

Evaluating Employment

the Distribution of Jobs and Income

Presented by
Jeremy Gilmore

MSAN 622- Data Visualization

May 8, 2014

Data Sources:

- Bureau of Labor Statistics- www.bls.gov/oes
Specifically, data from the Occupation Employment Statistics section related to wages and employment levels
- Occupational Outlook Handbook- www.bls.gov/ooh
The OOH offers descriptions, growth rates, future employment levels, and education requirements for nearly 400 occupations

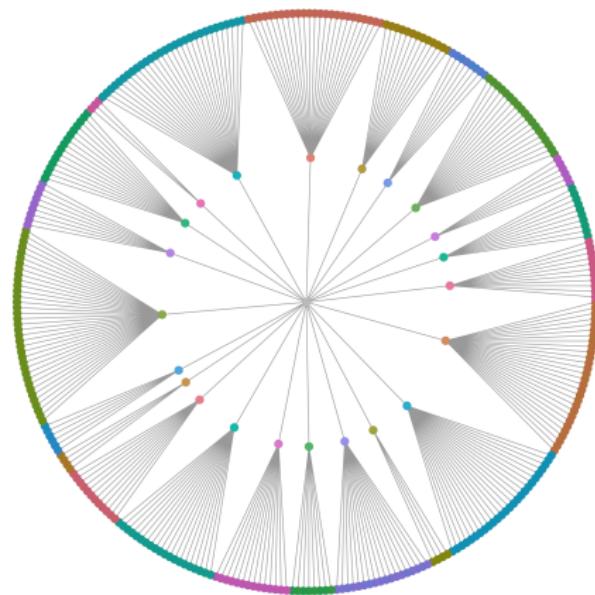
How to understand the structure...

Data Sources:

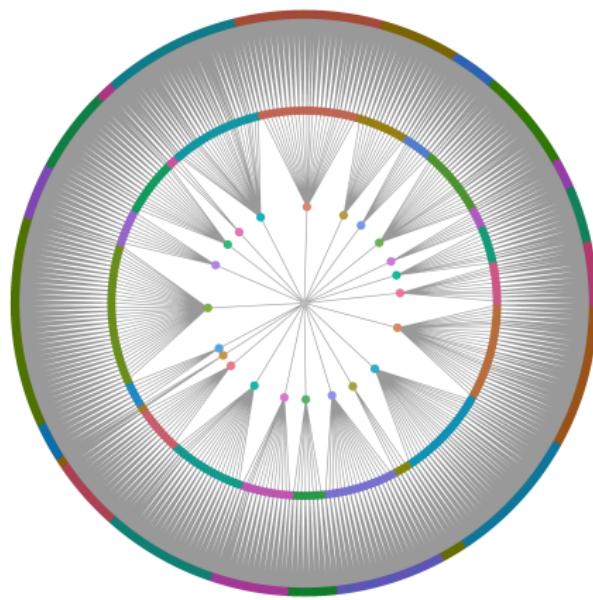
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How to understand the structure...

Data Structure



Data Structure



National, State, and Metro-area levels

- Description
- Growth Rate
- Total Employment
- Wages- Mean, Median, 10%, 25%, 75%, 90%

