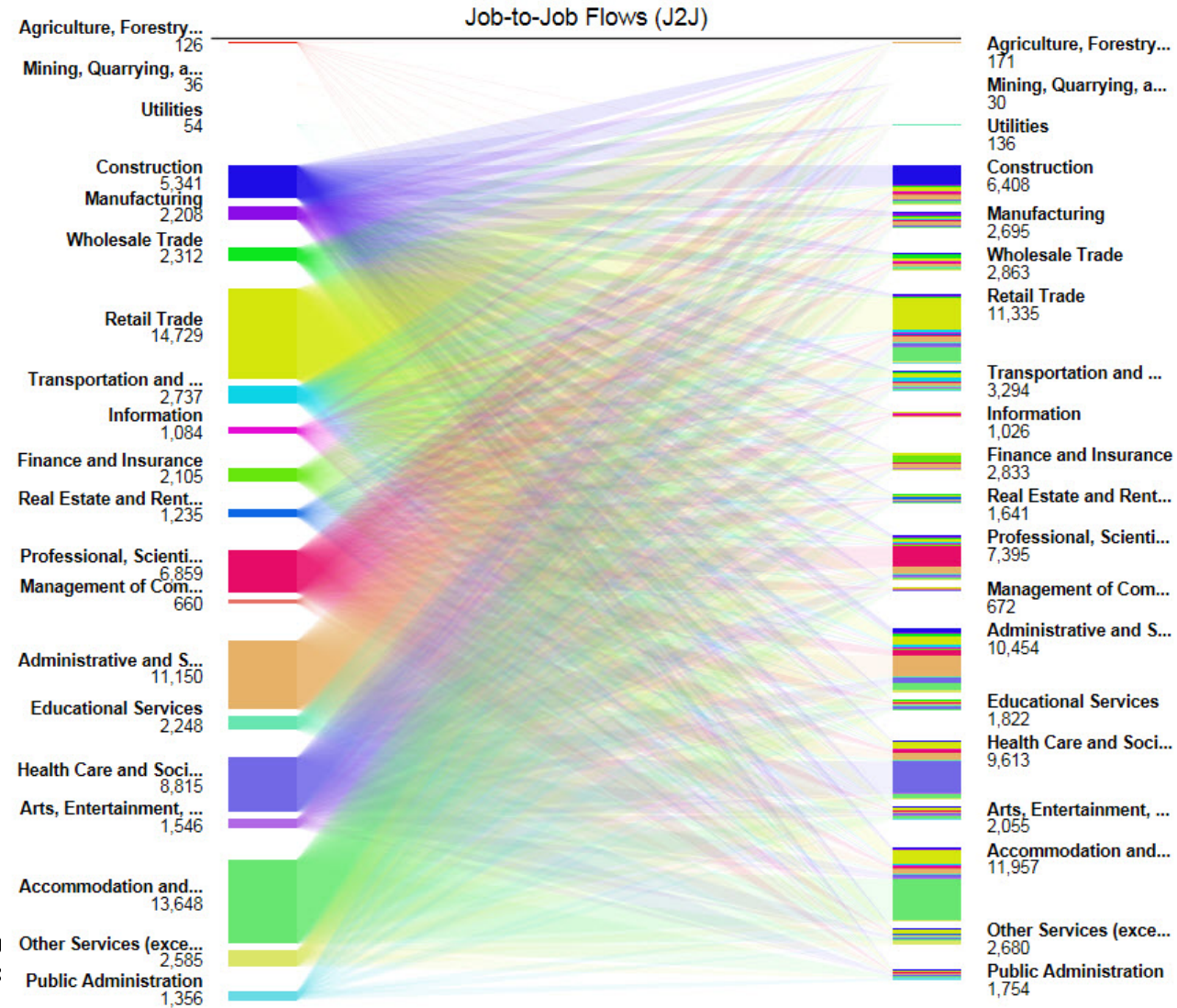
Job Creation Rate

Construction

Manufacturing

All sectors

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2

Longitudinal Employer Household Dynamics

The Employer-Employee Linked LEHD Data

Firm Data
- Quarterly Census of Employment and Wages
- Longitudinal Business Database

