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Actuarial and Analytics Hiring Trends in the Global Insurance & Reinsurance Markets

Presented by



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Let's Interact...

- ① How many of you have considered working abroad?
- ② How many of you currently work abroad?
 - I. What field do you work in?
 - II. What challenges did you face?
 - III. What languages do you speak?
- ③ Consulting, Insurance or Reinsurance?
- ④ Life, Health, Casualty or Pension?



A look back at the last ten years...

- How has the demand for actuaries changed?
- What's hot and what's not?
- How did the Global Financial Crisis affect the market?

ACAS Access Analytics ASA
Commercial Lines Consulting English Excel
FCAS Financial Reporting Forecasting
FSA Health Illinois Indiana Iowa Life MAAA
Massachusetts Modeling New Jersey
New York Non-Traditional P&C P&C International
P&C Northeast Personal Lines Pre-ACAS Pre-ASA
Pre-FCAS Pre-FSA Predictive Modeling
Pricing Product Development
Quantitative Analysis Ratemaking Reinsurance
Reserving Risk Management SAS
SQL Student Actuary
Underwriting
Valuation VBA

Emerging Markets

- ① Non-Traditional actuarial roles
 - Predictive Modeling, Financial Roles, etc
- ② Products in Demand
 - Terrorism Insurance
 - Critical Illness Insurance
- ③ Fastest growing markets
 - China
 - Brazil
 - Singapore
 - US Health Market
- ④ Skills In Demand
 - Management Experience, Communication Skills, Solvency II, Quantitative Analysis, Predictive Modeling, Programming / Software, Enterprise Risk Management, CAT Modeling, Multilingual



Actuarial Hiring Trends Online

actuary OR actuarial Job Trends

Scale: [Absolute](#) - [Relative](#)

Job Trends from Indeed.com
— actuary OR actuarial



Indeed.com searches millions of jobs from thousands of job sites.
This job trends graph shows relative growth for jobs we find matching your search terms.

actuary OR actuarial Job Trends

Scale: [Absolute](#) - [Relative](#)

Job Trends from Indeed.com
— actuary OR actuarial

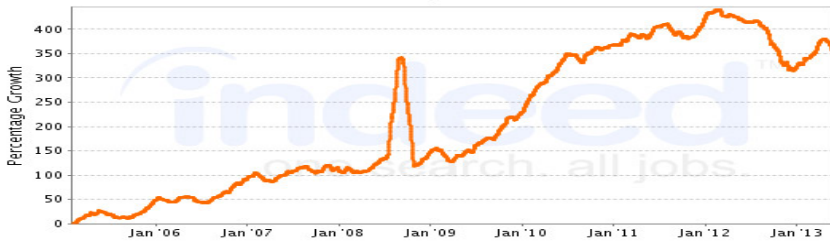


Indeed.com searches millions of jobs from thousands of job sites.
This job trends graph shows the percentage of jobs we find that contain your search terms.

analytics Job Trends

Scale: [Absolute](#) - [Relative](#)

Job Trends from Indeed.com
— analytics



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analytics Job Trends

Scale: [Absolute](#) - [Relative](#)

Job Trends from Indeed.com
— analytics

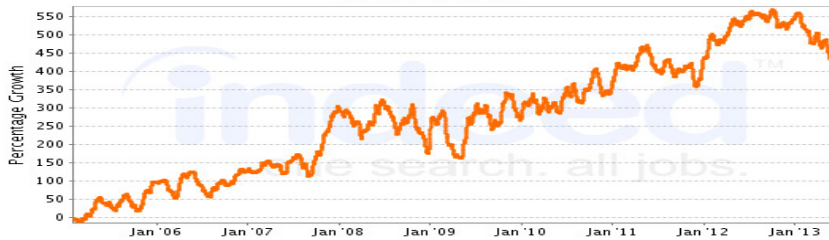


Indeed.com searches millions of jobs from thousands of job sites.
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"predictive modeling" Job Trends

Scale: [Absolute](#) - [Relative](#)

Job Trends from Indeed.com
— "predictive modeling"

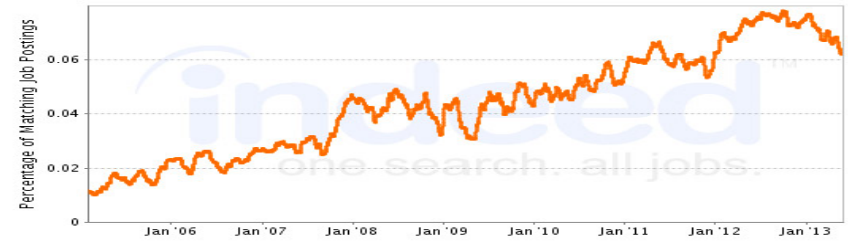


Indeed.com searches millions of jobs from thousands of job sites.
This job trends graph shows relative growth for jobs we find matching your search terms.

"predictive modeling" Job Trends

Scale: [Absolute](#) - [Relative](#)

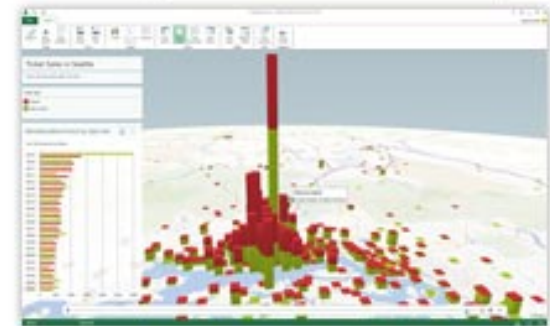
Job Trends from Indeed.com
— "predictive modeling"



Indeed.com searches millions of jobs from thousands of job sites.
This job trends graph shows the percentage of jobs we find that contain your search terms.

Actuarial “Competitors”

- ① Big Data
- ② Crowd-sourcing
- ③ Analytics w/o Actuaries
- ④ Open Source
- ⑤ Predictive Modeling



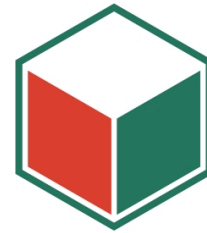
How to increase the visibility of actuaries in Non-Traditional markets...



Institute
and Faculty
of Actuaries



SOCIETY OF ACTUARIES



iap

Instituto dos Actuários Portugueses



ACTUARIAL SOCIETY
of
HONG KONG
香港精算學會



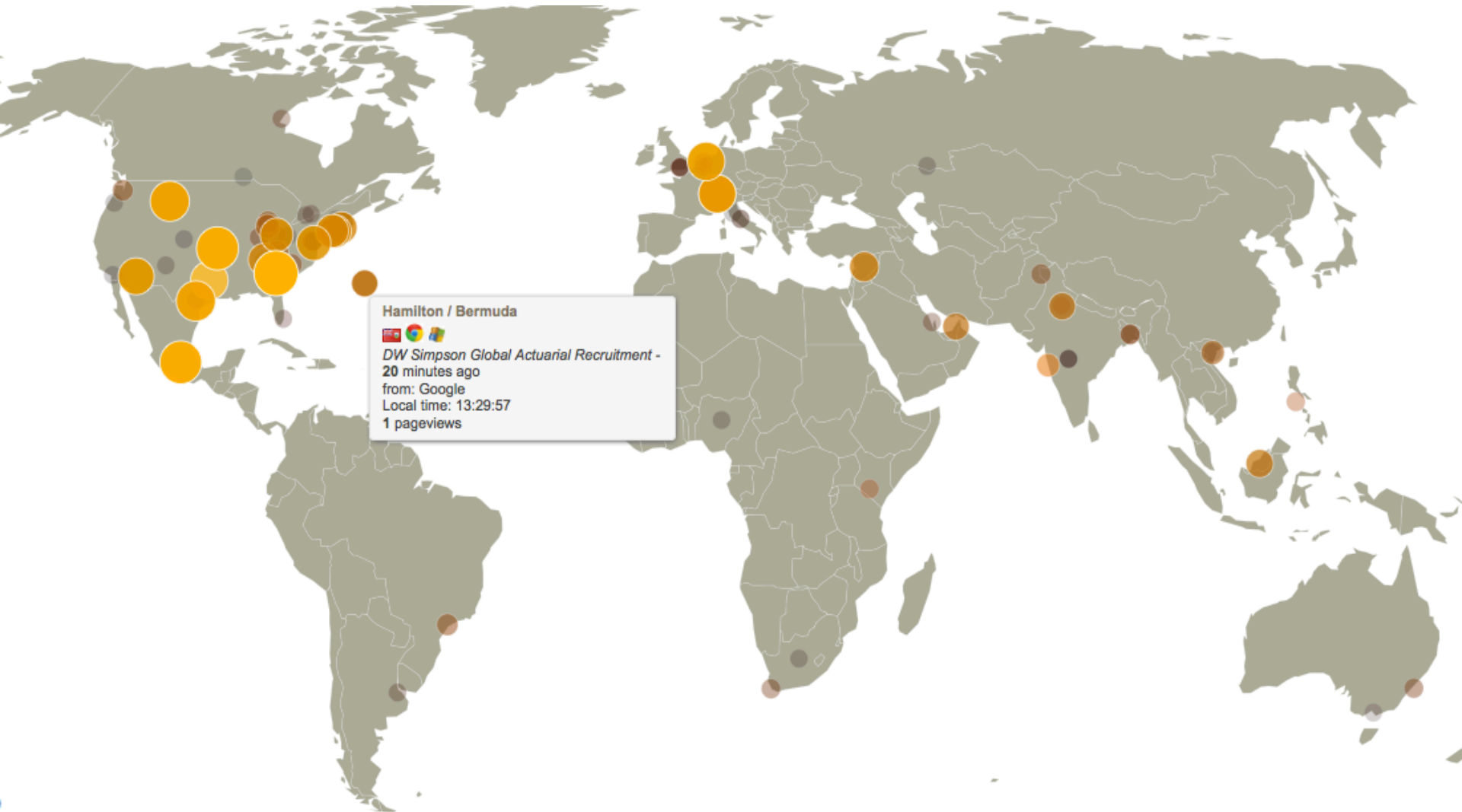
AMERICAN ACADEMY
of ACTUARIES



ICA 2014 CIA
WASHINGTON DC

Where are the job seekers?

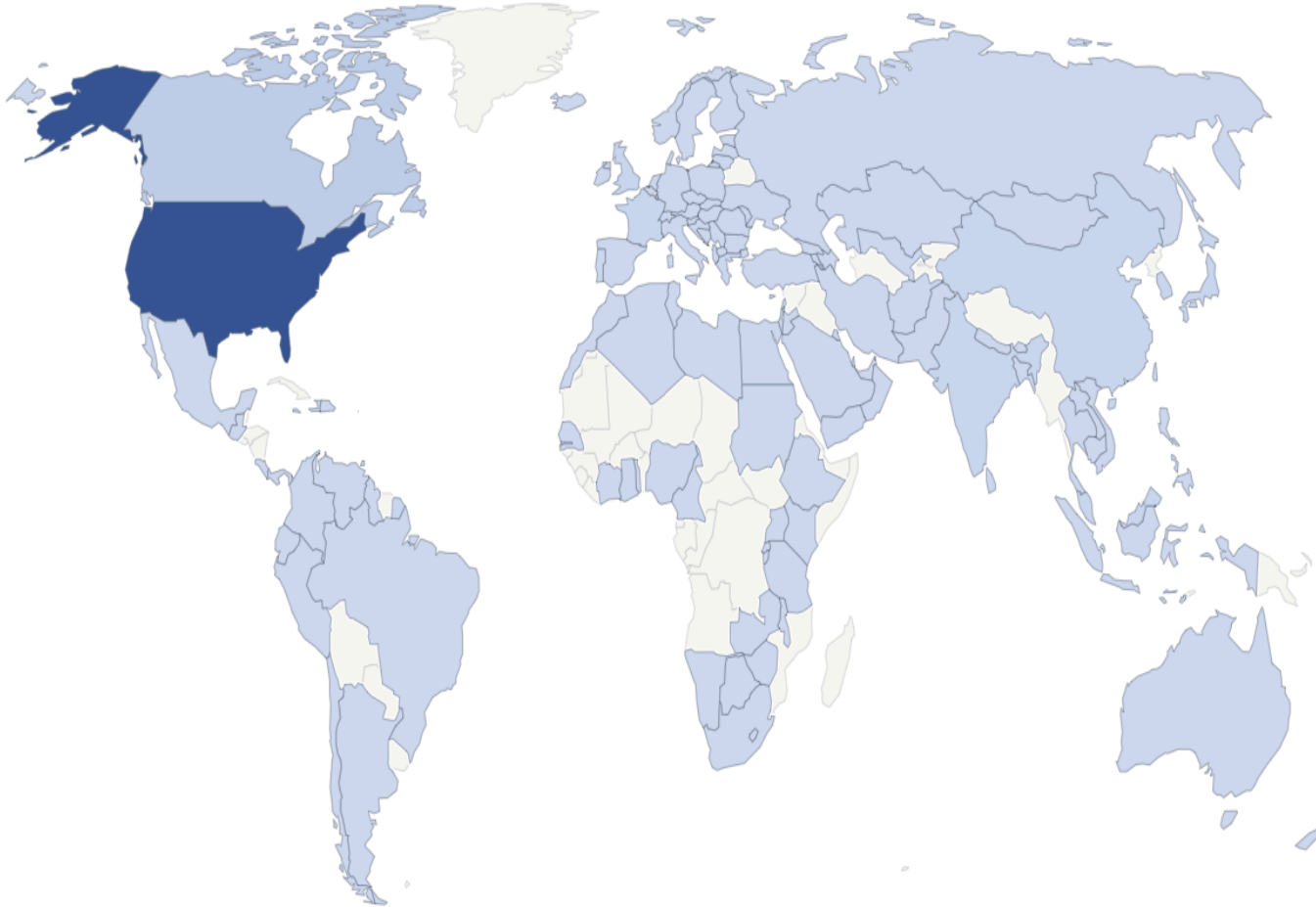
March 25, 2014 @ 12:51 EST



Where are the job seekers?

