



*Ohio Department of Job and Family Services and
Ohio Department of Development Graduate Retention Initiative*

***College Graduate Retention:
An Initiative Planning Document
for Medina, Portage, Summit,
Stark and Wayne Counties***

The Greater Akron Chamber
The Canton Regional Chamber of Commerce

Prepared by the Stark Education Partnership



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Executive Summary

This document represents the findings of the Greater Akron and Canton Regional Chambers of Commerce under an Ohio Department of Job and Family Services and Ohio Department of Development Graduate Retention Initiative (GRI) Planning Grant.

The document also includes a proposal for the implementation phase of the initiative with a geographic scope of Medina, Portage, Stark, Summit and Wayne Counties. These counties represent the places of business of the chambers' combined 3,400 member base.

In order to implement the first phase of a Graduate Retention Initiative for this region, a request is being made for \$64,475.00, an anticipated amount which represents funds remaining from the planning phase plus additional new dollars under the implementation phase.

A major finding of this planning phase was that several informational and operational disconnects exist along the continuum from K-12 to college to work which inhibits the awareness of students and graduates of the benefits in remaining and building a career in the region and in Ohio.

The proposed activities for the implementation phase of this initiative are targeted towards beginning of a process to remove such disconnects through heightened awareness, substantive marketing, and increased networking.

In accomplishing these objectives, a base of partner and supporting organizations such as the Ohio College Access Network (OCAN), the Summit Education Initiative, the Stark Education Partnership, the Stark County P-16 Compact, a new College Career Directors Consortium, and an emerging consortium of Northeast Ohio Graduate Retention Initiatives, plus an implementation committee of high level business and student representatives will seek to insure the sustainability of the initiative beyond the state funding period.

This document also serves an additional purpose in that findings are meant for broader distribution among stakeholders and the general public within the five county region. It is hoped that it will provide the basis for discussion, further deliberation, and decision-making.

The Chambers and Their Business Membership and Services

The Greater Akron Chamber is an economic development and chamber of commerce organization serving Medina, Portage, and Summit counties of Northeast Ohio. The chamber's 1900 members are a diverse group of businesses ranging from global to small manufacturers, professionals to non-profit organizations, and educational institutions. The mission of the Greater Akron Chamber is to promote and facilitate economic and business growth and prosperity to benefit the businesses of the region, providing a continuing source of business services, information, and advocacy.

The Canton Regional Chamber of Commerce is a membership organization of over 1,500 businesses, institutions, and individuals dedicated to the advancement of the economic, industrial, professional, cultural, and civic welfare of Stark County.

Both Chambers are involved in regional economic development and workforce development initiatives.

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We would also like to thank Harold Hornton and William Wagner of the Ohio Board of Regents for generating data specific to the five county area.

We also appreciate the assistance of Pat White, executive director of the Triangle Coalition for Science and Technology Education and the members of the coalition who were helpful in identifying retention efforts.

Biographies of Researchers

Joseph A. Rochford, Ph.D. is Vice-President of the Stark Education Partnership and currently serves as a member of the board of directors for Jobs for Ohio's Graduates (J.O.G.S.) of Greater Canton and the AHEAD Foundation in Massillon as well as being an adjunct professor of graduate education at Walsh University. Prior to coming to Stark County, Dr. Rochford served as a University Fellow at Kent State University where he was part of a team conducting research on how organizations make decisions. While at Kent, he also worked extensively on several education improvement efforts, including the Administrative Preparation Program of the Cleveland Public Schools and the Canton City Schools Leadership Academy. He was a doctoral fellow with the Cleveland Clinic Foundation and served as research advisor to the Clinic's Public Education Initiative with John Hay High School. Before going to Kent State, Dr. Rochford was general manager of Ameri-rents, Inc. (d.b.a. Taylor Rental Company) of Olmsted Falls, Ohio. He also spent several years at Baldwin-Wallace College in Berea, Ohio in administrative posts and was a consultant to the Ohio R-94 Federal Urban Renewal Project in Berea.

