

Occupational Profile

Actuaries

WHAT THEY DO

Applies knowledge of mathematics, probability, statistics, and the principles of business finance to problems in insurance, annuities, and pensions. Belongs to the Finance cluster and Insurance pathway.

SKILLS YOU NEED

Basic Skills:

- Reading Comprehension
- Active Listening
- Writing
- Speaking
- Mathematics
- Critical Thinking
- Active Learning
- Learning Strategies
- Monitoring

Transferable Skills (applicable in other careers):

High level

- Analyzing mathematics data
- Giving advice on financial matters
- Giving information on insurance services
- Preparing and organizing numerical records
- Preparing statistical reports

Workplace Skills:

High level

- Complex Problem Solving
- Coordination

Medium level

- Instructing
- Judgment and Decision Making
- Management of Personnel Resources
- Operations Analysis
- Persuasion
- Quality Control Analysis
- Time Management
- Troubleshooting

IS THIS FOR YOU?

Work Interests are described in the following categories (compatible with Holland's Model) by people who tend to succeed in this career:

- **Conventional** – You are an "organizer". Keeping things neat and organized is important to you. You like working with charts and reports, and work well with power and authority.
- **Investigative** – You are a "thinker". When you have a problem, you like to analyze it and look at different ways to solve it. You like to work by yourself, and you don't like explaining your ideas to other people.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career.

- **Achievement** – It's very important to you that your work allows you to use your best abilities. You want to see the results of your work and get a feeling of accomplishment.
- **Independence** – It's very important to you that your work allows you to make decisions on your own. You want to try out your own ideas and work with little supervision.
- **Working Conditions** – It's very important to you that your work satisfies your needs in areas like salary, job security and your working style preferences, such as working alone, staying busy all the time or having variety in your work tasks.

Aptitudes reflect a person's ability to acquire skills and knowledge. The following aptitudes are important for success in the career:

- **General Learning Ability**
- **Verbal Aptitude**
- **Numerical Aptitude**
- **Clerical Perception**

Additional skills for this occupation may be found at <http://www.iowaworkforce.org/pubs/careers/cps> .

Source: <https://secure.ihaveaplaniowa.gov/>

ESTIMATED & PROJECTED EMPLOYMENT

Occupational Title	2010 Estimated Employment	2020 Projected Employment	2010-20 Employment Change	Annual Growth Rate (%)	Total Annual Openings
Total All Occupations	1,717,020	1,948,700	231,680	1.3	64,525
Computer & Mathematical Occupations	28,995	36,285	7,290	2.5	1,300
Actuaries	535	755	220	4.1	55

Source: <http://iwin.iwd.state.ia.us/pubs/statewide/stateoccproj.pdf>

2012 WAGE & SALARY (\$)

Occupational Title	Average Wage	Average Salary	Entry Wage	Entry Salary	Experienced Wage	Experienced Salary
Total All Occupations	18.90	39,295	9.30	19,341	23.69	49,272
Computer & Mathematical Occupations	31.98	66,531	19.63	40,828	38.16	79,382
Actuaries	48.80	101,495	30.30	63,025	58.05	120,730

Source: <http://iwin.iwd.state.ia.us/pubs/statewide/stateoccproj.pdf>

EDUCATION & TRAINING

Education	Work Experience	Job Training
Bachelor's Degree	None	Long-Term On-The-Job

Actuaries need a strong foundation in mathematics, statistics, and general business. They generally have a bachelor's degree and are required to pass a series of exams in order to become certified. Two professional societies sponsor programs leading to full professional status in their specialty: the Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS). The SOA certifies actuaries in the fields of life insurance, health benefits systems, retirement systems, and finance and investment. The CAS gives a series of examinations in the property and casualty field, which includes car, homeowners, medical malpractice, workers compensation, and personal injury liability.

Source: <http://iwin.iwd.state.ia.us/pubs/statewide/stateoccproj.pdf> and <https://secure.ihaveaplaniowa.gov/>

NATIONAL CAREER READINESS CERTIFICATE (NCRC)

Skill	Median Skill Level
Applied Mathematics	n.a.
Locating Information	n.a.
Reading for Information	n.a.

This ACT-developed credential demonstrates achievement and a certain level of workplace employability skills. The greater the score, the greater the skill level (Bronze = 3, Silver = 4, Gold = 5, Platinum = 6).

Source: <http://www.act.org/workkeys/analysis/occup.html>



PRIMARY INDUSTRY SECTORS

(Where are Actuaries Employed?)

- Insurance Carriers and Related
- Self Employed
- Credit Intermediation
- State Government

Source: <http://iwin.iwd.state.ia.us/pubs/statewide/stateoccproj.pdf>

ADDITIONAL SOURCES:

This publication was produced by the Labor Market and Workforce Information Division of Iowa Workforce Development. Revisions and/or corrections made when necessary. Inquiries may be directed to Brent Paulson at 515.281.3439 or Brent.Paulson@iwd.iowa.gov. Visit <http://iwin.iowaworkforce.org/> to obtain the latest workforce data and trends including this document under the **Publications** tab. Published 10/2013.