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National Overview

Industry Overview

Distribution Details

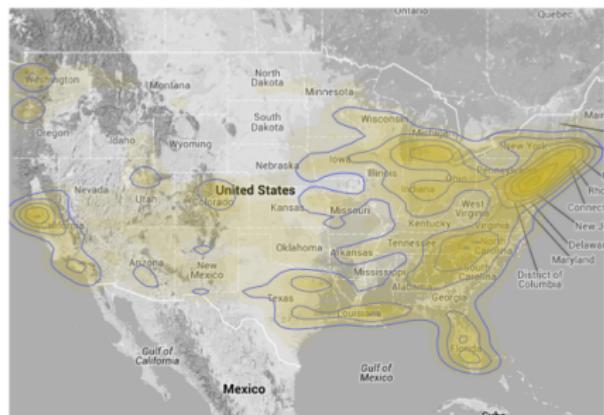
Local Stats

National Overview

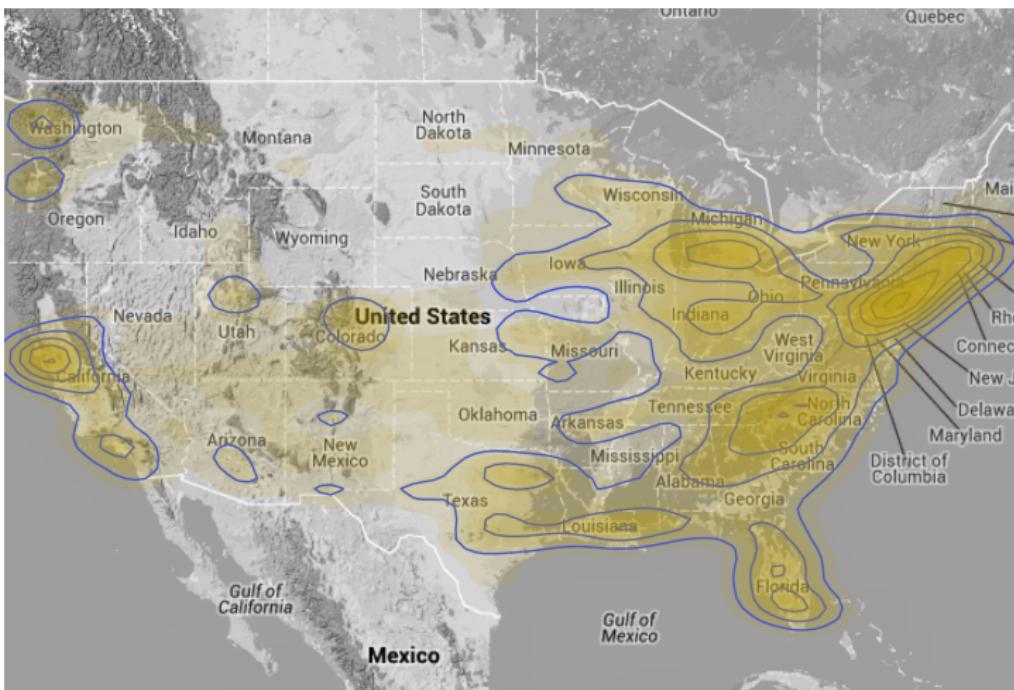
Select Industry

Type of Plot

- Employment Density Map
- Points by Total Employed



All Industries



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National Overview

Industry Overview

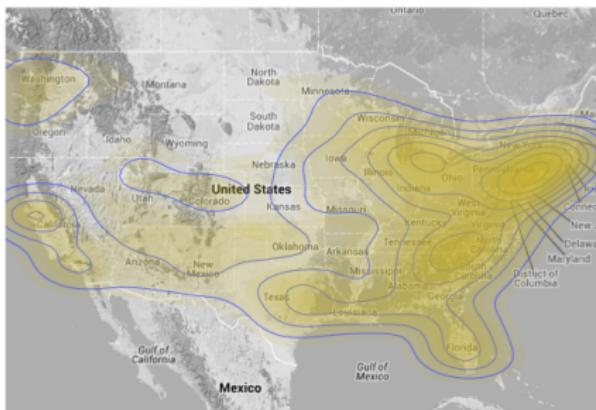
Distribution Details

Local Stats

National Overview

Select Industry

- Computer and Mathematical
- All Industries
- Architecture and Engineering
- Arts, Design, Entertainment, Sports, and Media
- Building and Grounds Cleaning and Maintenance
- Business and Financial Operations
- Community and Social Service
- Computer and Mathematical**
- Construction and Extraction