www.dwsimpson.com stats for individual job views over 60 days

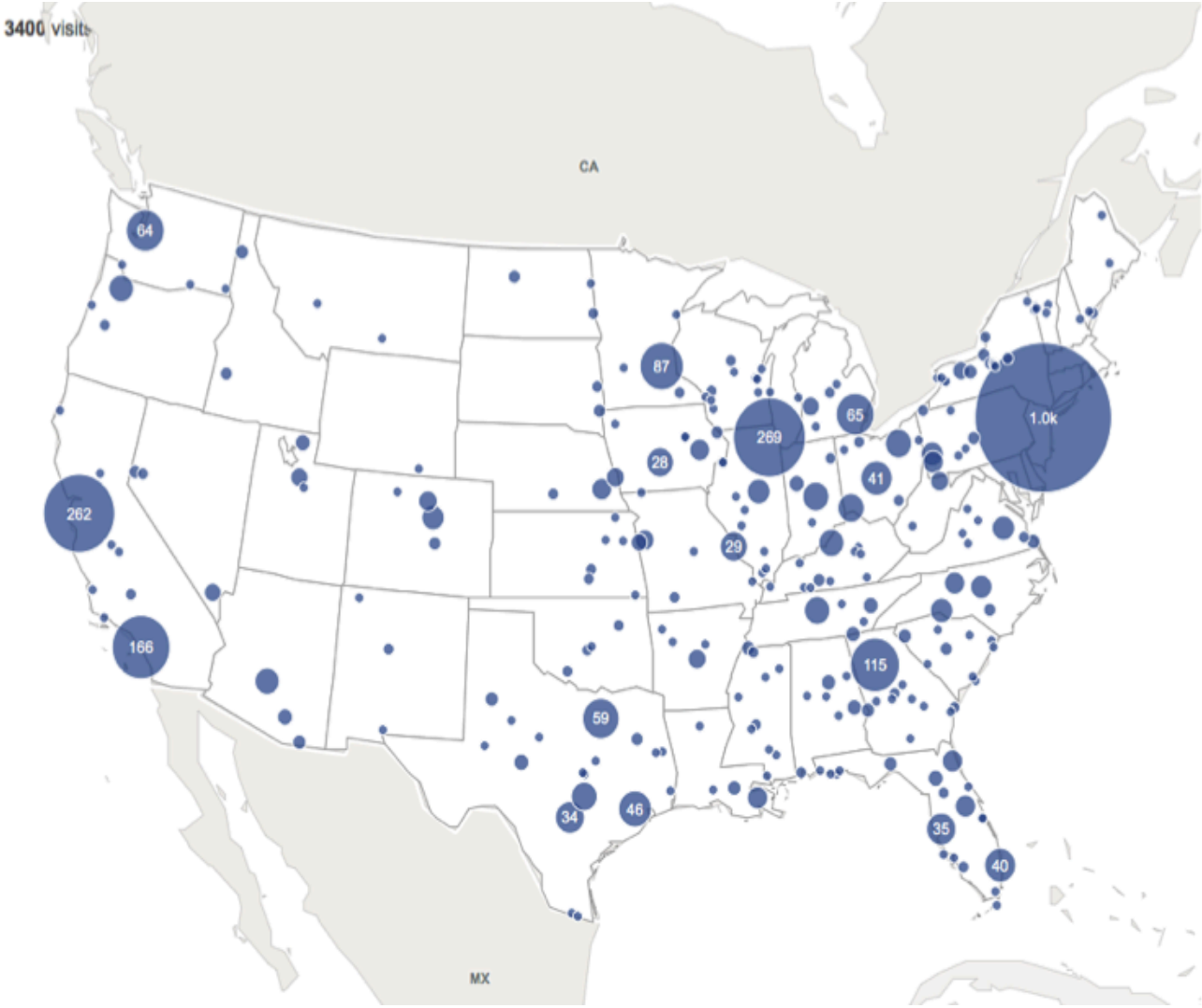
54.4k visits



Country	Visits
United States	43844
Canada	4042
Japan	1125
United Kingdom	643
India	626
China	411
Hong Kong	263
France	220
South Africa	189
Korea, Republic of	157
Malaysia	154
Singapore	148
Taiwan, Province of China	141
Pakistan	140
Bermuda	129
Ireland	127
Philippines	125
Switzerland	121
Australia	117
Germany	112
Vietnam	71
Jamaica	67
Italy	64
Mexico	61
Thailand	61

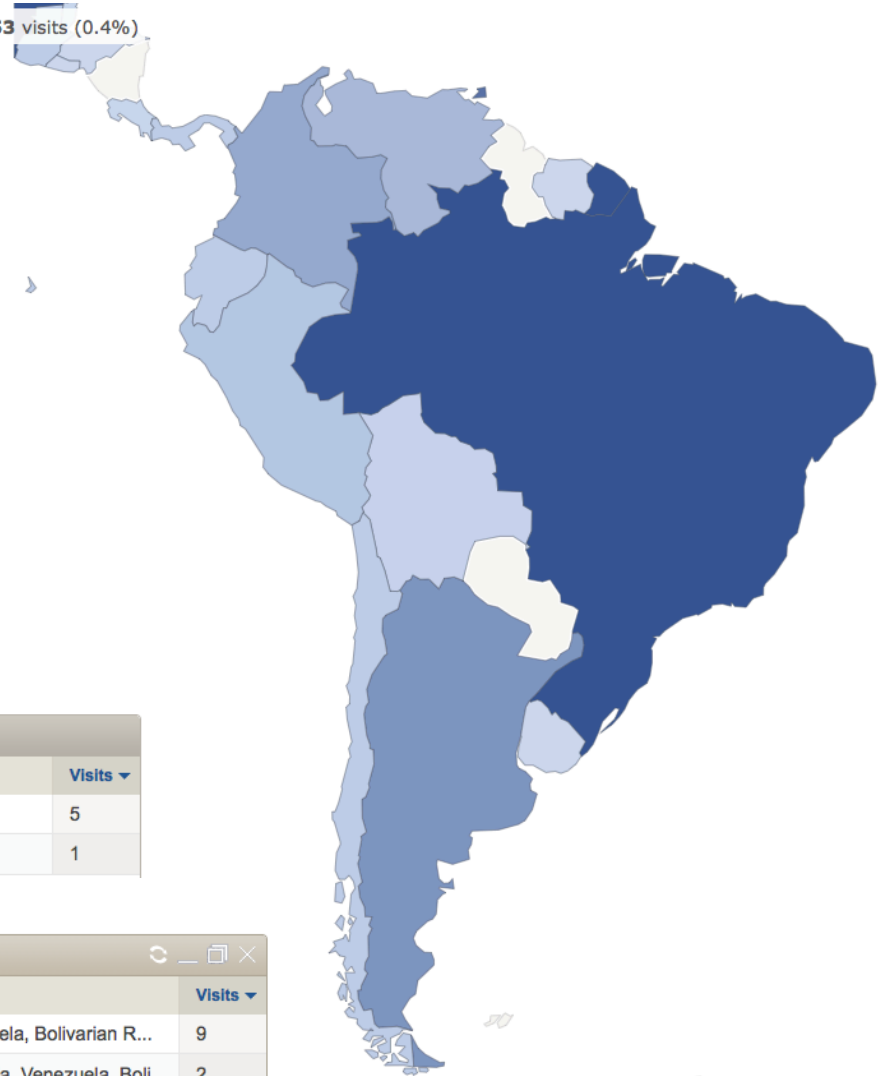
United States

Visitor Location (City)	
City	Visits
New York, New York, United States	532
Chicago, Illinois, United States	494
Palo Alto, California, United States	461
Philadelphia, Pennsylvania, United States	394
Menlo Park, California, United States	370
Brooklyn, New York, United States	232
Atlanta, Georgia, United States	210
Houston, Texas, United States	190
Minneapolis, Minnesota, United States	190
Seattle, Washington, United States	169
San Antonio, Texas, United States	163
Los Angeles, California, United States	158
Ashburn, Virginia, United States	145
Madison, Wisconsin, United States	130
San Francisco, California, United States	109
Columbus, Ohio, United States	106
Washington, District of Columbia, United States	104
Pittsburgh, Pennsylvania, United States	101
San Diego, California, United States	99
Boston, Massachusetts, United States	97
Austin, Texas, United States	93
Dallas, Texas, United States	89
Saint Paul, Minnesota, United States	85
Portland, Oregon, United States	81
Ann Arbor, Michigan, United States	77



South America

153 visits (0.4%)



Visitor Location (City)	
City	Visits
São Paulo, Sao Paulo, Brazil	21
Rio De Janeiro, Rio de Janeiro, Brazil	7
Jundiaí, Sao Paulo, Brazil	5
São Bernardo, Sao Paulo, Brazil	4
Brasília, Distrito Federal, Brazil	2

Visitor Location (City)	
City	Visits
Buenos Aires, Distrito Federal, Argentina	19
Avellaneda, Buenos Aires, Argentina	1
Bariloche, Rio Negro, Argentina	1
Cordoba, Cordoba, Argentina	1

Visitor Location (City)	
City	Visits
Bogotá, Distrito Especial, Colombia	14
Medellín, Antioquia, Colombia	6

Visitor Location (City)	
City	Visits
Santiago, Region Metropolitana, Chile	5
Concepcion, Bio-Bio, Chile	1

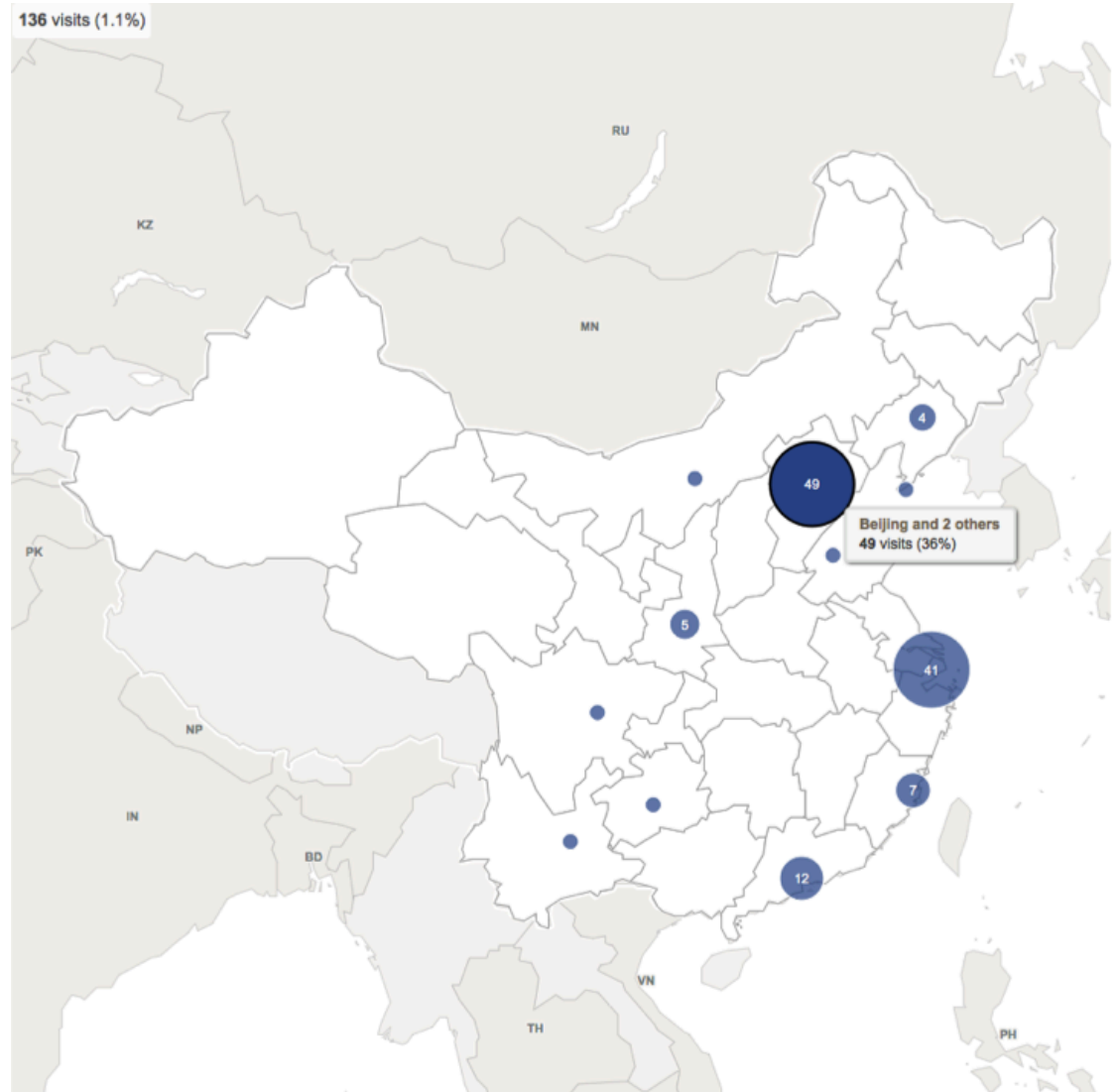
Visitor Location (City)	
City	Visits
Caracas, Distrito Federal, Venezuela, Bolivarian R...	9
San Antonio De Los Altos, Miranda, Venezuela, Boli...	2



Visitor Location (City)

City	Visits
Taipei, T'ai-pei, Taiwan, Province of China	141
Beijing, Beijing, China	74
Shanghai, Shanghai, China	71
Guangzhou, Guangdong, China	30
Fuzhou, Fujian, China	8
Taichung, T'ai-wan, Taiwan, Province of China	7
Xian, Shaanxi, China	7
Chengdu, Sichuan, China	6
Hangzhou, Zhejiang, China	6
Ilan, T'ai-wan, Taiwan, Province of China	5
Shenyang, Liaoning, China	5
Shenzhen, Guangdong, China	5
Tianjin, Tianjin, China	5
Wuhan, Hubei, China	5
Hsinchu, T'ai-wan, Taiwan, Province of China	4
Nanjing, Jiangsu, China	4
Qingdao, Shandong, China	4
Tainan, T'ai-wan, Taiwan, Province of China	4
Hebei, Hebei, China	3
Ningbo, Zhejiang, China	3

