

**Harper College District
Environmental Scan**

*Revised by the Office of Research
June 26, 2003*

Foreward

The Office of Research has examined numerous state and national data bases, examined results of past research studies conducted by or for Harper, and conducted personal interviews. The result of this effort is the first iteration of an environmental scan about the region served by the College. Findings were categorized into six categories: economic, educational, demographic, political, social, and technology. The categories were selected after examining several reports of environmental scans from organizations in both educational and non-educational environments. It should be noted that the categories are not mutually exclusive. For example, the current budget crisis facing Illinois has implications in the economic, education, political, and social categories.

The scope is broad-based and where possible includes trends. Such broad-based forecasting may introduce some inaccuracies due to unquantifiable factors. Presently, the greatest of these are political factors. The impact of the change of party control at both the State and Federal levels and ramifications of on-going conflict in Iraq can only be guessed at. However, the data reported is from reliable sources and accurately reflects the Harper district.

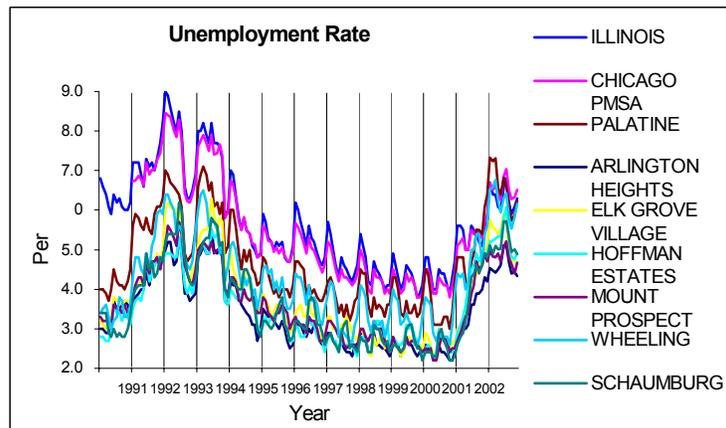
The report is organized in two sections. Section I summarizes the results for each category. The summary section uses bullets to identify each major result and each result includes a page reference in Section II that provides a more detailed explanation. Although Section I does include graphs, Section II provides additional graphs to further illustrate specific points.

Section I

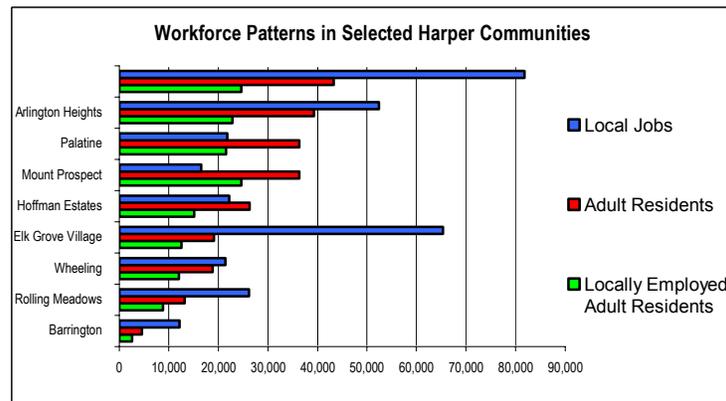
Economic

- ★ The current economic downturn continues to linger as the “War on Terror,” revelation of corporate accounting scandals, and the dot-com crash continue to impact global, national, and local economies. (Page 11)
- ★ Inflation continues to remain low and there are no signs of a change in the short term. Illinois existing housing sales increased by 2.4% in 2002 according to the National Association of Realtors. They anticipate that this level of growth will remain stable through 2003. (Page 11)

- ★ Unemployment in most municipalities within the Harper district is below both the Illinois and Chicago MSA averages. However, a return to the record low unemployment of the 1990’s is not foreseen by economists in the near term future. (Page 11)



- ★ A disproportionate number of Harper residents are professionals who do not work within the Harper district. (Page 12)



- ★ More jobs exist within the Harper district than potential employees. (Page 12)

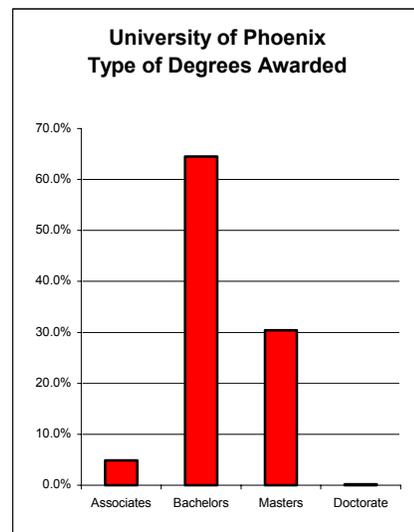
- ★ Businesses located within the Harper district largely employ non-residents. (Page 13)

- ★ The recent economic downturn has caused many area employers to reduce expenditures on employee training. Programs less impacted by this trend include ESL, Command Spanish, and computer training. (Page 13)

- ★ Employment in computer and health-related fields will grow sharply, pushing demand for training and education in these areas. (Page 13)

Educational

- ★ The public increasingly sees education as a competitive commodity and mature students tend to evaluate continuing education based on its economic impact on their lives. (Page 15)
- ★ There exists a growing trend nationally and at the state level towards outcome-based education. Recent research points to a connection between the standardization of courses across institutions of higher education and higher rates of enrollment and matriculation. However, questions have been raised about the value of outcome-based professional programs such as MBAs. The long-term value of outcome-based programs remains uncertain. (Page 15)
- ★ Performance-based measurement's impact on community colleges through its potential use for ranking such institutions is unknown. (Page 15)
- ★ Reporting and information management systems are being recognized as critical tools for institutions of higher education. Such systems are frequently credited with for-profit institutions' success in enrollment and retention. (Page 15)
- ★ Clearly defined courses of study for degree and certificate programs improve enrollment and retention. (Page 16)
- ★ Successful distance learning courses combine lecture and reading elements delivered individually through a distance learning option with practicums of hands-on "lab" work or group projects in a classroom environment. Dedicated students tend to be more successful with this type of program. (Page 16)
- ★ For-profit institutions are not direct community college competitors; rather they seek students interested in pursuing baccalaureate and professional masters programs. There exist cooperative opportunities for community colleges in "relieving them of the burden of general education." (Page 16)
- ★ Bachelor's degrees are becoming the standard for entry-level employment rather than the high school diploma. (Page 17)
- ★ Concurrent enrollment of high school students continues to grow. Nationally, concurrent enrollment is seen as a positive trend. In Illinois, both secondary and post-



secondary institutions have embraced concurrent enrollment. However, given the state's economic hardship, there exists the potential for conflict over funding. (Page 17)

- ★ A recent national study of community college students has identified the following risk factors for non-matriculation
 - > Academic unpreparedness
 - > Being a single parent
 - > Being financially independent
 - > Caring for children at home
 - > Working more than 30 hours per week
 - > Being a first-generation college student
 - > Being a part-time student
 - > Identifying the cost of college as a significant issue (Page 18)

- ★ A national survey notes that 51% of community college students work more than 20 hours per week. New students at Harper have been working more hours, though the recent economic downturn impacted 2001 student employment patterns. (Page 18)

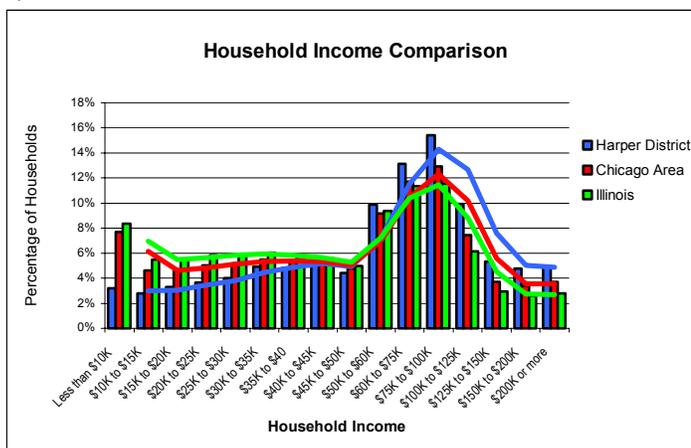
- ★ Economic stress and higher employer educational requirements are compelling high school graduates, who would directly enter the workforce previously, to enter higher education. These students are frequently less well prepared for college and, in part, drive the increasing demand for developmental courses, tutoring, and library services. (Page 18)

- ★ It is anticipated that the number of new faculty positions will increase by 20%-25% over the next ten years. (Page 18)

Demographic

- ★ Municipalities that are served by Harper may be characterized as “mature,” having less than 5% of their area available for development and being within 10% of the projected population cap. (Page 19)
- ★ The ethnographic change that is occurring within the Harper district is occurring because of shifting demographics rather than population growth. (Page 19)
- ★ Harper draws minorities out of proportion to its community demographics. (Page 20)
- ★ 10% of Harper district residents receive public aid and 4% of its residents live below the poverty line. (Page 12)

★ Median annual household income in the Harper district is \$67K as compared to the Chicago-area at \$42K and Illinois at \$39K. (Page 12)



★ Community awareness of Harper is high, but its perceived value varies greatly. Among the largest groups that utilize Harper are:

Medium-high income level, well-educated, professional households which:

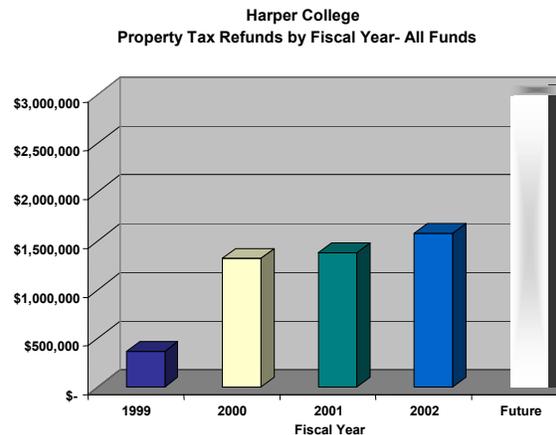
- > View Harper as a “Junior College” with weaker academic standards than those of a four-year college.
- > View Harper as an incidental educational resource and attendance is dependent upon scheduling convenience.
- > Use Harper as a supplementary education source for teen and young adult household members currently attending secondary and post-secondary schools elsewhere.

Low-medium income, non-professional households which:

- > View Harper in a positive academic light as an institution they might use
- > View Harper as their primary post-secondary educational resource.
- > View Harper as a cost effective stepping stone to higher education and young adult household members are encouraged to attend Harper. (Page 20)

Political

- ★ Federal budget shortfalls will likely reduce federal support of state programs, exacerbating the state budget crisis. (Page 22)
- ★ Multiple potential and ongoing international conflicts will cause abrupt and unpredictable political and economic shifts. (Page 22)
- ★ Democrats in Illinois are likely to retain control of the state government in the short term due to residual voter distrust of the Republican Party. (Page 21)
- ★ Democratic Party leadership in Illinois government will have an unknown impact on higher education at both the state and federal levels. This may reduce both direct and indirect funding. (Page 21)
- ★ The state budget deficit of \$5 billion likely will lead to broad funding cuts including education. (Page 21)
- ★ Potential state grant reductions would restrict Harper's ability to cultivate private sector training partners. (Page 21)
- ★ The ongoing trend to demand performance measures and outcome-based curricula, in light of the current state budget crisis may impose new unfunded mandates upon Harper. (Page 21)
- ★ Local issues such as TIFs, property reassessment, and the impact of the economic downturn on local tax revenue probably will have a negative impact on Harper funding. (Page 21)



