

Majors, Occupations, Labor Supply and Wages... Texas Style

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What Determines Labor Market Outcomes for College Graduates?

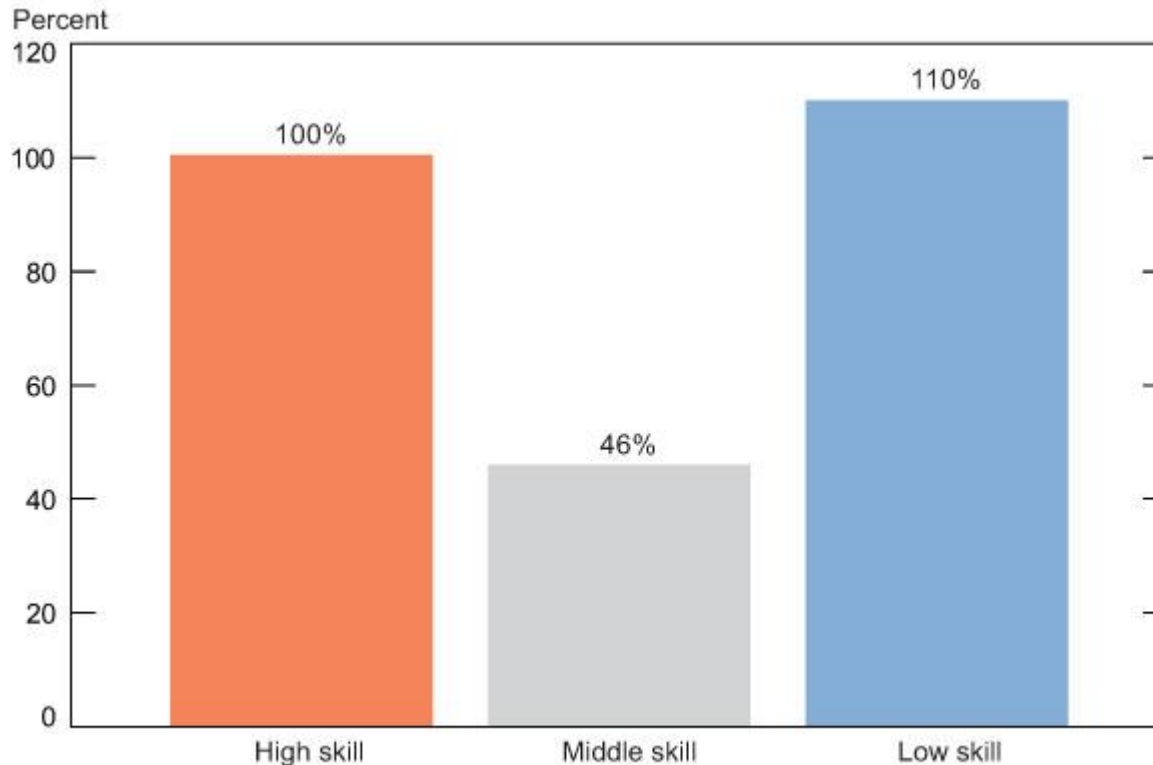


The “College Premium” increased 45 percent from 1979-2009. Does this indicate a shortage of educated workers?

“Supply, Demand, Wages and Myth” Richard Rothstein, (2009)

Job Growth has Become Polarized over the Last Three Decades.

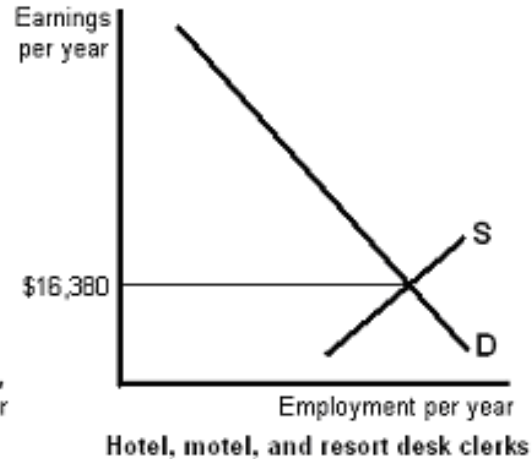
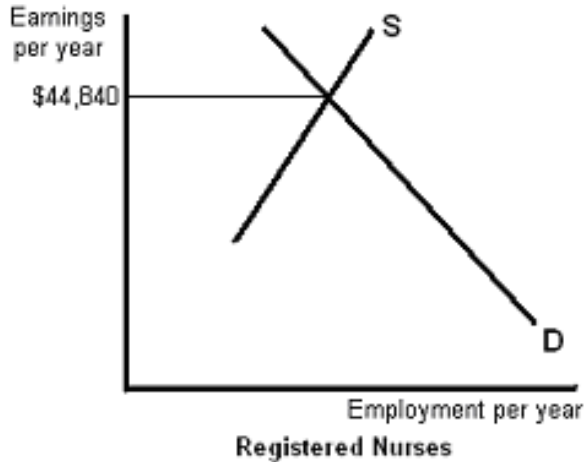
Percentage Change in Employment by Occupation Group, 1980-2009



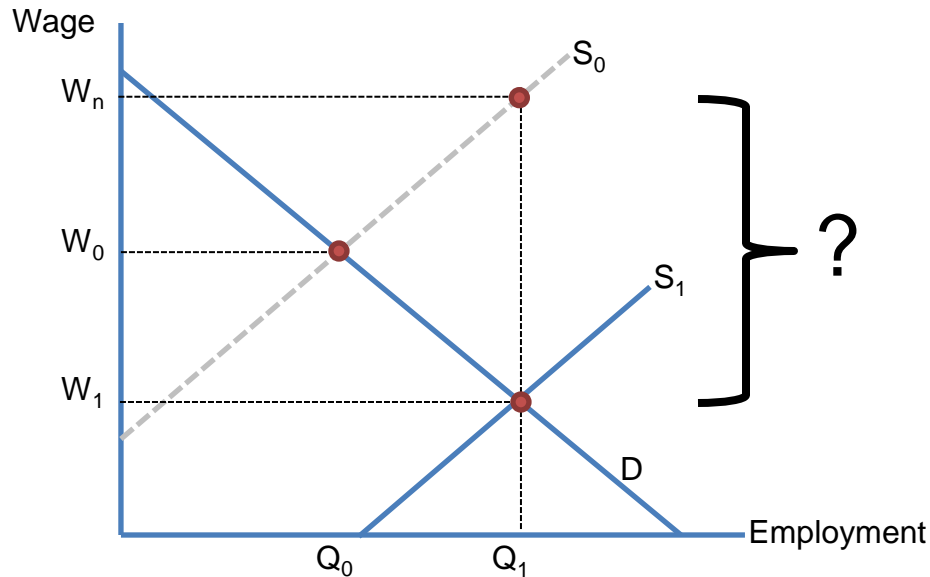
Source: New York Federal Reserve Blog and Congressional Budget Office Blog

Skills are becoming more important to labor market success.