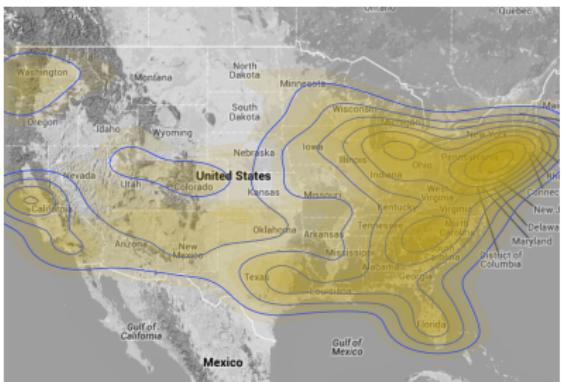


Introduction

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National Level Data

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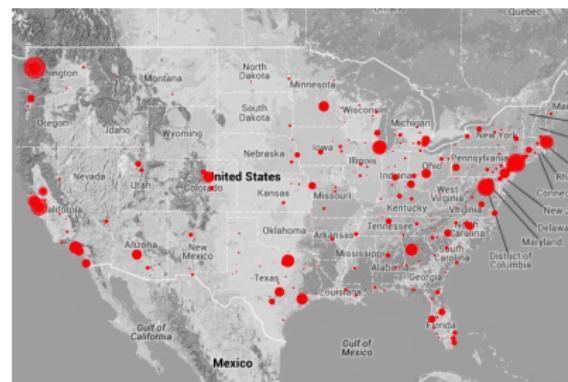


Industry Overview

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Drilling Down

○○○○○○○



Local Details

○○○○○

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Industry Overview

Select Industry

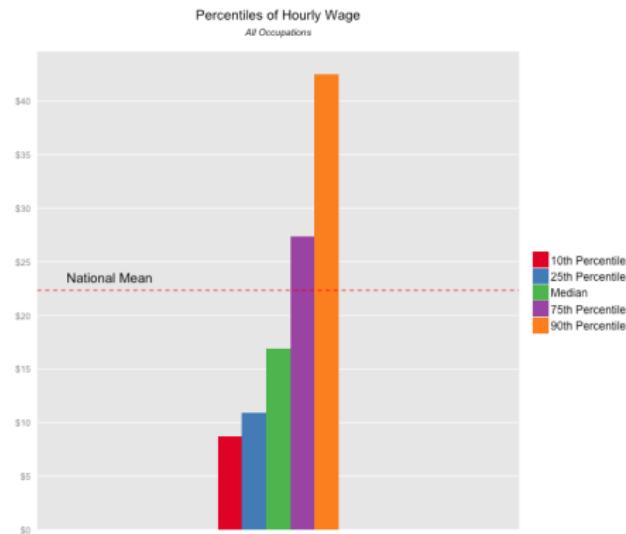
All Occupations

Wage Type

Hourly

Annual

	National Growth Rate	National Avg. Employed	National Ave. Openings
1	12.00	371854.00	42679.00



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National Overview

Industry Overview

Distribution Details

Local Stats

Industry Overview

Select Industry

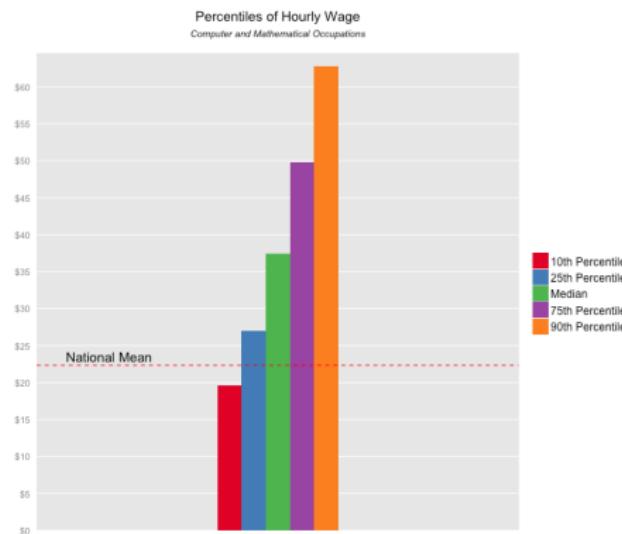
Computer and Mathematical

Wage Type

Hourly

Annual

	Growth Rate	Avg. Employment	Avg. Openings
Industry	21.00	257500.00	48386.00
National	12.00	371854.00	42679.00



Sort Table By:

Total Employed

	Industry	Total Employed	Hourly Mean	Annual Mean	Hourly Median	Annual Median
1	Office and Administrative Support Occupations	21442800.00	16.78	34900.00	15.39	32010.00
2	Sales and Related Occupations	14066190.00	18.37	38200.00	12.10	25160.00
3	Food Preparation and Serving Related Occupations	11914590.00	10.38	21580.00	9.15	19020.00
4	Transportation and Material Moving Occupations	9005120.00	16.28	33860.00	13.99	29100.00
5	Production Occupations	8765180.00	16.79	34930.00	15.03	31250.00
6	Education, Training, and Library Occupations	8400640.00	24.76	51500.00	22.19	46140.00
7	Healthcare Practitioners and Technical Occupations	7755810.00	35.93	74740.00	29.38	61120.00
8	Business and Financial Operations Occupations	6658090.00	34.14	71020.00	30.67	63800.00
9	Management Occupations	6542950.00	53.15	110550.00	45.96	95600.00
10	Installation, Maintenance, and Repair Occupations	5138130.00	21.35	44420.00	19.92	41440.00

Distribution Details

View

- National
- State
- Industry

Select Industry

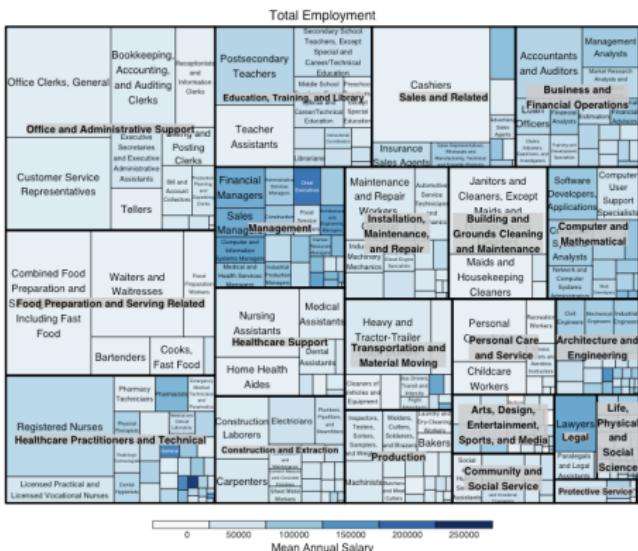
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Select Category