Sandy K. Auburn, Ph.D. is Vice-President for Workforce Development of the Greater Akron Chamber. Prior to assuming that position, she was Executive Director of the Summit Education Partnership Foundation, the precursor of the Summit Education Initiative. She was the Executive Director of the YWCA of Fort Wayne, Indiana., and the Deputy Director of the Division of Aging and Adult Services of the Arkansas Department of Human Services. For the Greater Akron Chamber, Dr. Auburn was the coordinator of School to Work for Region 9 (Summit, Portage, Medina, Stark and Wayne Counties) from 1998-2002. She developed and implemented the Business & Education Network (BEN) ® which includes an Internet database linking business to schools for work-based opportunities such as job shadowing, career speakers, internships, workplace visits and others (www.benpathfinder.com). The Business & Education Network also includes a Work Ethic Tool Kit, a process curriculum for teachers. The Chamber is a partner in the development of the NOW Directory (www.nowdirectory.com), a directory of education and training providers in twelve counties of Northeast Ohio. The NOW Directory is a product of the Regional Workforce Partnership.

Marian Beresh is a research assistant for the Stark Education Partnership. A graduate of Walsh University, where she was the 2000 Psychology Student of the Year, Baresh has worked for the Canton City Schools Sail's Up Program, the Arc of Stark County, and has been a counselor in the Walsh University Next Step Program. Beresh is pursuing a Master's Degree in Mental Health Counseling.

Collaborating Organizations

The Stark Development Board is a non-profit organization supported by over 150 businesses in Stark County. The role of the organization is to provide a variety of services, ranging from financial and incentive matching to site selection and networking for current and potential businesses.

The Summit Education Initiative (SEI) and the Stark Education Partnership are two of the state's largest non-profit education reform support organizations. Created by the business and philanthropic sectors of Summit and Stark Counties, both organizations are committed to raising and sustaining K-12 achievement and working in a K-16 environment. Both organizations are linked to the Ohio College Access Network (OCAN). The Stark Education Partnership has currently applied to OCAN for an implementation grant. SEI with the Greater Akron Chamber has received an OCAN planning grant.

The Northeast Ohio Council on Higher Education (NOCHE) represents 22 institutions of higher learning located in 13 counties in NE Ohio. Its membership includes two-year and four-year, public and private, colleges and universities. The Council provides basic consortial functions among member campuses and among the member institutions and the community. In addition NOCHE seeks ways to leverage higher education assets as a resource for the advancement of the regional economy. The Council is a partner in regional efforts to address workforce preparation through improved and expanded education and training and by identifying the workplace needs for the current and future economy.

The Ohio College Access Network (OCAN) was founded in 1999, by KnowledgeWorks Foundation, in collaboration with the Ohio Board of Regents and Ohio Department of Education. With these partners and the Ohio Business Roundtable, OCAN works to establish college access programs across Ohio. OCAN is the first statewide coordinating body for college access programs in the country. The organization's goal is to help more Ohio students pursue postsecondary education by creating local college access programs throughout Ohio. Currently, 19 college access programs serve 212 of Ohio's 612 school districts, and 17 private/parochial schools.

PART ONE:

Review Of National, State and Local Research and Graduate Retention Initiatives

I. INTRODUCTION

The science of regional economics is still in its infancy and there is a great deal which is not understood. As the economic realities of the Twenty-First Century become increasingly more apparent, there is a propensity to couch regional or even state-level economic concepts in simplistic terms. For instance, it would be easy to make the argument that the mere presence of more college educated workers in a specific county or area might attract more high tech industries and companies.

It is equally easy to argue, inversely, that it is the presence of such businesses which increases the number of degrees and promotes retention of graduates from local institutions. Yet, the concept of “brain drain” is becoming so pervasive that the phrase has entered into popular usage in many regions of our nation.

What is known is that the dynamics surrounding regional growth and development and the attraction of a highly educated and highly skilled workforce are complex and highly intertwined.

Consider the findings of Paul Gottlieb, formerly at Case Western Reserve University, when looking at the problem of “brain-drain” in the Cleveland-Akron metropolitan area.

The fact that net migration is a mathematical function of supply and demand will be self-evident to many. While this fact highlights the importance of high-tech job development in those states that lag on this measure, it cannot tell us whether *human capital* or *technology-entrepreneurship* programs are more important to New Economy development in the long run. Do jobs follow people or do people follow jobs?[1]

This specific report considers the research findings of the Greater Akron Chamber and Greater Canton Chamber of Commerce in the planning phase of a Graduate Retention Initiative Grant sponsored by the Department of Job and Family Services and administered by the Ohio Department of Development. Based on these findings, this document also contains the chambers’ implementation plan for a graduate retention initiative for the five counties in their service area.