Harper College Office of Finance

Social

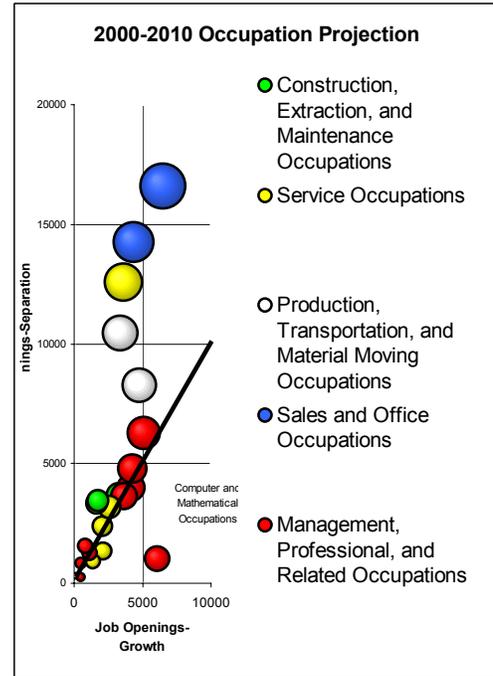
- ★ Time is becoming an increasingly precious commodity for Americans and students spend a growing percentage of their time working. (Page 23)
- ★ There exists an upward trend in disciplinary problems and academic dishonesty. (Page 23)
- ★ General societal tension and stress is rising due to the economic downturn, 9/11, the loss of the space shuttle, corporate accountability scandals, the war on terror, and the aftermath of conflicts in Iraq and Afghanistan. (Page 23)
- ★ The “War on Terrorism” is having a number of broad societal effects, at least for the short term that include:
 - > Increased demand for education programs supporting careers in public service (especially law enforcement, emergency services, and computer security).
 - > Increased grant opportunities within defense or homeland security areas.
 - > Reexamination of privacy and data security issues and implementation of stronger legislation such as HIPPA.
 - > Increased public stress.The long-term impact of these changes is unclear at this time. (Page 24)
- ★ The aging population is creating growth in industries that serve the aging population, providing new opportunities to serve the educational needs of active seniors. (Page 24)
- ★ The aging population is creating new challenges in American society including financial stress upon retirement plans, employee retirement in bureaucratic environments, and an increased need for geriatric health care. (Page 24)

Technology

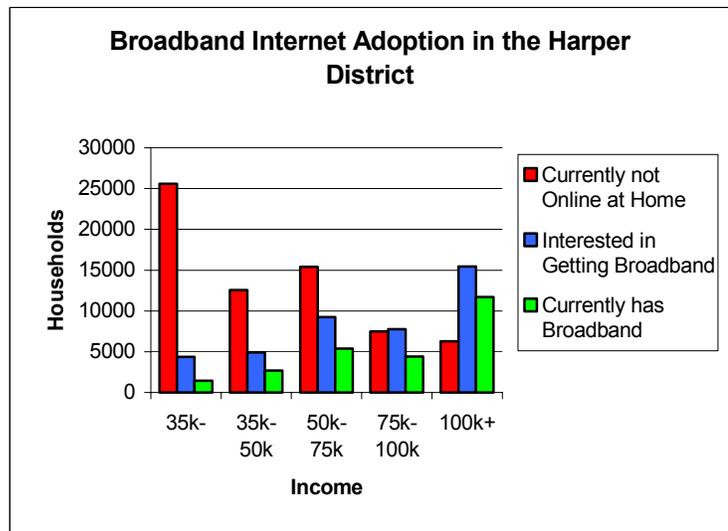
- ★ The four scientific fields that will have the greatest effect upon society in the next ten years are:
 - > Nanotechnology
 - > Information and decision systems
 - > Advanced robotics
 - > Biotechnology (Page 25)

- ★ Information and decision systems will continue to grow at the fastest pace. Their rapid development is being fueled by the government's war on terrorism, business's consumer-centric marketing efforts, and the needs of the innovation industry. (Page 25)

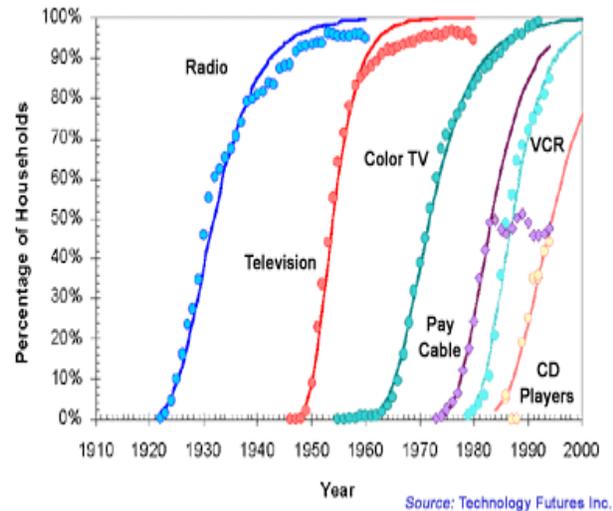
- ★ Open source software is making significant inroads against the market share of proprietary software. This trend is likely to continue and accelerate as business and government adopt operating systems such as LINUX. (Page 26)



- ★ Increasing consumer adoption of broadband (bandwidth>200KBps) will improve the viability of computer-based learning techniques. (Page 27)



- ★ Technological agility is becoming an essential characteristic of successful organizations. (Page 27)



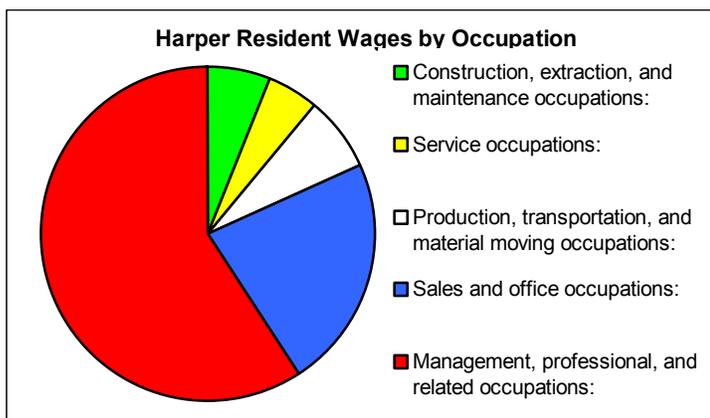
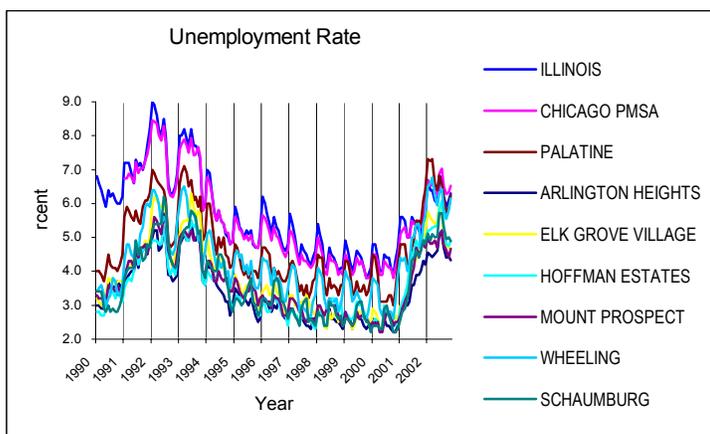
- ★ Institutions of higher education have attracted students, improved community relations, and provided new insights into the direction of technology through technology-related entrepreneurial endeavors. Such efforts also offer the opportunity to develop new revenue streams. (Page 28)

Section II

Economics

The current economic downturn continues to linger as the “War on Terror,” revelations of corporate accounting scandals, and the dot-com crash continue to impact global, national, and local economies.¹ While the U.S. economy is slowly recovering from the current recession, the future is not yet assured. Consumer confidence indices and other economic indicators continue to be mixed as reported by the Federal Reserve, the Michigan Conference board, the Bureau of Labor statistics, and the Illinois Department of Employment Security. The Federal Reserve Board notes that **inflation continues to remain low and there are no signs of a change in the short term.**² **Illinois existing housing sales increased by 2.4% in 2002 according to the National Association of Realtors. They anticipate that this level of growth will remain stable through 2003.** Many economists believe that the US is in a protracted, slow recovery. The US economy has shown itself more resilient than previously thought. Economists attribute this to a variety of causes including the country’s early investment in technology, its industrial transition from manufacturing to services, and actions of the Federal Reserve Bank relative to interest rates. The result is that the current recession is unlike previous economic downturns. With the prevailing perception of being in uncharted waters, business and consumers will continue to pursue a slow, cautious course.

Unemployment in most municipalities within the Harper district is below both the Illinois and Chicago MSA averages. However, a return to the record low unemployment of the 1990’s is not foreseen by economists in the near term future.³ Despite the presence of technology companies such as SBC, Motorola, and Lucent that were hard hit by the recession, the area’s economy has been less affected than the state as a whole. Lower area unemployment may be



¹ Testimony to the Joint Economic Committee, US Congress by Federal Reserve Chairman Alan Greenspan, 11/02

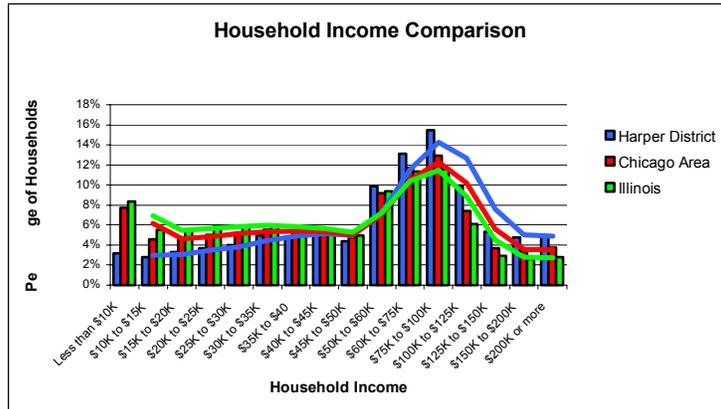
² Federal Reserve Board, 11/02

³ Illinois Department of Employment Security, 2003

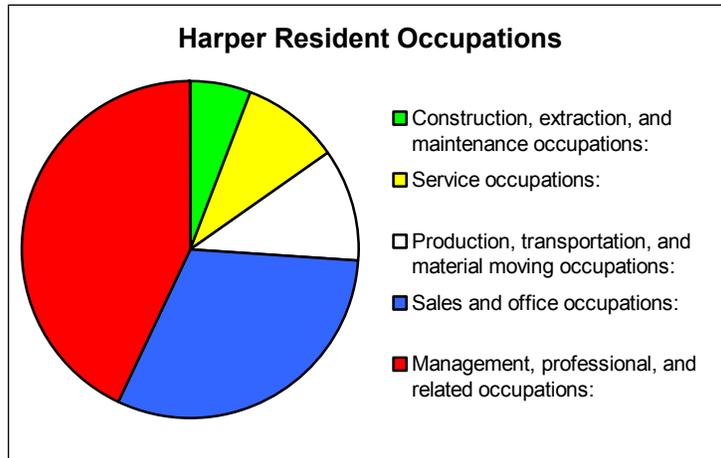
attributed to the area's unusual workforce composition.⁴

A disproportionate number of Harper residents are professionals who do not work within the Harper district. This professional population is responsible for both the area's unusual unemployment characteristics, as noted above and also the area's relative affluence.

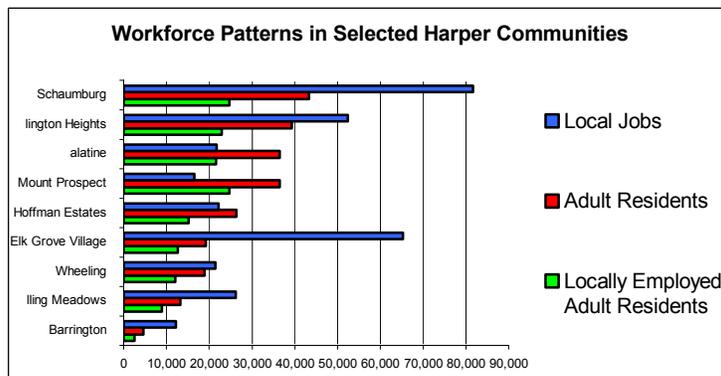
Median annual household income in the Harper district is \$67K as compared to the Chicago-area at \$42K and Illinois at \$39K. Moreover, **10% of Harper district residents receive public aid and only 4% of its residents live below the poverty line.**⁵



Additionally, it seems that a majority of Harper district skilled professionals commute to jobs outside the Harper district. Despite the large professional population and the concentration of professional and technical employers in the Harper District, local businesses are unable to fully support this resource.⁶



There exist more jobs within the Harper district than potential employees. Census and Bureau of Labor statistics show that in most Harper communities there exist more local jobs than potential employees. Moreover, 82% of the Harper district residents commute out of their city of residence and 60% of the Harper district residents



⁴ National Bureau of Economic Research, 2002

⁵ US Census 2000

⁶ US Census 2000

commute at least one half hour to work.⁷ Many of these commuters are likely to be working outside the Harper district. Given the relative affluence of the Harper district and its concentration of professionals, it may be concluded that many of these unfilled positions are unsuitable for the latter.