- Total Employees
- Wage

Select Scale

- Total Employees
- Wage



Distribution Details

View

National
 State
 Industry

Select Industry

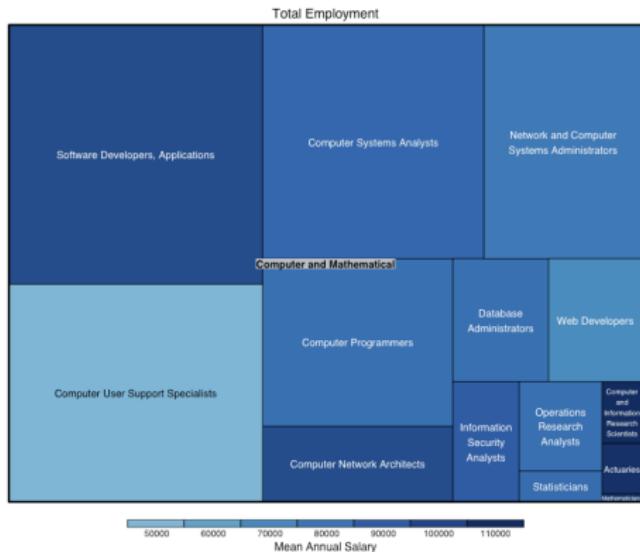
Computer and Mathematical

Select Category

Total Employees
 Wage

Select Scale

Total Employees
 Wage



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National Overview

Industry Overview

Distribution Details

Local Stats

Distribution Details

View

National
 State
 Industry

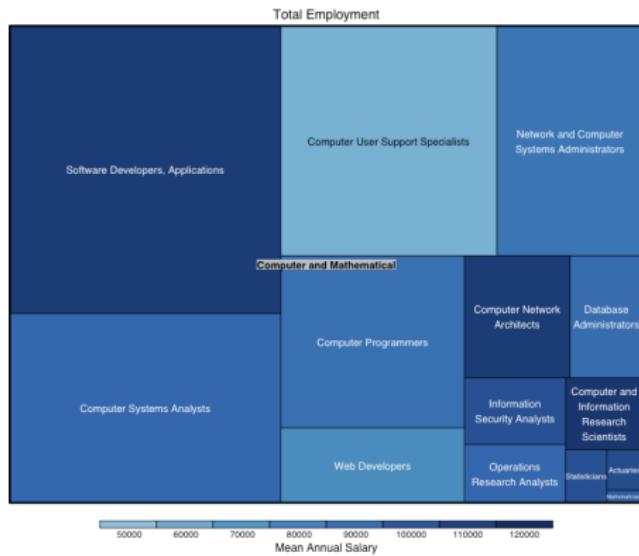
Select Industry

Computer and Mathematical

Select State

California

Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware



Distribution Details

View

National
 State
 Industry

Select Industry

All Industries ▼

Select State

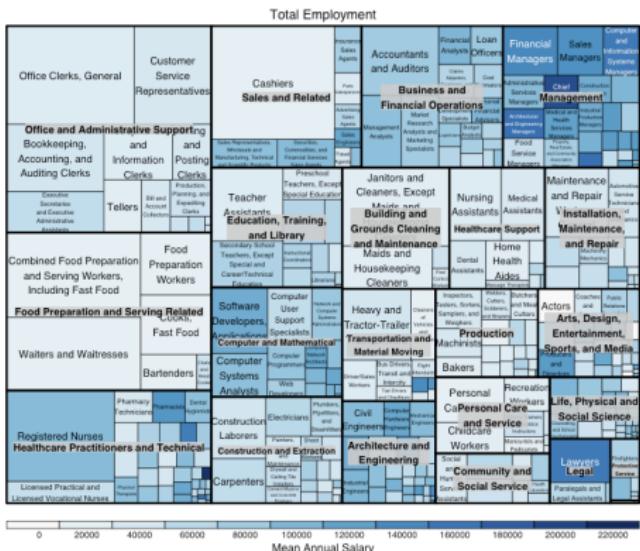
California ▼

Select Category

Total Employees
 Wage

Select Scale

Total Employees
 Wage



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National Overview

Industry Overview

Distribution Details

Local Stats

Distribution Details

View

- National
- State
- Industry

Select Industry

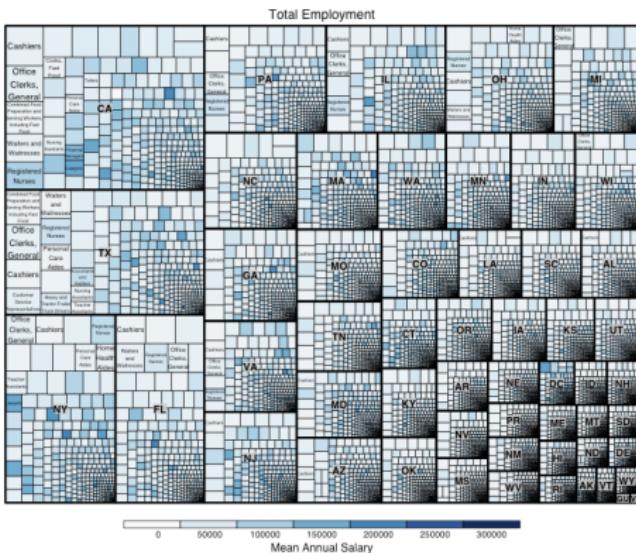
All Industries

Select Category

- Total Employees
- Wage

Select Scale

- Total Employees
- Wage



Distribution Details

View

National
 State
 Industry

Select Industry

Computer and Mathematical ▼

Select Profession

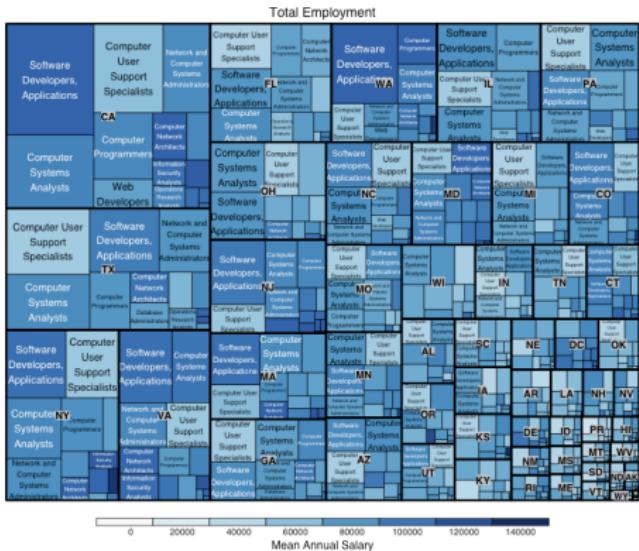
All Professions ▼

Select Category

Total Employees
 Wage

Select Scale

Total Employees
 Wage



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National Overview

Industry Overview

Distribution Details

