



Identifying ‘Opportunity Occupations’ Using Public and Private Data

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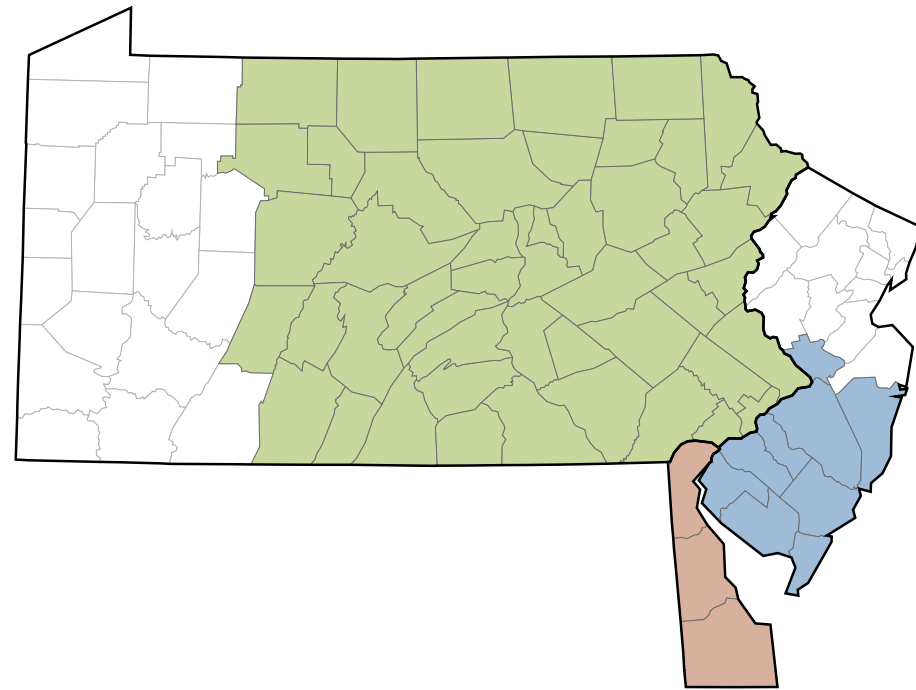


Community Development Studies & Education

MISSION

To support the Federal Reserve System's economic growth objectives by promoting community development in low- and moderate-income communities and fair and impartial access to credit in underserved markets

THIRD DISTRICT



Overview

- Project description
- Research questions
- Public and private data
- Findings
- Next steps



Project description

- *Identifying Opportunity Occupations in the Nation's Largest Metropolitan Economies* (forthcoming)
- Researchers
 - Keith Wardrip, Federal Reserve Bank of Philadelphia
 - Kyle Fee and Lisa Nelson, Federal Reserve Bank of Cleveland
 - Stuart Andreason, Federal Reserve Bank of Atlanta
- Opportunity occupation
 - Generally considered accessible to a worker without a bachelor's degree
 - Paying an annual median wage at or above the national annual median wage, adjusted for local differences in consumption prices
- Analysis of employment in the 100 largest metropolitan statistical areas (MSAs)



Research questions

1. Which opportunity occupations employ the most workers in these MSAs?
2. In which MSAs are opportunity occupations most/least prevalent?
3. Do online job ads support the notion that these jobs are accessible to workers without a four-year degree?
4. In which MSAs are employers most/least likely to request a higher level of educational attainment than is suggested necessary by other sources?
5. Has the level of educational attainment requested in online job ads increased, decreased, or remained constant in recent years?



Public data

- **Employment and wages** — Occupational Employment Statistics (Bureau of Labor Statistics)
- **Weekly hours worked** — Current Population Survey (U.S. Census Bureau/Bureau of Labor Statistics)
- **Consumption price adjustment factors** — Regional Price Parities (Bureau of Economic Analysis)
- **Education**
 - Employment Projections (Bureau of Labor Statistics)
 - Occupational Information Network (O*NET) (Employment and Training Administration)



Private data

Burning Glass Technologies (BGT)

- One of several providers of real-time labor market information (RTLMI)
- Supplied tens of millions of job ads collected from 40,000 websites from 2011–2014
- Converts ads into database format with up to 70 extracted variables