Textbook Labor Supply and Demand



Source:
www.econsource.com



What Determines Labor Market Outcomes for College Graduates?



“The risk of unemployment among recent college graduates depends on their major.”

“Majors that are more closely aligned with particular occupations and industries tend to experience lower unemployment rates.”

“Hard Times: College Majors, Unemployment and Earnings” (2011)

SUPPLY DEMAND ANALYSIS

Occupation to Program Relationship Matrix

	Direct Connection	Limited Connection	Weak Connection
Oversupply	<p>Definitive oversupply of graduates relative to expected demand; strong market relationship between CIP and SOC(s) suggests limiting additional investments in this program.</p> <p style="text-align: right; color: green; font-size: 2em;">1A</p>	<p>Apparent oversupply of graduates relative to job demand in most related occupations. Likely intense competition for limited related job opportunities. Moderate occupational ties require identification of special market links prior to added investments.</p> <p style="text-align: right; color: yellow; font-size: 2em;">2A</p>	<p>Data indicates oversupply of graduates likely, but the weak connection to specific occupations nullifies S/D data analysis. Possible candidate for revision or deactivation.</p> <p style="text-align: right; color: red; font-size: 2em;">3A</p>
Balanced	<p>Balanced supply of graduates relative to expected demand. Job competition for newly minted graduates will be competitive but opportunities in some related occupations exist.</p> <p style="text-align: right; color: green; font-size: 2em;">1B</p>	<p>Apparent balanced supply of graduates relative to job demand in most related occupations. Data indeterminate relative to labor surplus or shortage situation. Added program review requisite to determine if greater labor market opportunities are present due to emerging and evolving occupations.</p> <p style="text-align: right; color: yellow; font-size: 2em;">2B</p>	<p>Data indicates balanced supply of graduates likely, but the weak connection to specific occupations nullifies S/D data analysis. Review occupational connections in crosswalk to determine possible job market opportunities</p> <p style="text-align: right; color: red; font-size: 2em;">3B</p>
Undersupply	<p>Definitive undersupply of graduates relative to labor market demand. Data indicates likely shortages. Program is a strong candidate for additional resources and targeted recruitment efforts to increase supply.</p> <p style="text-align: right; color: green; font-size: 2em;">1C</p>	<p>Apparent undersupply of graduates relative to job demand in at least one closely related occupation. Job opportunities likely to exist in at least one related occupation. More research worthwhile to determine possible added labor market connections.</p> <p style="text-align: right; color: yellow; font-size: 2em;">2C</p>	<p>Data indicates undersupply of graduates likely, but the weak connection to specific occupations nullifies S/D data analysis. Related jobs may exist but not directly connected to this program. Review crosswalk for possible occupational links.</p> <p style="text-align: right; color: red; font-size: 2em;">3C</p>

Direct = Definitive connection between education program and one or more occupations

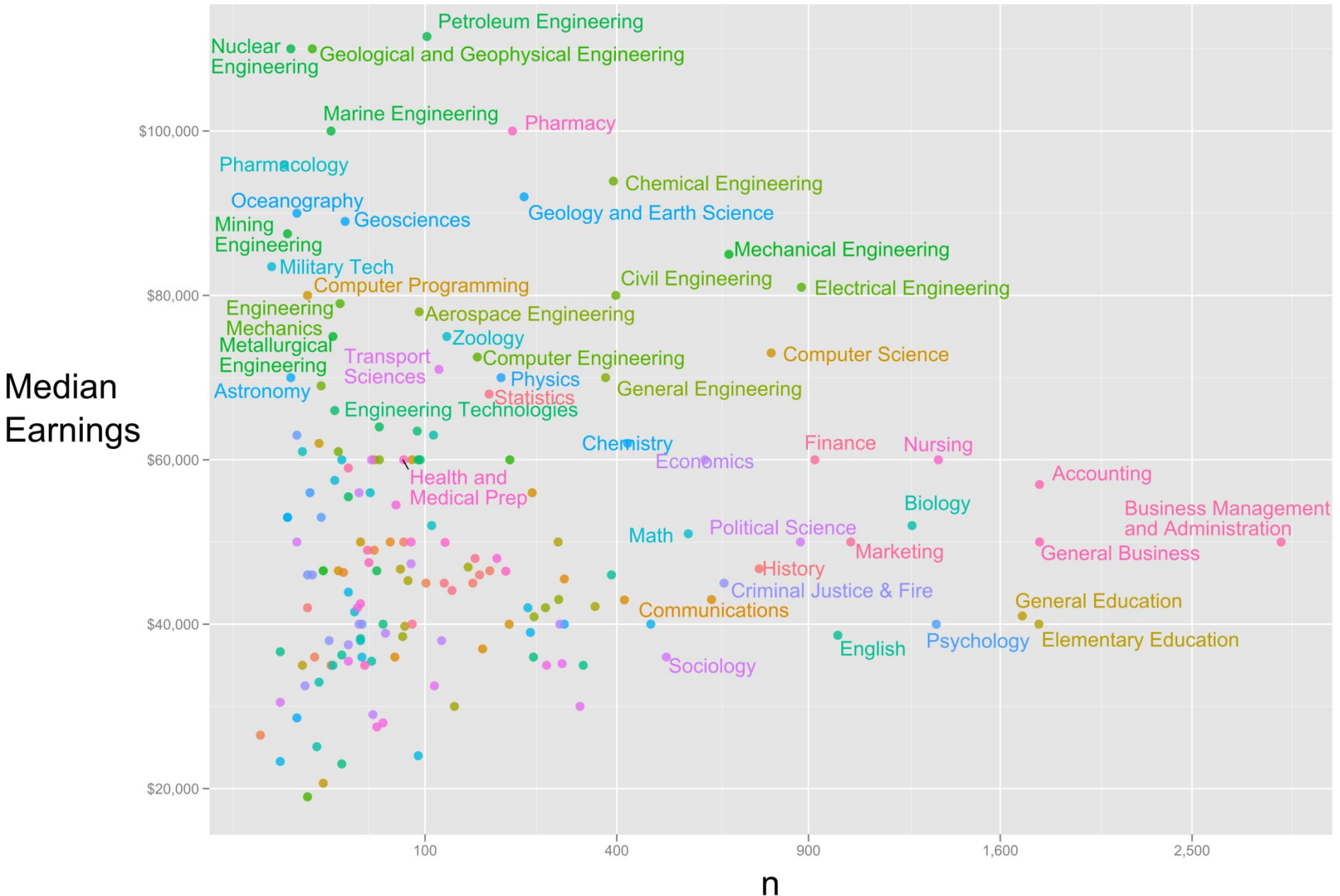
Limited = Some connection to one or more occupations; no direct relationships