Thus, **businesses located within the Harper district largely employ non-residents.** Frequently, these non-residents are employed in semi-skilled jobs and trades serving the needs of affluent Harper communities. This is a significant factor in the area’s low unemployment also. Frequently such workers are first to be unemployed during economic downturns. Not being residents, they do not impact this area’s unemployment. The middle of the economic spectrum and those people most impacted by the recession, are underrepresented in the Harper footprint.⁸

The recent economic downturn has caused many area employers to reduce expenditures on employee training. Programs less impacted by this trend include ESL, Command Spanish, and computer training. According to reports from Harper College Corporate Services and news journals, in this recession as in others, funding for employee training is one of the first items cut as companies reduce their expenditures. Nonetheless, as businesses continue to adopt quality-based management styles to meet the demands of their customers, training requirements will grow. In the current economic climate businesses are very deliberate about their training expenditures and focus on critical needs such as English, Spanish, and computer skills.⁹

In contrast to the recent decline in enrollment numbers for computer-related classes, the 2000-2010 occupational projection strongly suggests that the current downturn in demand is temporary. Furthermore, healthcare occupations will continue to grow fueled by the aging population. **Employment in computer and health-related fields will grow sharply, pushing demand for training and education in these areas.**¹⁰

**TOP 20 JOB TITLES BY PERCENT GROWTH
2000-2010 CHICAGO OCCUPATIONAL PROJECTIONS**

JOB TITLE	PERCENT GROWTH	NEW JOB OPENINGS
Computer Software Engineers, Applications	91.74	13,820
Computer Support Specialists	78.82	13,159
Network and Computer Systems Administrators	76.39	6,037
Network Systems and Data Communications Analysts	73.59	2,488
Computer Software Engineers, Systems Software	71.16	4,177
Textile Bleaching and Dyeing Machine Operators and Tenders	67.12	198
Desktop Publishers	60.32	1,017
Database Administrators	59.19	2,567
Computer Systems Analysts	54.49	11,078

⁷ US Census 2000

⁸ US Census 2000

⁹ National Bureau of Economic Research “Why Companies pay for College”, 9/02

¹⁰ Bureau of Labor Statistics, 2002

TOP 20 JOB TITLES BY PERCENT GROWTH 2000-2010
CHICAGO OCCUPATIONAL PROJECTIONS continued

Medical Assistants	50.76	2,975
Social and Human Service Assistants	49.28	3,430
Personal and Home Care Aides	47.54	2,762
Audiologists	46.55	162
Medical Records and Health Information Technicians	44.43	1,858
Computer Specialists, All Other	44.36	3,800
Home Health Aides	43.83	3,495
Physician Assistants	43.34	179
Physical Therapist Aides	41.31	335
Security Guards	41.14	12,620
Physical Therapist Assistants	40.37	681

Educational

Changes in education are varied, but all point to the conclusions that **the public increasingly sees education as a competitive commodity and that mature students tend to evaluate continuing education based on its economic impact on their lives.**

¹¹The success of for-profit institutions such as the University of Phoenix and DeVry are proofs-of-concept for this new conception of the student as consumer. The emergence of student-run websites such as www.ratemyprofessors.com that evaluate teaching staff is the latest manifestation of students “shopping” for classes.¹² State government in its own way has begun to examine higher education with a consumer’s or at least a manager’s eye also. **There exists a growing trend nationally¹³ and at the state level towards outcome-based education.** By implementing such standards, state governments believe that they can better evaluate and improve their educational efforts.¹⁴ There exists early evidence that the state is justified in its conviction as a **recent study by the National Center for Public Policy and Higher Education and the Institute for Higher Education Policy points to a connection between the standardization of courses across institutions of higher education and higher rates of enrollment and matriculation. However, questions have been raised about the value of outcome-based professional programs such as MBAs.**¹⁵ Critics have pointed out that many such programs are either too academic and thus hard to apply to real world situations, or are successful based on the networking opportunities the programs offer their students rather than on the programs’ educational merits. **The long-term value of outcome-based programs remains uncertain. Performance-based measurement’s impact on community colleges, through its potential use to rank such institutions, is unknown.**

One of the primary underlying causes for these changes is the success of for-profit institutions such as the University of Phoenix and DeVry. Many researchers have examined these organizations and have identified a number of key areas that allow them to excel. In large part, these institutional traits are transferable to the domain of public education. The three most frequently identified capabilities are reporting and information management, employer recruitment, and distance/convenience learning.

Reporting and information management systems are being recognized as critical tools for institutions of higher education.¹⁶ **Such systems are frequently credited with for-profit institutions’ success in enrollment and retention.**¹⁷ Such management systems extend to the standardization of courses and curricula over disparate campuses. By implementing their operations as repeatable processes, these institutions are able to offer successful standardized curricula across their campuses, and

¹¹ Purdue University Agricultural Communication, “So You Want to Have a Job in 2005? Bringing Extension Back from the Brink”, 10/02.

¹² National Lewis University Faculty Senate Minutes 10/18/00

¹³ Los Rios Community College District (Sacramento, CA) Environmental Scan, 2002

¹⁴ Community College Research Center, 2001-2 Seminar Series

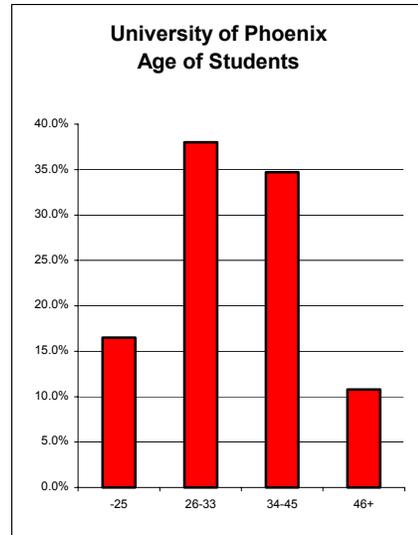
¹⁵ Stanford Graduate School of Business, “The End of Business School? Less Success than Meets the Eye”, Pfeffer/Fong

¹⁶ McHenry College, “Learning for Tomorrow”, 1999

¹⁷ Community College Research Center, 2/03

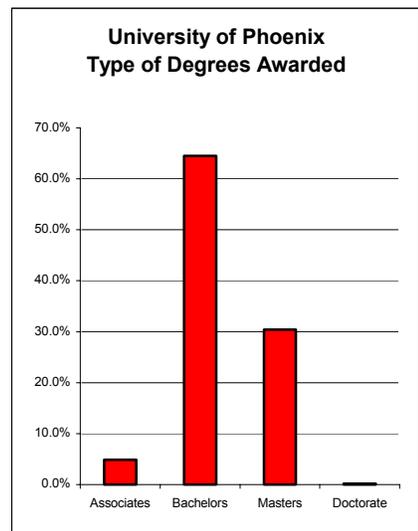
minimize the expenditure required for course design and updating. Furthermore, these schools closely track the progress of their students, faculty, and staff, before, during and after their experience. By benchmarking their operations, for-profit institutions are able to identify trends before they are at a decision point or crisis. Some of these institutions maintain an online “dashboard” of key metrics to promote institutional awareness of the organization. This attention to organization also improves enrollment and retention, as students are able to easily seek out clear and concise information on different programs with clearly defined course lists. **Clearly defined courses of study for degree and certificate programs improve enrollment and retention.**¹⁸

For-profit institutions also focus on interacting with employers. A full 60% of their students receive employer aid. The majority of this aid is directed towards students seeking professional degrees. These institutions have the luxury of specializing and “cherry-picking” their markets. Their programs are focused on serving the needs of a very specific group of students and employers who can pay the higher prices charged by such institutions and who have the maturity to undertake independent study. A list of educational providers that serve the Harper community can be found on pages 29 - 42.



By extensively employing independent study and distance learning, these institutions have created convenience learning. **Successful distance learning courses combine lecture and reading elements delivered individually through a practicum of hands-on “lab” work or group projects in a classroom environment.**¹⁹ Thus, for-profit institutions have been able to compress the duration of classes and the need for on-site class time, enhancing the convenience for their students. It is important to note that **dedicated students tend to be more successful with this type of program.** For-profits institutions intentionally admit older students. The emphasis on actively meeting the requirements of the student is key to these institutions’ retention and enrollment.

Successful distance learning courses combine lecture and distance learning option with



For-profit institutions are not direct community college competitors; rather they seek students interested in pursuing baccalaureate and professional masters programs. There exist

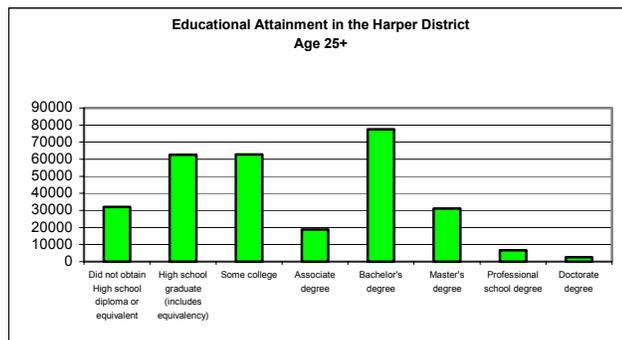
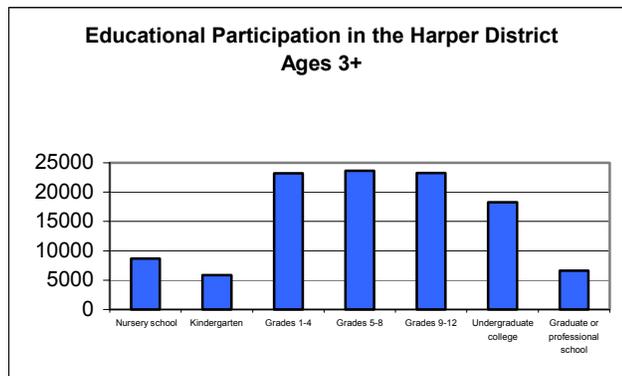
¹⁸ Nation Center for Public Policy and Higher Education, “State Policy and Community College-Baccalaureate Transfer”, 8/2002

¹⁹ OCLC 2000 Environmental Scan

cooperative opportunities for community colleges in “relieving them of the burden of general education.”²⁰ While for-profit institutions have some impressive credits, they are also more expensive than their public counterparts. Moreover, it must be pointed out that these institutions exist to make money. Thus the majority of degrees awarded are Bachelors and Professional degrees. In the Chicago area, only 17% of the 2000 degrees awarded by DeVry in 2001 were associates degrees.

Illinois is encouraging the implementation of these traits through the Illinois Articulation Initiative and its mandate for outcome-based programs. This process effectively compels colleges to standardize and benchmark their curricula. Springfield is also supporting distance learning consortia and encouraging employer investment in employee education through grant programs. Outcome-based education is frequently championed as a way for the state to insure that it is receiving value for its allocation of funds in education, an especially important issue in light of the State’s financial struggles.

