



Director's Chair



Dr. Doris Clark-Sarr, Ph.D.
Director

Greetings AIMS Family! The weather seems to be changing slowly but surely each day! I am starting to appreciate these nice cool evenings! Fall is just around the corner! We are busy wrapping everything up from this past summer and making way for all of the Academic Year Workshops we will be hosting on campus for year; as well as the College Tours! Last month we hosted our annual Back to School

Dinner for our incoming freshmen and current AIMS students on campus! It was refreshing to see a few of our high school AIMS students join us for this event! It was a good time! Last month you should have received a copy of the Summer Highlight PowerPoint that Evan put together! Yeah Evan! I hope you enjoyed it! Before long, you will be living on campus again for the summer! Time flies by so fast. In the meantime, stay focused on classes this year! We will have several opportunities for you to participate in activities over this semester and in the spring. Please make

note of the calendars we list in each newsletter! Please remember to turn in your grade reports once they come in to us here at the office. We want to make sure you are doing well in your classes and receiving help if you are not! Remember, we want you to do your "Optimal Best"!!! Evan and Stephen will be visiting your schools soon to recruit new members to the AIMS Family! Make sure you stop by the meeting when they are at your school! Stay in touch and I will see you soon!

Doris

Special points of interest:

- BRIEFLY HIGHLIGHT YOUR POINT OF INTEREST HERE.

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AIMS TIMES

Coordinator's Corner—AIMS I



Stephen D. Keene,
Coordinator
AIMS I

Greetings AIMS Family!

The 2010-2011 Academic Year is well underway and I am certain that our AIMS students are working very diligently and doing everything within their power to be successful, high achieving students.

Remember, if you need tutoring or academic assistance, please take advantage of the online live tutoring offered through the McCracken County Public Library. Tutor.com is a great resource that allows you to receive assistance in almost any subject from a live tutor from 2pm-10pm Sunday—Thursday.

Big Sandy, New Madrid, Fulton City, Fulton County, and Hickman High School students, I will be visiting your schools very soon. If you know of students interested in becoming part of the AIMS Family, encourage them to attend the informational session when I am scheduled at your school. You, our current students, are our most valuable tool in recruiting new students. We want you to feel free to share your thoughts about the AIMS Program with your friends as well as prospective students. I will also be checking in on you, our current students, to ensure that you are receiving the help and assistance

needed this academic year.

I hope to see several of you at our September 11th ACT Test Taking Workshop and I have received several permission forms for the upcoming October 2011 AIMS Sophomore College Tour. Sophomores, this is a great opportunity to visit some very prestigious colleges and get a feel for what you may be looking for in a college/university. Don't pass up this opportunity. Let's have a great academic year and please keep in touch!

Stephen D. Keene,
Coordinator
AIMS I

Coordinator's Corner—AIMS II

Hey everyone!

I hope you all have had a great and productive start to the new year. Don't forget about doing extracurricular activities (community service, work experience, etc.) if you are not already. Do something you like, and do it more than once (sustained involvement). Not only do colleges look for evidence of leadership, but also an *exceptional* commitment to something beyond the classroom. This will certainly give you an edge when applying and help make you a more well-rounded person

(something else they look for).

I hope you are all coming to the College Prep Test Workshop on September 11th! Even if you are not taking the ACT/SAT this year, this workshop will give you a distinct advantage for when you do take the test. Believe me, if I would have had this opportunity while in high school, I would have taken it. Also, don't forget to visit the "Resources" page on our website for information on study skills and other updates (Careers in Math & Science). There is also an "announcements" page on our website that will supplement our

calendar for upcoming events.

If you are at Paducah Tilghman, Union City, Lone Oak, or Lake County, be on the lookout for myself as I will be coming to your schools very soon! Keep in touch ... seriously!