Weak = Poor or ill-defined connection between program and specific occupations

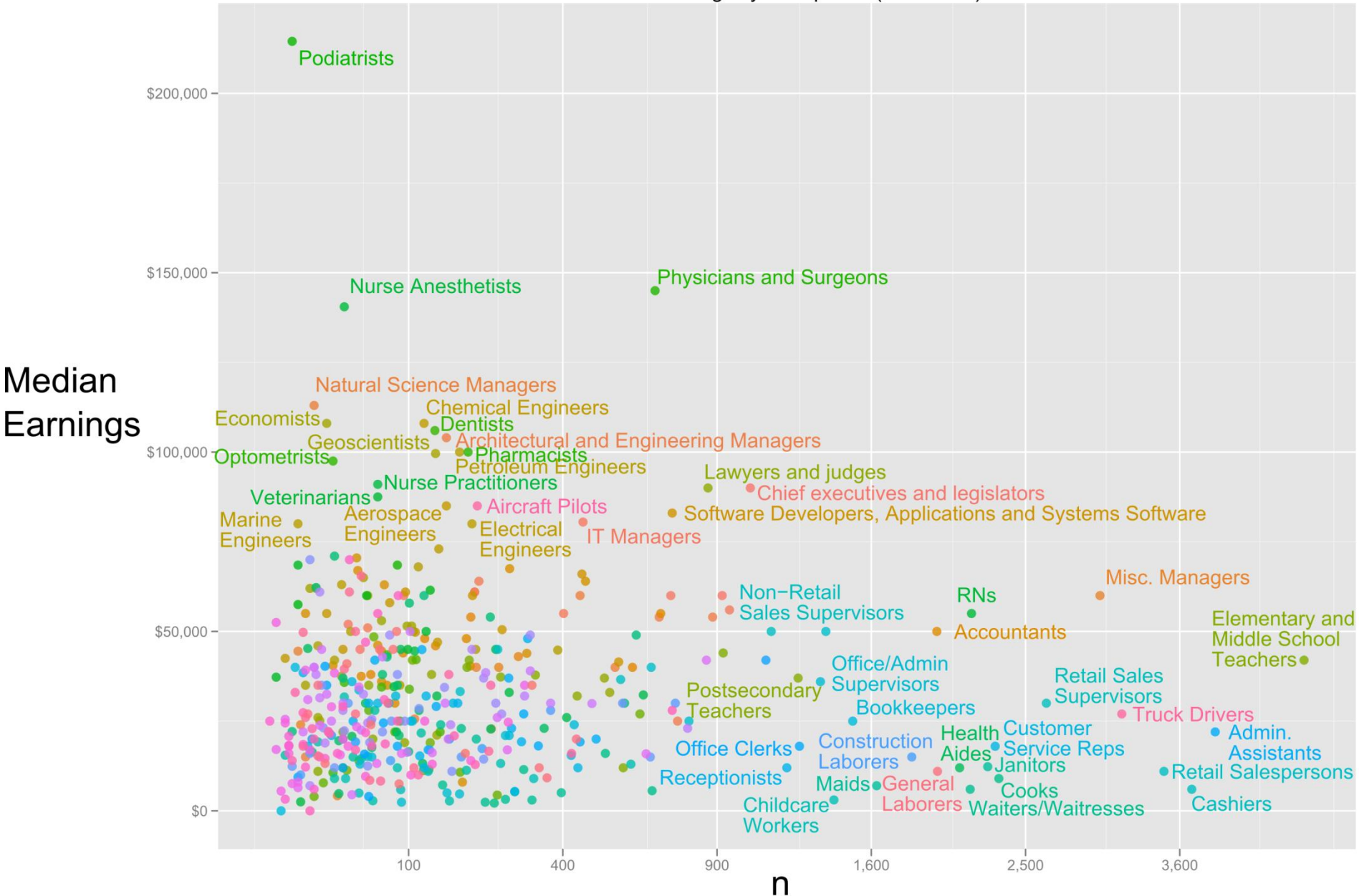
Sources and Methods

- Data provided by the Texas Higher Education Coordinating Board
- Graduation data from the CBM009 are linked to Unemployment Insurance Wage records to determine employment and wages
- Graduation data includes both public and private, 2-yr and 4-yr institutions
- TWC Projections data 2008-2018
- Wages from TWC Wage Information Network
- Texas Occupations/Majors from IPUMS (American Community Survey 2010 Texas data).