Local Stats

Distribution Details

View

National
 State
 Industry

Select Industry

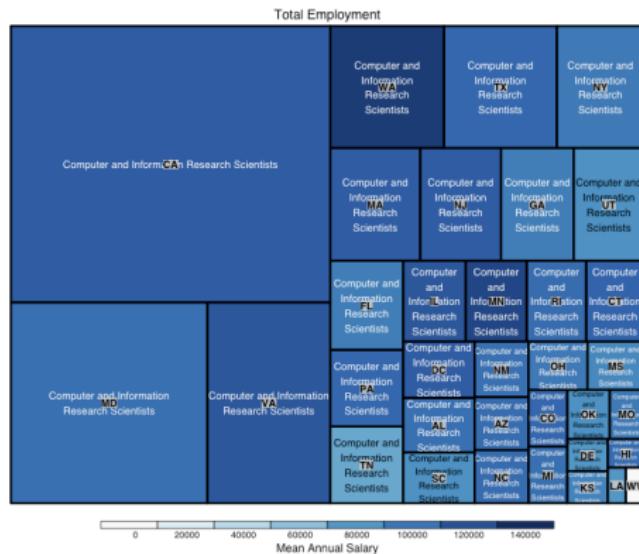
Computer and Mathematical

Select Profession

Computer and Information Research Scientists

All Professions
Actuaries
Computer and Information Research Scientists

Computer Network Architects
Computer Programmers
Computer Systems Analysts
Computer User Support Specialists
Database Administrators



Find Local Stats

Select Industry

Computer and Mathematical

Select Profession

Operations Research Analysts

Select State

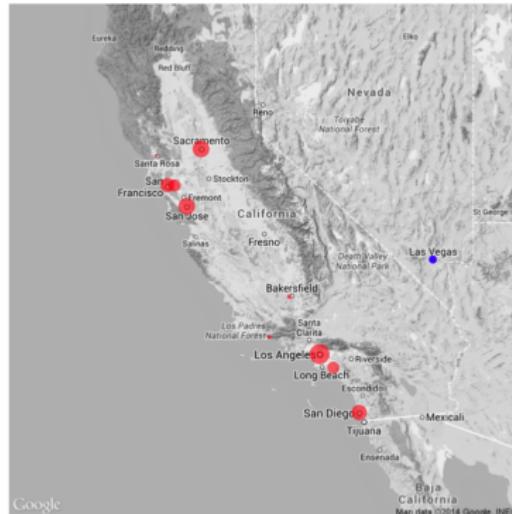
California

Type of Plot

- Employment Density Map
 Points by Total Employed

Operations research analysts use advanced mathematical and analytical methods to help organizations investigate complex issues, identify and solve problems, and make better decisions.

Operations Research Analysts: sized by Total Employed



Google

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National Overview

Industry Overview

Distribution Details

Local Stats

Find Local Stats

Select Industry

Computer and Mathematical

Select Profession

Computer Systems Analysts

Select State

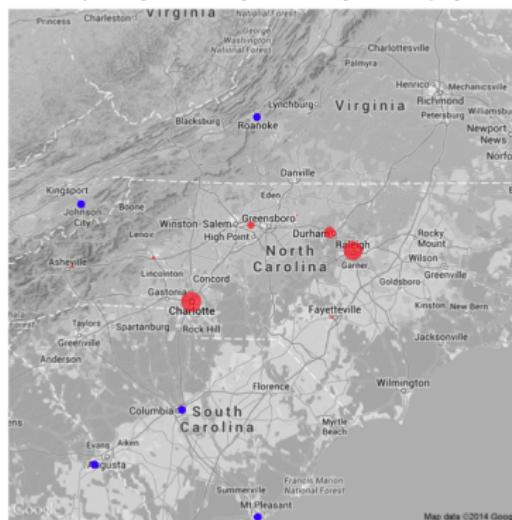
North Carolina

Type of Plot

- Employment Density Map
 Points by Total Employed

Computer systems analysts study an organization's current computer systems and procedures and design information systems solutions to help the organization operate more efficiently and effectively. They bring business and information technology (IT) together by understanding the needs and limitations of both.