Jobs Data
- Wage data from state UI
- OPM federal worker data

Household Data
- Decennial Census
- Residential address data
- American Community Survey
- Census Numident

LEHD: Job to Job Flows

Maryland: 2015 Q2

Job-to-Job Flows (J2J)

Source: US Census Bureau, J2J

LEHD: Job to Job Flows

Maryland: 2015 Q2

Job-to-Job Flows (J2J)

Source sector	Count		Destination sector	Count
Agriculture, Forestry...	126		Agriculture, Forestry...	31
Mining, Quarrying, a...	36		Mining, Quarrying, a...	1
Utilities	54		Utilities	14
Construction	5,341		Construction	596
Manufacturing	2,208		Manufacturing	291
Wholesale Trade	2,312		Wholesale Trade	448
Retail Trade	14,729		Retail Trade	5,182
Transportation and ...	2,737		Transportation and ...	724
Information	1,084		Information	180
Finance and Insurance	2,105		Finance and Insurance	316
Real Estate and Rent...	1,235		Real Estate and Rent...	250
Professional, Scienti...	6,859		Professional, Scienti...	560
Management of Com...	660		Management of Com...	106
Administrative and S...	11,150		Administrative and S...	1,388
Educational Services	2,248		Educational Services	242
Health Care and Soci...	8,815		Health Care and Soci...	1,009
Arts, Entertainment, ...	1,546		Arts, Entertainment, ...	417
Accommodation and...	13,648		Accommodation and...	2,162
Other Services (exce...	2,585		Other Services (exce...	578
Public Administration	1,356		Public Administration	234

%

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Source: US Census Bureau, J2J

5

Quarterly Workforce Indicators

Number of New Hires, Ages 22 to 24, in Maryland, 2017 2Q

22-24

HirA [Counts]
- 96 - 1,204
- 1,205 - 2,312
- 2,313 - 3,420
- 3,421 - 4,528
- 4,529 - 5,636
- 5,637 - 6,744
- 6,745 - 7,853