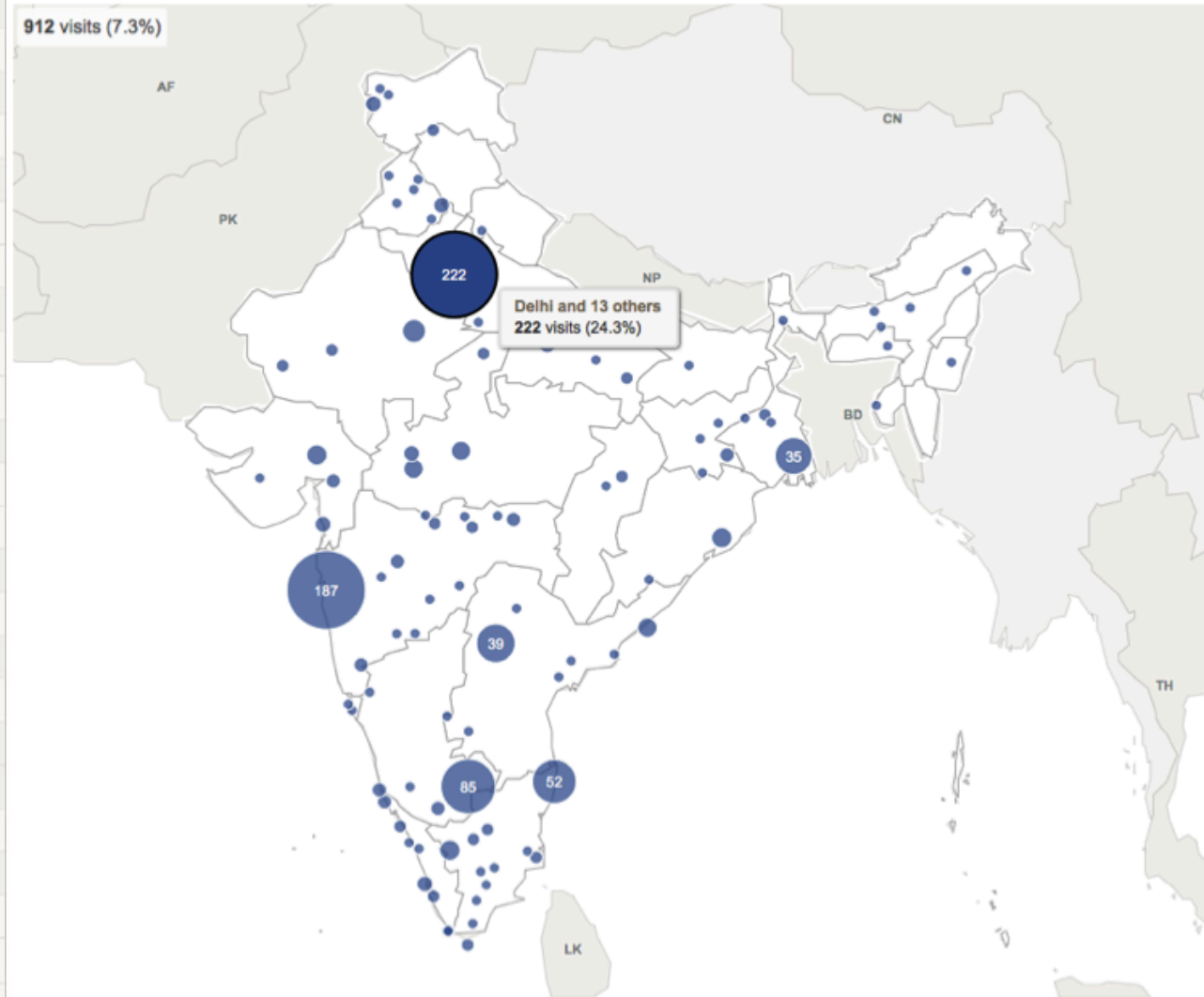
China



Visitor Location (City)

City	Visits
Mumbai, Maharashtra, India	320
Delhi, Delhi, India	203
Bangalore, Karnataka, India	200
New Delhi, Delhi, India	199
Chennai, Tamil Nadu, India	116
Hyderabad, Andhra Pradesh, India	116
Pune, Maharashtra, India	86
Kolkata, West Bengal, India	61
Gurgaon, Haryana, India	59
Noida, Uttar Pradesh, India	55
Ghaziabad, Uttar Pradesh, India	31
Jaipur, Rajasthan, India	23
Faridabad, Haryana, India	21
Ahmedabad, Gujarat, India	18
Bhopal, Madhya Pradesh, India	16
Indore, Madhya Pradesh, India	16
Bhubaneswar, Orissa, India	14
Chandigarh, Chandigarh, India	13
Visakhapatnam, Andhra Pradesh, India	12
Coimbatore, Tamil Nadu, India	11
Kundan, Jammu and Kashmir, India	11
Thane, Maharashtra, India	11
Lucknow, Uttar Pradesh, India	10
Nagpur, Maharashtra, India	9
Kanpur, Uttar Pradesh, India	8

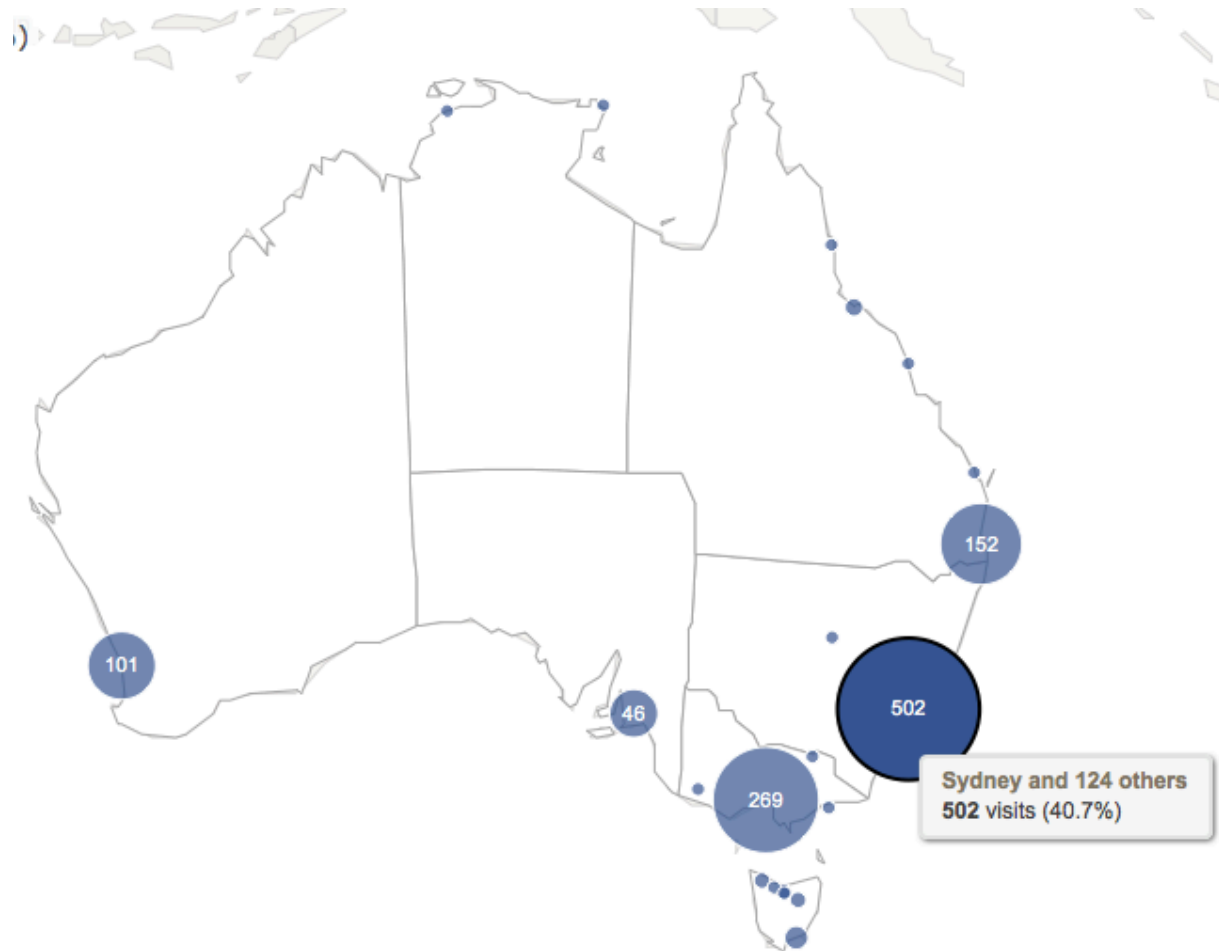
India



Visitor Location (City)

City	Visits
 Sydney, New South Wales, Australia	136
 Melbourne, Victoria, Australia	94
 Perth, Western Australia, Australia	88
 Brisbane, Queensland, Australia	80
 Canberra, Australian Capital Territory, Australia	36
 Adelaide, South Australia, Australia	31
 Ryde, New South Wales, Australia	14
 Parramatta, New South Wales, Australia	13
 Pyrmont, New South Wales, Australia	13
 Strathfield, New South Wales, Australia	11
 Emu Plains, New South Wales, Australia	10
 Thornleigh, New South Wales, Australia	10
 Epping, New South Wales, Australia	9
 Merrylands, New South Wales, Australia	8
 Bexley, New South Wales, Australia	7
 Clayton, Victoria, Australia	7
 Lane Cove, New South Wales, Australia	7
 Mortdale, New South Wales, Australia	7
 Rhodes, New South Wales, Australia	7
 Albany Creek, Queensland, Australia	6
 Chatswood, New South Wales, Australia	6

Australia

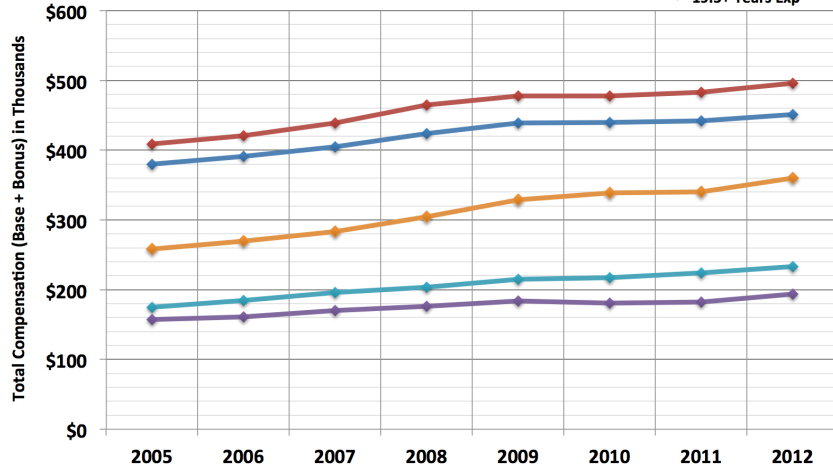


US Salaries over the past 8 years...

FCAS Salaries

90th Percentile Data from www.dwsimpson.com/salary

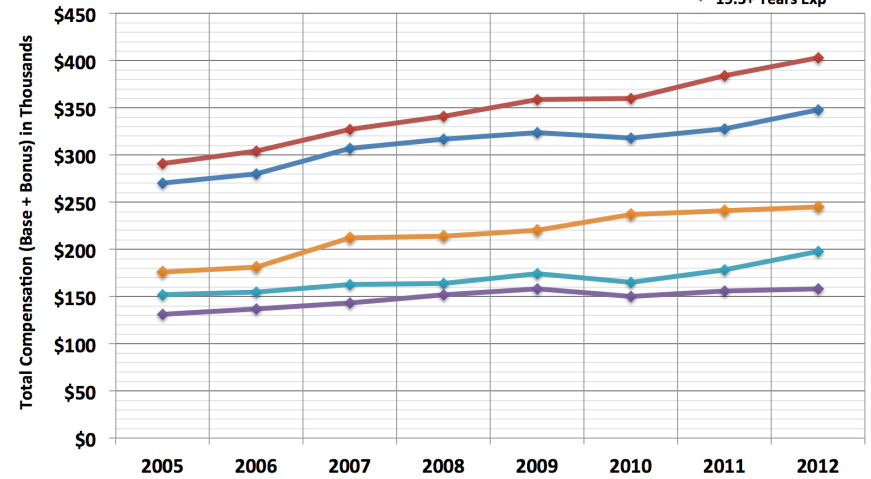
- 4.5 - 6.5 Years Exp
- 6.5 - 9.5 Years Exp
- 9.5 - 14.5 Years Exp
- 14.5 - 19.5 Years Exp
- 19.5+ Years Exp



Life & Health FSA Salaries

90th Percentile Data from www.dwsimpson.com/salary

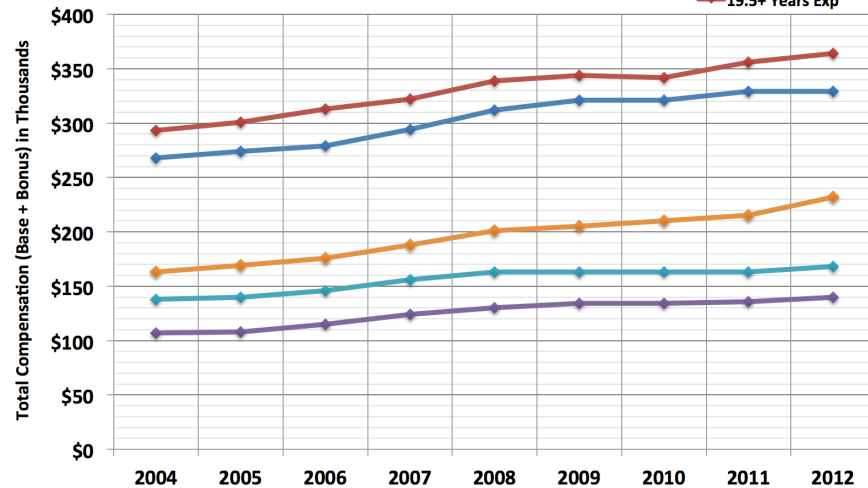
- 4.5 - 6.5 Years Exp
- 6.5 - 9.5 Years Exp
- 9.5 - 14.5 Years Exp
- 14.5 - 19.5 Years Exp
- 19.5+ Years Exp