Private data

Cons of RTLMI

- Uneven representation across occupations and educational attainment
- Known inaccuracies
- Uncertainties regarding interpretation of missing data
- Lack of post-update communication
- Advertisements, not hiring activity
- Cost



Private data

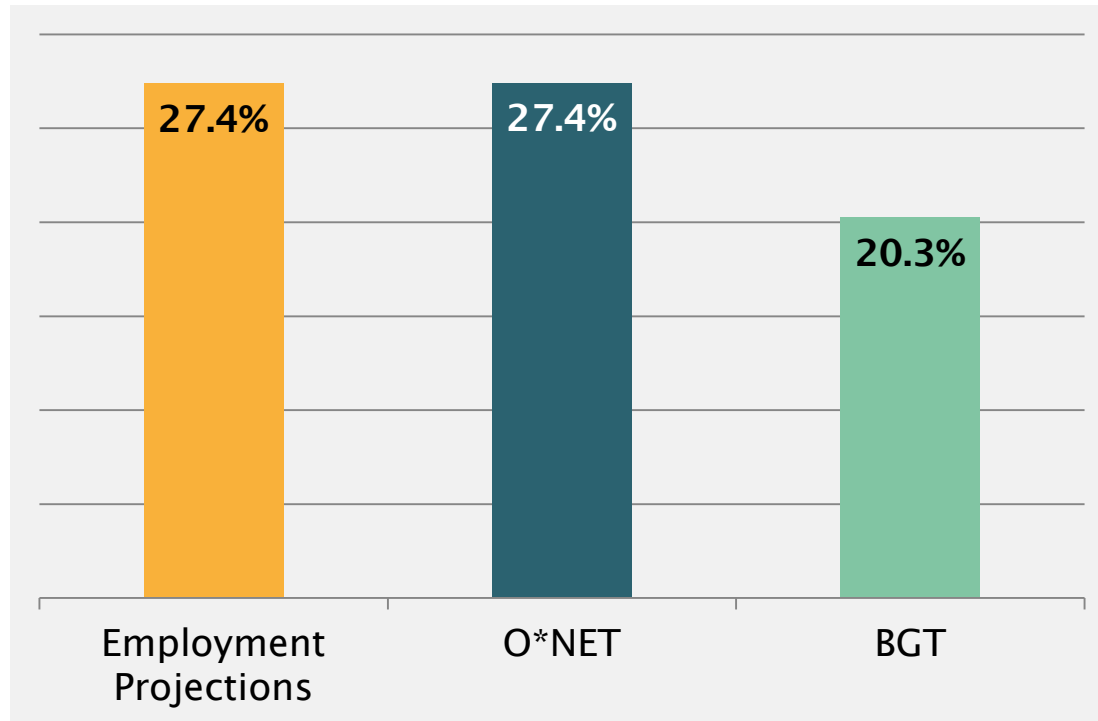
Pros of RTLMI

- Insight into employer preferences
- Geographic specificity
- Annual variation
- Large N
- Little lag time



Findings

The share of employment classified as an opportunity occupation depends on the measure of education used.



Findings

The 10 largest opportunity occupations identified in both the Employment Projections and O*NET data sets:

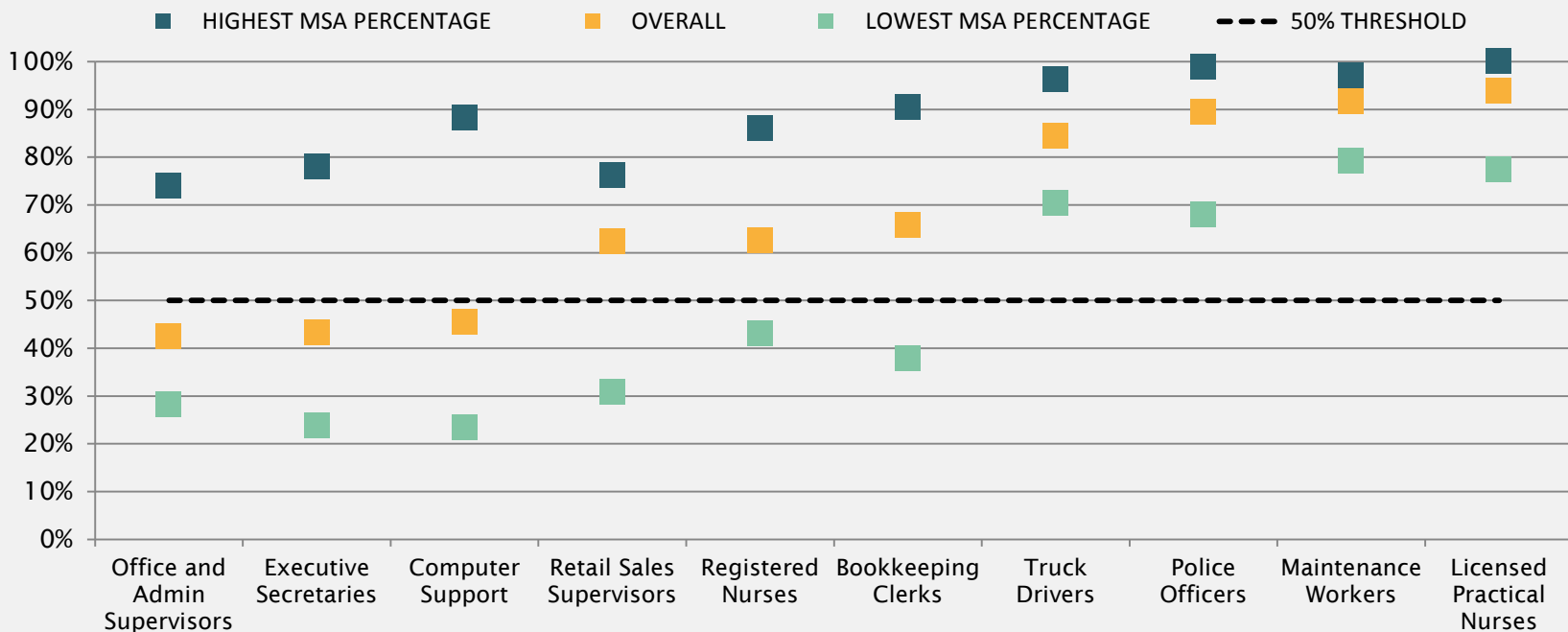
Occupation	Major Occupation Group
Registered Nurses	Healthcare Practitioners and Technical
First-Line Supervisors of Office and Administrative Support Workers	Office and Administrative Support
Bookkeeping, Accounting, and Auditing Clerks	Office and Administrative Support
Heavy and Tractor-Trailer Truck Drivers	Transportation and Material Moving
First-Line Supervisors of Retail Sales Workers	Sales and Related
Executive Secretaries and Executive Administrative Assistants	Office and Administrative Support
Maintenance and Repair Workers, General	Installation, Maintenance, and Repair
Computer User Support Specialists	Computer and Mathematical
Police and Sheriff's Patrol Officers	Protective Service
Licensed Practical and Licensed Vocational Nurses	Healthcare Practitioners and Technical



Findings

BGT data suggest that not all of the top 10 opportunity occupations are accessible to workers without a four-year college degree in every study MSA.