Source: US Census Bureau, QWI
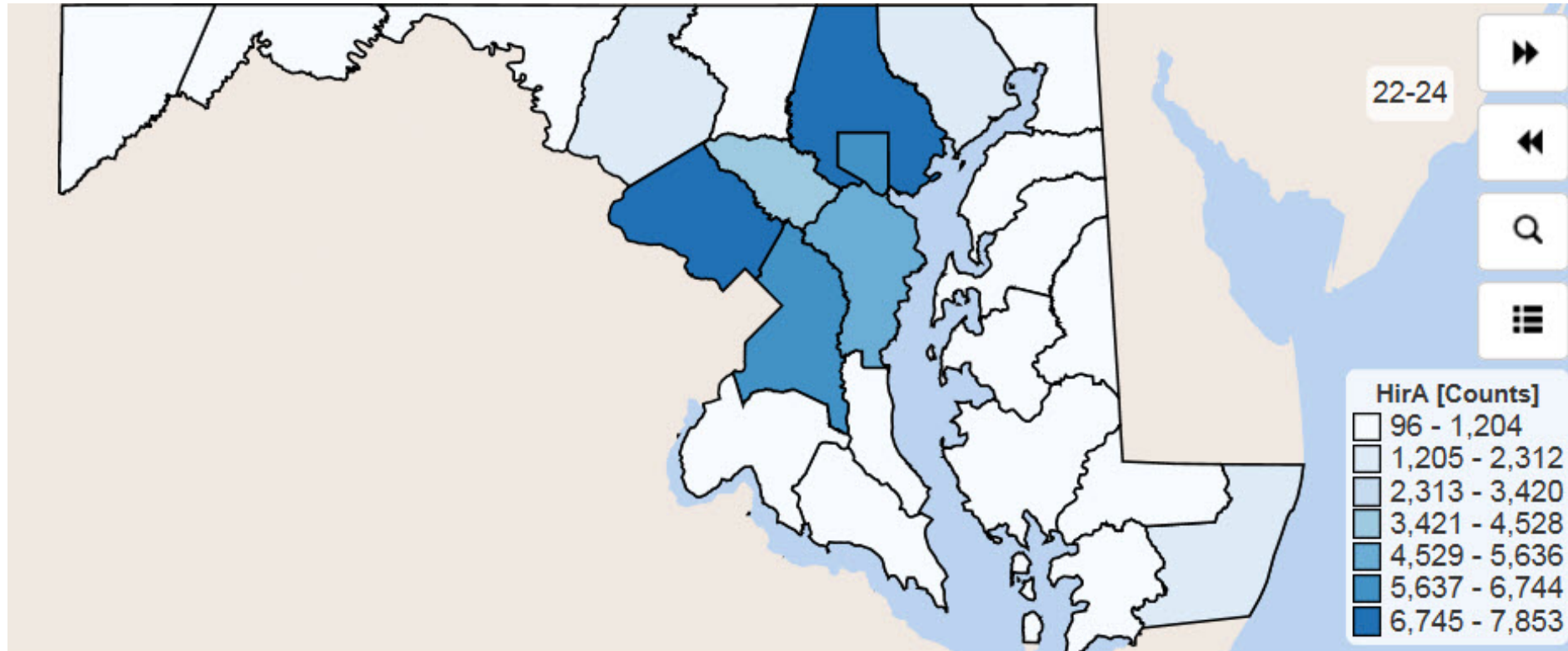