"A great leader's courage to fulfill his vision comes from passion, not position." - John Maxwell

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Evan O'Neal, Coordinator
AIMS II

Test Preparation Tips

- ✓ Preparation for your first test should begin after the first day of class; this includes studying, completing homework assignments and reviewing study materials on a regular basis.
- ✓ Budget your time, make sure you have sufficient time to study so that you are well prepared for the test.
- ✓ Go to review sessions, pay attention to hints that the instructor may give about the test. Take notes and ask questions about items you may be confused about.
- ✓ Ask the instructor to specify the areas that will be emphasized on the test.
- ✓ Make sure you go to the class right before the test; it's another prime time for the instructor to give out more hints or the format of the test.
- ✓ Go over any material from practice tests, HW's, sample problems, review material, the textbook, class notes...
- ✓ Eat before a test. Having food in your stomach will give you energy and help you focus but avoid heavy foods which can make you groggy.
- ✓ Don't try to pull an all nighter. Get at least 3 hours of sleep before the test.
- ✓ Put the main ideas/information/formulas onto a sheet that can be quickly reviewed many times, this makes it easier to retain the key concepts that will be on the test.
- ✓ Try to show up at least 5 minutes before the test will start.
- ✓ Set your alarm and have a backup alarm set as well.
- ✓ Go to the bathroom before walking into the exam room. You don't want to waste anytime worrying about your bodily needs during the test.



Caption describing picture or graphic.

Test Taking Tips

- ✓ Bring at least two pens/pencils with good erasers, a calculator with enough batteries and any other resources that your instructor allows you to.
- ✓ Bring a watch to the test with you so that you can better pace yourself.
- ✓ Keep a positive attitude throughout the whole test and try to stay relaxed. If you start to feel nervous take a few deep breaths to relax.
- ✓ Keep your eyes on your own paper, you don't want to appear to be cheating and cause unnecessary trouble for yourself.
- ✓ When you first receive your test, do a quick survey of the entire test so that you know how to efficiently budget your time.
- ✓ Do the easiest problems first. Don't stay on a problem that you are stuck on especially when time is a factor.
- ✓ Do the problems that have the greatest point values first.
- ✓ Don't rush but pace yourself. Read the entire question and look for keywords.
- ✓ Ask the instructor for clarification if you don't understand what they are asking for on the test.
- ✓ Write legibly. If the grader can't read what you wrote, they'll most likely mark it wrong.
- ✓ Always read the whole question carefully. Don't make assumptions about what the question might be.
- ✓ If you don't know an answer, skip it. Go on with the rest of the test and come

“TO CATCH THE READER'S ATTENTION, PLACE AN INTERESTING SENTENCE OR QUOTE FROM THE STORY HERE.”



Caption describing picture or graphic.

AIMS TIMES

Test Taking Tips (continued)



back to it later. Other parts of the test may have some information that will help you out with that question.

- ✓ Don't worry if others finish before you. Focus on the test in front of you.

- ✓ If you have time left when you are finished, look over your test. Make sure that you have answered all the questions, only change an

answer if you misread or misinterpreted the question because the first answer that you put is usually the correct one. Watch out for careless mistakes and proofread your essay and/or short answer questions.

- ✓ Double check to make sure that you put your first and last name on the test.

Post Test Tips

- ✓ When you get your test back look it over and make sure that there are no grading mistakes.

- ✓ Look over the test and make sure that you understand your mistakes. If you don't know the answer to a question, look it up, ask a classmate or ask the teacher.

- ✓ If the teacher reviews the test in class, be sure to take notes on what the teacher wanted for an answer on the questions/problems that you got wrong.

- ✓ If you aren't satisfied with your grade, go to your instructor and see if there's a make-up exam or any extra

credit you can do.

- ✓ Save the test as study material for future cumulative tests.



Jessica Elkins, Student Intern

Student Intern: Jessica Elkins

My name is Jessica Elkins. I am a Sociology Major at Murray State University and currently minor in Youth and Non-Profit Leadership. I will be graduating in May, 2011 and I love children and love working with children.

The AIMS Staff is very pleased to welcome Jessica

into the fold. She will be working with the AIMS Program throughout the 2010-2011 school year. We are very excited for her as she learns about our program and what it takes to work with such a diverse group of students. Jessica seems to be very determined and has a strong passion for working

with you, both assets that will be extremely beneficial to her as she works with the AIMS Program!

Career Profile: Actuary

Significant Points

- A strong background in mathematics is essential.
- Actuaries generally have a bachelor's degree and must pass a series of examinations—often taking 4 to 8 years—to gain full professional status.
- Competition for jobs will be keen as the number of qualified candidates is expected to exceed the number of positions available.
- About 55 percent of actuaries are employed by insurance carriers.

Nature of the Work

Through their knowledge of statistics, finance, and business, *actuaries* assess the risk of events occurring and help create policies for businesses and clients that minimize the cost of that risk. For this reason, actuaries are essential to the insurance industry.

