



Commencement Speech

Middlesex County Vocational and Technical High School Piscataway Campus

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I would like to congratulate the class of 2005, as well as the teachers, administrators, families, and friends who helped to lead you to this momentous day. I would also like to thank Ms. Harkay and Dr. Russo for inviting me to speak with you.

Today, I would like to talk with you about what New Jersey's employers are thinking — how their needs have changed and what they will be looking for from you, whether you plan to enter the job market right away, or continue on to further study or training.

What is going on in today's workplace is nothing short of a revolution. Rapid advances in technology, globalization, and strong competition have not only changed the structure of the job market — there are many fewer manufacturing jobs and many more information and service-related jobs than there were in the past — they also continue to affect the skills that employers need in practically every industry, from manufacturing and construction to finance and healthcare. Today, workers are expected to know more, to do more and, especially, to learn more, than ever before.

Let me tell you how these changes have affected my own work. In school, I was never required to take a computer class and I avoided math courses as much as possible. I was technologically and mathematically clueless, and frankly, I did not care. I thought I was safe — I wanted to be a social worker. As late as the early 1990s, most social work was done without

computers or math. It was a people business. But that changed quickly. Less than a year into my first job, I was expected to write reports on a computer and compile statistics about the clients with whom I worked. Suddenly, I found myself unprepared. It was hard work playing catch-up, and if my boyfriend had not been a computer geek who was also a good teacher, all my years of learning to “work with people” would have meant little, as I would have been unable to keep up with my job requirements.

After 10 years in social work, and many classes in Excel and statistics, I decided to switch careers. Without plenty of practice at home and on the job, and a willingness to learn new things (especially new things I did not think I liked very much), I never would have been able to make the jump to where I am now — a researcher at Rutgers University. I did not get the job by getting another college degree, but I did have to work hard at understanding what the new career required and improving my current skill set while working at a full-time job. I have found a job that I love, that lets me use my creativity and people skills, and that also constantly challenges me to use math, technology, and analytical skills that, especially when I graduated from high school, I did not think I would ever need.

So, what skills will you need to survive in the rapidly changing workplace of the 21st Century, where most people change jobs, and even careers, many times over the course of their working lives? This is what my colleagues and I at the Heldrich Center attempted to find out by

conducting the *Ready for the Job* project, which profiled over 70 occupations (**that's more than one million New Jersey jobs**) in eight key industries.

We interviewed hundreds of employers, human resource professionals, and others to understand their current skill needs; to explore how the workplace, and many jobs, are evolving; and, ultimately, to offer accurate, up-to-date information about the trends in key New Jersey jobs and industries.

We focused on industries ranging from manufacturing to travel and tourism, to utilities, and others. We also asked employers about their emerging skills needs in new and growing industries like biotechnology, security, and e-commerce.

We found that, although there are good jobs with competitive pay that do not require a four-year degree, most jobs **do** require some education or training after high school.

While all jobs require strong basic academic skills and most require some level of job-specific skills, there are four skill sets, which we called cross-industry demand skills, that are essential on practically every job and that are **most** in demand by today's employers.

The first set of these skills are **math and technology skills**. All industries are adopting new technologies. For example, most manufacturing facilities are now run by computers. In fact, truck drivers must operate up to 15 on-board computers.

As a result, workers need to be comfortable working with electronic and digital technologies that change quickly and that constantly require workers to build on existing skills. Many workers also need to have strong math skills, and must be able to interpret reports, charts, and tables on the job.

The second set of essential skills includes **communication and teamwork skills**. Employees need to interact with a variety of

people with different jobs and backgrounds, so writing and verbal expression are essential. So, all of those group exercises that your teachers made you do will come in handy on the job.

Problem-solving and critical thinking skills are also important in today's workplace. Workers must be able to use good judgment independently and take initiative on the job. Many employers told us they need workers who seek to understand **why** things work and not just **how** they work.

Finally, employers want workers who have strong **entrepreneurship and business skills**. Many employers want workers who can find ways to help the company succeed by responding creatively to customer needs, applying basic business skills, and having strong project and business management skills.

So what do these skill needs tell us about the workplace? Essentially, employers expect more from their workers. Downsizing and the pressures of competition mean employers need a smaller group of highly skilled workers who can keep them on the cutting edge. Workers who lack essential skills are more likely than ever to be left behind and are more likely to get stuck in lower-paying jobs where advancement is difficult without significant improvements in skills.

One thing is certain: To become and remain successful, today's workers must continually upgrade their skills and knowledge. No coasting allowed! Workers must seek out new training, education, and knowledge independently.

Okay, enough warnings! While keeping up in today's job market can be challenging, many employees have more opportunity than ever to be creative, and skilled people can demand more in the marketplace (more money, better and more satisfying jobs, and a better schedule). And importantly, they can build skills that allow them to change jobs, and even careers, with greater ease than ever before.

In closing, I would just like you to remember to have fun! As if you needed a reminder! Also, ready yourself for the career path that lies ahead of you, even if you are not quite sure what that path is.

Take advantage of the information that is out there. For example, the *Ready for the Job* project team created www.NJNextStop.org, which provides information on the jobs, industries, and skills profiled in our study.

And finally, think about your future career path as an adventure — if you prepare well, you can have the time of your life.