Majors with Occupation Links Earn More

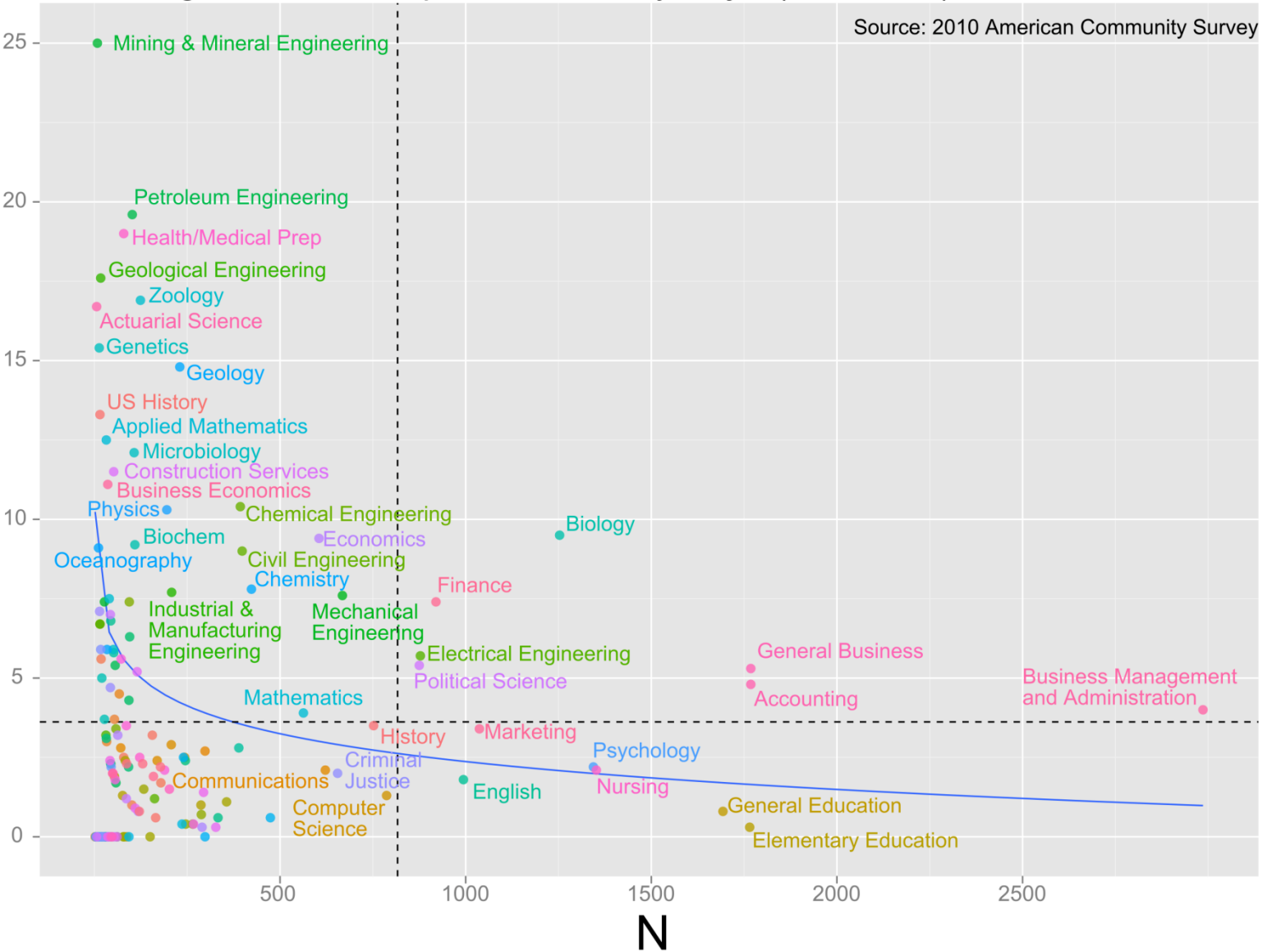


Because Related Occupations Earn More



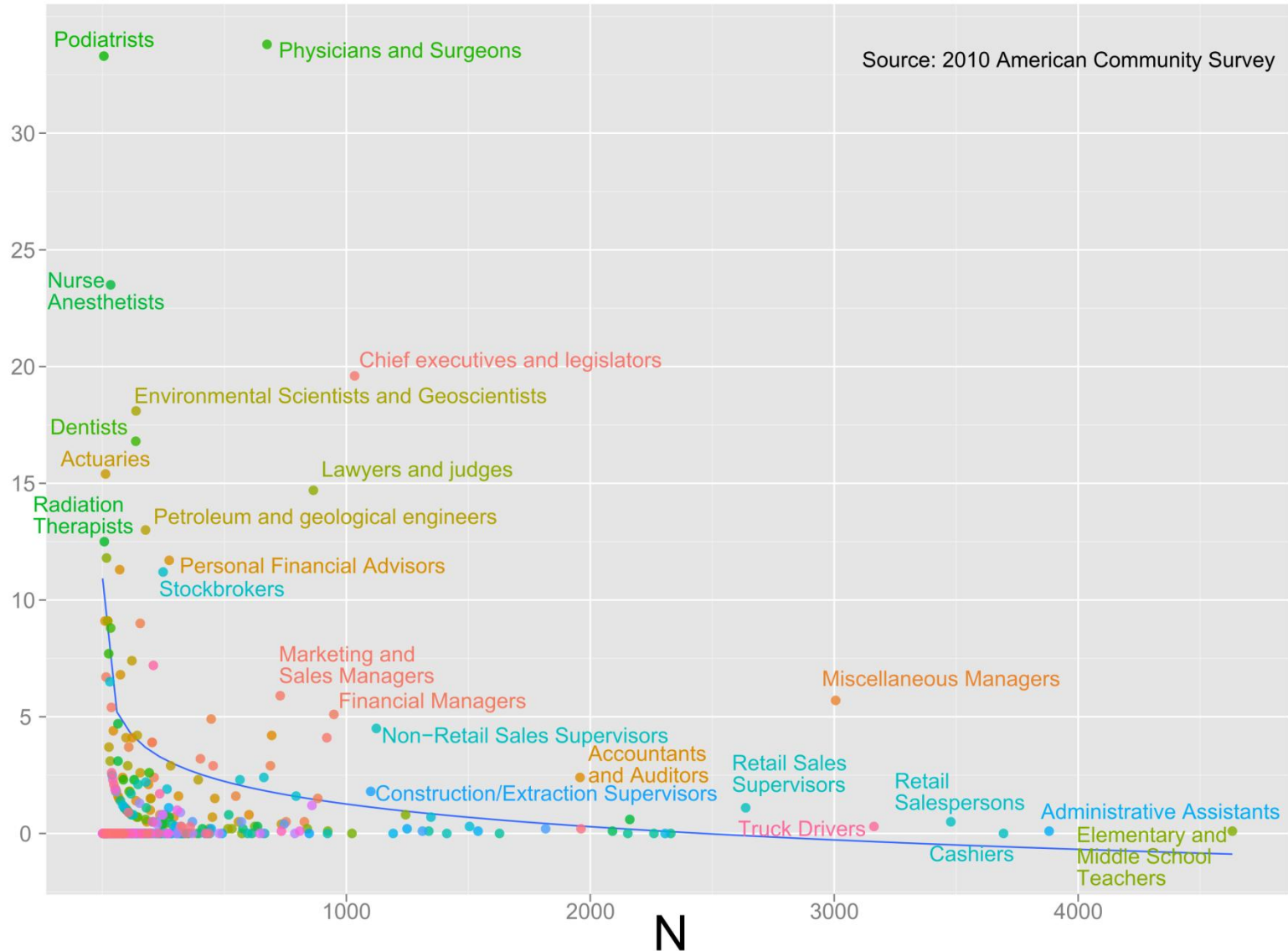
But Top Earners Concentrate in Top Industries