Pension FSA Salaries

90th Percentile Data from www.dwsimpson.com/salary

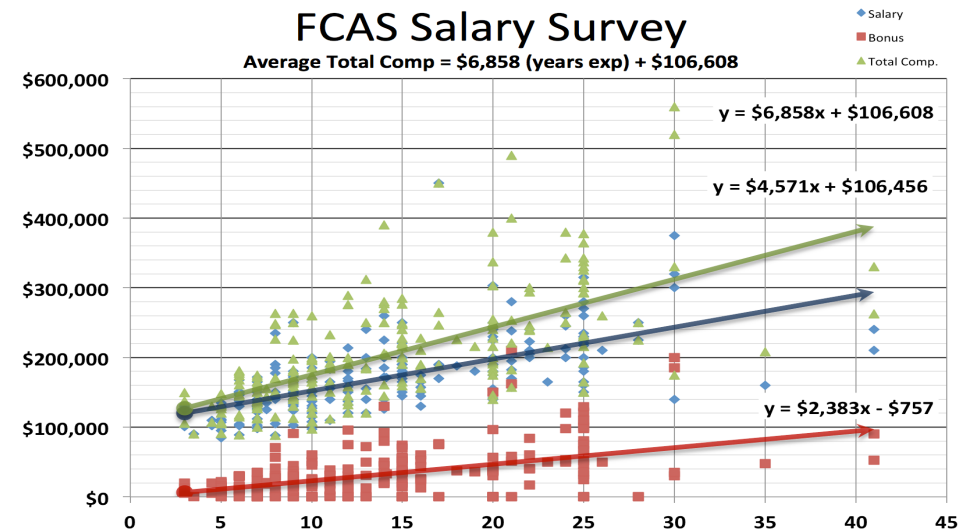
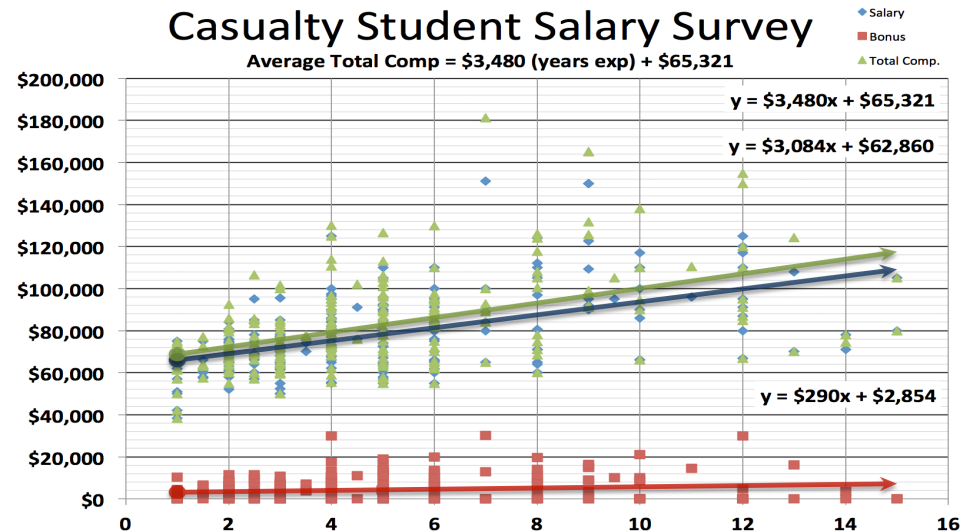
- 4.5 - 6.5 Years Exp
- 6.5 - 9.5 Years Exp
- 9.5 - 14.5 Years Exp
- 14.5 - 19.5 Years Exp
- 19.5+ Years Exp



Actuaries in the United States

Casualty

- ① Largest market for actuaries
- ② Steady growth
- ③ Highest salaries
- ④ Casualty Actuarial Society
- ⑤ SOA recently added General Insurance Track
- ⑥ FCAS / ACAS membership
- ⑦ Overall market figures
- ⑧ Job numbers by location



Actuaries in the United States

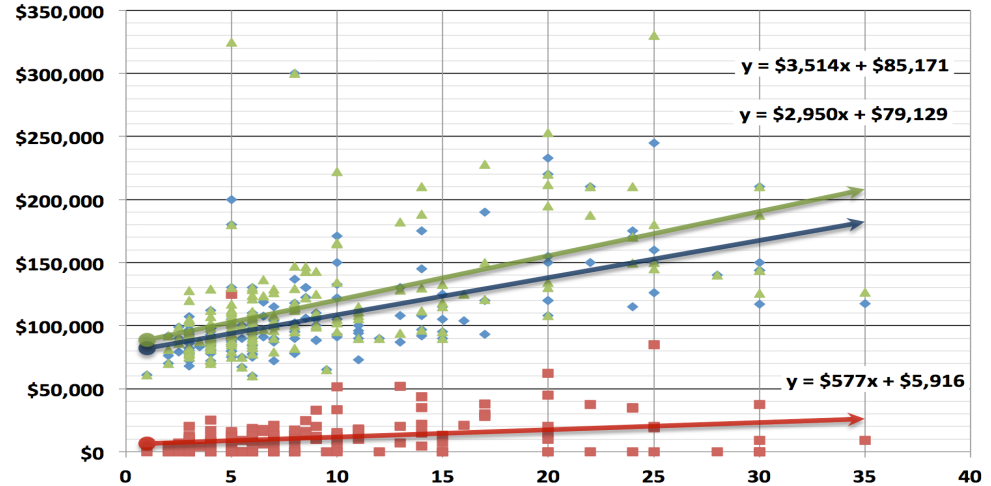
Health

- ① Fastest growing discipline
- ② Affordable Care Act driving demand
- ③ Second largest discipline
- ④ FSA / ASA membership
- ⑤ Overall market figures
- ⑥ Job numbers by location
- ⑦ Skills in demand
- ⑧ Salaries



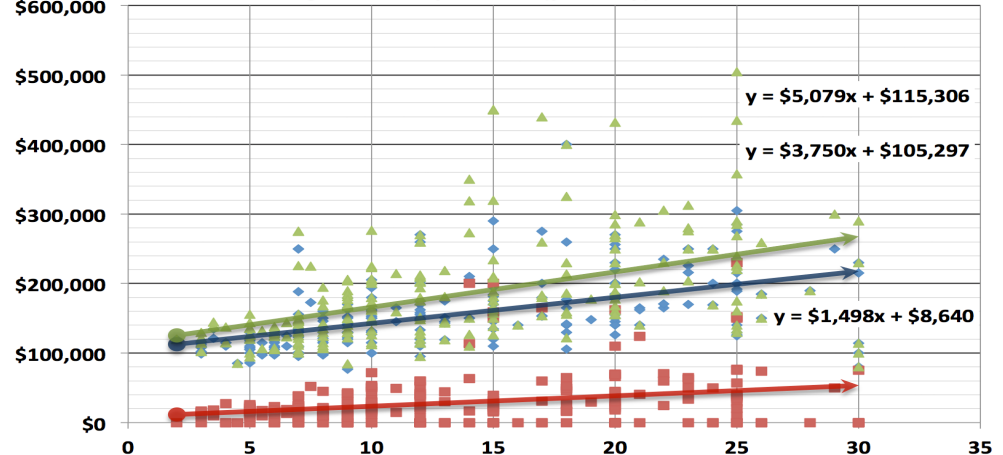
Life & Health ASA Salary Survey

Average Total Comp = \$3,514 (years exp) + \$85,171



Life & Health FSA Salary Survey

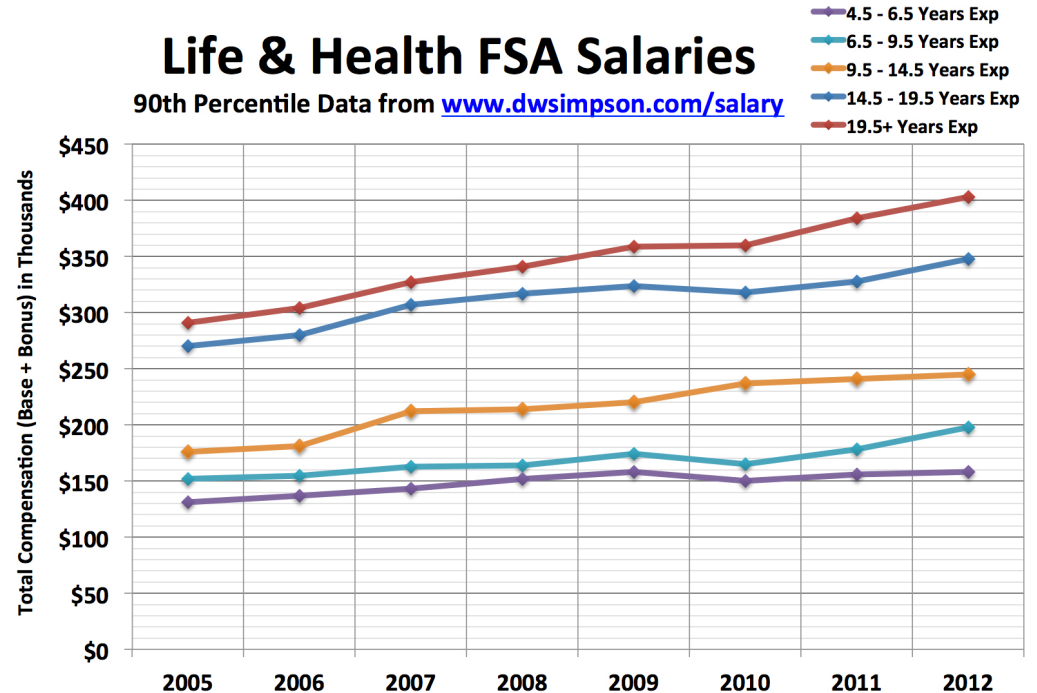
Average Total Comp = \$5,079 (years exp) + \$115,306



Actuaries in the United States

Life

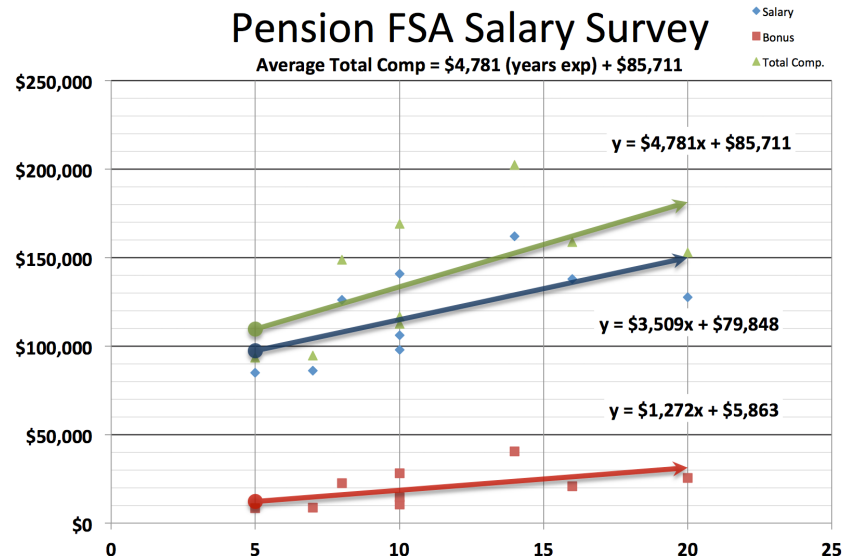
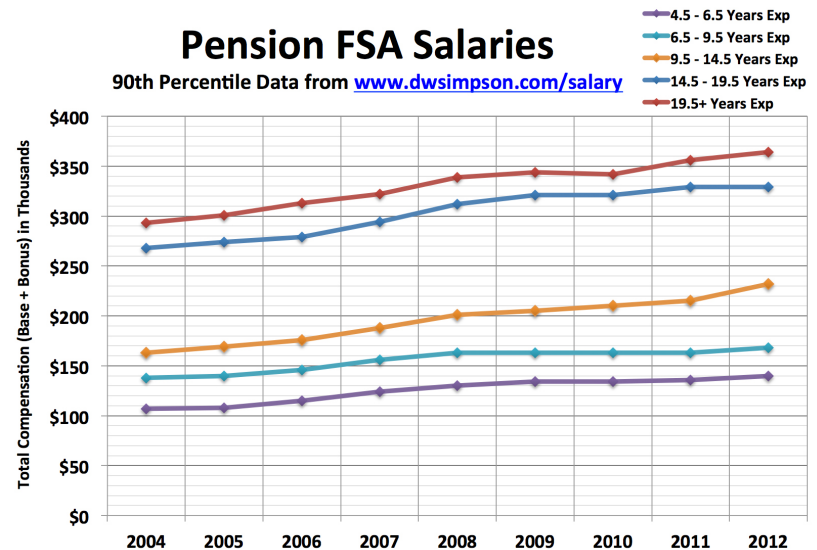
- ① Steady growth
- ② International Expansion
- ③ Slight slump during 2008
- ④ Global Financial Crisis
- ⑤ FSA / ASA membership
- ⑥ Overall market figures
- ⑦ Job numbers by location
- ⑧ Salaries