Percent of job ads seeking less than a bachelor's degree



Findings

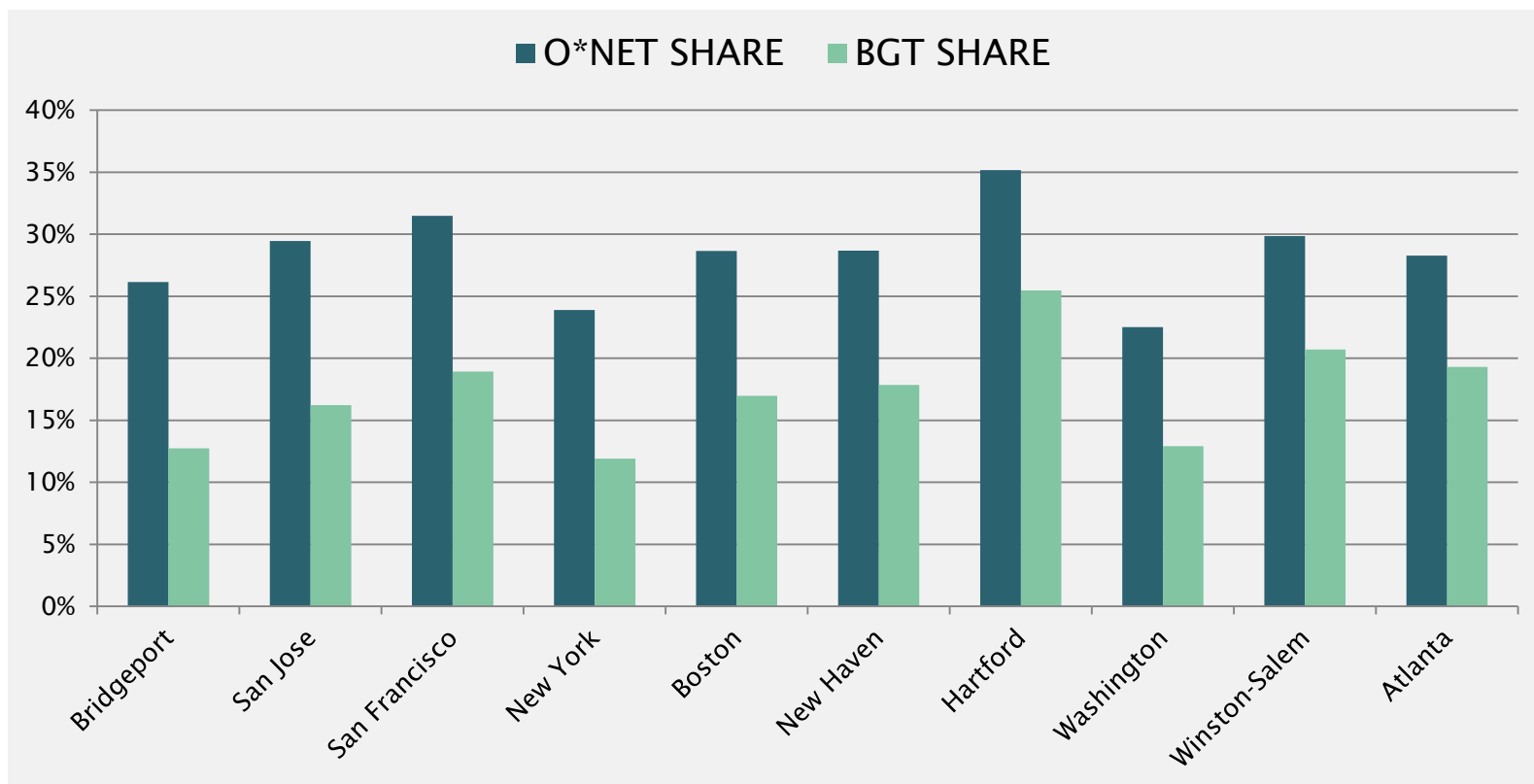
Using O*NET data, the local opportunity occupation share ranges from 36.6 percent to 15.5 percent.

MSA	O*NET Opportunity Occupation Share
Kansas City, MO-KS	36.6%
Des Moines-West Des Moines, IA	36.5%
Cleveland-Elyria-Mentor, OH	36.2%
St. Louis, MO-IL	35.9%
Baton Rouge, LA	35.7%
Louisville-Jefferson County, KY-IN	35.6%
Hartford-West Hartford-East Hartford, CT	35.2%
Springfield, MA-CT	34.8%
Portland-Vancouver-Hillsboro, OR-WA	34.5%
Birmingham-Hoover, AL	34.1%

MSA	O*NET Opportunity Occupation Share
Poughkeepsie-Newburgh-Middletown, NY	22.0%
North Port-Bradenton-Sarasota, FL	21.8%
Los Angeles-Long Beach-Santa Ana, CA	21.8%
Fayetteville-Springdale-Rogers, AR-MO	21.4%
Tampa-St. Petersburg-Clearwater, FL	21.4%
Honolulu, HI	20.8%
Miami-Fort Lauderdale-Pompano Beach, FL	20.1%
Orlando-Kissimmee-Sanford, FL	19.7%
El Paso, TX	17.6%
McAllen-Edinburg-Mission, TX	15.5%