The State is moving none too soon as events are also transforming the composition and volume of students entering institutions of higher education. As the US economy and that of the Chicago area moves away from manufacturing towards information-based services, employers are seeking employees with advanced skill sets such as problem solving, data analysis, and critical thinking. Moreover, the area’s highly educated workforce and the growing gap between wages for high school graduates and college graduates apply additional pressure upon individuals to pursue higher education. Thus, **bachelor’s degrees are becoming the standard for entry-level employment rather than the high school diploma.**²¹



This, in turn is putting more pressure upon high school students to perform. The growing popularity of concurrent enrollment as an option for high school students is a testament to the importance, in both time and money, of getting a head start for college. **Concurrent enrollment of high school students continues to grow. Nationally, concurrent enrollment is seen as a positive trend.**²² In Illinois, both secondary and post-secondary institutions have embraced concurrent enrollment. However, in the

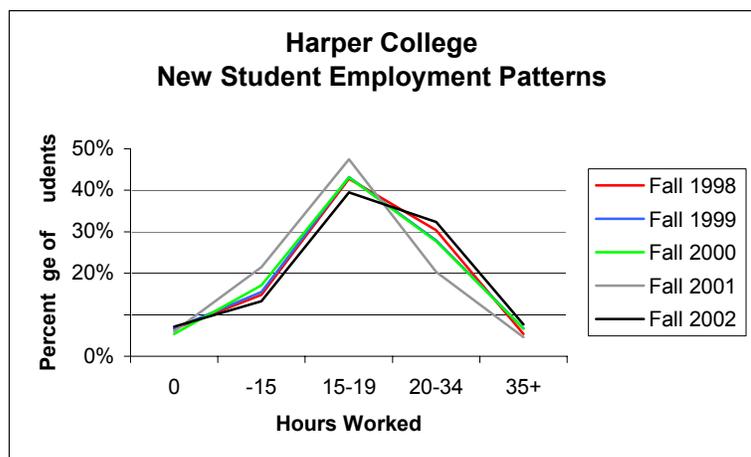
²⁰ Community College Research Center, 4/02
²¹ Chicago State University, Strategic Plan 2002
²² Community College Research Center, 3/03

current struggle brought on by the state's economic hardship, there exists the potential for conflict over funding.²³

Not all students pursue proactive programs like concurrent enrollment. The open admissions policy of community colleges insures that many of their students are less well prepared for the rigors of collegiate work. **According to the findings of the 2002 Community College Survey of Student Engagement (CCSSE)²⁴, the following are key risk factors that threaten degree completion:**

- **Academic unpreparedness**
- **Being a single parent**
- **Being financially independent**
- **Caring for children at home**
- **Working more than 30 hours per week**
- **Being a first-generation college student**
- **Being a part-time student**
- **Identifying the cost of college as a significant issue**

A national survey notes that 51% of community college students work more than 20 hours per week. New students at Harper have been working more hours, though the recent economic downturn impacted 2001 student employment patterns.²⁵ Indeed, economic stress and higher employer educational requirements are compelling high school graduates, who would directly enter the workforce previously, to enter higher education. These students are frequently less well prepared for college and, in part, drive the increasing demand for developmental courses, tutoring, and library services.²⁶



Finally, new data from the 2000-2010 occupational projections indicate substantial job growth in the Chicago area for faculty positions. **It is anticipated that the number of new faculty positions will increase by 20%-25% over the next ten years.** This will have a significant impact on hiring and retention in the faculty labor market.

²³ American Association of Community Colleges, "The Open Door...assessing the promise and problems of dual enrollment", 5/02

²⁴ CCSSE, "Engaging Community Colleges", 2002

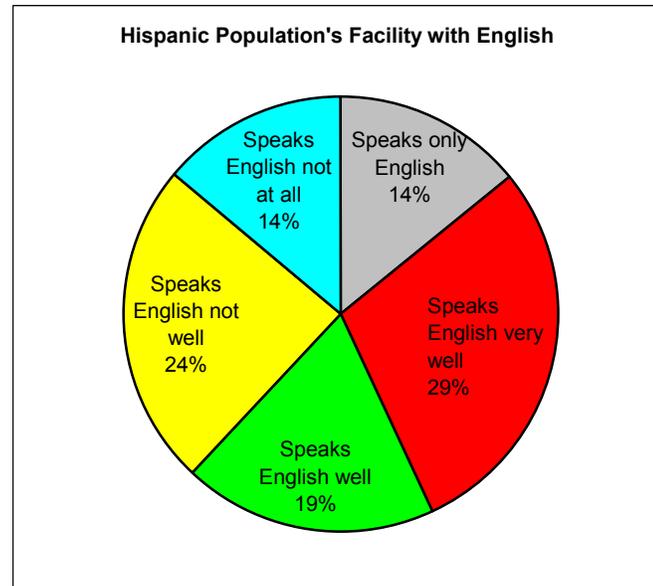
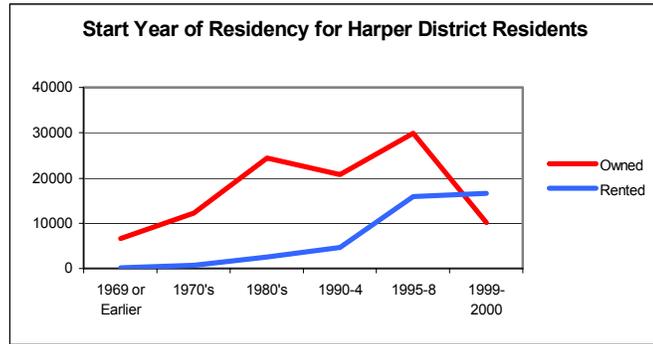
²⁵ State PIRG Higher Education Project, "At What Cost? The Price that Working Students Pay for a College Education", 4/02

²⁶ Community College Research Center, 1/03

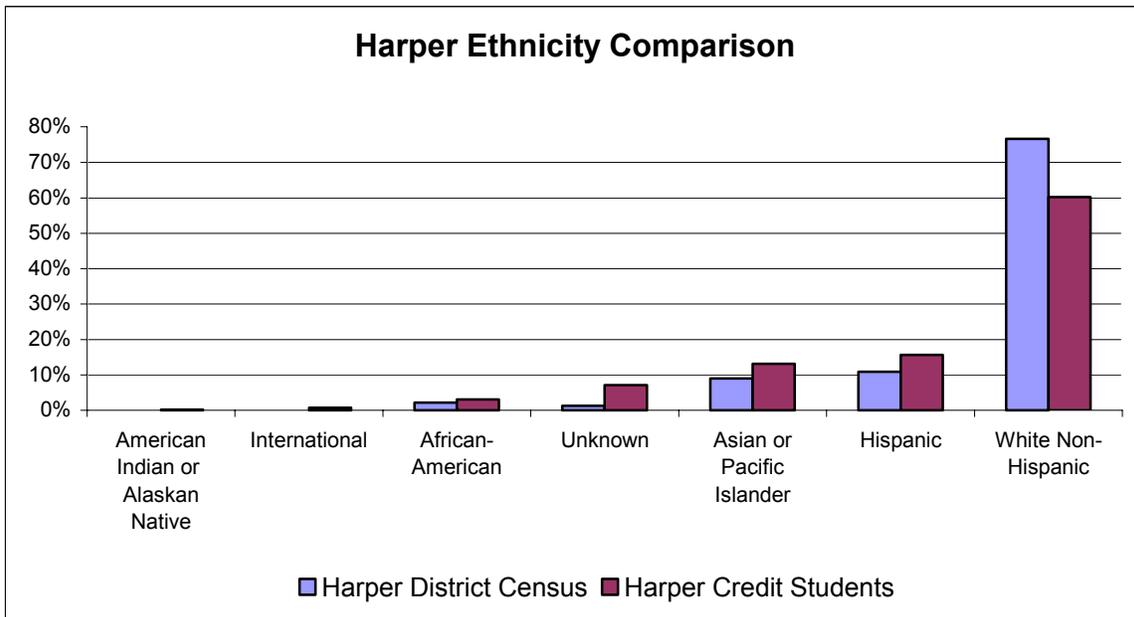
Demographic

The geographical area served by Harper College is an area of extremes. While its per capita income is high, nearly 10% of the population receives public aid. Furthermore, the community possesses extremes of education with a professional degree being common among wealthier residents while poor residents may be seeking English language training. **The municipalities that are served by Harper may be characterized as “mature,” having less than 5% of their area available for development and being within 10% of the projected population cap.** So while the Harper district is close to peaking in population, enrollment continues to climb driven by new educational demands from the extreme ends of the demographic spectrum.

Shifts in ethnography are driven by population change rather than population growth. As the municipalities served by Harper developed their respective areas in the 1990’s, the availability of housing increased, as did its accompanying housing occupancy. With the end of the housing boom, due to the unavailability of developable land, occupancy characteristics have shifted towards rental properties. Thus, **the ethnographic change that is occurring within the Harper district is occurring because of shifting demographics rather than population growth.** This is unlikely to change in the foreseeable future as local planning managers have expressed their opinion that further development or redevelopment would be prohibitively costly at the present time. The same is true for much of the unincorporated land within the Harper district that would require provision of basic services and utilities at a cost to the annexing municipality.



The ethnographic changes being caused by this shift are reflected in the region’s growing minority population. Currently, **Harper draws minorities out of proportion to its community demographics.**



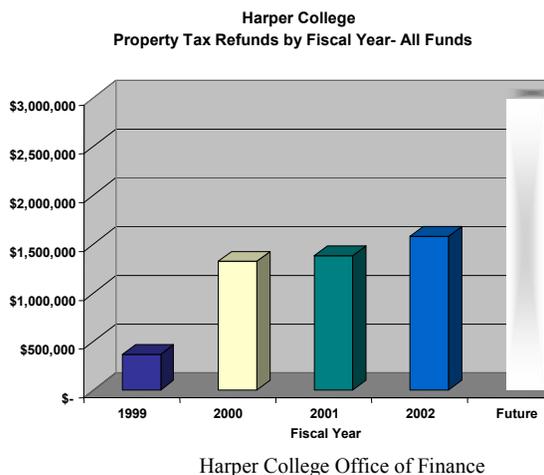
While community awareness of Harper is high, its perceived value varies greatly. Among the largest groups that utilize Harper are:

- **Medium-high income level, well-educated, professional households which:**
 - **View Harper as a “Junior College” with weaker academic standards than those of a four-year college.**
 - **View Harper as an incidental educational resource.** Adult household members’ high education level limits for-credit choices. **Attendance is highly dependent upon scheduling convenience** due to these individuals managing full-time employment.
 - **Use Harper as a supplementary education source for teen and young adults household members concurrently attending secondary and post-secondary school elsewhere.** For these college age individuals, Harper is not seen as a “valid” primary choice for such individuals. Four-year colleges are primary choice. Attendance may be dependent on the schedules of the primary educational institution (after school or during summer break).
- **Low-medium income, non-professional households:**
 - **View Harper in a positive academic light as an institution they might use.**
 - **View Harper as their primary post-secondary educational resource.** Adult members of this group may have scheduling pressure due to full-time employment. Teens and young adults in this category may manifest similar problems due to concurrent part-time or full-time employment with their enrollment.
 - **View Harper as a cost effective stepping stone to higher education.** Young adult household members are encouraged to attend Harper.

Political

Harper finds itself in very tumultuous times when it comes to the political scene. Previous Republican officials are seen as corrupt by the general public leading to the current dominance of Democrats in Illinois. **Democrats in Illinois are likely to retain control of the state government in the short term due to residual voter distrust of the Republican Party.**

At the local and state level, the strong shift of Illinois into the Democratic camp would normally be a positive event for higher education. Unfortunately this occurs at a time when there is a record budget shortfall and government is being compelled to raise fees and cut programs. **Local issues such as TIFs, property reassessment, and the impact of the economic downturn on local tax revenue probably will have a negative impact on Harper funding.**



At the state level, the situation is also negative and uncertain. The Republican-led federal government would normally allocate fewer resources to the Democratically-led state of Illinois. This is offset by Illinois Representative Hastert's position as Speaker of the House. Thus, **Democratic Party leadership in Illinois government will have an unknown impact on higher education at both the state and federal levels. This may reduce both direct and indirect funding.**

The state budget deficit of \$5 billion will likely lead to broad funding cuts including education. Moreover, every funding request is scrutinized closely to insure its necessity, justification and effectiveness. Outcome-based curricula are an important weapon in higher education's arsenal to fight funding reductions by demonstrating success. However, **the ongoing trend to demand performance measures and outcome-based curricula, in light of the current state budget crisis may impose new unfunded mandates upon Harper.** The ramifications of these new policies are unknown and may come as an unwelcome surprise as **faculty and staff may be unaware of the trend towards outcome-based curricula.** Though Governor Blagojevich is on the record prior to his election as a strong supporter of the community college system, his ability to offer financial support in the current budget crisis may be quite limited. **Potential state grant reductions would restrict Harper's ability to cultivate private sector training partners.**

In 2002, while the Democrats seized victory in Springfield, the Republicans claimed victory in Washington DC. With the agenda impasse broken in the congress, the choice of which measures will be advanced is an open question. The administration is focusing on the war effort and the economy at present. Both topics present potential

opportunities for Harper. New homeland defense programs and accompanying grants open the door to a variety of public service education programs including computer security, public health, and criminal justice. As the administration seeks to bolster the economy for the upcoming 2004 presidential election, funding for education and retraining may or may not be part of the economic incentive plan when it finally makes it out of congress. Furthermore, Representative Hastert's position as speaker of the house increases the likelihood that Illinois will receive some specific benefits. **Federal budget shortfalls will likely reduce federal support of state programs, exacerbating the state budget crisis.**