Actuaries in the United States

Pension

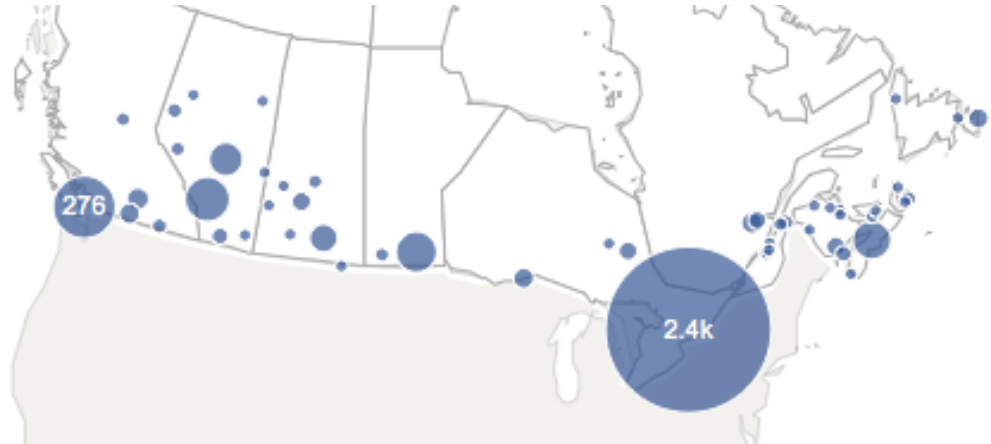
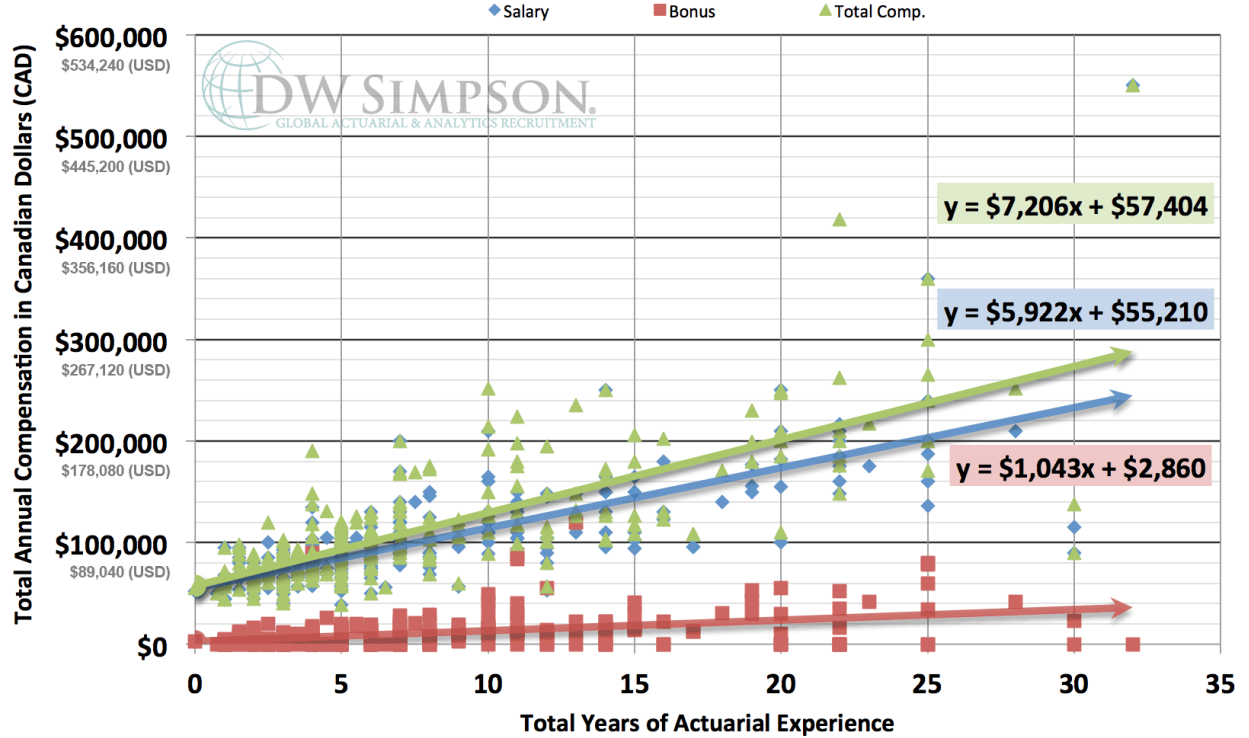
- ① Negative growth as other retirement benefit options become available
- ② Public sector pensions in the news negatively affecting market
- ③ Salaries for pension actuaries remain on the rise, despite a shrinking market
- ④ FSA / ASA / EA membership
- ⑤ Overall market figures
- ⑥ Job numbers by location
- ⑦ Salaries



2014 Canadian Salary Survey

Average Total Comp = \$7,206 (years exp) + \$57,404

City	Visits
🇨🇦 Toronto, Ontario, Canada	729
🇨🇦 Montréal, Quebec, Canada	287
🇨🇦 Mississauga, Ontario, Can...	116
🇨🇦 Kitchener, Ontario, Canad...	112
🇨🇦 Waterloo, Ontario, Canada	112
🇨🇦 Calgary, Alberta, Canada	110
🇨🇦 Winnipeg, Manitoba, Canad...	94
🇨🇦 Vancouver, British Columb...	91
🇨🇦 Markham, Ontario, Canada	86
🇨🇦 London, Ontario, Canada	85
🇨🇦 Québec, Quebec, Canada	82
🇨🇦 Ottawa, Ontario, Canada	74
🇨🇦 Richmond Hill, Ontario, C...	56
🇨🇦 Scarborough, Ontario, Can...	50
🇨🇦 Edmonton, Alberta, Canada	41
🇨🇦 Burnaby, British Columbia...	40
🇨🇦 Halifax, Nova Scotia, Can...	40
🇨🇦 Brampton, Ontario, Canada	37
🇨🇦 Thornhill, Ontario, Canad...	35



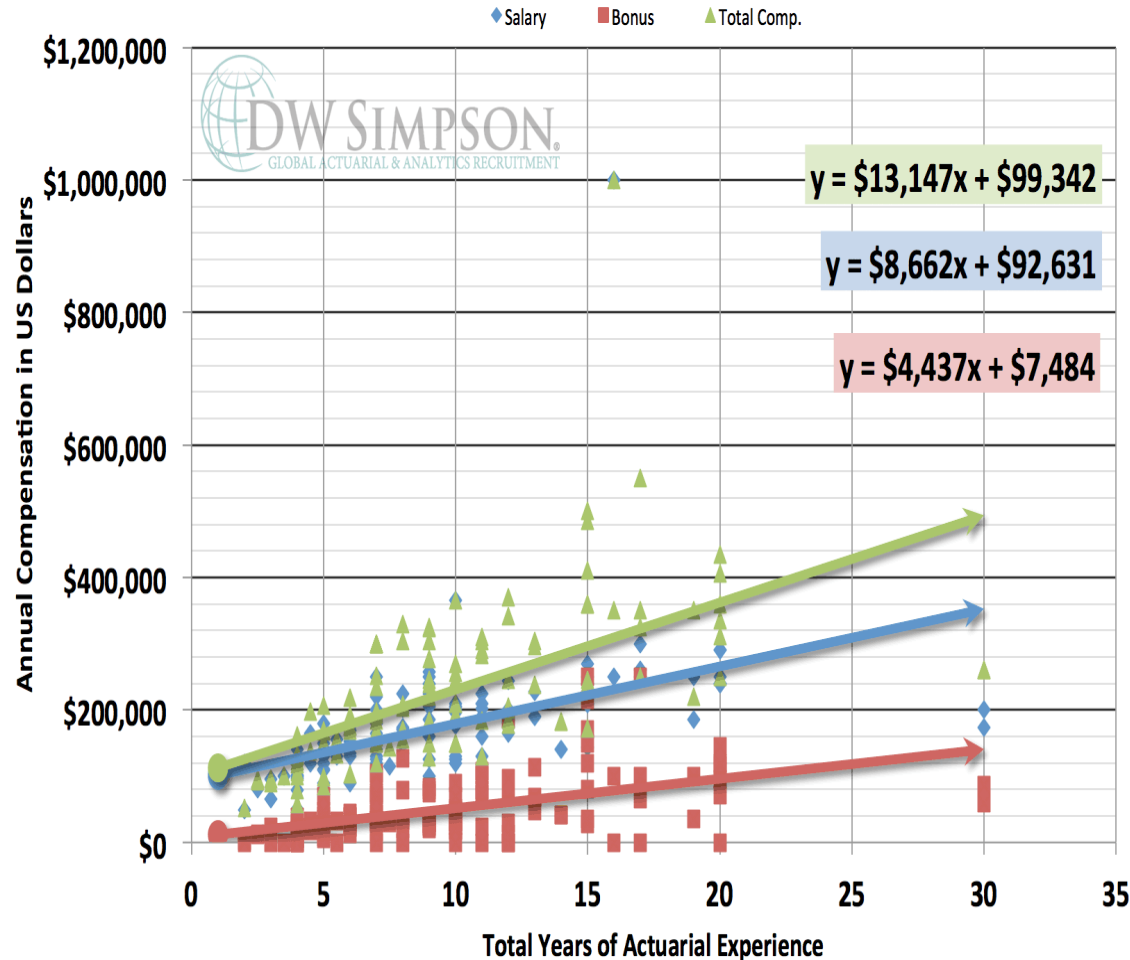
Caribbean / Offshore

Bermuda / Cayman Islands

- ① Thriving financial industry supports relatively large actuarial community
- ② Highly competitive compensation packages with bonus and benefits
- ③ Casualty & Life are the primary markets
- ④ Strong reinsurance market

2014 Bermuda Actuarial Salary Survey

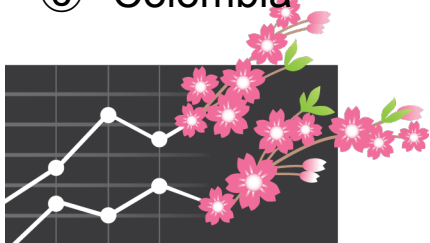
Average Total Comp = \$13,147 (years exp) + \$99,342



Latin America

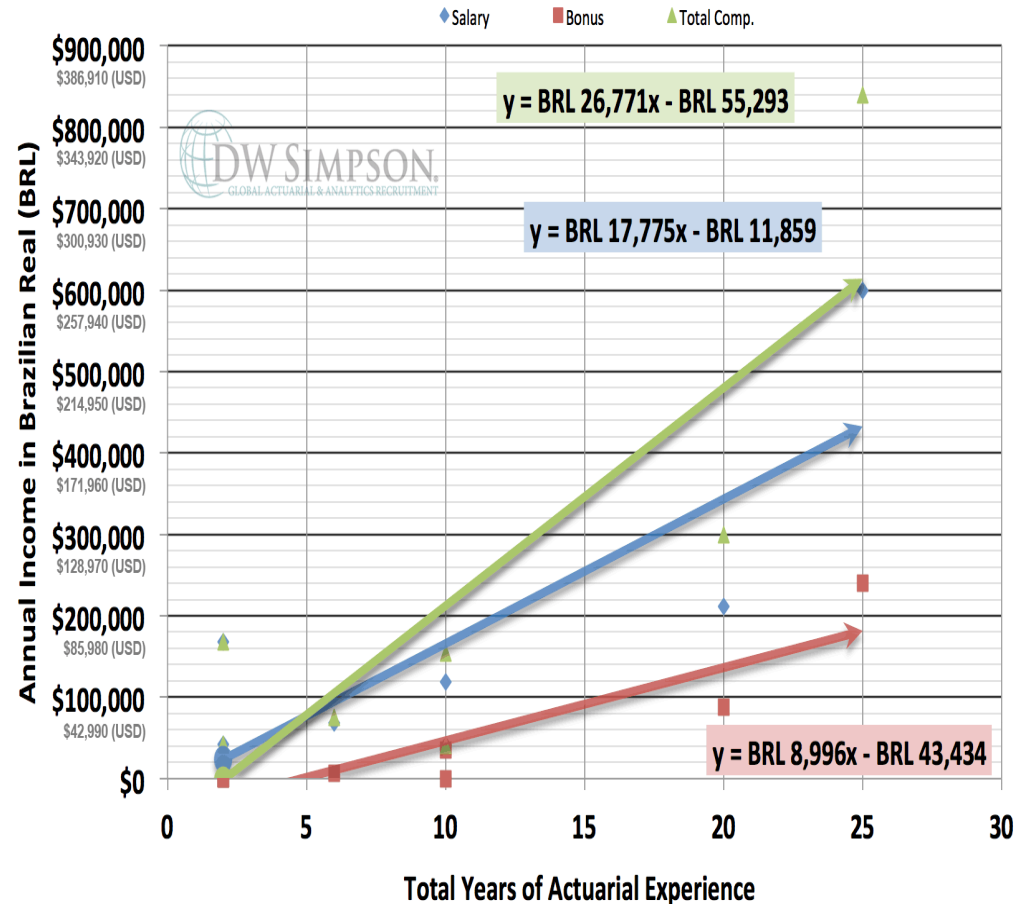
Fluency in native language is a must, and actuarial jobs are centered in each country's capital.

- ① Mexico
 - i. Most established market in the region
 - ii. actuarial jobs are primarily in Mexico City
- ② Brazil
 - i. Actuarial jobs are in São Paulo & Rio de Janeiro
 - ii. Portuguese / Spanish + English a must
 - iii. Fastest growing market in Latin America
 - iv. As the country's businesses and citizens acquire wealth, the market for insurance is growing, however, individuals are more reluctant to buy insurance.
 - v. As the country's economy grows, multinational insurers are moving into the Brazilian market.
- ③ Argentina
 - i. Buenos Aires
- ④ Chile
- ⑤ Peru
- ⑥ Colombia