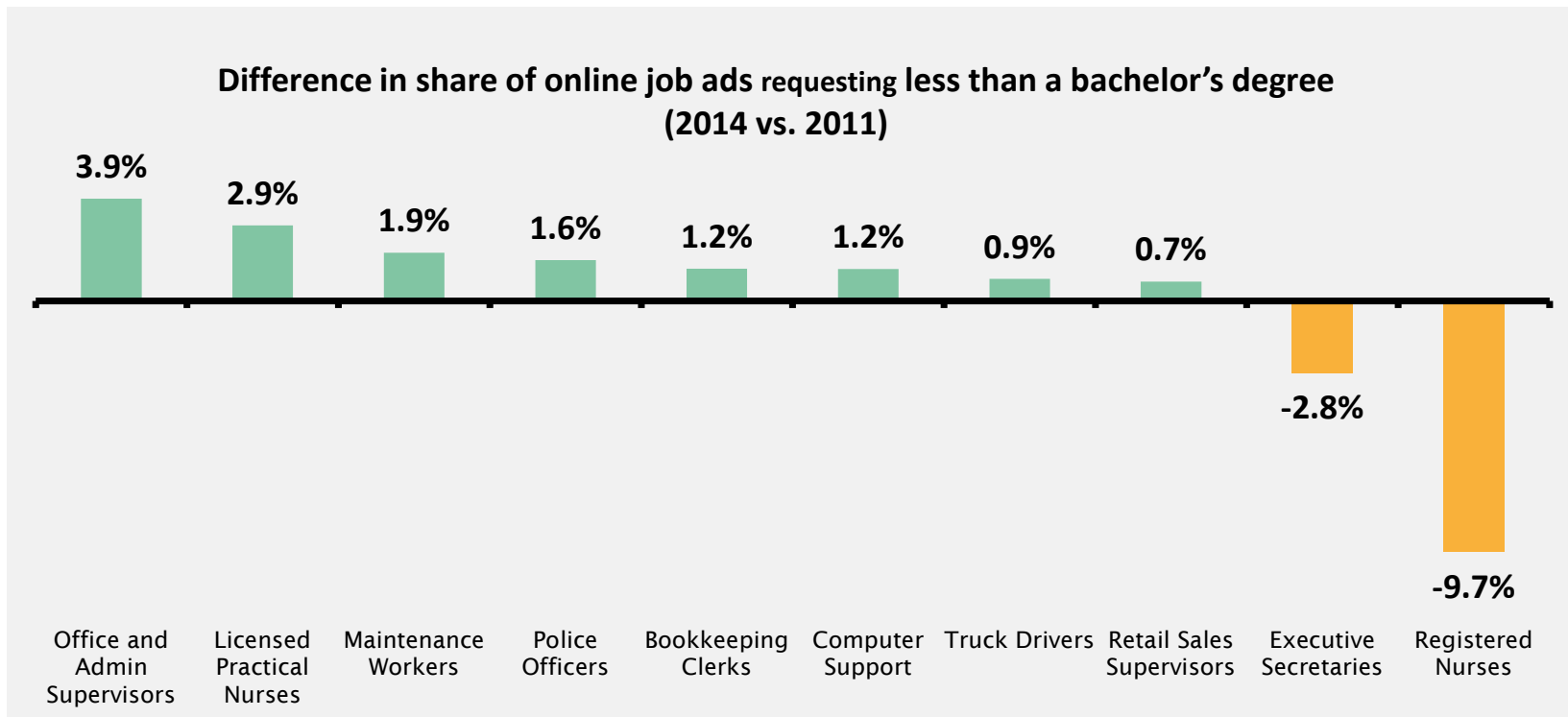
Findings

For some MSAs, the BGT opportunity occupation share is much lower than the share derived from O*NET data.



Findings

For some opportunity occupations, educational preferences expressed in online job ads changed during the study period.



Next steps

- Release two reports on September 9
- Host a webinar on September 10
- Explore the factors that affect an MSA's opportunity occupation share
- Investigate the determinants of employer educational preferences as expressed in online job ads



Thank You



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