

Silicon Science:
The Job of a System Analyst

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What is it like to be on the forefront of technology? New technology is constantly being designed and developed. The people who are responsible for this new technology in the field of computers are most likely system analysts. This paper will attempt to give the reader some insight into the career of a system analyst.

People who work as system analysts work as teams and are constantly dealing with some form of new computer technology. They may build and design new systems, or they may provide consultation on the purchasing of computer systems for a company, school, or small business as to what type of computer system to purchase. The analysts who build new systems must design the circuit boards, peripherals, and choose how the computer will recognize files. System analysts must also select or design an operating system, which is the way the computer interprets files. During the design of the system, a system analyst must use both math models and other models to solve any problems they may come across (Wisconsin Career Information

System 1633.3). Once they are finished, the team must write reports on how to solve any problems the consumer may have with the new system, which, in turn, involves the use of more math models. In order to be capable of completing the above tasks, a system analyst must continue education beyond high school.

The post-secondary education required for a system analyst can be found only at a four-year institution. A student looking to become a system analyst must concentrate on the science and math courses offered by such an institute. Employers look for people who possess a Bachelor of Science degree in one of the following areas: computer engineering, computer information systems, computer science, data processing, information science, and technical engineering (Wisconsin Career Information System 1633.3). These majors all require the student to be able to excel in math because it is an integral part of computer operation. If the student thinks he is done with all of his education once he has graduated, he is in for big shock. In this type of job, continual education is essential. This is imperative because technology is changing faster than most people can keep up with. Many large businesses hold their own training sessions for their employees who use computers, while smaller businesses send their employees to seminars. Employers seek applicants who have specialized training. For example, an accounting firm would seek a system analyst who has a background in accounting, or a firm that produces medicine would look for someone with some medical experience. For this reason, colleges and universities often allow students to design a specific area of study in computer science.

While attending the four-year institution, one must develop specific skills and abilities. One ability that is essential is the ability to solve problems logically and practically. Without this skill, a student would have no future in the computer market because math is based on logic. One must also be able to communicate well with others. A person is constantly working with others and needs to be able to convey his message clearly to the team and/or people that he must assist. In this profession, people often work alone, but still need to be an effective team worker. This is a skill that can be developed at all levels. Others may think that being a team worker is a personal characteristic, but for some, it is something they need to work at to achieve.

Personal characteristics are something that a person possesses and are difficult to change. Two personal characteristics that a system analyst should possess are humility and confidence. These two characteristics are closely tied together, yet they contradict each other in some ways. They must be able to admit their mistakes, yet be confident enough to think that they have done a good job. While system analysts usually work forty hours per week, they may be required to work overtime on emergency projects or to meet deadlines. This requires employees to be able to handle stress well, work effectively and efficiently, and be reliable. CEOs recognize that these qualities enhance their business and seek to hire people who possess them. Another good quality for a system analyst to have is a sense of humor. A sense of humor is what keeps tension low in the work environment and helps to lessen the stress in some situations. All of the things in the previous three paragraphs are helpful when looking to advance on the job.

However, before advancement takes place, the opportunity must be made available. To have this opportunity, one must already be employed as a system analyst. Nationally, there were 463,000 people employed in the field in 1990 (U.S. Department of Labor 81) and 1,468 system analysts employed in Wisconsin (Wisconsin Career Information System 1633.3). The demand for system analysts is expected to grow rapidly. There are approximately 100 annual openings in Wisconsin every year, and by the year 2005, approximately 2,505 people are expected to be employed in the state (Wisconsin Career Information System 1633.3). Once a person has acquired some experience, he is given more responsibility and independence. If someone has a lot of experience, he has an opportunity to become a technical specialist, a team supervisor, or an engineering manager. Anyone who advances in this field has usually obtained a graduate degree in one of the aforementioned college majors.

Advancement means not only more responsibility, but higher pay. In my research, the lowest starting pay nationally for a system analyst is between

\$17,000 and \$21,000 from the government (U.S. Department of Labor 80). The average pay ranges from \$33,000 to \$46,000 per year (Wisconsin Career Information System 1633.3). The top one tenth of system analysts earn more than \$62,400 a year (U.S. Department of Labor 80). On average, people working in the Northeast were found to be paid the highest, while those working in the Midwest were the lowest (U.S. Department of Labor 81). Most system analysts receive benefits in addition to their salary. These benefits may include, but are not limited to paid vacations, sick leave, health and dental insurance, retirement plans, and profit sharing. Many places hire system analysts, but the biggest employers are educational institutions, government, and large corporations. The above factors contribute to the working conditions of a system analyst and are always a consideration when it comes to choosing the right job.

Overall, I believe choosing this career would be a good choice for me. System analysts do everything that I enjoy doing. They work with computers, develop new computer ideas, use math, and are on the cutting edge of technology. I like the working hours and the benefits. They are something that is conducive to my way of life. I also may enjoy this career because most jobs are in urban areas and I want to live in or near a city larger than Platteville. This career is important to me because I feel it will allow me to grow constantly while seeing the results of my efforts. I will be performing interesting, exciting, and challenging work while using my own ideas and at the same time drawing on an extensive knowledge base. It is a job that will force me to be thinking constantly. Although I like working under pressure, I do not like the fact that I may have to work overtime to finish projects. I also do not like the low job demand in Wisconsin. The low demand means that I most likely will not be able to stay in Wisconsin and be successfully employed as a system analyst. Researching this career has been enjoyable and I feel that it has given me a better understanding of my current career choice. Later in life I may change my choice, but right now I think that it is a good choice for me. I plan to continue to pursue the education required to become a system analyst.

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