2014 Brazilian Actuarial Salary Survey (7 Data Points)

Average Total Comp = BRL 26,771 (years exp) - BRL 55,293

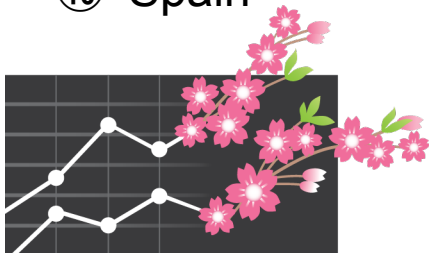
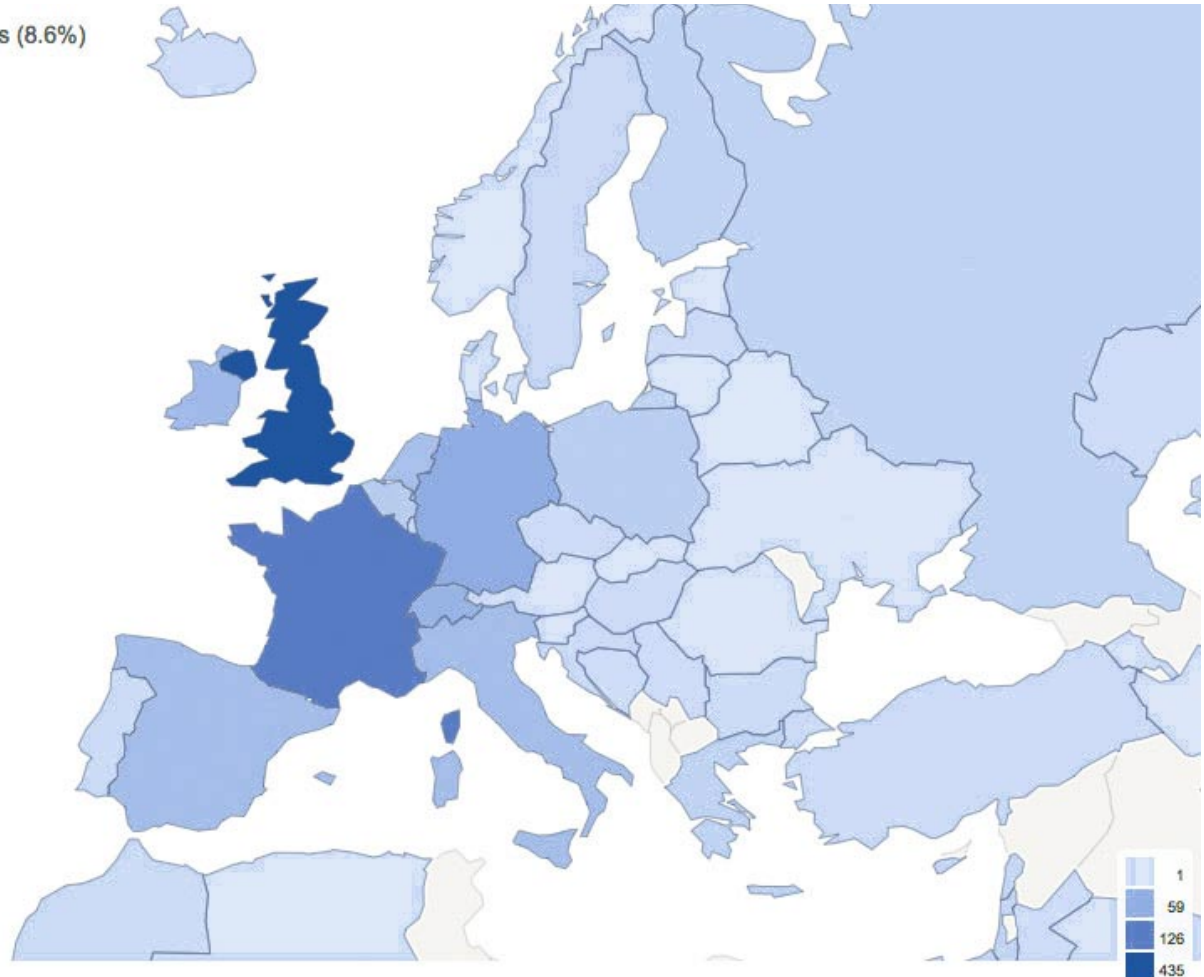


Europe

Native language plus English is a must, and any other languages are a plus.
Jobs in Reinsurance (non-life pricing/reserving), Life (pricing/reserving),
Consulting, Risk Management

- ① UK
- ② Switzerland
- ③ Germany
- ④ Benelux
- ⑤ France
- ⑥ Denmark
- ⑦ Finland
- ⑧ Netherlands
- ⑨ Norway
- ⑩ Spain

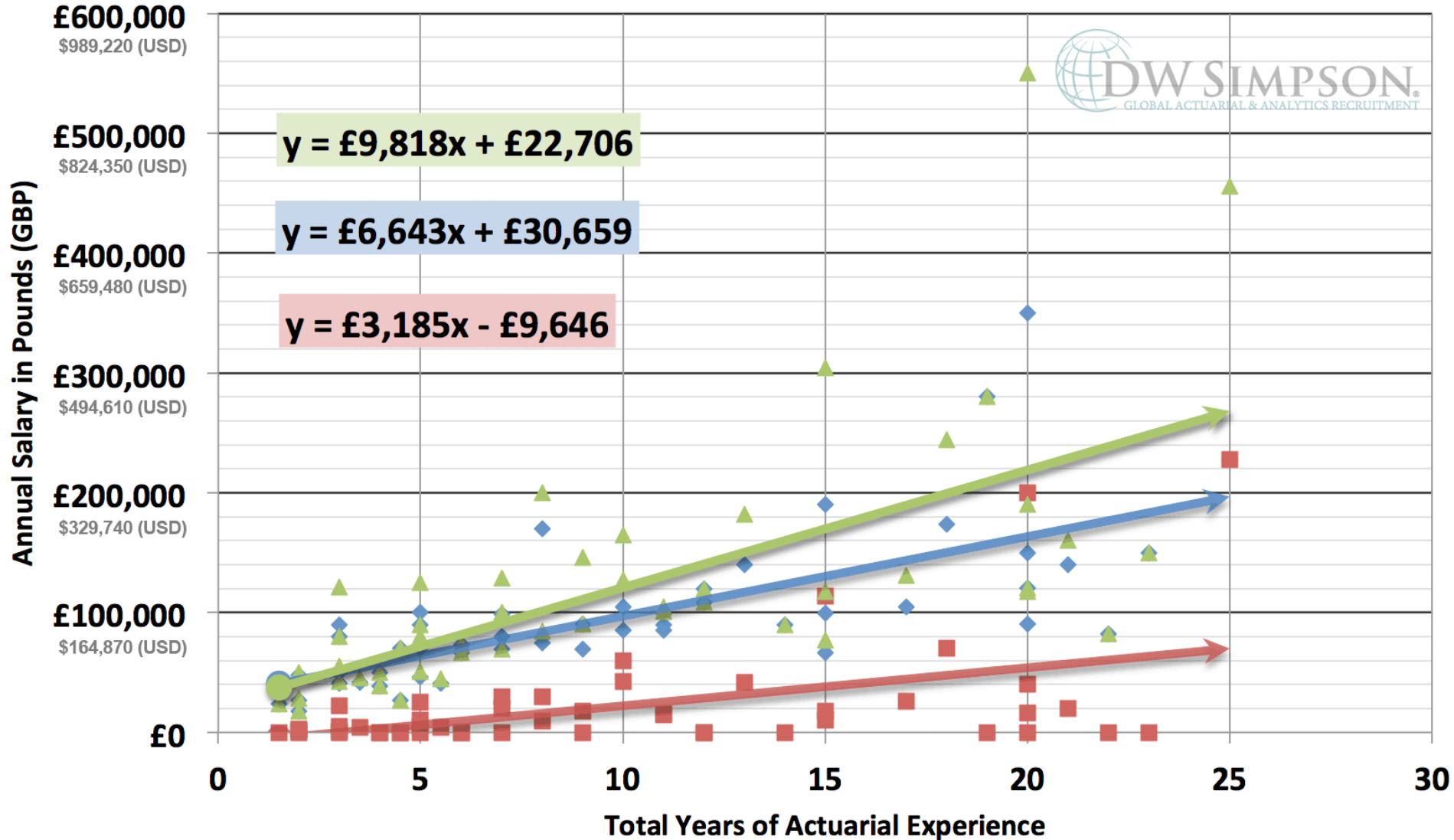
1.0k visits (8.6%)



2014 UK Actuarial Salary Survey

Average Total Comp = £9,818 (years exp) + £22,706

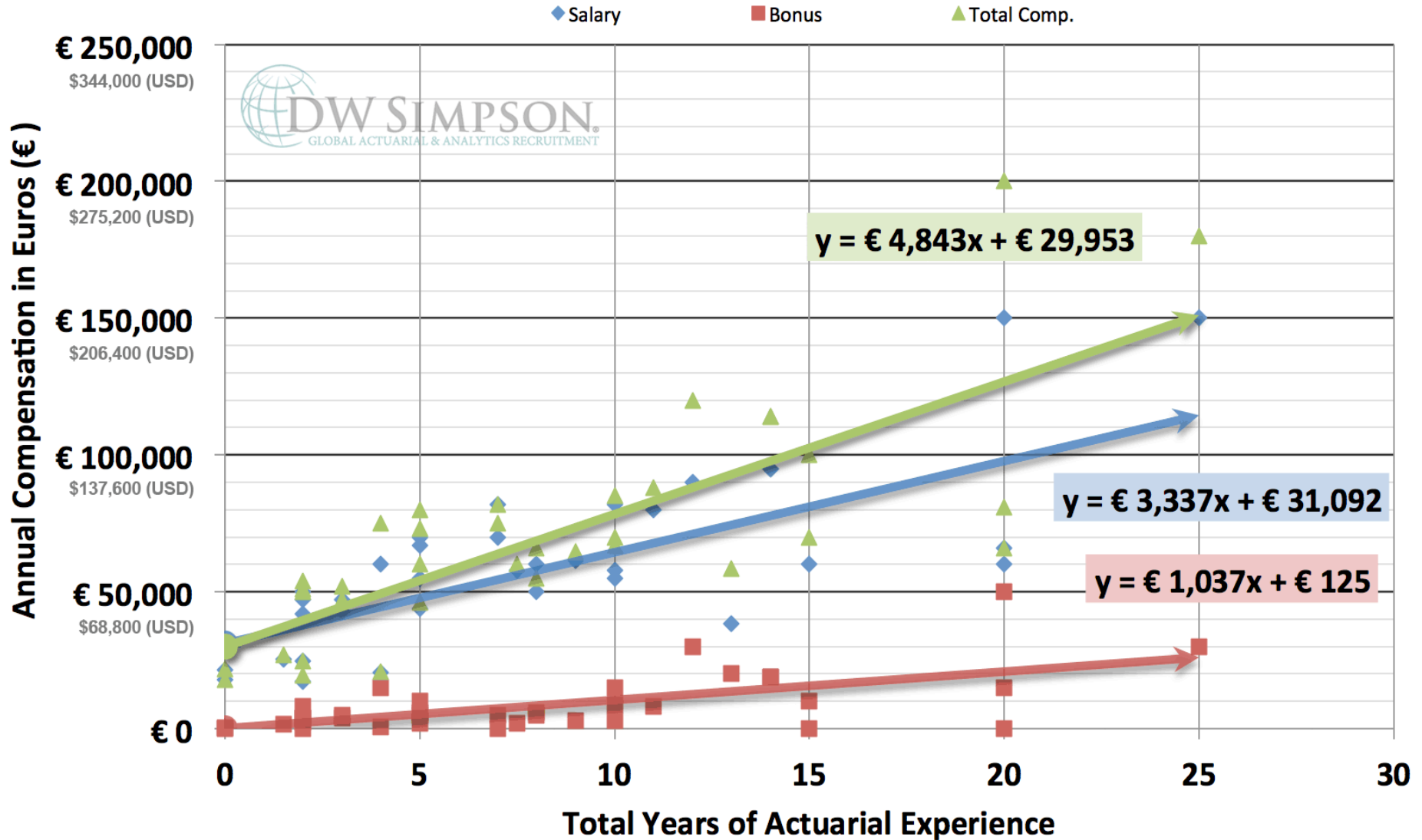
◆ Salary ■ Bonus ▲ Total Comp.



2014 Europe Actuarial Salary Survey

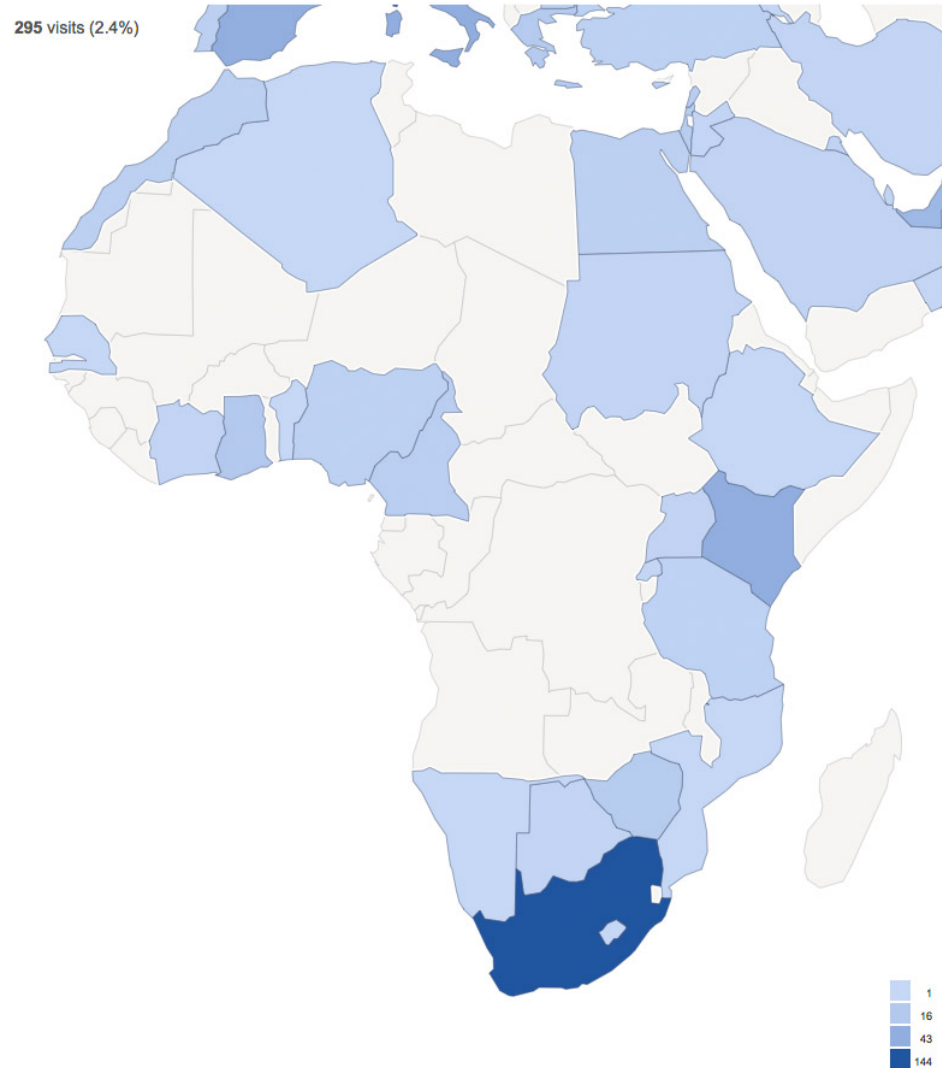
Average Total Comp = € 4,940 (years exp) + € 28,683

Belgium, France, Greece, Germany, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain



Africa

- ① South Africa
- ② Egypt
- ③ Ghana
- ④ Kenya
- ⑤ Nigeria



2014 South African Salary Survey

Average Total Comp = ZAR 60,875 (years exp) + ZAR 393,480

Total Annual Compensation in South African Rand (ZAR)

◆ Salary ■ Bonus ▲ Total Comp.