Adding to Illinois's woes is the federal government's budget and foreign policy problems. With a skyrocketing debt and forecasts for the debt to increase further due to the war on terrorism and ongoing presence in Iraq, the amount of funding that will be made available to states and municipalities will likely be reduced. Moreover, the long-term economic effects of the two wars are largely unknown. Further attacks upon western interests by terrorists are effectively *forces majeure*. The cost estimates vary widely as does the potential for loss of life. The government's perceived level of success or failure of its new proactive foreign policy could shift the balance of power at the federal level. **Multiple potential and ongoing international conflicts will cause abrupt and unpredictable political and economic shifts.**

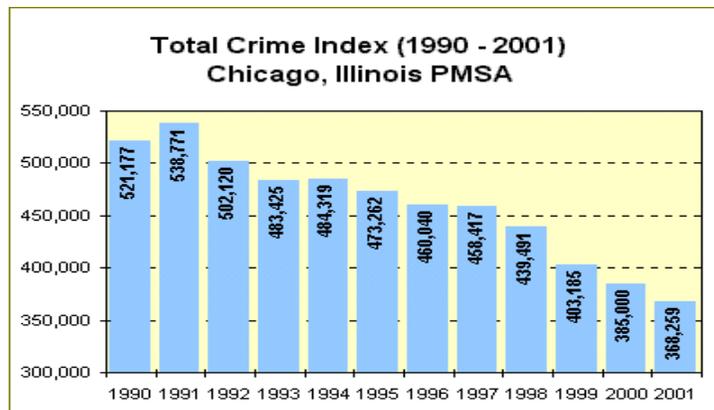
Social

Social pressure and social change is an oft-discussed, multi-faceted topic. In relating these changes to Harper, there are a number of issues that directly relate to how Harper interacts within itself and with its community. First and foremost is the value of time. **Time is becoming an increasingly precious commodity for Americans and students spend a growing percentage of their time working.** Americans are spending more time working due to economic pressures and employer demands, leaving less time for other pursuits. Americans already take less vacation time than their counterparts in Europe. Spending this valuable asset to obtain education or training is a major sacrifice and likely spurred on by economic demands. Convenient class schedules, distance learning, and easy to understand program requirements and procedures are essential to minimizing the opportunity cost of choosing education.

Our society has increasingly pressured its citizens to succeed and excel. Recent corporate scandals may indicate that this pressure is felt at all levels of society. Increasingly, vocational success is connected with not just graduating from high school, but also holding a college degree. Individuals who might previously have ceased

education following high school graduation are now choosing or feeling forced to choose further education in order to obtain gainful employment. The pressure to succeed has imposed additional strain upon students and may be a contributor to a rise in disciplinary problems. **There exists an upward trend in disciplinary problems and academic dishonesty.** A survey conducted in 1999 by the Center for Academic Integrity at Duke University found that more than 75% of college undergraduates students questioned admitted to cheating. While actual crime has been steadily decreasing in the Chicago area, reports of disciplinary problems and academic dishonesty are on the rise. The cause for this latter trend is likely due to a number of causes including actual academic dishonesty, growing vigilance on the part of instructors, and/or a greater ability to obtain, detect, and report plagiaristic text on the Internet.

The pressure to succeed in a competitive society is by no means the only source of stress in American society. **General societal tension and stress is rising due to the economic downturn, 9/11, the loss of the space shuttle, corporate accountability scandals, the war on terror, and the aftermath of conflicts in Iraq and Afghanistan.**



State of Illinois

In particular, the “War on Terrorism” is having a number of broad societal effects, at least for the short term. Specifically:

- **Increased demand for education programs supporting careers in public service (especially law enforcement, emergency services, and computer security²⁷).**
- **Increased grant opportunities within defense or homeland security areas.**
- **Reexamination of privacy and data security issues and implementation of stronger legislation such as HIPPA.**
- **Increased public stress.**

The long-term impact of these changes is unclear at this time.

Finally, the shift in aging demographics creates new social problems and opportunities. Improved health care and biomedical technology has led to an increase in life span and a greater quality of life for the aged. This shift has led to a surge to the workforce as the unwillingly retired seek to remain active. For many, this return to work requires education to make a career change. Another social change or rather ramification is the growing acceptance and working knowledge of technology. An ever-growing proportion of the population has grown up with computers as an essential part of their lives. Training and education for these individuals will become more focused and specialized for specific certifications and more complex software packages. **The aging population is creating growth in industries that serve the aging population, providing new opportunities to serve the educational needs of active seniors.** However, **the aging population is creating new challenges in American society including financial stress upon retirement plans, employee retirement in bureaucratic environments, and an increased need for geriatric health care.**

²⁷ Gartner Group, 11/02

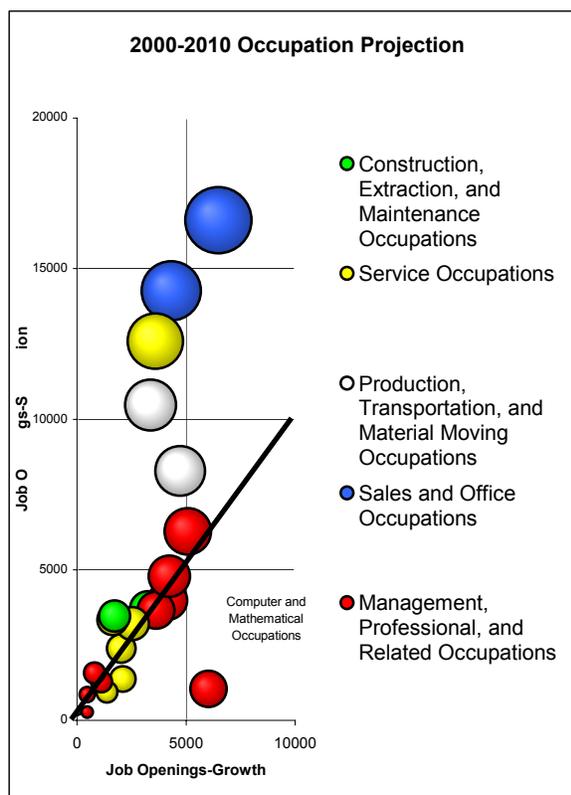
Technology

The direction of technological development in the near term is remarkably clear despite the acceleration caused by advances in information technology. Key insights into coming advances may be gleaned from a perusal of US Government's defense research efforts. Bearing in mind that many inventions including the Internet, composite materials, and digital photography can trace their origins to these efforts, we believe that **the four scientific fields that will have the greatest effect upon society in the next ten years are:**

- **Information and decision systems**
- **Advanced robotics**
- **Nanotechnology**
- **Biotechnology**

These areas have potentially broad ramifications across the spectrum in their civilian applications.

Information and decision systems encompass a broad range of computer technologies for generally assisting people with sorting data and identifying what is important. Included in this category are such things as handheld two-way language translators, distant biometric identification, and quantum computers. In general, these technologies may allow us to tackle problems of ever-greater complexity while potentially reducing privacy and eroding the barriers separating cultures and people. **Information and decision systems will continue to grow at the fastest pace. Their rapid development is being fueled by the government's war on terrorism, business's efforts to streamline processes, and the needs of the innovation industry.** The fundamental educational requirements for people in this field are mathematics and computer programming as all of these programs are based on algorithmic logic.



Advanced robotics have long held an important commercial role in industry, especially in manufacturing. However these machines are driven by fairly simple programs to perform repetitive tasks. The next generation of robots envisioned will be semi-autonomous and able to adaptively deal with a broader spectrum of situations. Tasks such as mine detection and clearing and intelligence gathering are projected uses

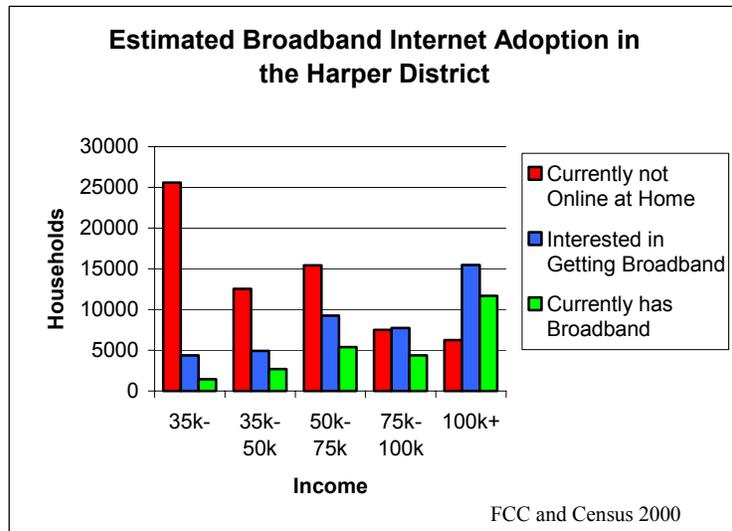
for this family of technologies. Commercially, such technologies may be exploited to explore for natural resources in hazardous conditions or the automation of transportation vehicles. The need for computer scientists and engineers will increase as the complexity of these robots increases.

Nanotechnology is a field of endeavor largely unknown to the layman. It involves the fabrication of materials and machines at the molecular level. Static outputs include materials with unusual properties such as high thermal conductivity and stain resistant fabrics. More complex endeavors include such things as molecular engines. This field of endeavor is only now emerging and the future requirements are largely unknown. However physical scientists such as chemists and physicists are most involved with this research.

Biotechnology may be the area that will impact civilian life most strongly. Today, biotechnology is usually considered only in the fields of medicine and agriculture. However, the impact of biotechnology is much more far-reaching. One of these new areas is combining biologic processes with integrated circuits to create chemical detectors for use in detecting the presence of contaminants. Other advanced uses include such things as smart clothing that would be able to provide medical information about the wearer to doctors and the creation of biological computers that offer new ways to analyze information. Biochemistry and laboratory training are key for individuals seeking opportunities in this field.

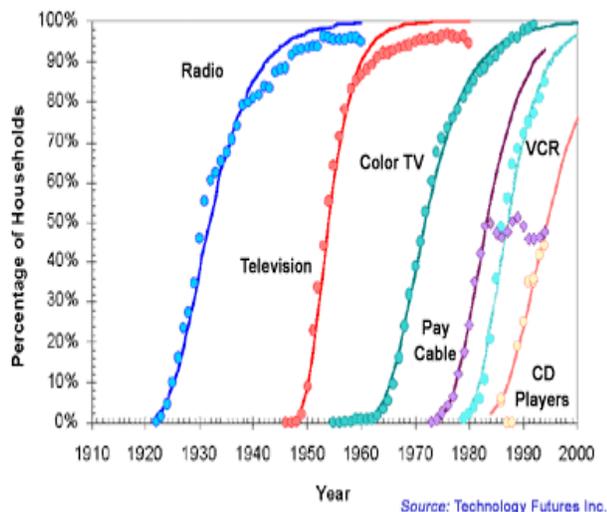
Two technologies that are presently sweeping through the private sector and which Harper has deployed are the open source software and the wireless networks. The former is best characterized by the LINUX operating system. Increasingly both government and enterprise-class businesses are adopting LINUX. Unlike proprietary software such as Microsoft Windows, access to the core programming or source code is unrestricted with the caveat that modifications should be published for the benefit of other users. Open source advocates point out that this arrangement creates an environment of active peer review that encourages excellence. Economically, open source software itself is free. Costs are incurred in the customization and maintenance of the software. Overall, it appears that these arguments are increasingly compelling as more companies and governments implement open source software. **Open source software is making significant inroads against the market share of proprietary software. This trend is likely to continue and accelerate as business and government adopt operating systems such as LINUX.**

Wireless networking, most frequently implemented under the 802.11 protocol or the “Wi-Fi” moniker is an increasingly inexpensive technology that allows a variety of properly equipped electronic devices to communicate when in line of sight of each other. Today, this technology is standard equipment for most notebook computers. Because of its ease of deployment and low cost, this technology is being used



by business, government, and academia as well as by private citizens. This technology will supplement and augment the planned improvement of cell phone technology “3G.” Because of its ease of use and academic deployment, it is likely that it will gain broad public adoption within 3-5 years. This process has already started with the sprouting up of so-called “hot spots” in coffee shops and airports. This technology provides an additional layer of communication for the technologically literate and will improve information access for its users. This technology and others will accelerate the consumer adoption rate of high-speed Internet access. **Increasing consumer adoption of broadband (bandwidth>200KBps) will improve the viability of computer-based learning techniques by achieving a critical mass of consumers.**²⁸