Actuaries analyze data to estimate the probability and likely cost to the company of an event such as death, sickness, injury, disability, or loss of property. Actuaries also address financial matters, such as how a company should invest resources to maximize return on investments, or how an individual should invest in order to attain a certain retirement income level. Using their expertise in evaluating various types of risk, actuaries help design insurance policies, pension plans, and other financial strategies in a manner which will help ensure that the plans are maintained on a sound financial basis.

Most actuaries are employed in the insurance industry, specializing in either property and casualty insurance or life and health

insurance. They use sophisticated modeling techniques to forecast the likelihood of certain events occurring, and the impact these events will have on claims and potential losses for the company. For example, property and casualty actuaries calculate the expected number of claims resulting from automobile accidents, which varies depending on the insured person's age, sex, driving history, type of car, and other factors. Actuaries ensure that the premium charged for such insurance will enable the company to cover potential claims and other expenses. This premium must be profitable, yet competitive with other insurance companies.

Within the life and health insurance fields, actuaries help companies develop health and long-term-care insurance policies by predicting the likelihood of occurrence of heart disease, diabetes, stroke, cancer, and other chronic ailments among a particular group of people who have something in common, such as living in a certain area or having a family history of illness. Such work of actuaries can be beneficial to both the consumer and the company because the ability to accurately predict the likelihood of a particular health event among a certain group ensures that premiums are assessed fairly based on the risk to the company. Additionally, life insurance actuaries help companies develop annuity and life insurance policies for individuals by estimating how long someone is expected to live.

Actuaries in other financial service industries manage credit and help set a price for corporate security offerings. They also devise new investment tools to help their firms compete with other companies. Pension actuaries work under the provisions of the Employee Retirement Income Security Act (ERISA) of 1974 which sets minimum standards for pension and health plans in private industry.

Actuaries working for the government help manage social programs such as Social Security and Medicare.

Actuaries help determine corporate policy on risk, for example, and also help explain complex technical matters to company executives, government officials, shareholders, policyholders, or the general public. They may testify before public agencies on proposed legislation that affects their businesses or explain changes in contract provisions to customers. They also may help companies develop plans to enter new lines of business or new geographic markets by forecasting demand in competitive settings.

Consulting actuaries provide advice to clients on a contract basis. The duties of most consulting actuaries are similar to those of other actuaries. For example, some may evaluate company pension plans by calculating the future value of employee and employer contributions and determining whether the amounts are sufficient to meet the future needs of retirees. Others help companies reduce their insurance costs by offering them advice on how to lessen the risk of injury on the job. Consulting actuaries sometimes testify in court regarding the value of potential lifetime earnings of a person who is disabled or killed in an accident, the current value of future pension benefits (in divorce cases), or other values arrived at by complex calculations. Some actuaries work in reinsurance, a field in which one insurance company arranges to share a large prospective liability policy with another insurance company in exchange for a percentage of the premium.

Career Profile: Actuary (continued)

Work environment. Actuaries have desk jobs, and their offices usually are comfortable and pleasant. While most actuaries work at least 40 hours a week, those in consulting type jobs may be required to travel and thus work more than 40 hours per week.

Training, Other Qualifications, and Advancement

Actuaries need a strong background 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 professionals.

Education and training. Actuaries need a strong foundation in mathematics and general business. Usually, actuaries earn an undergraduate degree in mathematics, statistics, or actuarial science, or a business-related field such as finance, economics, or business. While in college, students should complete coursework in economics, applied statistics, and corporate finance, which is a requirement for professional certification. Furthermore, many students obtain internships to gain experience in the profession prior to graduation. More than 100 colleges and universities offer an actuarial science program, and most offer a degree in mathematics, statistics, economics, or finance.

Increasingly, companies are requiring potential employees to have passed the initial actuarial exam described in the next section, which tests an individual's proficiency in mathematics—including calculus, probability, and statistics before being hired.

Beginning actuaries often rotate among different jobs in an organization, such as marketing, underwriting, financial reporting and product development, to learn various actuarial operations and phases of insurance work. At first, they prepare data for actuarial projects or perform other simple tasks. As they gain

experience, actuaries may supervise clerks, prepare correspondence, draft reports, and conduct research. They may move from one company to another early in their careers as they advance to higher positions.

Licensure. 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 automobile, homeowners, medical malpractice, workers compensation, and personal injury liability.