On the Map
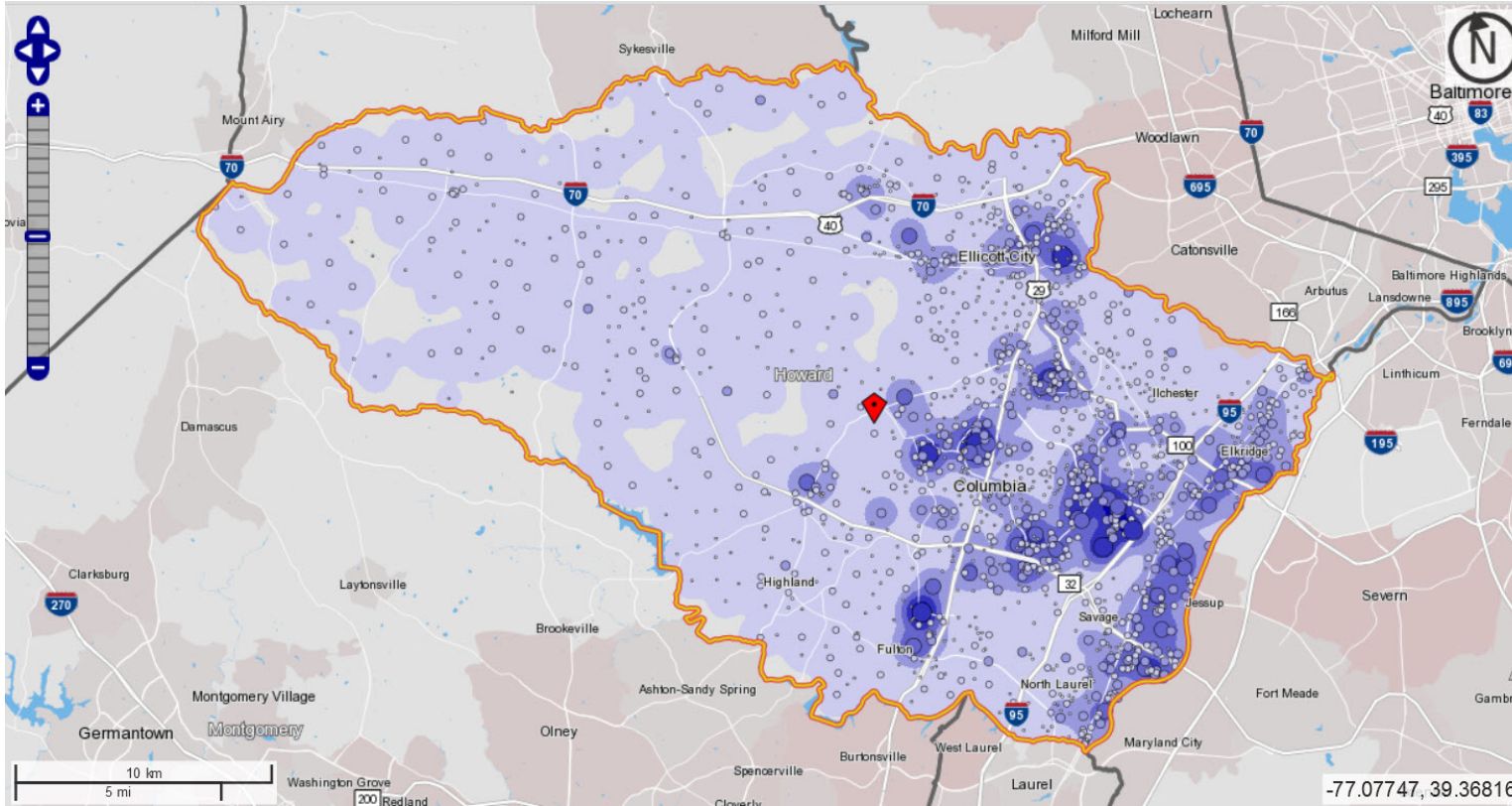
Work Area Profile Report