Percent of Major Group in Top 1%



Health, Engineering and Management

Percent of Occupation in Top 1%



Business Administration and Management

16,965

Projected Average Annual Openings 2008-2018

5,570

Weighted Moving Average Graduates 2006-2010

POSSIBLE OCCUPATIONS

Administrative Services Managers

Chief Executives

Construction Managers

Farm, Ranch, & Other Agricultural Managers

General and Operations Managers

Logisticians

Management Analysts

Natural Sciences Managers

Property/Real Estate Managers

Purchasing Managers

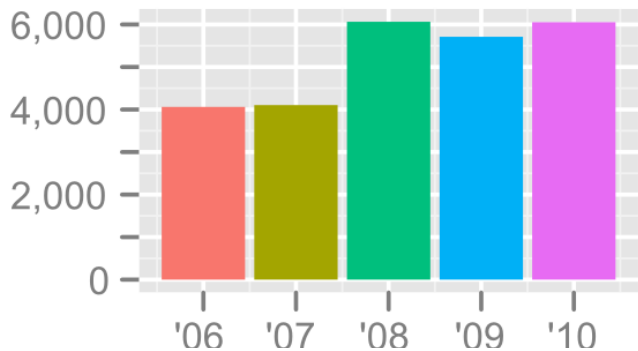
Sales Managers

Social and Community Service Managers

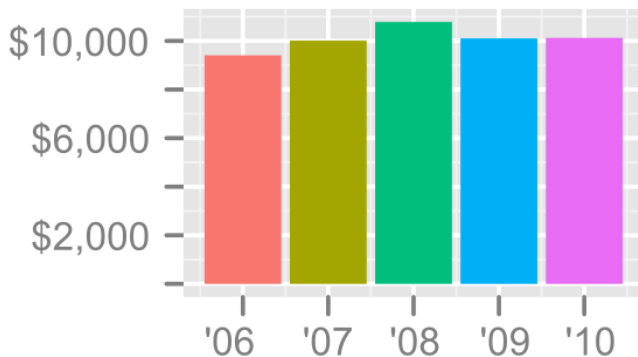
Training and Development Managers

Civil or Environmental Engineers

Graduates by Year



Average Quarterly Wages



International Relations and Affairs

20

119

Projected Average
Annual Openings
2008-2018

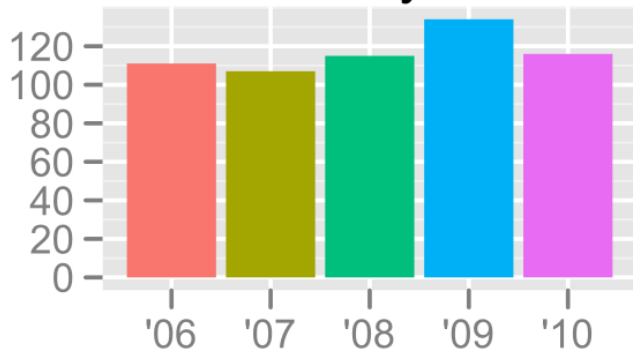
Weighted Moving
Average Graduates
2006-2010

POSSIBLE OCCUPATIONS

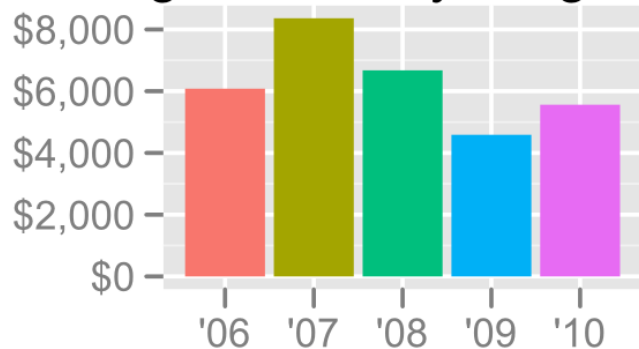
Political Scientists

Um...Graduate School!?