Four of the first seven exams in the SOA and CAS examination series are jointly sponsored by the two societies and cover the same material. For this reason, students do not need to commit themselves to a specialty until they have taken the initial examination, which tests an individual's competence in mathematics and helps evaluate their potential as actuaries. If candidates pass the initial exam, prospects can begin taking the next series of exams with the help of self-study guides and courses. Those who pass two or more examinations have better opportunities for employment at higher starting salaries than those who do not. These initial exams can be taken while the candidate is still in college.

Many candidates find work as an actuary immediately after graduation and work through the certification process while gaining some experience in the field. In fact, many employers pay the examination fees and provide their employees time to study. As actuaries pass exams, they are often rewarded with a pay

increase. Despite the fact that employers are supportive during the exam process, home study is necessary and many actuaries study for months to prepare for each exam.

The process for gaining certification in the Casualty Actuarial Society is predominantly exam-based. To reach the first level of certification, the Associate or ACAS level, a candidate must complete seven exams, attend one course on professionalism and complete the coursework in applied statistics, corporate finance, and economics required by both the SOA and CAS. This process generally takes from 4 to 8 years. The next level, the Fellowship, or FCAS level, requires passing two additional exams in advanced topics, including investment and assets and dynamic financial analysis and the valuation of insurance. Most actuaries reach the fellowship level 2 to 3 years after attaining Associate status.

The certification process of the Society of Actuaries blends exams with computer learning modules and coursework. After taking the initial exams, candidates must choose a specialty—group and health benefits, individual life and annuities, retirement benefits, investments or finance/enterprise risk management. To reach the Associate or ASA level, a candidate must complete the initial five exams, the coursework in applied statistics, corporate finance, and economics required by the SOA and CAS, eight computer modules with two subsequent essays, and a seminar in professionalism. This process generally takes from 4 to 8 years. To attain the Fellowship or FSA level, a candidate must pass two additional exams within a chosen specialty and must complete three computer modules, a seminar in professionalism, and a course in fellowship admissions.

Career Profile: Actuary (continued)

Attaining Fellowship status usually takes an additional 2 to 3 years after becoming an Associate.

Specific requirements apply to pension actuaries, who verify the financial status of defined benefit pension plans for the Federal Government. These actuaries must be enrolled by the Joint Board of the U.S. Treasury Department and the U.S. Department of Labor for the Enrollment of Actuaries. To qualify for enrollment, applicants must meet certain experience requirements and pass two exams administered by the SOA, as stipulated by the Board.

Other qualifications. Actuaries should have strong computer skills and be able to develop and use spreadsheets and databases, as well as standard statistical analysis software. Knowledge of programming languages, such as Visual Basic for Applications, SAS, or SQL, is also useful. Companies also increasingly prefer well-rounded individuals who, in addition to having acquired a strong technical background, have some training in business and possess strong communication skills. Good interpersonal skills also are important, particularly for consulting actuaries.

To perform their duties effectively, actuaries must keep up with current economic and social trends and legislation, as well as developments in health, business, and finance that could affect insurance or investment practices.

Advancement. Advancement depends largely on job performance and the number of actuarial examinations passed. Actuaries with a broad knowledge of the insurance, pension, investment, or employee benefits fields can rise to executive positions

in their companies, such as Chief Risk Officer or Chief Financial Officer. These generally require that actuaries use their abilities for assessing risk and apply it to the entire company as a whole. Actuaries with supervisory ability may advance to management positions in other areas, such as underwriting, accounting, data processing, marketing, and advertising. Some experienced actuaries move into consulting, often by opening their own consulting firm. A few actuaries transfer to college and university faculty positions. (See the section on teachers—postsecondary elsewhere in the Handbook.)

Employment

Actuaries held about 19,700 jobs in 2008. About 55 percent of all actuaries were employed by insurance carriers. Approximately 16 percent work for management, scientific and technical consulting services. Others worked for insurance agents and brokers and in the management of companies and enterprises industry. A relatively small number of actuaries are employed by government agencies.

Job Outlook

Employment is expected to grow [much faster than the average](#) for all occupations. Competition for jobs will be [keen](#) as the number of qualified candidates is expected to exceed the number of positions available.

Employment change. Employment of actuaries is expected to increase by 21 percent over the 2008—18 period, which is much faster than the average for all occupations. While employment in the insurance industry—the largest employer of actuaries—will experience some growth, greater job growth will occur in other industries, such as financial services and consulting.