$$y = \text{ZAR } 60,875x + \text{ZAR } 393,480$$

$$y = \text{ZAR } 49,536x + \text{ZAR } 385,032$$

$$y = \text{ZAR } 11,010x + \text{ZAR } 6,009$$

ZAR 2,500,000

\$229,425 (USD)

ZAR 2,000,000

\$183,540 (USD)

ZAR 1,500,000

\$137,655 (USD)

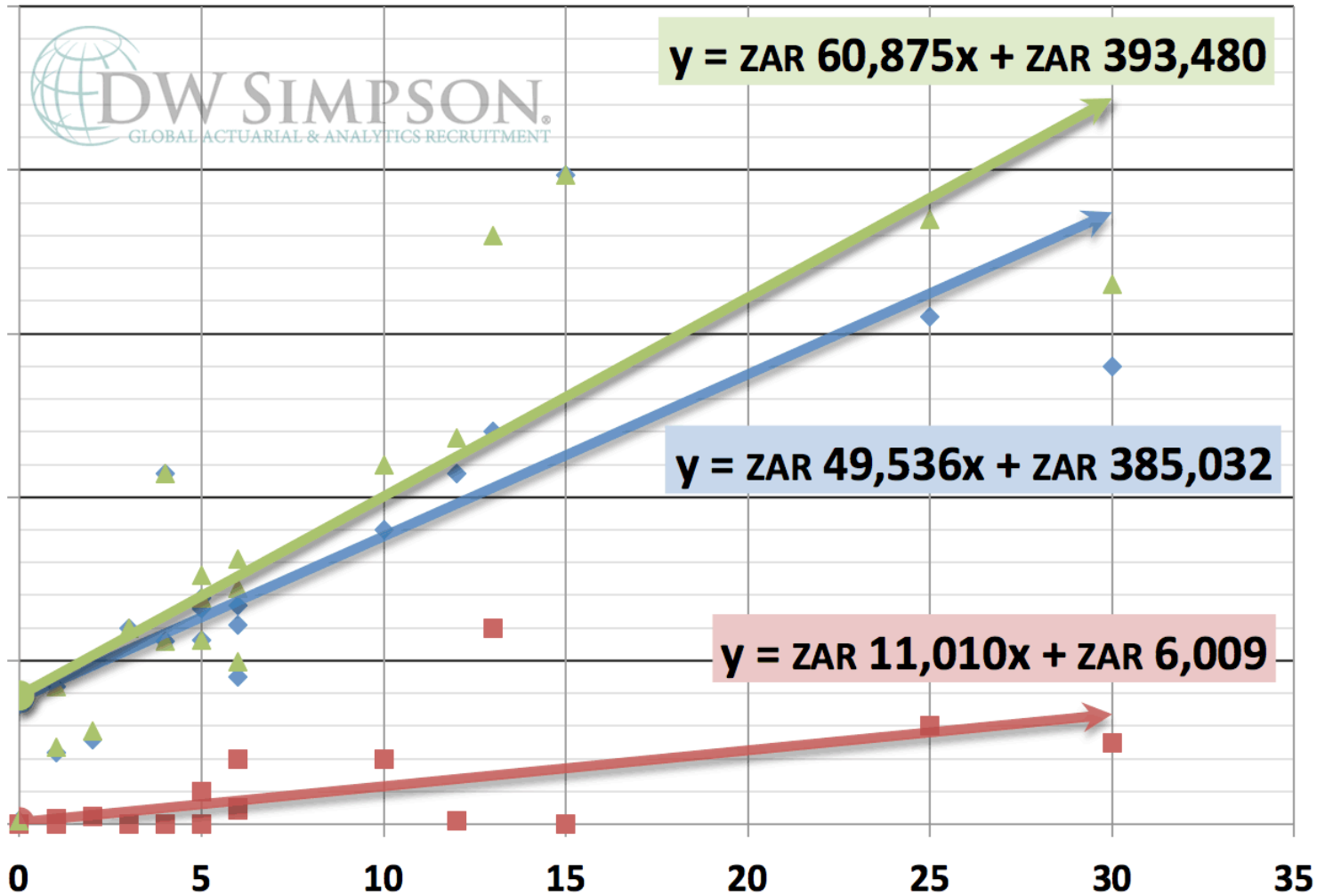
ZAR 1,000,000

\$90,770 (USD)

ZAR 500,000

\$45,885 (USD)

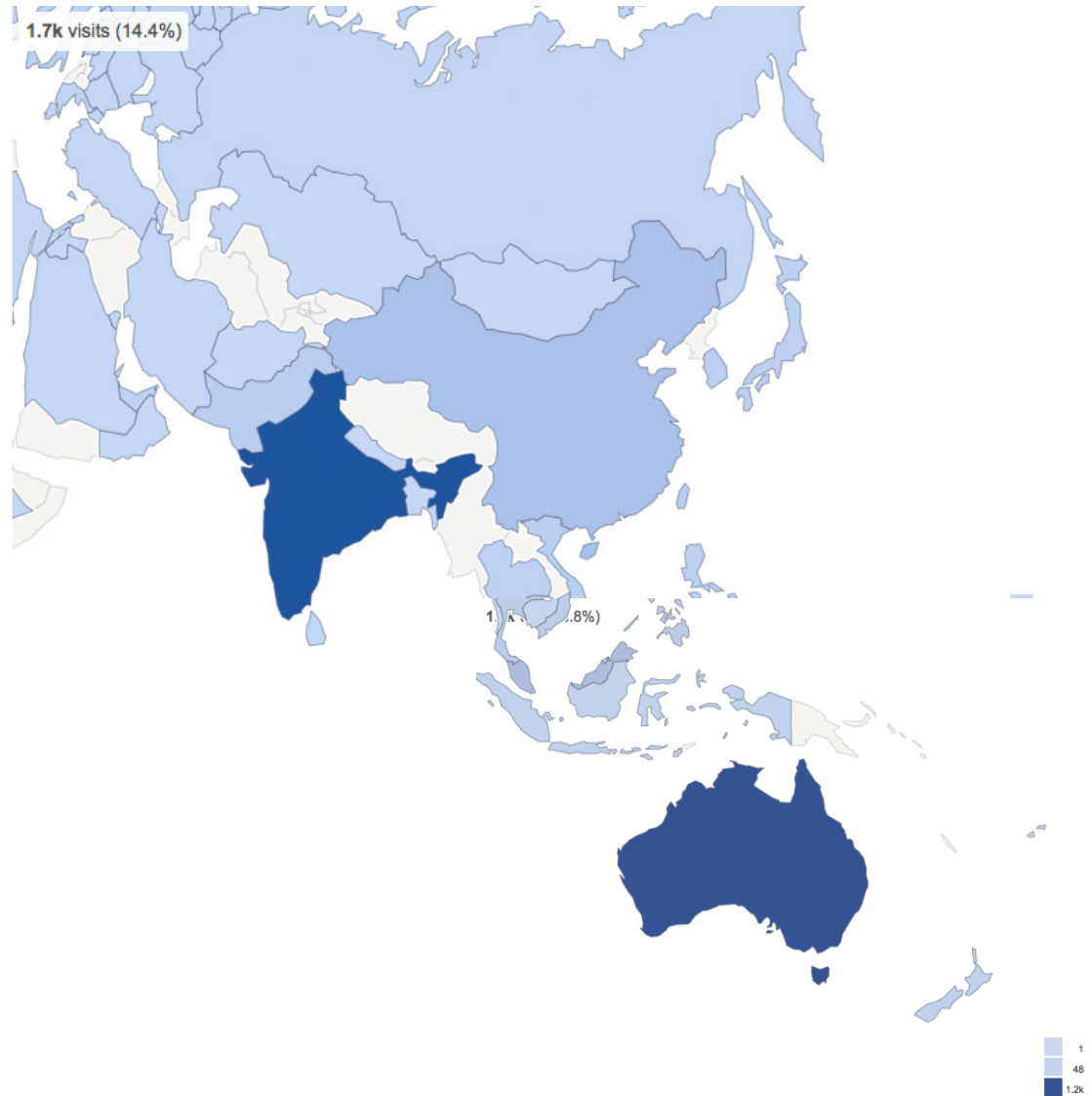
ZAR 0



Total Years of Actuarial Experience

Asia / Pacific

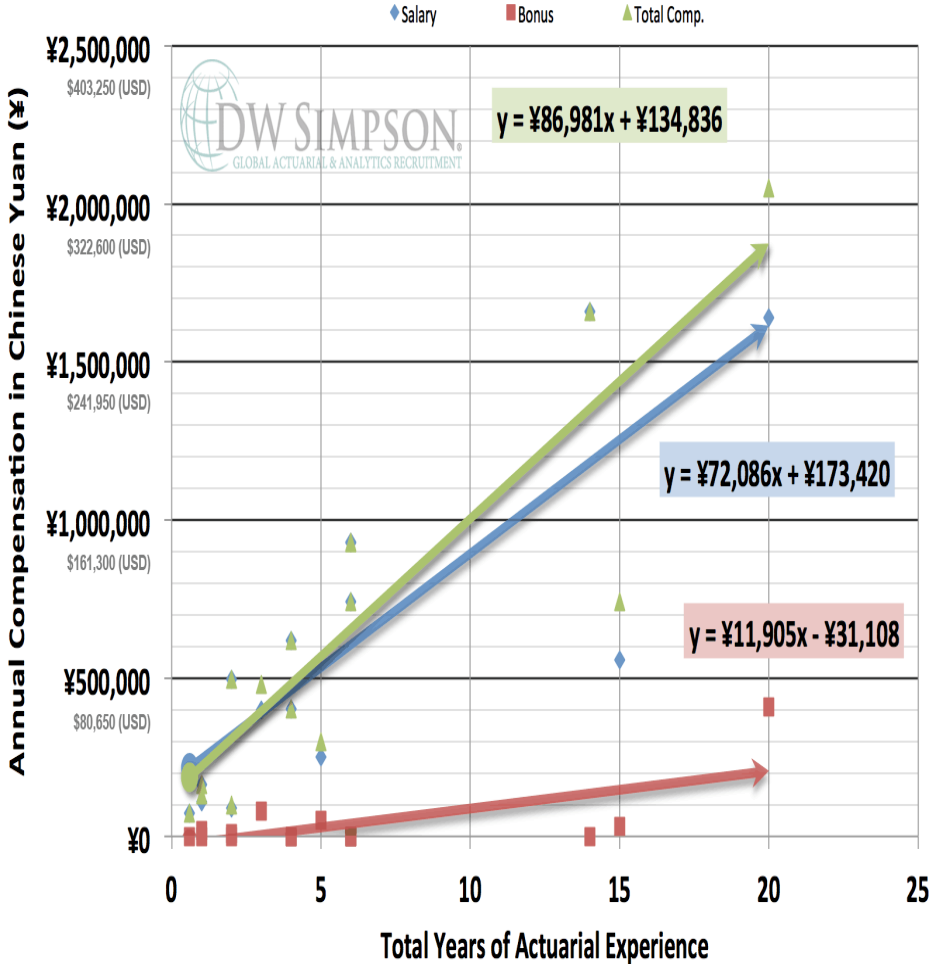
- ① Australia
- ② Singapore
- ③ Japan
- ④ China
- ⑤ Russia