Graduates by Year



Average Quarterly Wages



Registered Nursing, Nursing Admin

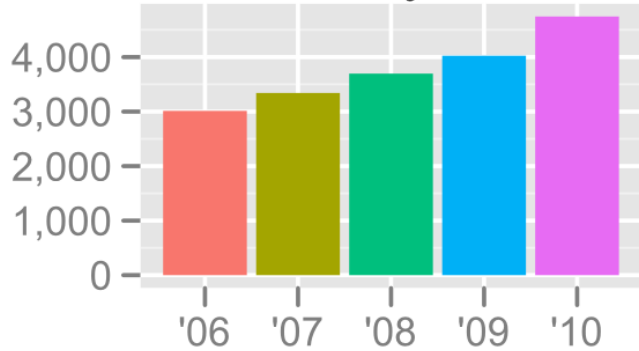
4,485

Projected Average Annual Openings 2008-2018

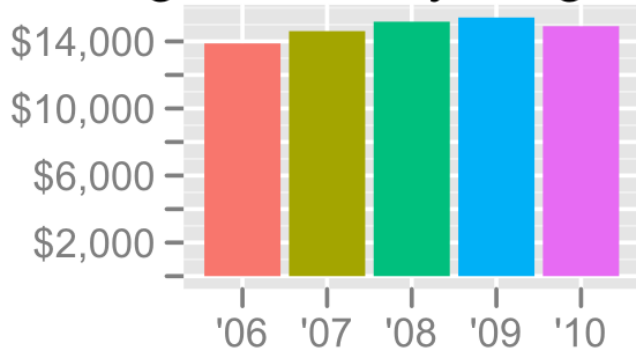
4,041

Weighted Moving Average Graduates 2006-2010

Graduates by Year



Average Quarterly Wages



POSSIBLE OCCUPATIONS

Community and Social Service Specialists