Despite slower than average growth

of the insurance industry, employment in this key sector is expected to increase during the projection period as actuaries will be needed to develop, price, and evaluate a variety of insurance products and calculate the costs of new risks. Natural disasters should continue to require the work of actuaries in property and casualty insurance while the growing popularity of annuities, a financial product offered primarily by life insurance companies, will also spur demand. Penetration among actuaries into non-traditional areas, such as the financial services sector, to help price corporate security offerings, for example, will also contribute to some employment growth.

Consulting firms should experience strong employment demand as an increasing number of industries utilize actuaries to assess risk. Increased regulation of managed healthcare companies and drafting healthcare legislation will also spur employment growth

Nonetheless, growth may be, to a degree, offset by corporate downsizing and consolidation of the insurance industry—the largest employer of actuaries. Life insurance companies, for example, are expected to increasingly shed high level actuarial positions as companies merge and streamline operations. Pension actuaries will also experience declining demand. This is largely due to the decline of defined benefit plans, which required review by an actuary, in favor of investment-based retirement funds, such as 401ks.

Job prospects. Job seekers are likely to face competition because the number of job openings is expected to be less than the number of qualified applicants. College graduates who have passed two of the initial exams and completed an internship should enjoy the best prospects.

Career Profile: Actuary (continued)

A solid foundation in mathematics, including the ability to compute complex probability and statistics, is essential. Experience or skills in computer programming can also be important. In addition to job growth, a small number of jobs will open up each year to replace actuaries who retire or transfer to new jobs.

The best employment opportunities should be in consulting firms. Companies that may not find it cost-effective to employ their own actuaries are increasingly hiring consulting actuaries to analyze various risks. Openings should also be available in the healthcare field if changes take place in managed healthcare. The desire to contain healthcare costs will provide job opportunities for actuaries who will be needed to evaluate the risks associated with new medical issues, such as the impact of new diseases.

Because actuarial skills are increasingly seen as useful to other industries that deal with risk, such as the airline and the banking industries, additional job openings may be created in these industries.

Earnings

Median annual wages of actuaries were \$84,810 in May 2008. The middle 50 percent earned between \$62,020 and \$119,110. The lowest 10 percent had wages less than \$49,150, while the top 10 percent earned more than \$160,780.

According to the National Association of Colleges and Employers, annual starting salaries for graduates with a bachelor's degree in actuarial science averaged \$56,320 in July 2009.

Related Occupations

Other workers whose jobs require mathematical and statistical skills include:

[Accountants and auditors](#)

[Budget analysts](#)

[Economists](#)

[Financial analysts](#)

[Insurance underwriters](#)

[Market and survey researchers](#)

[Mathematicians](#)

[Personal financial advisors](#)

[Statisticians](#)

Message from Marianna Chrysiliou

Dear AIMS Family,

Sending you a postcard from the beautiful (and humid) island of Venus. Many greetings from my family and best wishes for continued success in all you do! Miss you much and thinking of you all! Mom says “hi” and promises lots of good Greek food when you visit! Hope everything is great and you know I write a lot so a postcard will not do it with everything I have to say, but it’s still cute so love you, be good and keep in touch! Sorry my chicken scratches, but I had KFC today! Haha! Be Blessed!

Love,

Marianna & George





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AIMS 2010-2011 Schedule At-a-Glance

September 2010

11th Test Taking Workshop 9am-12pm MSU Blackburn Science Room 251

October 2010

10th-15th AIMS Fall College Tour-Tennessee/Alabama
23rd ACT Test
29th AIMS Application Deadline 1

November 2010

20th Bridge Workshop & General Student Meeting 10am-1pm
1pm MSU Football Game (Optional)

February 2011

5th AIMS Financial Aid Workshop 9am-1pm MSU Blackburn Science Room 251
(MANDATORY FOR BRIDGE STUDENTS)

March 2011

18th AIMS Application Deadline 2

April 2011

16th AIMS Orientation 10am-1:00pm MSU Blackburn Science Room 251

May 2011

25th-28th Summer Staff Retreat & Training Eminence, MO
30th Bridge Students & Residential Staff Move-In Day
31st Bridge Classes Begin

June 2011

3rd-5th Bridge Weekend
12th Undergraduate Move-In Day
24th-26th Annual Bridge St. Louis Trip
29th Bridge Graduation

July 2011

1st Closing Symposium/Move-Out Day
5th-9th End of Year Trip