The Actuarial Profession

Presented By

IABA
International Association Of Black Actuaries
Encouraging Excellence
Overview

- What is an actuary?
- What do actuaries do?
- What skills are needed to become an actuary?
- How do I become an actuary?
- What is the current and future career outlook for actuaries?
- Website Resources
Top 10 Reasons to Consider being an Actuary

9. You want a professional title, but don’t want to be a doctor, lawyer, or accountant.
8. You want a career that is dynamic and challenging.
7. You want a career that you control because advancement is merit-based.
6. You want a career with many opportunities that will provide you with skills that are transferable across multiple industries.
5. You want a career with superior job security through economic cycles.
4. You would like to “earn while you learn.”
3. You want to be able to choose among several job offers.
2. You are self-motivated, goal oriented, and have superior math aptitude and communication skills.
1. You want a highly competitive salary and excellent benefits.
What is an Actuary?

An Actuary is a person who:

- Analyzes, manages, and measures the financial implications of future risk
- Develops financial models to guide decision making
What do Actuaries do?

- Estimate money to be set aside for incurred but not reported and development on existing claims
- Participate in corporate planning (Mergers & Acquisitions)
- Calculate rates for new insurance products
- Forecast potential impact of catastrophes
- Evaluate investment programs
- Forecasting and interpretation of underwriting results
- Maintenance of a data base uniquely suited to the analysis of pricing issues

BeAnActuary Web Site
What Skills are Needed to Become an Actuary?

- Keen analytical, project management, and problem solving skills
- Good business sense
- Solid communication skills (oral and written)
- Strong computer skills (Microsoft Office)
- Knowledge of Math and Finance
- Motivation
- Creativity
- Independence
- Ability to work with others
How to Become an Actuary

- Professional designation is achieved by passing a series of examinations.
- Actuarial examinations are administered by the Casualty Actuarial Society (CAS) and the Society of Actuaries (SOA).
- Examinations are held multiple times a year.
- Two levels of membership in each organization:
  - Associate (ACAS or ASA)
  - Fellow (FCAS or FSA)
- You work and take exams
Actuarial Programs – Exam Support

To prepare you for success in completing the series of professional exams, most companies offer the following benefits:

- 100 to 140 paid study hours per exam sitting
- Reimbursement for exam registration fees, study materials, and exam review seminar
- Time off on exam days and the day prior to each exam.

Receive rewards for each exam you pass!
Salary Information

- Starting salaries of $46,000-$61,000 (passed one exam, 0 - 0.5 years experience)

- Merit Increases

- Examination Increases

- Increases upon achievement of professional designations

D.W. Simpson & Company Website
Current Career Outlook for Actuaries

Actuaries are largely employed by Insurance Companies and Consulting Firms, specializing in the following areas:

- Life, Annuities, and Mutual Funds
- Health
- Pension
- Property & Casualty
Life, Annuities, and Mutual Funds

1) Life Insurance
Offers several term and permanent insurance products to provide death benefit protection to its customers.

2) Annuities
Fixed and variable annuity products allow customers to make a lump-sum payment or series of payments today in return for periodic payments beginning immediately or in the future.

3) Mutual Funds
A mutual fund pools the assets of multiple investors and purchases securities to achieve a common, pre-defined goal. With its pooled assets, mutual funds provide advantages that an individual investor would not be able to receive.

http://www.thehartford.com
1) Individual
Offering Medicare and other health products to individuals, families, and sole proprietors.

2) Employers
Offers administration services, Health Benefit and Health Insurance Plans incorporating managed medical, pharmacy and dental care services and other valuable resources and products based on the number of employees an employer has. An example of this is as follows:

- Small Group – 2 to 50 employees
- Middle market – 51 to 3000 employees
- National Accounts – 3001+ employees

http://www.aetna.com
Pension

- Provide steady income, typically in the form of a guaranteed annuity, to a retired or disabled employee under pre-determined legal and/or contractual terms.
- Plans can be divided into two broad types:
  1) **Defined benefit plans** - incorporates the employee's pay, years of employment, age at retirement, and other factors in calculating the benefit.
  2) **Defined contribution plans** - such as a 401(k) plan or 403(b) plan, in which the employee elects to defer some amount of his/her salary into the plan and bears the investment risk.

http://wikipedia.org
Property & Casualty

1) Business Insurance
   Offers a broad array of property and casualty insurance and insurance-related services to its clients, which range from small “main street” businesses to Fortune 100 corporations.

2) Personal Insurance
   Offers a broad array of property casualty insurance products to individual customers such as Auto, Homeowners, etc…

3) Financial, Professional & International Insurance
   Includes surety and financial liability coverages, as well as property and casualty products that are primarily marketed on an international basis.

http://www.travelers.com
Salary Survey

- General range and average of various compensation levels
- These figures are base salaries only, do not figure in bonuses or annual incentives
- Updated: 2/21/07 by – http://www.scinternational.com/salary_surveys.asp
## Life / Health Actuary