Health Educators

Informatics Nurse Specialists

Medical and Public Health Social Workers

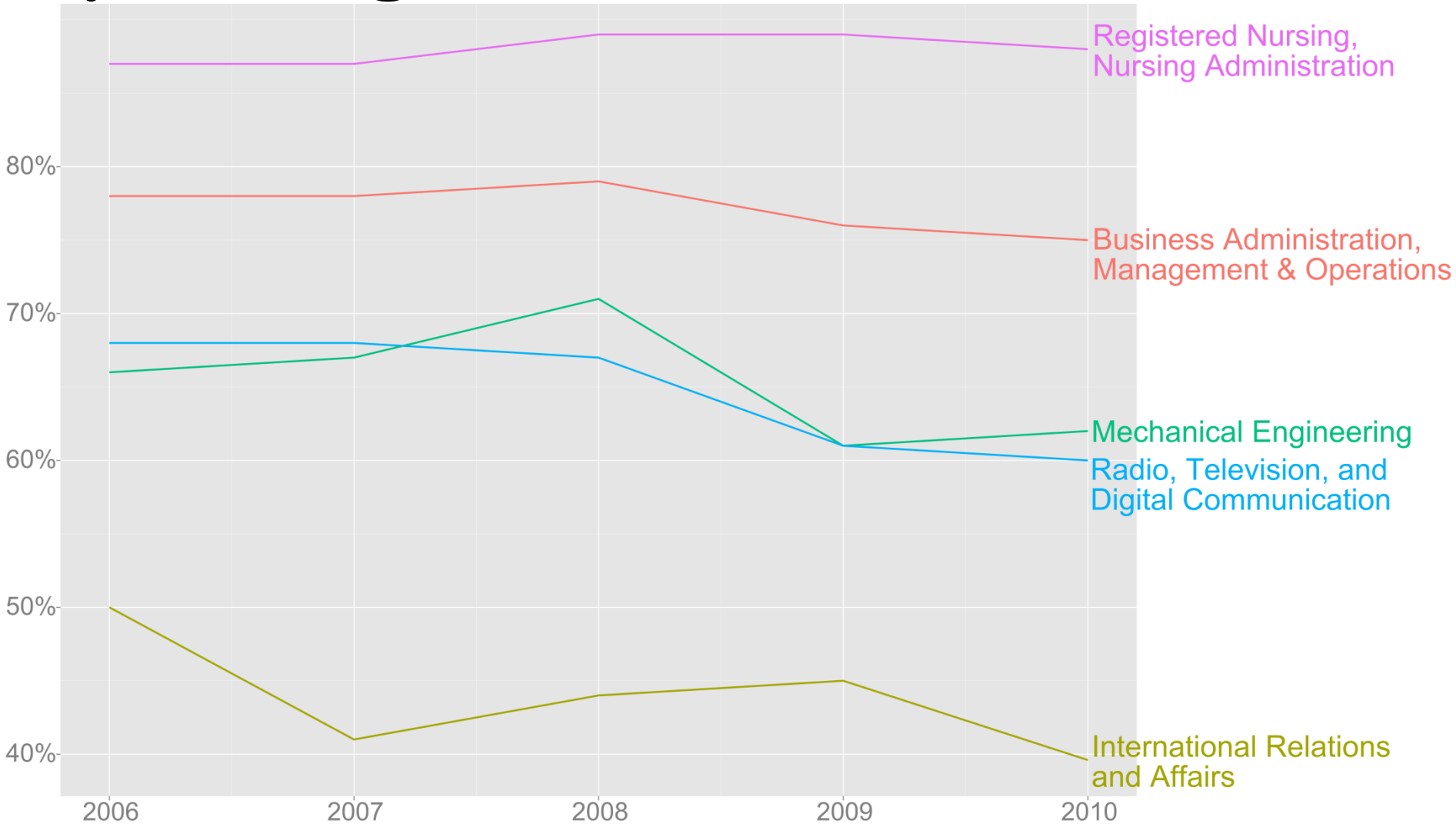
Nurse Anesthetists

Nurse Practitioners

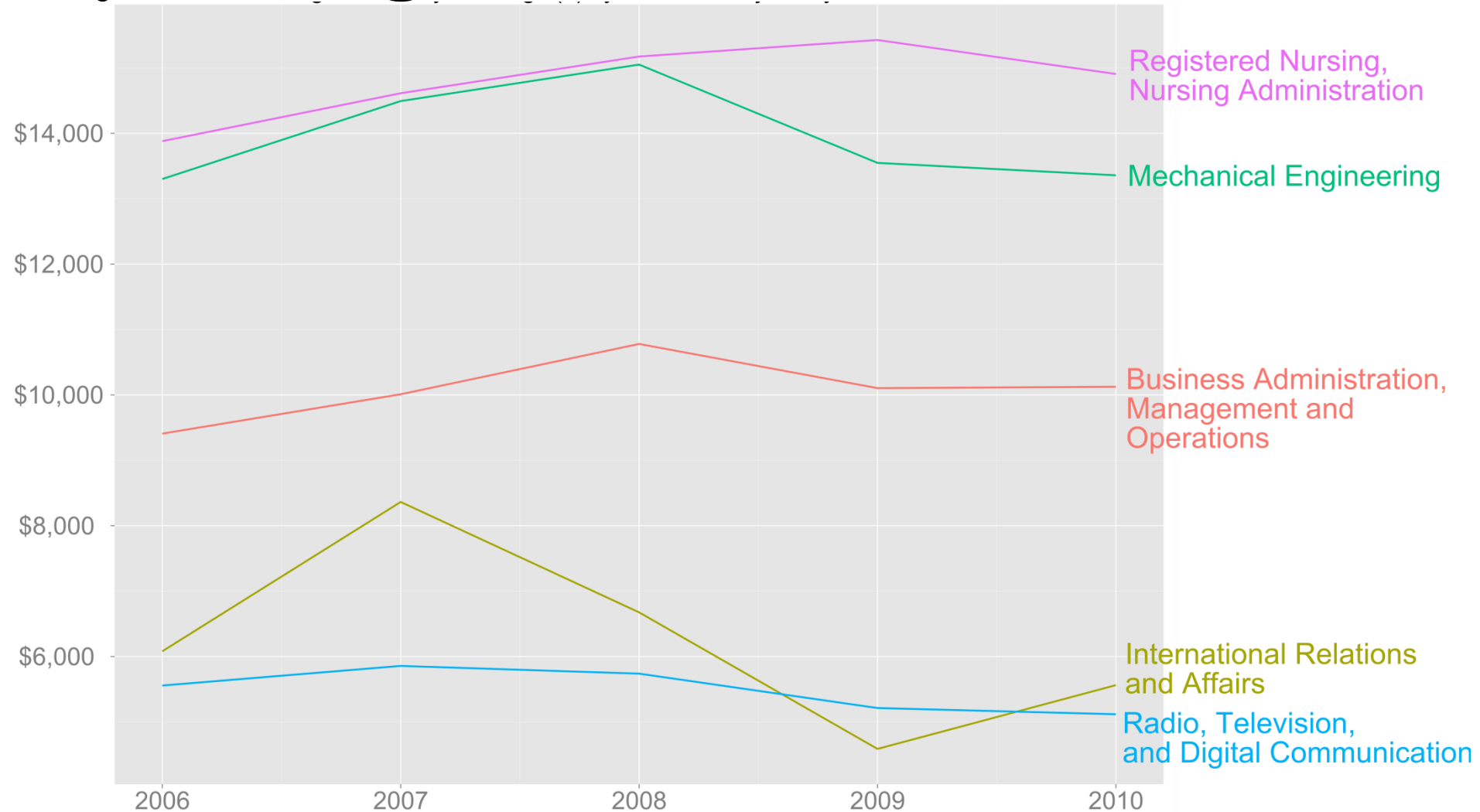
Clinical Nurse Specialists

Medical and Health Services Managers

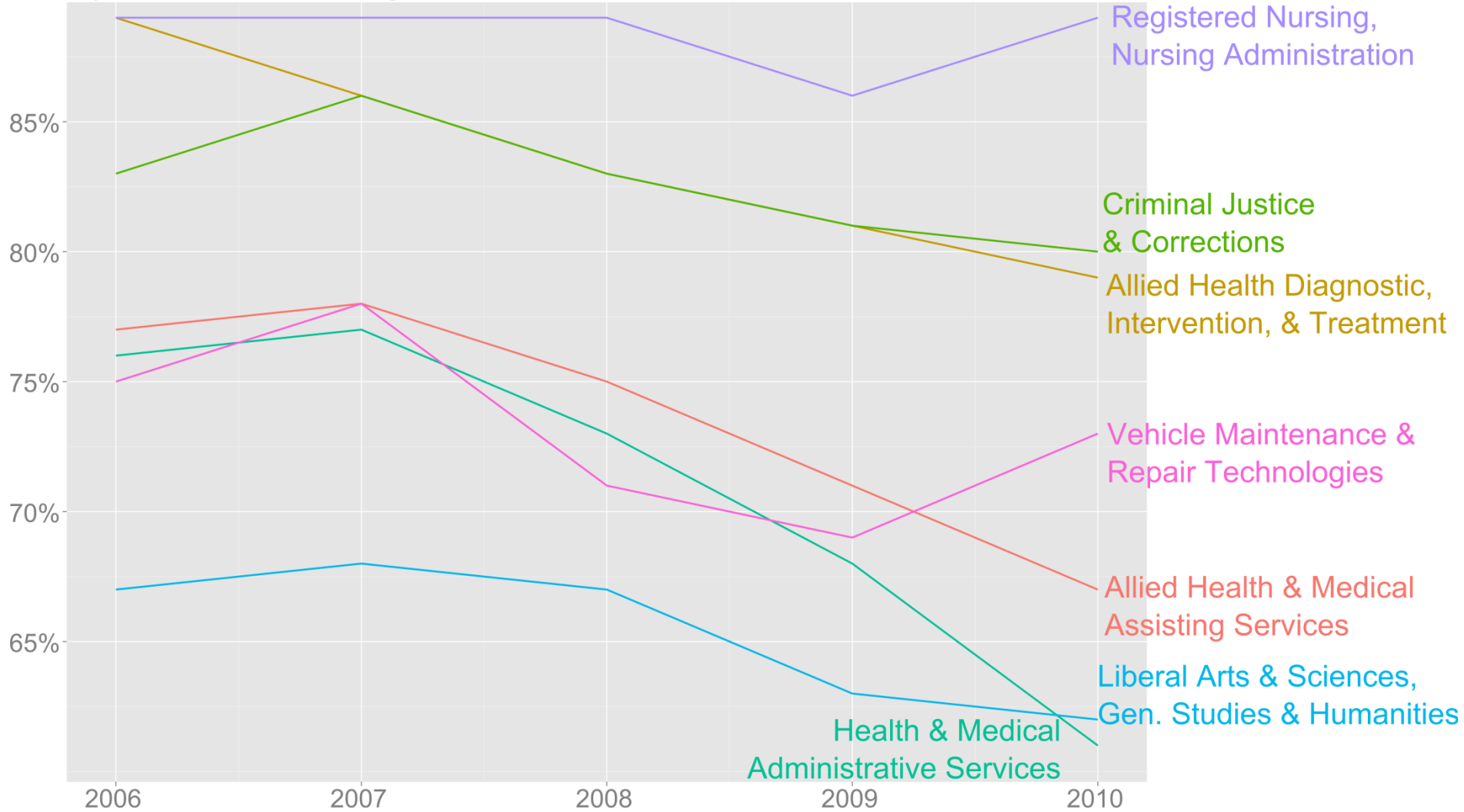
Average Percent Employment , Selected 4-year Programs