Technological innovation is occurring at a rapidly increasing pace. Moreover, the rate at which consumers adopt new technologies is also accelerating. In the dot.com boom of the 1990’s, companies able to adapt to changing conditions were most likely to succeed. In practice, large companies such as IBM and Cisco structured themselves as multiple semi-autonomous operating units. These units possessed greater flexibility and by eliminating levels in the decision making process, were able to adapt and implement initiatives in a shorter time span. **The ability to adapt to changes in technology or “technological agility” is becoming an essential characteristic of successful organizations.**²⁹



²⁸ National Science Foundation Annual Report 2001

²⁹ OCLC 2002 Environmental Scan

One trend that has been hurt by the economic downturn is the concept of the academic incubator. Today many universities earn royalties that augment their income through the business endeavors and inventions of academically inspired companies via patents and copyrights. Moreover, these efforts also serve to improve the initiating institution's image as a center of academic excellence. Once the current recession ends, post-secondary institutions will renew these efforts. **Institutions of higher education have attracted students, improved community relations, and provided new insights into the direction of technology through technology-related entrepreneurial endeavors.**³⁰ Such efforts also offer the opportunity to develop new revenue streams.³¹

³⁰ Siemens White Paper, "Trends in Higher Education", 4/02

³¹ Community College Research Center, 1/00

Local Education Providers

The following table is a detailed listing of local companies and institutions that provide educational services through the Illinois Workforce Development Program. These companies and institutions may be construed as Harper College's "educational competitors." The private companies listed below are not necessarily price competitive with Harper. However, they are very aggressive in marketing themselves to individuals seeking training or retraining, and are very effective at tailoring programs to take advantage of state subsidization programs such as Workforce Development.

Similarly, it is worth noting that many traditional educational institutions have been able to certify whole degree programs under workforce development (WIA). Presently, the typical WIA voucher amount is \$3000. Thus, WIA is subsidizing approximately \$50 per credit hour in a typical 60-hour associates degree program. This is likely an important factor in evaluating the educational choices made by the unemployed.

Finally, it is important to note that the vast majority of providers are offering information technology related education and certification. These mostly private, for-profit providers emerged during the tech boom of the 1990's, catering to businesses' demand for employees with technology training/certification. While Illinois projects that demand for these skills will continue to grow over the next ten years, many of these companies may be unable to weather the present economic downturn due to decreasing consumer demand for their services because of financial hardship. Many technology certification courses cost in excess of \$3000; exceeding WIA subsidy levels for the unemployed learner. For the employed learner, difficult economic times may make them less likely to invest in expensive educational programs.

WIA Certified Training Programs within 15 miles of 60067

Provider Name	Course of Study	Address
1st Choice, Intl., Inc.	Professional Massage Therapy Program	1245 Milwaukee Avenue, Suite 301 Glenview, IL 60025-0000
Absolute Solutions, Inc.	A+ Technician ASI Office Administrator MCSE (Microsoft Certified Systems Engineer) Windows 2000 MCSA (Microsoft Certified Systems Administrator) M.O.U.S. (15 modules) w/ 4 exam package Microsoft Certified Application Developer (MCAD).NET Training Microsoft Office Specialist- no exams Microsoft Office Specialist- Expert Certification w/ 4 exams MOS Master Certification w/ 5 Exams+ Project Management CISSP and CCNA with 2 exam voucher package Microsoft Office Specialist- Core Certification w/ 3 exams Oracle Developer w/5 exams package Microsoft Office Specialist-Master Certification w/ 5 exams Office Administrator Assistant	201 East Army Trail Road Bloomingdale, IL 60108-2150 203 North LaSalle (Suite M18) Chicago, IL 60106-

Provider Name	Course of Study	Address
Absolute Solutions, Inc. continued	Project Management Programming Cobol under Microsoft .NET CIW (Certified Internet Webmaster) MCSD (Microsoft Certified Systems Developer) CCNA (Cisco Certified Networking Associate) MCSDBA (Database Administrator) Unlimited Online Technical Training with Mentoring CISSP/exam (certification for info system security pro) Java 2 Programmer MOS- Master Certification w/ 5 Exams + CompTIA A+ A+, NET+, MCSA, MCSDBA w/8 exams package A+, Net+, MCSA w/ 7 exam package A+, Net+, MCSA only Microsoft Certified Application Developer (MCAD).NET_COM+ A+ Oracle Database Administrator w/5 exams package A+, NET+, MCSA, MCSDBA w/8 exams package Network Plus	
Academy Of Dog Grooming Arts Ltd	Professional Pet Grooming	1742 West Algonquin Rd. Arlington Heights, IL 60005-4018
ADECCO	Certified Loan Officer/Mortgage Processor	1200 East Algonquin Road Elk Grove, IL 60007-4712
Advanced Computer Training	Advanced Software and Performance Testing for Web Application MCSE Windows 2000 Software Quality Assurance and Manual Testing Web Development for Programmers using Microsoft Platform Advanced Java Programming SQL Server Database Administration Introduction to Computers and Office Technologies Performance Testing and Analysis Web Development using MS and Sun Platforms for Programmers E-Commerce Multiplatform Solutions Advanced QA and Software Testing Introduction to Web Programming Extensive Markup Language Introduction to Java Programming E-Commerce Multiplatform Solutions for Programmers Advanced QA and Software Testing for QA Professionals Web Development for OOL Programmers Enterprise Java Programming Test Automation Expert Level Certification Track Intrusion Detection System Analysis Relational Databases and MS SQL Server for IT Professionals Introduction To Computer Technologies and MS Certified Office Microsoft Certified Office Specialist E-Commerce/Web Development-Microsoft and Sun Platform Relational Databases for IT professionals Web and Application Development with WebSphere E-Commerce/Web Development-Multiplatform Solutions Plus Web Develop. Using MS Sun Platforms for Programmers QA and Automated Testing	4208 Commercial Way Glenview, IL 60025-3573

Provider Name	Course of Study	Address
Advanced Computer Training continued	E-COMMERCE/WEB DEVELOPMENT - EXPERT LEVEL E-Commerce/Web Development-Open Architecture Solutions Plus Relational Databases Administration for Non- Programmers Web Develop. Using MS .Net Sun Platforms for Non-programmer CISSP Web Develop. Using MS .Net Sun Platforms for programmers E-Commerce/Web Development-Multiplatform Solutions Oracle Development and Administration for Programmers Web Develop. Using MS .Net Platform and XML for Programmers Microsoft Networking and Security Networking and Internetworking with Cisco Oracle Development for Non-Programmers Oracle Development for Programmers Web Develop. Using MS .Net Sun Platforms for Non-programmer E-Commerce/Web Development-Open Architecture Solutions E-commerce Java Programming Quality Assurance/automated Software Testing Advanced IT Security Complete Testing Solutions for Web IT Security Plus Complete IT Security QA and Testing for Web Applications Advanced Software and Performance Testing for Web Applications Software and Performance Testing for Web Applications Advanced Ethical Hacking and Security IT Security IT Security Basics Advanced QA and Automated Testing Microsoft Certified Systems Engineer (MCSE)	
Advanced Information Technology/AIT E-University	Web Development Series - Web Fundamentals Certificate Web Development Series - Website Development Certificate Architecture Series - Object Oriented Analysis Design Cert Architecture Series - E-Commerce Project Management Certificate Enterprise Java Series - Java Programmer Certificate Enterprise Java Series - J2EE Services Development Certificate Enterprise Java Series - Enterprise JavaBean (EJB) Development Enterprise Java Series - Web Components Development Certificate Enterprise Java - End To End Development E-Commerce Series - End To End Development Certificate E-Commerce Series - Portal Server Development Certificate E-Commerce Series - Commerce Server Development Certificate E-Commerce Series - BEA WebLogic Server Development Certific E-Commerce Series - IBM WebSphere Server Development Certificate	2275 Half Day Road Bannockburn, IL 60015- 5600 River Road (O'Hare) Chicago, IL 60018- 707 Skokie Blvd, Suite 600 Northbrook, IL 60062- 1600 Golf Road Rolling Meadows, IL 60008- 1450 East American Lane Schaumburg, IL 60173-

Provider Name	Course of Study	Address
Advanced Information Technology/AIT E-University continued	Integration Series - XML Development Certificate Integration Series - Wireless Development Certificate Integration Series - Web Services Development Certificate Professional Workshops Series - Best Of Java Development	
Advanced Technical Support, Inc.	MCSE (Microsoft Certified Systems Engineer) A+	1530 East Dundee Road, Suite 360 Palatine, IL 60074-8319
Airline Career Training	Full Course Flight Dispatcher	1900 South Milwaukee Avenue Wheeling, IL 60090-0000
Airway Flight Services Inc.	Commercial Pilot Program	1098 S. Milwaukee Ave. Wheeling, IL 60090-6377
American Academy of Computer Training and Technology, Inc.	Internet Track Desktop Publishing/Graphics Track Operating Systems/Business Track DTP/Internet Track (This combo course modified for WIA only)	5005 Newport Drive, Suite 303 Rolling Meadows, IL 60008-3839
American Flyers	Multi Engine Flight Instructor Course Instrument Flight Instructor Course Instrument Rating Course Private Pilot Certificate	1108 S Milwaukee Ave Wheeling, IL 60090-
Aquarius Institute Of Computer Sciences	A Plus Certification Web Development (Basic) Cisco-CCIE Web Development (Advanced) Windows 2000 (MCSE) Oracle Developer (OCP) Java JSP Oracle DBA Track Web Design (Advanced)	911 E. Touhy Avenue Des Plaines, IL 60018-2741
Associated Builders and Contractors	Ex-Offender Core Training – Painting Wheels of Learning...CORE curriculum Carpentry Electricity Ex-Offender Core Training – Painting Painting Industrial Maintenance Plumbing	TCD - 301 S. Swift Road Addison, IL 60101- 1691 Elmhurst Road Elk Grove Village, IL 60007-0000
Batuta, Inc.	HIPAA Security Certified Network Architect Certified HIPAA Professional Security Certified Network Professional Certified HIPAA Security Specialist Certified HIPAA Privacy and Security Professional HIPAA Security Certified Network Professional (HSCNP) Security Certified Network Architect	721 West Algonquin Road, Suite 100 Arlington Heights, IL 60005-4415 2604 East Dempster Avenue Chicago, IL 60068-8412
Cannella School of Hair Design	COSMETOLOGY	117 W CHICAGO ELGIN, IL 60120-5401
College Of DuPage	Microsoft Certified Systems Engineer - MCSE Security + MS Windows 2000 - Course 1561 MS Windows 2000 - Course 2010 MS Windows 2000 - Course 2126 MS Windows 2000 - Course 2152 MS Windows 2000 - Course 2153 MS Windows 2000 - Course 2154 Microsoft Certified Data Base Administrator MCSE-4 core courses MCSA CompTIA A+ PC Technical Program MCSE - 3 Elective courses Security Certified Network Professional (SCNP)	301 S. Swift Road Addison, IL 60101-