<table>
<thead>
<tr>
<th>Level/College Grad</th>
<th>W/1 Courses</th>
<th>W/2 Courses</th>
<th>W/3 Courses</th>
<th>W/4 Courses</th>
<th>W/5 Courses</th>
<th>ASA</th>
<th>FSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Level/College Grad</td>
<td>42-50K</td>
<td>45-52K</td>
<td>48-54K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 2 Years</td>
<td>44-57K</td>
<td>48-60K</td>
<td>50-63K</td>
<td>52-65K</td>
<td>55-72K</td>
<td>60-75K</td>
<td></td>
</tr>
<tr>
<td>2 - 4 Years</td>
<td>46-60K</td>
<td>50-65K</td>
<td>53-68K</td>
<td>55-70K</td>
<td>60-75K</td>
<td>65-85K</td>
<td></td>
</tr>
<tr>
<td>4 - 6 Years</td>
<td>50-70K</td>
<td>55-73K</td>
<td>60-77K</td>
<td>62-80K</td>
<td>65-85K</td>
<td>70-95K</td>
<td>82-110K</td>
</tr>
<tr>
<td>6 - 10 Years</td>
<td>55-80K</td>
<td>58-85K</td>
<td>60-90K</td>
<td>62-93K</td>
<td>68-95K</td>
<td>75-110K</td>
<td>89-155K</td>
</tr>
<tr>
<td>15+ Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>110-200+K</td>
<td>130-290+K</td>
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# Pension Actuary

<table>
<thead>
<tr>
<th></th>
<th>W/1 Course</th>
<th>W/2 Courses</th>
<th>W/3 Courses</th>
<th>W/4 Courses</th>
<th>W/5 Courses</th>
<th>ASA</th>
<th>FSA</th>
<th>EA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Level/College Grad</td>
<td>45-50K</td>
<td>45-55K</td>
<td>48-58K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Add 5 to 10% on average across the board</td>
</tr>
<tr>
<td>1 - 2 Years</td>
<td>48-55K</td>
<td>50-58K</td>
<td>53-62K</td>
<td>55-65K</td>
<td>60-75K</td>
<td>60-80K</td>
<td></td>
<td></td>
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<td>52-65K</td>
<td>55-68K</td>
<td>58-70K</td>
<td>61-75K</td>
<td>64-80K</td>
<td>67-90K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - 6 Years</td>
<td>55-68K</td>
<td>60-72K</td>
<td>64-80K</td>
<td>68-85K</td>
<td>72-90K</td>
<td>75-95K</td>
<td>85-105K</td>
<td></td>
</tr>
<tr>
<td>6-10 Years</td>
<td>58-75K</td>
<td>62-80K</td>
<td>66-85K</td>
<td>70-90K</td>
<td>75-95K</td>
<td>80-110K</td>
<td>90-125K</td>
<td></td>
</tr>
<tr>
<td>10-15 Years</td>
<td>65-80K</td>
<td>68-90K</td>
<td>72-90K</td>
<td>75-95K</td>
<td>82-115K</td>
<td>90-120K</td>
<td>110-170K</td>
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</tr>
<tr>
<td>15+ Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100-180K</td>
<td>125-225K</td>
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# Property & Casualty Actuary

<table>
<thead>
<tr>
<th>Entry Level/College Grad</th>
<th>W/1 Course</th>
<th>W/2 Courses</th>
<th>W/3 Courses</th>
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<td>46-54K</td>
<td>48-58K</td>
<td>50-60K</td>
<td>52-62K</td>
<td>62-80K</td>
<td>65-90K</td>
</tr>
<tr>
<td>2 - 4 Years</td>
<td>48-56K</td>
<td>50-63K</td>
<td>54-66K</td>
<td>55-70K</td>
<td>60-75K</td>
<td>62-80K</td>
<td>70-95K</td>
</tr>
<tr>
<td>4 - 6 Years</td>
<td>50-60K</td>
<td>53-65K</td>
<td>56-72K</td>
<td>59-75K</td>
<td>63-80K</td>
<td>65-85K</td>
<td>70-95K</td>
</tr>
<tr>
<td>6 - 10 Years</td>
<td>55-73K</td>
<td>58-75K</td>
<td>60-80K</td>
<td>63-84K</td>
<td>65-87K</td>
<td>70-105K</td>
<td>80-117K</td>
</tr>
<tr>
<td>15+ Years</td>
<td>65-85K</td>
<td>68-90K</td>
<td>72-105K</td>
<td>75-110K</td>
<td>82-117K</td>
<td>87-125K</td>
<td>110-165K</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>135-220K</td>
<td>145-300K</td>
</tr>
</tbody>
</table>
Career Outlook for Actuaries

- **Specific Areas of Growth**
  - Insurance Industry
    - actuarial positions expected to grow 3-9% through 2010
  - Management Consulting
    - expected growth greater than 36% through 2010
  - Financial Management
    - expected growth greater than 36% through 2010

- **Other Areas of Growth**
  - Enterprise Risk Management
  - Health Services
Advice to High School Students Who Want to be Actuaries

- Follow a college preparatory curriculum
- Take Math classes every year.
- Take advantage of advanced courses, such as calculus.
- Enroll in computer science courses to develop your computer skills.
- Explore colleges and universities that offer Actuarial Science curriculum.
- Participate in Math based competitions such as Mathletes
Advice to College Students Who Want to be Actuaries

- Develop disciplined study habits
- Take a well-rounded curriculum
- There are people in the Actuarial Profession who majored in Music, Biology, etc..., and were able to attain Associate and Fellowship designations. However, the majors that would better prepare you for this profession are as follows:
  - Actuarial Science
  - Mathematics
  - Economics
  - Statistics
  - Finance
- Enhance your general business knowledge
- Sharpen your communication and presentation skills
- Take actuarial exams while you are in school – the sooner you start, the sooner you will finish
Questions & Comments

- To learn more, visit
  - www.blackactuaries.org
  - www.beanactuary.org
  - www.casact.org
  - www.soa.org