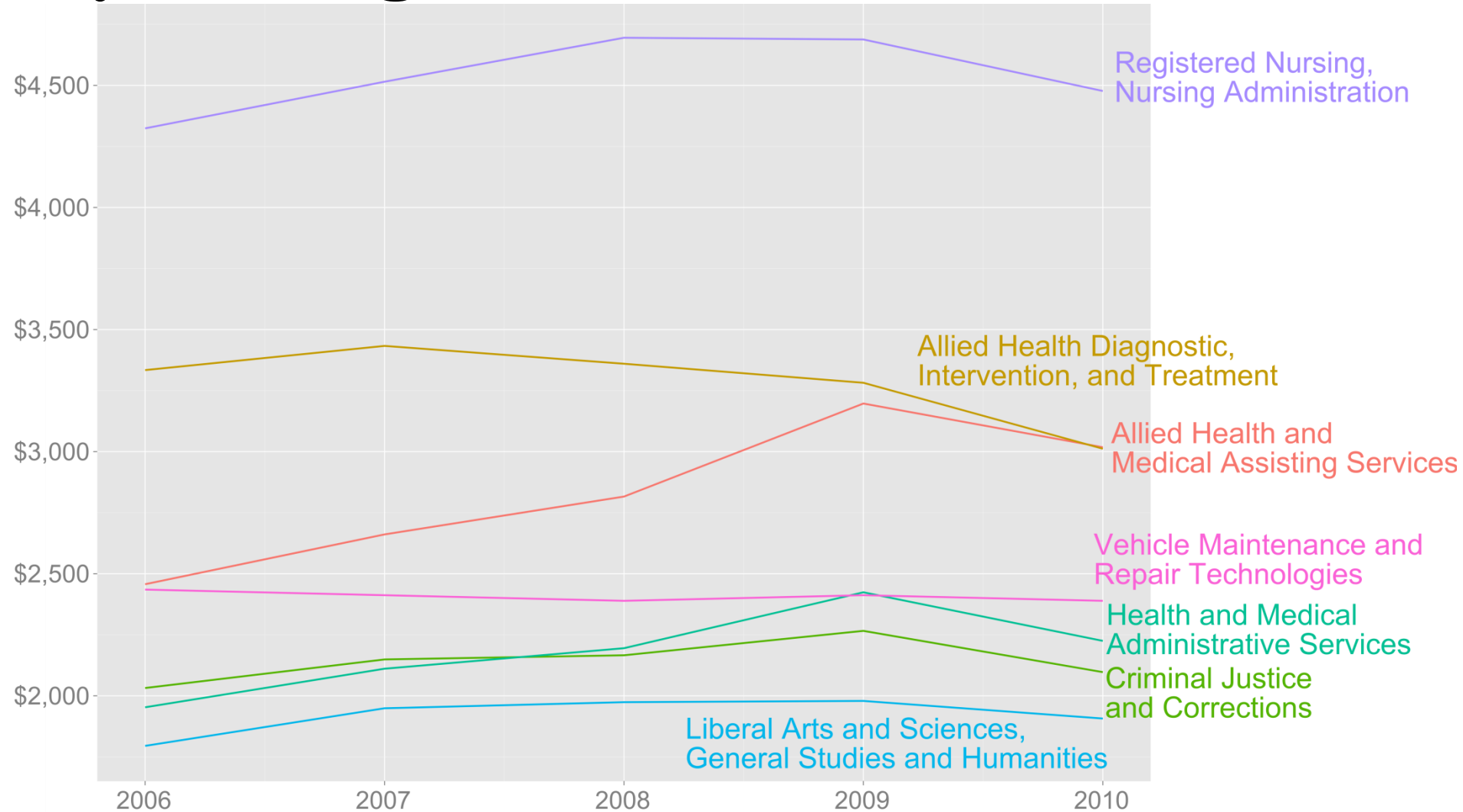
Average Quarterly Earnings, Selected 4-year Programs



Average Percent Employed , Selected 2-year Programs



Average Quarterly Earnings, Selected 2-year Programs



Graduates/Opening /Help Wanted On Line Comparison

“Surplus”				“Shortage”			
<i>Occupation</i>	<i>Projected Opening</i>	<i>Graduate 2010</i>	<i>Avg. HOW*</i>	<i>Occupation</i>	<i>Projected Opening</i>	<i>Graduate 2010</i>	<i>Avg. HOW*</i>
Historians	5	3,021	1	Registered Nurses	8,565	6,134	8,283
Accountants and Auditors	3,960	7,133	2,378	Elementary School Teachers,	9,405	1,010	212
Graphic Designers	610	636	329	Computer Software Engineers	1,880	1,327	1,375
Clinical Data Managers	25	1,739	35	Electricians	2,305	789	314
Social & Community Service Managers	315	19,359	357	Truck Drivers, Heavy and Tractor-Trailer	5,530	3,561	2,157
Audio-Visual Collections Specialists	20	359	2	Pharmacists	865	584	599
Budget Analysts	175	9,842	27	Cooks, Restaurant	4,120	1,627	380

* Avg. 6 month Help Wanted online

Concluding Thoughts

Major **matters!**

Programs **directly aligned with occupations** have better employment and wages.

Need **occupational titles** to accurately measure supply and demand.

Enhance Unemployment Insurance Wage Records
or conduct Employer Follow-up Survey.

Contact

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