Total Primary Jobs

	2015	
	Count	Share
Total Primary Jobs	161,630	100.0%

Jobs by Worker Age

	2015	
	Count	Share
Age 29 or younger	34,555	21.4%
Age 30 to 54	91,094	56.4%
Age 55 or older	35,981	22.3%

Jobs by Earnings

	2015	
	Count	Share
$1,250 per month or less	25,037	15.5%
$1,251 to $3,333 per month	43,382	26.8%
More than $3,333 per month	93,211	57.7%

Jobs by Worker Educational Attainment

	2015	
	Count	Share
Less than high school	13,644	8.4%
High school or equivalent, no college	29,773	18.4%
Some college or Associate degree	37,260	23.1%
Bachelor's degree or advanced degree	46,398	28.7%
Educational attainment not available (workers aged 29 or younger)	34,555	21.4%

Jobs by Worker Sex

	2015	
	Count	Share
Male	87,039	53.9%
Female	74,591	46.1%

Jobs by NAICS Industry Sector

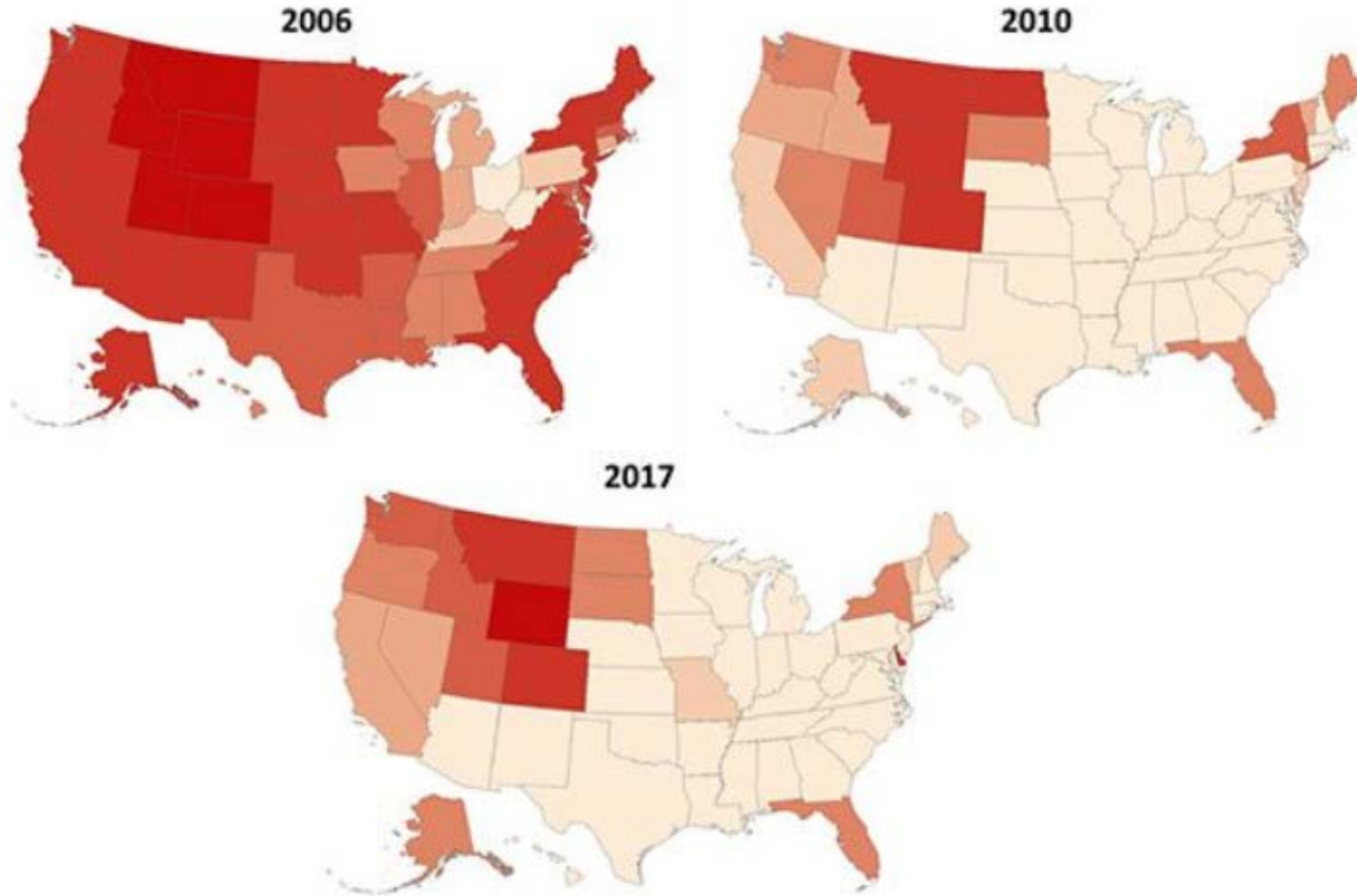|	2015	
	Count	Share
Agriculture, Forestry, Fishing and Hunting	291	0.2%
Mining, Quarrying, and Oil and Gas Extraction	53	0.0%
Utilities	370	0.2%
Construction	10,410	6.4%
Manufacturing	7,221	4.5%
Wholesale Trade	14,422	8.9%
Transportation and Warehousing	4,489	2.8%
Information	3,786	2.3%
Finance and Insurance	7,147	4.4%
Real Estate and Rental and Leasing	2,924	1.8%
Professional, Scientific, and Technical Services	31,787	19.7%
Management of Companies and Enterprises	3,337	2.1%
Administration & Support, Waste Management and Remediation	10,744	6.6%
Educational Services	12,502	7.7%
Health Care and Social Assistance	14,476	9.0%
Arts, Entertainment, and Recreation	2,524	1.6%
Accommodation and Food Services	10,166	6.3%
Other Services (excluding Public Administration)	4,132	2.6%
Public Administration	4,740	2.9%