Provider Name	Course of Study	Address
Comp USA, Inc.	Microsoft Certified Systems Engineer Microsoft Office User Specialist Certification Program Database Application Developer Database Administrator PC Technician Program Oracle Database Administrator Microsoft Office Proficiency Training Program PC Technician Plus Office Administrator Plus Computer Application Basic Skill Builder Program Microsoft Certified Database Administrator Office Administrator Oracle Database Developer Computer Application Intermediate Skill Builder Program Web Administrator Web Designer	1045 E. Golf Road Schaumburg, IL 60173-4505
Computer Support Centres, Int	Computer Courses Like Microsoft, Claris, Adobe, Act, Mous Computer Training	1340 Remington Road Schaumburg, IL 60173-1059
Creative Market Solutions, Inc.	Biz Idea Generator Learning Program Getting to Go Self-Employment Assessment Program Biz Starters Business Planning Program - Consulting Version Biz Starters Business Planning Program - Business Services Biz Starters Business Planning Program Biz Starters Business Planning Program - Internet Business Biz Starters Business Planning Program - Retail Version	415 East Golf Road, Suite 110 Arlington Heights, IL 60005-0000
Data Base Designs, Inc.	MCSE (Microsoft Certified System Engineer) Microsoft Certified Solution Developer Microsoft Certified Database Administrator - Win2000 Focus Microsoft Certified Application Developer Microsoft Certified Database Administrator - VB Focus Microsoft Certified System Administrator	1645 N. Barclay Blvd. Buffalo Grove, IL 60089-4544
DeVry University	Information Technology Electronics And Computer Technology Bachelor of Science in Business Administration	1221 North Swift Road Addison, IL 60101-6106
Digital Knowledge Services	CCNA (Cisco Certified Network Engineer) CompTIA (A Plus certification) CCNP (Cisco Certified Network Professional) MCSE (Microsoft Certified Systems Engineer)	10 North Martingale Road Schaumburg, IL 60173-
Ekaab, Inc.	Micro Strategy Certified Business Intelligence Consultant	10275 W. Higgins Road Ste 400 Rosemont, IL 60018-
First Institute	Help Desk PC Maintenance, Upgrade And Repair Business Computer Applications Featuring Microsoft Office Database Management Electronic Spreadsheet Electronic Word Processing Computer Operating Systems Keyboarding Skill Development Presentation Software	1600 East Golf Road Des Plaines, IL 60016- 30 DuPage Court Elgin, IL 60120-
Focal Advanced Computer Technology	Application Development With C/C++ / Internet Tools GUI Development With Visual Basic And Oracle Advanced Unix Two Shell Programming Application Development With C C++ Application Development With Java, Ejbs And Oracle	3000 Dundee Road, Suite 309 Northbrook, IL 60062-0000

Provider Name	Course of Study	Address
Focal Advanced Computer Technology continued	HIPAA Technical program for IT professionals Oracle Developer 2000 Web Development With Html, asp, and Java HIPAA Technical program for Non-IT Professionals Adv Unix /adv Visual Basic/bldg GUI App with java vb/db Adm/	
Global Institute for Software Technology, Inc	Microsoft SQL Server 2000 Database Administrator - MCDBA Microsoft Certified System Administrator – MCSA Oracle 9i Certification - Certified Database Associate GISTDS-001: RDBMS Fundamentals Oracle 9i Certification - Certified Database Administrator Oracle 9i Database Administration (OCP) Oracle 11i e-business Database Administration Java Enterprise Solutions Oracle Application Developer Track (OCP) Java Programming	701 E. Irving Park Road, Suite 302 Roselle, IL 60172-
Global Knowledge	CCNA Certification Program CCNP BOOT CAMP BCMSN - BUILDING CISCO MULTILAYER SWITCHED NETWORKS BCRAN - BUILDING CISCO REMOTE ACCESS NETWORKS CIT - CISCO INTERNETWORK TROUBLESHOOTING BSCI - Building Scalable Cisco Internetworks	1500 McConnor Parkway, Suite 500 Schaumburg, IL 60173-0000
Grayspace Technology Training Center	CompTIA Network+ Certification Preparation CompTIA A+ Certification Preparation Microsoft MCSE Certification Preparation Cisco CCNA Certification Preparation Microsoft MCSA Certification Preparation	4256 North Arlington Heights Rd., Suite 100 Arlington Heights, IL 60004-1399
Hanover Pk. Clg. Of Bty. Cul. Inc	Cosmetologist	1166 E. Lake Street Hanover Park, IL 60103-5421
Health Career Institute	Basic Nursing Assistant Training program	8425 Waukegan Road Morton Grove, IL 60053-
I.T. Quality Group, Inc.	Quality Assurance/software Testing Course Computerized Accounting/Administrative Assistance program ESL (Beginning/Intermediate/Advanced) program Unix and C++ (C++/Unix/Advanced C++) program WebSphere and Visual Age course Basic concepts of E- Commerce and Relational Database Java Technologies and Multi-tier Applications Development Basic Java Language Applications Development course Quality Assurance Program Advanced Web Applications Development Course Medical Coder Professional program Medical Insurance Billing/Coding Program Computerized Accounting/Medical Billing Program Oracle Development Administration Program Computer Drafting III Computer Drafting II Advanced Coding/Certification readiness course E - Commerce Java Program Unified Modeling Language with Rational Rose Course ToolDie Maker/Designer Program Microsoft .Net Platform Program Computer Drafting I Web Applications Development Course	1400 E. Lake Cook Rd., Ste 145 Buffalo Grove, IL 60089-8218

Provider Name	Course of Study	Address
I.T. Quality Group, Inc. continued	Extensible Markup Language (XML) course Computer Drafting I - III program E - Commerce Solutions Program	
Incite Technology Corporation	A+ Plus Certification Training- CompTIA Certification Prog CISCO CCNA Microsoft Certified Systems Engineer	649 Landwehr Road Northbrook, IL 60062-2309
Information Technical Institute	Direct Support Person (for disable) LAN Management Certificate Web Development Oracle Certification Program Allied Health with Computerized Accounting Computer Aided Design and Drafting (CADD) Microsoft Certified Database Administrator Allied Health with Computer Application Certificate Application Development Certificate Microsoft Certified Systems Engineer Allied Health with MOUS	2720 S. River Rd., Suite 256 Des Plaines, IL 60018-
International Institute For Learning	The Project Management Certificate Program Microsoft Project 2000 Certification Series	NIU Hoffman Estates Center, 5555 Trillium Blvd. Hoffman Estates, IL 60192-
Jennings Computer Systems, Inc. (JCSI)	Microsoft Certified Systems Engineer	1340 Remington Road, Suite W Schaumburg, IL 60173-4821
JumpStart Career, Inc.	Microsoft Certified Systems Engineer (MCSE) A+ Technician Oracle Data Base Administrator Sun Certified Systems Administrator (SCSA) Oracle Applications Developer (OCP)	2720 South River Road, Suite 256 Des Plaines, IL 60018-0000
Management Info Tech Solutions Mits, Inc.	Oracle Database Administration Careerpro E-commerce Comp. Network And Systems Administration / MCSE W2K C++, Visual C++ Programming Project Management Oracle Application Development Program Visual Basic 6.0 (programming For Windows) E-commerce (for Programmers) Webmaster: Internet App. Devlp Comprehensive Masters Certificate Program	1701 E Woodfield Road Suite # 750 Schaumburg, IL 60173-5127
Manpower	Manpower Skillware Computer Training And Techtrack Training MS Access – Intermediate MS Powerpoint – Introduction Excel – Introduction Excel – Intermediate MS Project MS Outlook MS Word – Introduction Excel – Advanced Call Center Training MS Word – Intermediate Keyboarding Skills Excel – Macros Lotus Notes - Electronic Mail Calendaring Internet Basics MS Word – Advanced MS Windows MS Powerpoint – Intermediate MS Access - Introduction	830 West End Court, Suite 800 Vernon Hills, IL 60061-1379
Microhard Technical Institute, Inc.	Microsoft Certified Solutions Developer Microsoft Certified Database Administrator MOUS Microsoft Office and PC Specialist Certguru Database Administration CertGuru IBM DB2	3601 Algonquin Road, Suite 605 Rolling Meadows, IL 60008-3110

Provider Name	Course of Study	Address
Microhard Technical Institute, Inc. continued	Network Engineer Certguru Microsoft Network and Database CertGuru WAN Specialist Certguru Helpdesk Specialist Certguru MCSE for beginners LAN/WAN Specialist Network Administrator Certgure IT Support Specialist CertGuru Oracle Developer 2000 Certified Cisco Network Administrator Web Developer/E-Commerce Oracle DBA Certified Cisco Network Professional Certified Netware Administrator Microsoft Certified Systems Engineer Microsoft Certified Professional Certified Novell Engineer Network+	
Microlan Solutions Inc	Certified Internet Webmaster (CIW) Oracle Certified Professional (OCP) Certified Solaris Administrator (CSA) A+ Certification CCNP Java MCSE 2000 Cisco Certification MCSA	3325 N. Arlington Hts Rd. Ste 200-a Arlington Heights, IL 60004-1582
National-Louis University	Master of Arts in Teaching - Elementary Education Illinois Teacher Certification Master of Arts in Teaching - Secondary Education	1000 Capitol Drive Wheeling, IL 60090-
New Horizons Computer Learning Centers	A+ Mcsd Microsoft Certified Solution Developer MCSA Microsoft Certified Systems Administrator CIW Certified Internet Webmaster Msce Cne Cna Network+ Mous	8550 W. Bryn Mawr Chicago, IL 60631-3203
Northern Illinois University	Fundamentals of Human Resource Management Professional HR Management Certification Program Alternative Teacher Certification The National Safety Education Center	5555 Trillium Boulevard Hoffman Estates, IL 60192-
Northpointe Achievement Center	Occupational Skills - Housekeeping Occupational Skills Training - Mail Services/shippingrec.	200 Wilmot Road Deerfield, IL 60015-
NOW E-learning	MCSE Win 2000 CCNA/CCNP w/ 5 Exam Vouchers Oracle DBA track Checkpoint / Cissp w/ Exam Vouchers A Plus Cisco – CCNA CCNP Cisco CCIE	1793 Bloomingdale Rd. Suite # 1 Glendale Hts., IL 60139-3800
Oakton Community College	Professional Selling Skills Certificate Automation Controls Certificate Architectural/CAD Computer-Aided Design Early Childhood Ed Ages 3-5 Residential Comfort Systems Installer Automotive Service Excellence Tool and Die Design and Engineering Certificate Medical Office Billing Certificate Preparatory Substance Abuse Counseling Certificate Phlebotomy Certificate Office Information Processing Specialist Computer User Certificate	1600 East Golf Road Des Plaines, IL 60016-1258

Provider Name	Course of Study	Address
Oakton Community College continued	Network Administration Certificate A+ Computer Diagnostic Specialist Web Site Support and Maintenance Certificate e-Business Certificate Real Estate Certificate Animation and Multimedia Certificate Web Graphic Page Design Certificate Mechanical Design/CAD Certificate Law Enforcement (associate degree) Health Information Technology associate degree Physical Therapy Assistant program Nursing (associate Degree) Microsoft Certified Systems Engineer (MCSE) Certificate Advanced Web Site Development Certificate	
Pc Center Training Institute	MCDBA CCNA Package(includes A+ Net+) MCSA Comptia Certified Course For A+ Oracle Package A+ Network+ Combo A+ MCSE Combo Oracle DBA 9i Oracle Forms Developer Rel.6/6i CC Security Administrator (CCSA) Oracle Developer 2000 Track Help Desk Security Package Special Database Package CCIE LAB Database Package Network Security+ Package MCSE Exchange Server 2 Net+, MCSE/MCDBA, CCNA, CCSA Special MCSE Package 2 Special CIW package Special Programming Database Package 2 MCAD Oracle Package 2 Special Mous Package MCAD.Net Package Networking Exchange Package 2 Database Package 2 Database Networking Package Cisco Package CICSO PIX - Network Security MCSE Security Package 2 Special Security Package Server+, Network+, CCNA Technician MOUS Package MCSE Exchange Package Special Oracle DBA 9i and Java Package 2 MCSE Security Package CNSC (CISCO WIRELESS NETWORKING CERTIFICATE) Special CIW Package 2 Special Programming Database Package Mous Package Special MCSE Package MCAD JAVa Package 2 Help Desk Package SQL Server Administration Special Internet Package(Web Devl, E-Comm Java) Networking Security Package Special Oracle DBA 9i And Java Package Cisco Networking Package 2 Mous Level 1 Deluxe Networking Security Package CICSO Wireless-CNSC Network Security Package 2	1014 E. Algonquin Road Suite 104 Schaumburg, IL 60173-