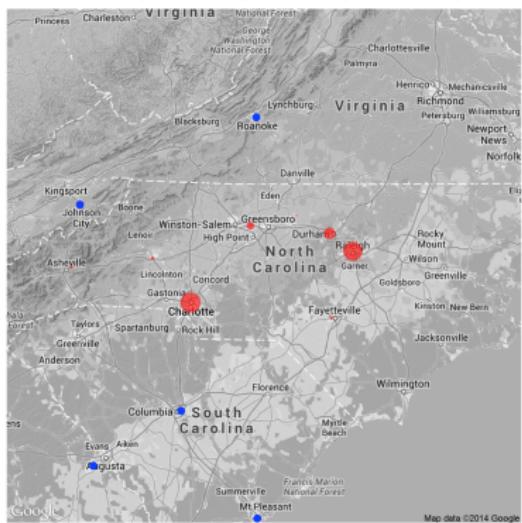
Computer Systems Analysts: sized by Total Employed



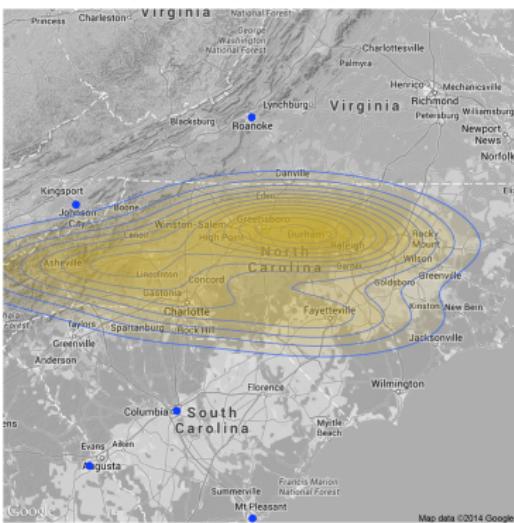
Map data ©2014 Google

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Computer Systems Analysts: sized by Total Employed



Computer Systems Analysts: Employment Density Map



Sort Table By:

Jobs per 1000

City	TotalEmployed	JobsPer1000	HourlyMean	AnnualMean
1 Sacramento, CA	1040	1.24	33.58	69860.00
2 San Jose, CA	1010	1.09	56.34	117180.00
3 San Francisco, CA	750	0.71	48.50	100870.00
4 San Diego, CA	870	0.67	55.28	114980.00
5 Oakland, CA	540	0.54	44.33	92210.00
6 Los Angeles, CA	1460	0.37	42.70	88820.00
7 Santa Ana, CA	530	0.36	40.16	83520.00
8 Santa Barbara, CA	60	0.35	37.30	77580.00
9 Bakersfield, CA	80	0.29	52.23	108640.00
10 Santa Rosa, CA	30	0.20	50.81	105690.00

Sort Table By:

Wage

City	TotalEmployed	JobsPer1000	HourlyMean	AnnualMean
1 San Jose, CA	1010	1.09	56.34	117180.00
2 San Diego, CA	870	0.67	55.28	114980.00
3 Bakersfield, CA	80	0.29	52.23	108640.00
4 Santa Rosa, CA	30	0.20	50.81	105690.00
5 San Francisco, CA	750	0.71	48.50	100870.00
6 Oakland, CA	540	0.54	44.33	92210.00
7 Los Angeles, CA	1460	0.37	42.70	88820.00
8 Santa Ana, CA	530	0.36	40.16	83520.00
9 Santa Cruz, CA			39.06	81240.00
10 Santa Barbara, CA	60	0.35	37.30	77580.00

Thank you!

It has been such a pleasure working with, and learning from your cohort. I look forward to possibly working with you on future projects.

Finally... Thank you Sophie!