Source: US Census Bureau, On the Map

Business Formation Statistics
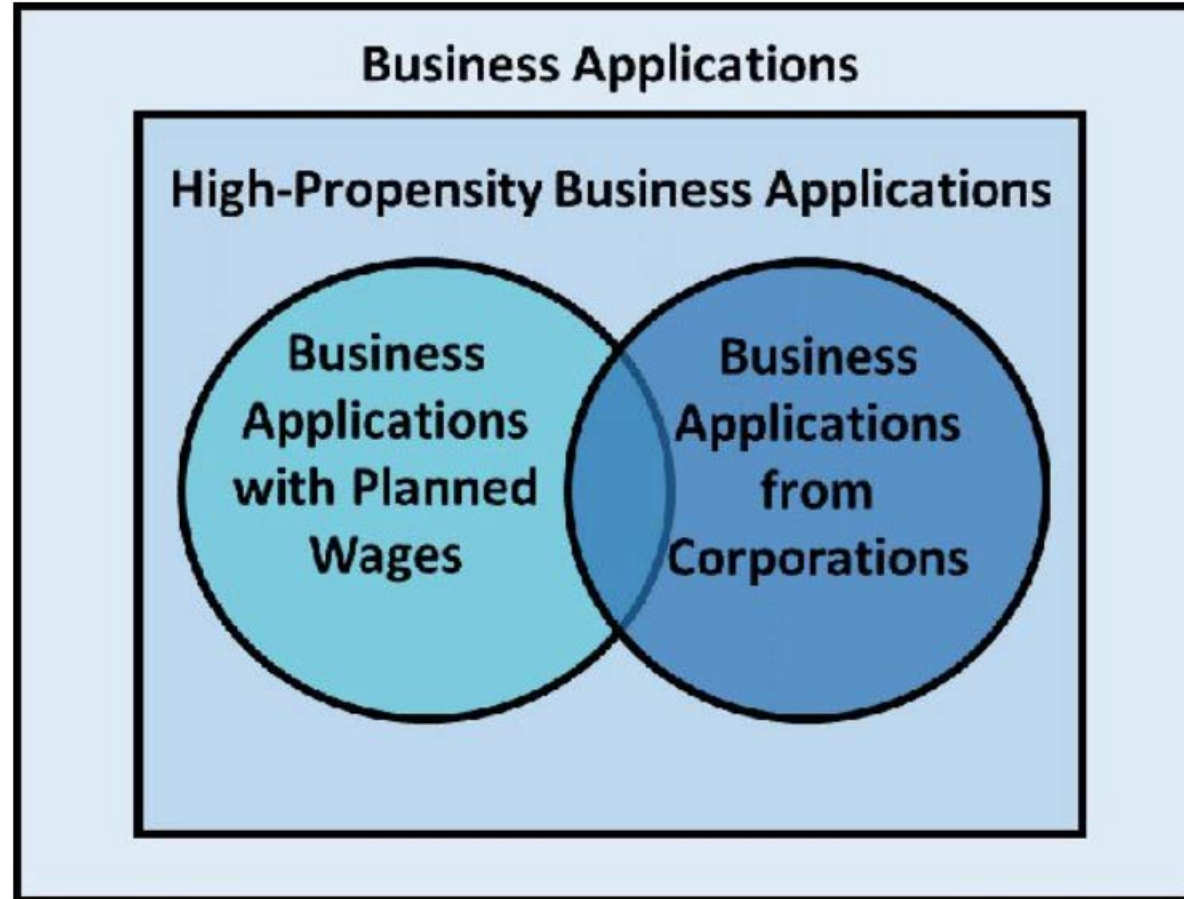
Business Applications (BA), seasonally adjusted