Asia / Pacific

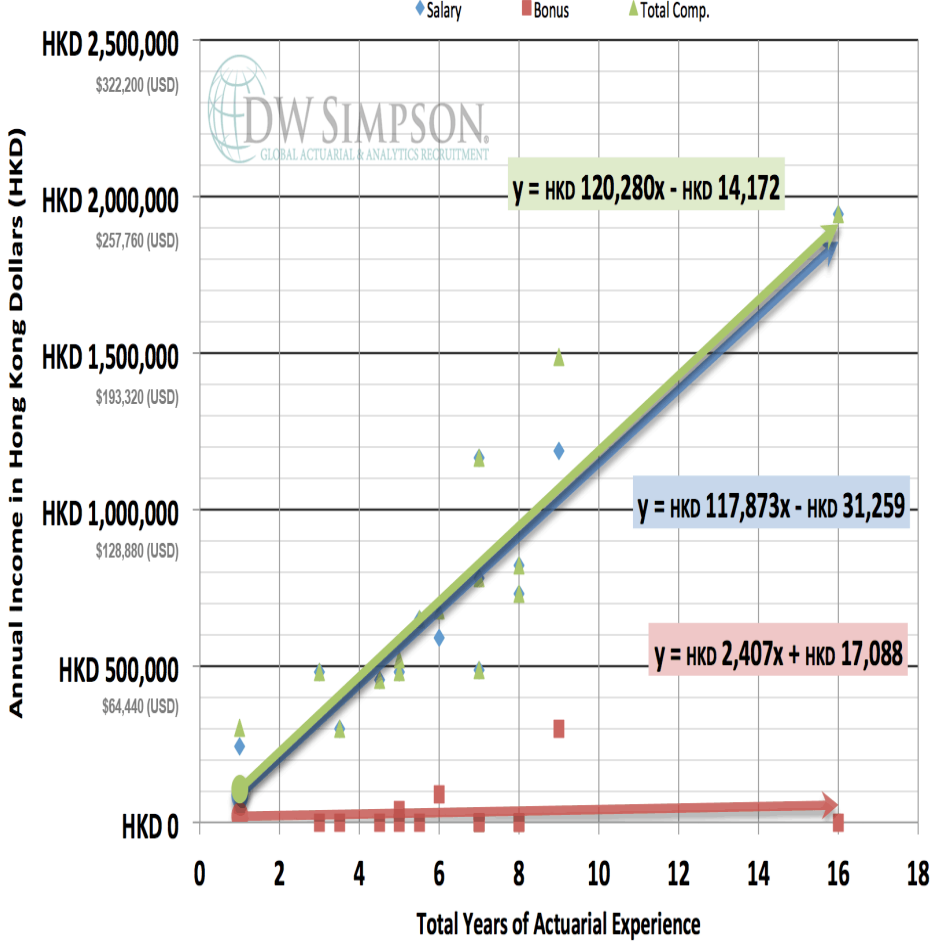
2014 Chinese Actuarial Salary Survey

Average Total Comp = ¥75,023 (years exp) + ¥164,742



2014 Hong Kong Actuarial Salary Survey

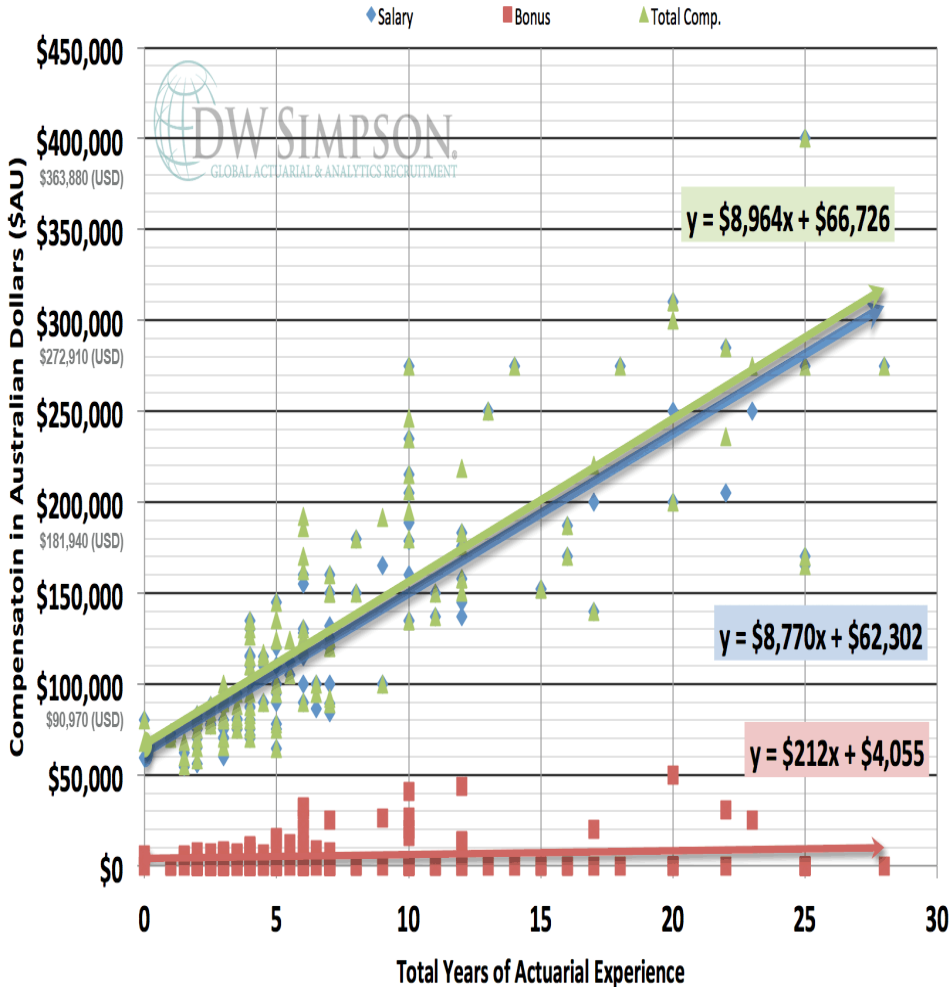
Average Total Comp = HKD 120,280 (years exp) - HKD 14,172



Asia / Pacific

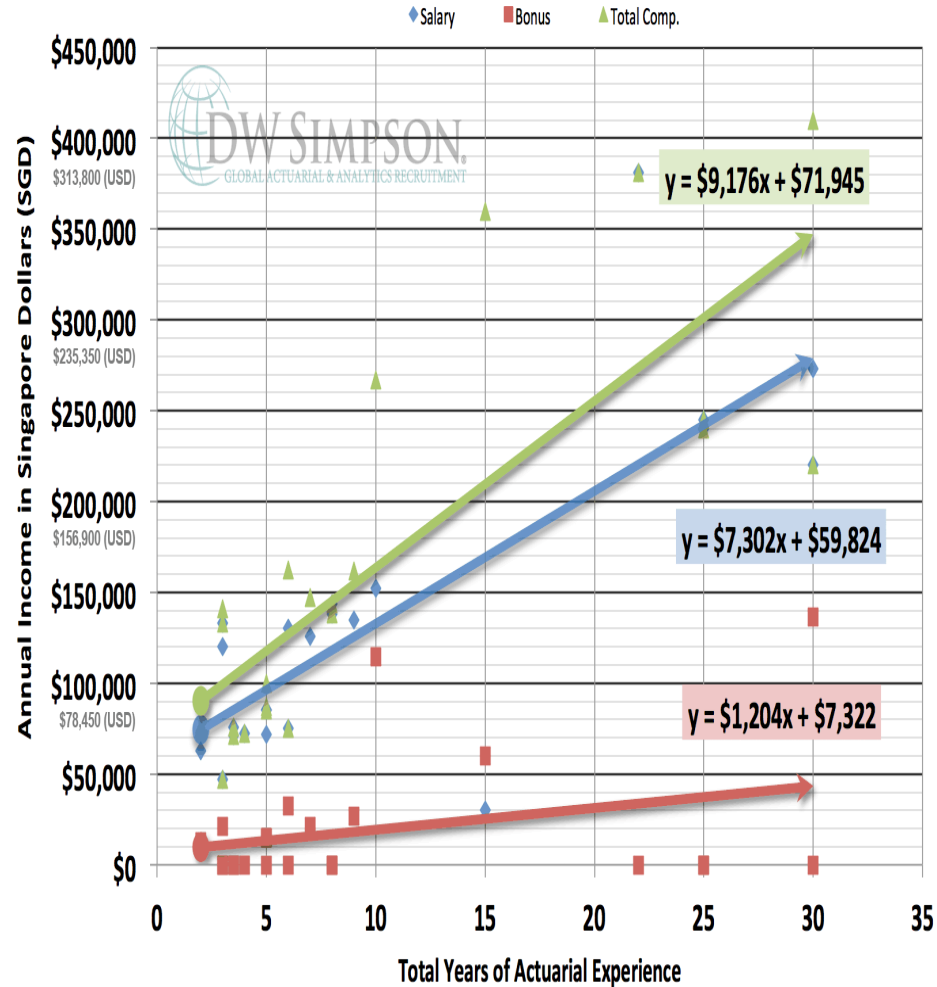
2014 Australian Actuarial Salary Survey

Average Total Comp = \$8,915 (years exp) + \$65,956



2014 Singapore Actuarial Salary Survey

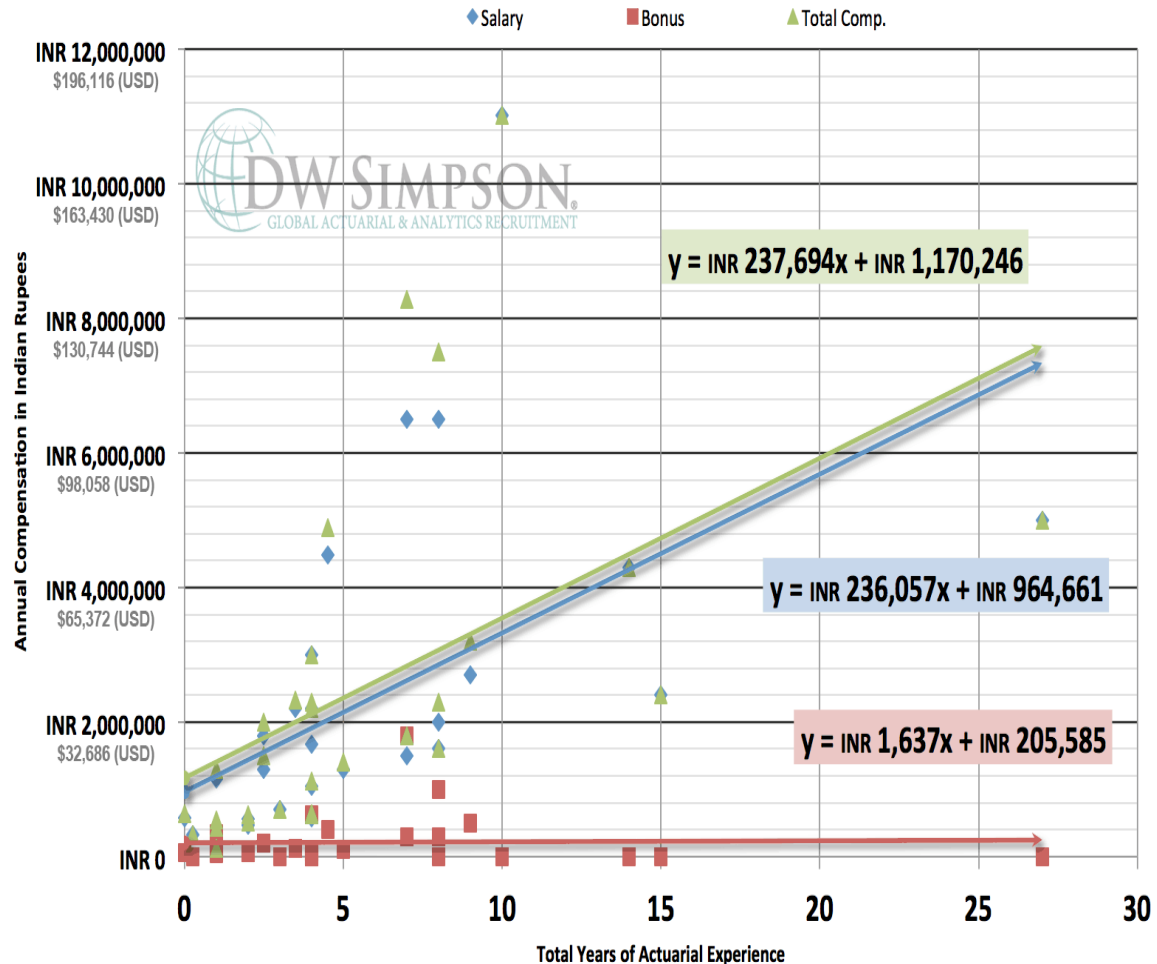
Average Total Comp = \$8,412 (years exp) + \$71,434



Middle East

- ① Most jobs are for senior level credentialed actuaries
- ② Life and Non-Life (Casualty)
- ③ Takaful / ReTakaful growth
 - Insurance products that follow the rules and regulations of Islamic law
- ④ India
- ⑤ UAE
- ⑥ Israel

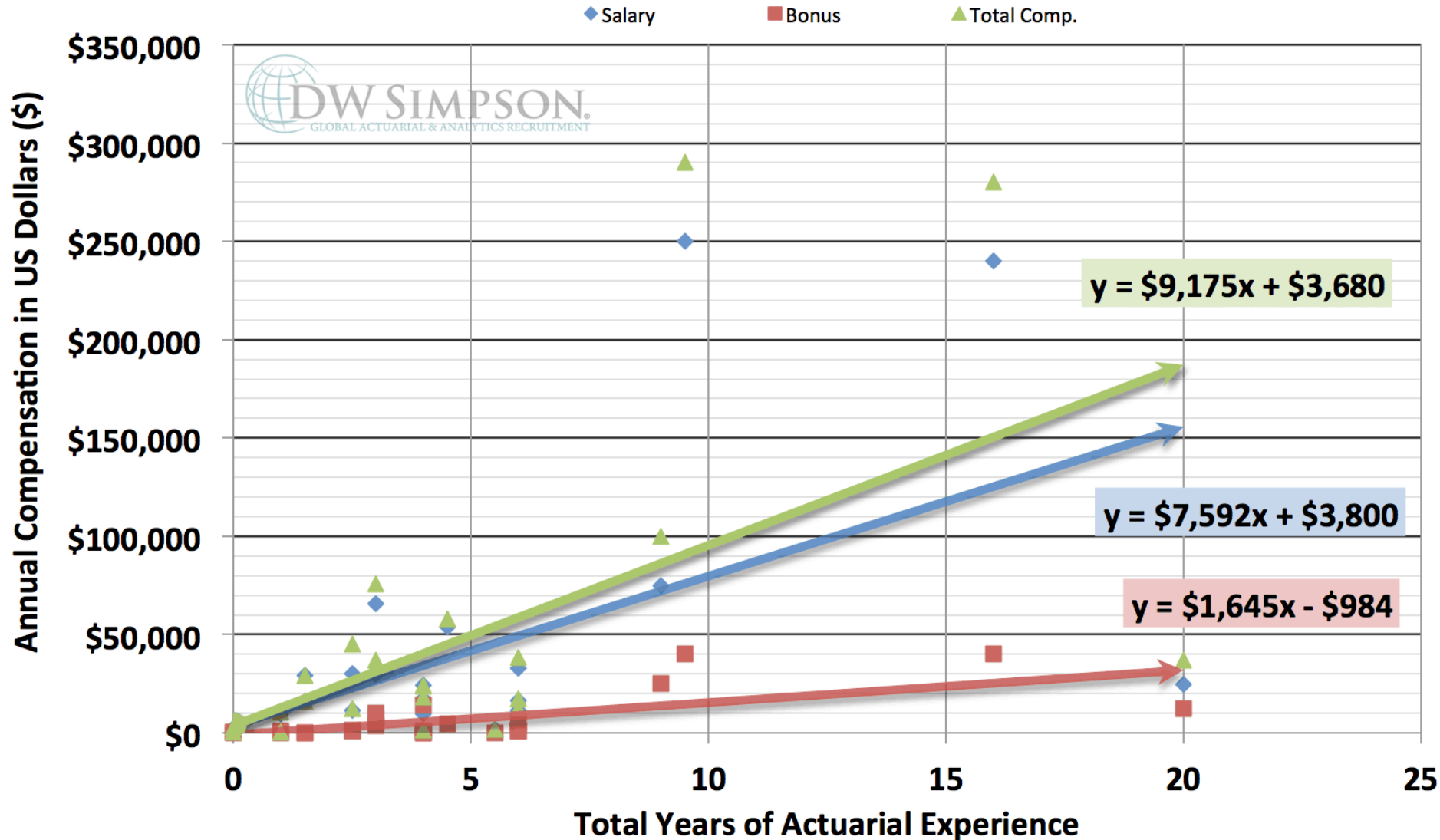
2014 India Actuarial Salary Survey
 Average Total Comp = INR 237,694 (years exp) + INR 1,170,246



2014 Middle East Actuarial Salary Survey

Average Total Comp = \$9,175 (years exp) + \$3,680

Azerbaijan, Bahrain, Egypt, Iran, Jordan, Lebanon, Pakistan, Saudi Arabia, Turkey, UAE



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Actuarial and Analytics Hiring Trends in the Global Insurance & Reinsurance Markets

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