Provider Name	Course of Study	Address
Pc Center Training Institute continued	CISCO WRITTEN Help Desk Technician Cisco Networking Package Microsoft Cisco Package A+ and Mous Package Cisco Certified Internet Expert Security Package MCAD Java Package MCSE Special Package Special Oracle Package with Exams Administrative Package 2 CICSO Wireless, CISCO PIX and CHeckPointSecurity(CCSA) Cisco Pix, Cisco Wireless CCSA Mous Level 2 Mous Combo Package Administrative Package MCSE, MCDDBA, Cisco Pix, Cisco Wireless SQL Server Design Networking Exchange Package MCSE Networking Package Microsoft Cisco Package 2 MCAD.Net Package 2 Networking Security Package 2 ORACLE DBA9i MCAD Oracle Package Net+, MCSE/MCDDBA, CCNA, CCSA 2 Special Networking Security Package CIW Course For E-Commerce Solutions CIW Course for Mastering Web Site Fundamentals JAVA2 PROGRAMMER Oracle Forms Developer Rel. 6/6i ORACLE PACAGE Microsoft Certified Systems Engineer Windows 2000 MCSA(MICROSOFT CERTIFIED SYSTEMS ADMINISTRATOR) E-COMMERCE SOLUTIONS Sun Certified Java 2 Programer Cisco Certified Internetwork Expert (CCIE) Cisco Certified Network Associate (CCNA) Cisco Certified Network Partner (CCNP) Comptia Certified Course for Network + CCNA PACKAGE	
PPi-chicago Acquisition Corp. (Productivity Point, Intl.)	Java / Xml Application Courses .NET NEW! Web Development Citrix Certification - Cca / Ccea MCAD: Microsoft Certified Application Developer Macromedia Unix Medba 2000 Mcse 2000 Cisco Coldfusion And Homesite Network + Novell Certification - Cna / Cne Lotus Mcsd-microsoft Certified Solution Developer MCSA - Windows 2000 Cetification - NEW! MCAD - Microsoft Certified Application Developer	1419 Lake Cook Road Deerfield, IL 60015- 3601 Algonquin Road Rolling Meadows, IL 60008-
Professional Bartenders School	Bartending	315 West Golf Road Schaumburg, IL 60195-5344
Quality Technology Company	Six Sigma Green Belt Training ISO 9001:2000 Internal Auditing Training	1320 Tower Road, Suite 139 Schaumburg, IL 60173-4309

Provider Name	Course of Study	Address
RAND Worldwide	Pro/Engineer Software Training	2030 E. Algonquin Road, Ste. 402 Schaumburg, IL 60173-4159
Robert Morris College	Graphic Design - Graphic Arts Computer Networking Graphic Arts Medical Assisting Computer Studies - Networking/CISCO Business Administration – Management Business Administration	1000 Tower Lane, Suite 115 Bensenville, IL 60106-
Roosevelt University	Secondary Teacher Education Program (Undergraduate) Elementary Teacher Education Program (Undergraduate) Certificate In Instructional Design (Graduate Level) Policy Studies/Paralegal Cert. (Undergraduate) Early Childhood Teacher Prep: Bachelor of Prof Studies History: Bachelor of General Studies Meeting, Convention and Exposition Planning Certificate (UG Pre-BioTech and Chemical Science: Bachelor of Prof Studies Risk Management, Insurance Financial Services (Undergrad) Languages: Bachelor of General Studies Systems Management: Bachelor of Professional Studies Hospitality and Tourism Management Certificate Professional Administration: Bachelor of Professional Studie Organizational Communication: Bachelor of Prof Studies Telecommunications: Bachelor of Professional Studies Environmental Science (Undergraduate) Mathematics/Statistics (Undergraduate) Women and Gender Studies: Bachelor of General Studies Public Administration (Graduate Level) Administrative Studies: Bachelor of Professional Studies Training Development Certificate Program (Graduate level) Literature: Bachelor of General Studies Financial Services: Bachelor of Professional Services Communications: Bachelor of General Studies Environmental Policy (Undergraduate) Biology (Undergraduate) Organizational Leadership: Bachelor of Professional Studies Computer Science certificate Journalism: Bachelor of General Studies Secondary Teacher Education (Graduate) Special Education Teacher Program (Undergraduate) Computer Science: Bachelor of Professional Studies History (Graduate Level) Geographical Information Systems (Certificate) Sociology (Undergraduate) Economics (Undergraduate) Electronics Engineering Technology (Undergraduate) Hospitality and Tourism Management (Undergraduate Degree) International Studies: Bachelor of General Studies	1400 North Roosevelt Blvd. Schaumburg, 60173-4348

Provider Name	Course of Study	Address
Roosevelt University continued	Biotechnology certificate Liberal Arts: Bachelor of General Studies Political Science: Bachelor of General Studies Risk Manage, Insurance, Finan Serv: Bachelor of Prof Studies Actuarial Science (Undergraduate) Allied Health (Undergraduate) Chemistry (Undergraduate) Accounting (Undergraduate) Language and Literacy (Graduate Level) Certificate In E-Learning (Graduate Level) Non-Profit Management Certificate (Graduate level) Sociology: Bachelor of General Studies Business: Bachelor of Professional Studies Paralegal Studies: Bachelor of Professional Studies Web Technology: Bachelors of Professional Studies Metropolitan Studies: Bachelor of General Studies Pre-professional Studies Program (Undergraduate) Psychology: Bachelor of Professional Studies Individualized Program: Bachelor of General Studies Journalism (Undergraduate) Hospitality and Tourism Management (Graduate Level)	
Samland Health Care Training Program	Basic Nursing Assistant Training Program	2644 E. Dempster St. Park Ridge, IL 60068-
Solex Computer Academy Inc	Introduction To Programming Software Testing And Quality Assurance English As A Second Language Medical Terminology, Computerized Medical Billing and Coding Medical Therapy Computerized Accounting And Bookkeeping E-commerce / Web Development Diagnostic Medical Ultrasound Fundamentals of Electronics and Troubleshooting HIPAA Project Management Professional (PMP) Certification Real Estate Appraisal Licensing Program Project Management Professional (PMP®) Certification Program Auto CAD Program Solid Works Program Management Career Program and PMP® Certification Medical Office Computerization, Automation and Management Information Technology for the Managers ORACLE Database Administration HIPAA CERTIFICATION PROGRAM Computerized Office Technology C Programming Language Certified Nurse Assistant Computerized Office and Accounting Program Java And Object Oriented Programming (oop) Computerized Accounting and Medical Billing Basic Computer Knowledge and Computerized Office Technology C++ Programming Language E-Commerce, Java, Object Oriented Programming (OOP) Computerized Accounting and Bookkeeping Career program Cics Development Program E-Commerce Career Program JAVA Enterprise Edition Program Cobol, Jcl Mainframe Development Program	401 S. Milwaukee Ave Wheeling, IL 60090-5079

Provider Name	Course of Study	Address
Solex Computer Academy Inc continued	Db2 Development Program Oracle Developer 2000 Oracle, Sql, Pl/sql Development Program Sql Server / Ms Access Development Program Unix, Tcp/ip Visual Basic Development Program UNIX, C, C++ and ORACLE Technologies DOT Net Development Platform DB2, CICS, ORACLE, JAVA Development	
Star Truck Driving School, Inc	160 O.T.R. Pro Driver Course 200 Hour Local Pro Driver Program 240 Hour Regional Pro Driver Course	700 Larsen Lane Bensenville, IL 60106-
Surja IT Academy	CompTIA A+ Certified Wireless Network Administrator combo Microsoft Office User Specialist (MOUS) Master Certification Oracle Certified Professional DBA Linux Professional Institute Level 1 Linux Certification Certiport Internet and Computing Core Certification (IC3) Certiport IC3 and CompTIA A+ Certifications (combo) Certified HIPAA Security Specialist Java 2 Programmer Certification Certified Wireless Network Administrator (CWNA) LPI Level 1 and Java Programmer Certifications (combo) Certiport IC3 and MS MOUS Combo Package CompTIA Network+ certification CompTIA A+ and Network+ combo CompTIA Linux+	424 State Parkway, suite 228 Schaumburg, IL 60173-6406
TEC Services Consulting, Inc.	TeraTRAIN	650 E. Higgins Road Schaumburg, IL 60173-
Technow	CISSP Boot Camp MCSE Boot Camp Solaris Network Administration Certification TN-334 Dual Certification CISSP/Hack and Defend	8101 Higgins Road, Chicago, IL 60631-0000
The Illinois Institute of Art - Schaumburg	Digital Graphic Design Digital Photography Web Design Web Site Development Multimedia 3D Animation Principles and Techniques Advanced Web Programming Interior Design Visual Communications Game Art and Design Multimedia Web Design Media Arts and Animation Digital Media Production	999 North Plaza Drive Schamburg, IL 60173-4990 1000 North Plaza Drive Schaumburg, IL 60173-4990
Tooling Manufacturing Association	AutoCAD 2002 - Level 1: The Basics Introduction to CADKEY 99 Course 301/Advanced Die Making Course 101/Industrial Math II AutoCAD 2000 - Level 1 The Basics Esprit for Wire AutoCAD 2000 - Level II Course 302/Advanced Mold Making Course 300/Advanced Precision Machining Course 102/Industrial Prints Course 104/Machine tool Technology I School of Design - Mold Design - Die Design Industrial Math I Mastercam Mill Level 1 - v8.0 Basic Math Foundations	1177 South Dee Road Park Ridge, IL 60068-4396

Provider Name	Course of Study	Address
Tooling Manufacturing Association continued	Course 200/Machine Tool Technology II Course 103/Industrial Math III	
Westwood College of Technology	Graphic Design and Multimedia Computer Network Engineering Computer Aided Design/Architectural Drafting Computer Programming and Software Technology	4825 N. Scott Street Schiller Park, IL 60176-
Worsham College of Mortuary Science	Associate of Science Degree in Mortuary Science Certificate Program in Mortuary Science	495 Northgate Parkway Wheeling, IL 60090-2646

Sources by Area

Key Sources by Section

Economic

Unemployment Statistics: IDES

Occupational Statistics: 2000 Census;
BLS

Chicago MSA Economic Projections:
FRBC, NBER

Income Statistics: 2000 Census

Housing Information: NAR

Training expenditure reduction:
Periodical news, Corporate Services,
Interviews

Education

Changing dynamics of High School
graduates: CCRC

For-Profit Institutions: CCRC, CHERI,
University of Phoenix

Education trends: CCRC, CHERI,
ICCB, IBHE, NCPPHE, IHEP, Harper
Internal Data

Outcome-Based education: CCRC,
CHERI, IBHC, PCT, University of
Phoenix

Grant reductions: Periodical news, State
of Illinois, internal interviews

Educational preparation: CCRC,
CHERI, NCPPHE, IHEP

Transfer administration: NCPPHE, IHEP

Demographics

2000 US Census

Periodicals

Harper College Data

Local Municipalities

Intellistar Market Research Report

Politics

State of Illinois

IBHE

Interviews

ICCB

Periodicals

NIPC

Social

Interviews

NIPC

Periodicals

DOE

Intellistar Market Research Report

IBHE

Technology

FY 2003 DARPA Budget Estimates

Periodicals

NSF

Critical Sources

Bureau of Labor Statistics (BLS)

<http://www.bls.gov/>

Bureau of the Census

<http://www.census.gov/>

US Department of Education (DOE)

www.ed.gov/

Federal Reserve Bank of Chicago

(FRBC) <http://www.chicagofed.org>

Federal Deposit Insurance Corporation

(FDIC) <http://www.fdic.gov>

Defense Advanced Research Projects

Agency (DARPA) <http://www.darpa.mil>

American Association of Community
Colleges (AACC)

<http://www.aacc.nche.edu>

Northeastern Illinois Planning
Commission (NIPC)

<http://www.nipc.cog.il.us/>

National Science Foundation (NSF)

www.nsf.gov/

Illinois Department of Employment
Security (IDES)

<http://lmi.ides.state.il.us/>

State of Illinois

<http://www100.state.il.us/>

Illinois Chamber of Commerce (ICC)

<http://www.ilchamber.org/>

National Bureau of Economic Research

(NBER) <http://www.nber.org/>

National Association of Realtors (NAR)

<http://www.realtor.org>

Community College Research Council (CCRC)

<http://www.tc.columbia.edu/~iee/ccrc/>

The Pew Charitable Trusts (PCT)

<http://www.pewtrusts.com/>

Cornell Higher Education Research Institute

(CHERI) <http://www.ilr.cornell.edu/cheri/>

The College Board

<http://www.collegeboard.com/>

Illinois Board of Higher Education

(IBHE) <http://www.ibhe.state.il.us>

Illinois Community College Board

(ICCB) <http://www.iccb.state.il.us/>

National Center for Public Policy and
Higher Education (NCPPE)

www.highereducation.org/

Institute for Higher Education Policy

www.ihp.com/

Harper 2002 Factbook

Intellistar Market Research Report

Interviews with Harper faculty, staff,
and students.

The local governments of communities
served by Harper

National, regional, and local periodicals

Third Party Environmental Scans

Community College Survey of Student
Engagement www.ccsse.org