Source: US Census Bureau, Business Formation Statistics

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9
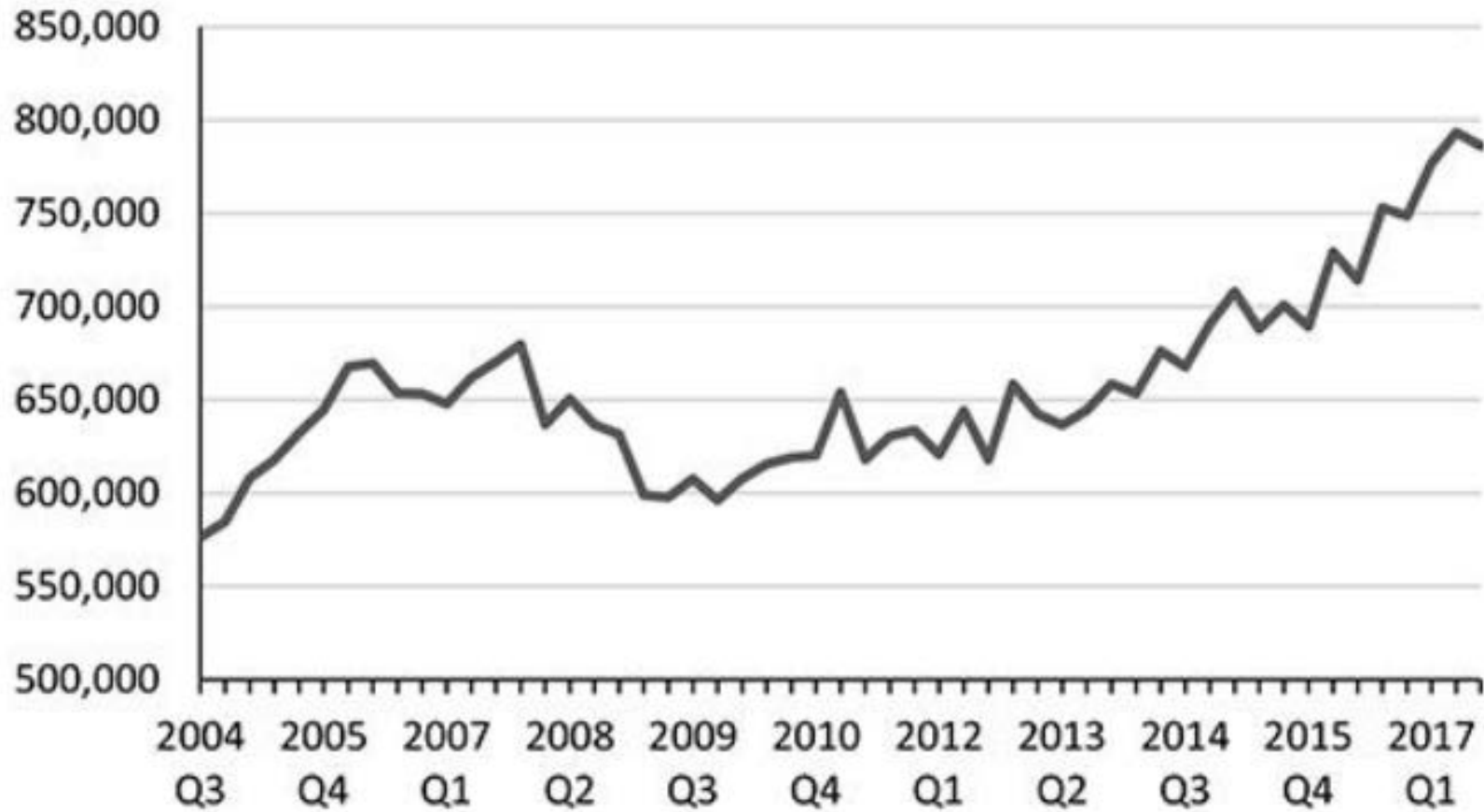
Business Formations within 4 Quarters (BF4Q) by State - Per 1,000 People

The number of business formations per 1,000 people: < 0.25 | 0.25 - 0.27 | 0.27 - 0.29 | 0.29 - 0.31 | 0.31 - 0.33 | 0.33 - 0.50 | > 0.50

Source: US Census Bureau: Business Formation Statistics

Annual Business Survey

- Combines three Census Bureau surveys:
  - Five-year Survey of Business Owners for employer businesses
  - Annual Survey of Entrepreneurs
  - Business Research & Development and Innovation Survey for microbusinesses
- Measures:
  - Owner and business demographics
  - Financing activities
  - Innovation practices
- Will rotate content to cover different relevant business topics

Access to Microlevel Data

- Synthetic Longitudinal Business Dynamics Dataset (experimental)

- 29 Federal Statistical Research Data Centers across the US
  - Partners with over 50 different universities, non-research organizations, and government agencies
  - Access to data from different agencies
    - Census Bureau
    - Bureau of Labor Statistics
    - National Center for Health Statistics

United States Census Bureau

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Jobs, Entrepreneurship, and Firms

- Business register

- Consistency between short-term and macroeconomic data

- Consistency across sectors

- Transparency and consistency in concepts and definitions

- Jobs, entrepreneurship, and firms

US Bureau of Labor Statistics
Consistency: short-term and macro

■ Consistency between short-term or survey data and census data is achieved by:

▶ Using the QCEW as a sampling frame for most BLS business surveys

▶ ...and for post-survey / post-stratification alignment

US Bureau of Labor Statistics
Business Register

■ **Quarterly Census of Employment and Wages**

▶ Report of number of employees and total wages paid for each worksite reporting to the mandatory state unemployment insurance program

▶ A quarterly census covering 97 percent of employment in the US

▶ Approaching 10 million worksite reports per quarter

▶ Serves as a source of cross-sectional and longitudinal published data, and as a sampling frame for BLS business surveys

US Bureau of Labor Statistics
Consistency: across sectors

- Consistency across sectors is achieved by most BLS surveys – by covering the full US nonfarm economy. For example:
  - BLS' Current Employment Statistics survey utilizes a stratified probability sampling design with strata defined by:
    - State, Industry groupings, Employment size class
  - BLS' Job Openings and Labor Turnover Survey utilizes a stratified probability sampling design with strata defined by:
    - Region, Industry groupings, Employment size class

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Transparency

- BLS strives for transparency of methodology and results

- Many resources on the BLS website to explore methods

- Every program has a help line, either phone, web form, or both to assist data users in obtaining data or in better understanding the data

US Bureau of Labor Statistics
About Jobs

- Quarterly Census of Employment and Wages – employment, quarterly wages

- Current Employment Statistics – employment, hours, earnings

- Job Openings and Labor Turnover – openings, hires, separations, quits, layoffs and other discharges

US Bureau of Labor Statistics
And more about jobs

- Current population survey – unemployment, labor force, demographics

- Occupational Employment Statistics – employment, wages by detailed occupation

- National Compensation Survey – employment, wages, benefits

- Labor Productivity and Costs

BLS

US Bureau of Labor Statistics
Entrepreneurship

- One measure of entrepreneurship is the creation of new firms
  - ▶ And the employment and wages associated with that creation
  - ▶ And the survival rates of those firms
  - ▶ The Quarterly Census of Employment and Wages data can be used to measure these

BLS

US Bureau of Labor Statistics
Firms

■ **BLS' Quarterly Census of Employment and Wages can produce data both at the worksite level and at the firm level**

- Firm here is defined as a group of establishments with the same federal Employer Identification Number (EIN)

US Bureau of Labor Statistics
Matching

- **BLS' Quarterly Census of Employment and Wages can be matched against other datasets that include appropriate identifiers – again creating consistency across data products**
  - ▶ Past example is matching to IRS public dataset of nonprofit firms, allowing BLS to publish data by state and industry by for-profit and not-for-profit comparison
  - ▶ Current work includes matching to Bureau of Economic Analysis' data on Foreign Direct Investment, to produce additional detailed industry and occupational data on firms with foreign investment