It is the first step on the part of these chambers to answer the challenge issued by Ohio Governor Robert Taft in his February 5, 2002 State of the State address. In that address, Governor Taft recognized

the importance of keeping Ohio college graduates in Ohio. He offered a challenge to “the business community to keep our best and brightest in Ohio.” As Governor Taft stated, “We’ll do our part. We’ll provide workforce investment money to help create ten new graduate retention programs throughout Ohio by the end of the year.”

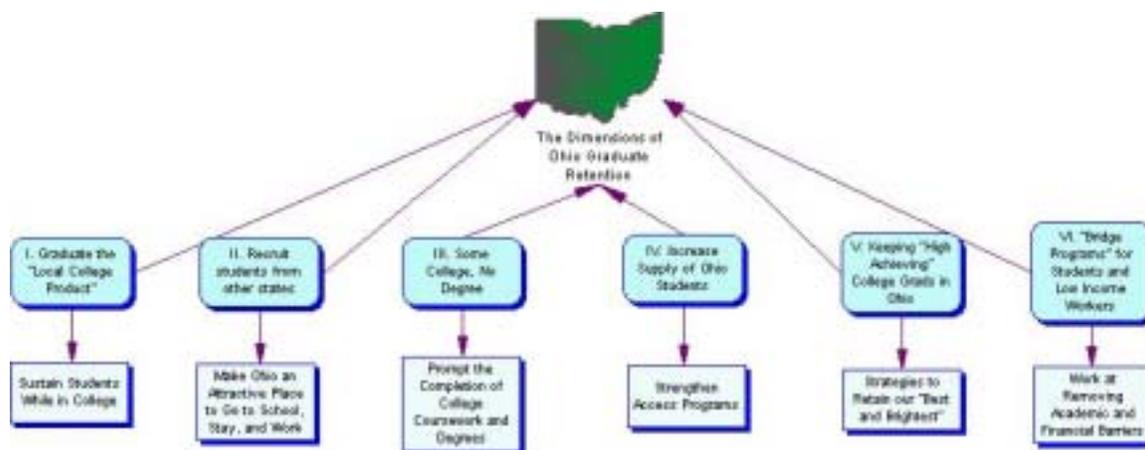
Now grown to eleven, these efforts will serve to emphasize the potential that exists to expand and leverage existing programs and to create additional successful programs utilizing best practices as templates.

Specifically, this report and the research it represents has three functions.

1. Review ongoing graduate retention programs, both within the region of the proposal, throughout the State and/or country.
2. Gather input from Chambers, businesses, research organizations, colleges and universities, OCAN organizations, student councils, career specialists, and other interested parties within the geography (e. g., Governor’s Regional Economic Development offices, One Stops) of the proposed initiative.
3. Develop a proposed Graduate Retention Initiative to be implemented containing specific characteristics as outlined in the August 5, 2002 Request for Proposal.

The geographic scope of the region (service area) covered by the Akron and Canton Chambers encompasses five counties. These are Summit, Stark, Wayne, Portage, and Medina.

The Dimensions of Retention



At the onset, retention has six dimensions:

- Graduating the “local” college product
- Recruiting students from other states
- Completing degrees for the “some college, no degree” population
- Increasing the supply of Ohio college students (college access)
- Keeping “high achieving” college graduates in Ohio
- “Bridge Programs” for low income students and workers

The first dimension is concerned with the graduation and retention of the local college product. These can be students who are Ohio natives or students who have made the choice to attend college in Ohio.

The second dimension is literally the recruitment of college graduates from outside the region or the state. It is precisely in this area that significant gains seem to have been made in the last several years with the advent of e-systems for recruitment.

The expanding nature of e-systems can perhaps best be seen in the following statement by the Conference Board.

Human talent is the indispensable resource of business. Its value is most urgently clear when recruiting takes high priority in a booming economy with a tight talent supply. But effective management of the talent quest is no less valuable and vital when economic growth slows, pauses, or turns down. In the past year, member companies of The Conference Board’s E-Recruiting Working Group have explored the many ways in which the Internet creates new possibilities for attracting talent. Now The Conference Board is convening a Working Group on Global Talent Sourcing to extend electronic capabilities to the entire domain of corporate talent management strategy.[2]

The importance of recruitment from outside the state also has an additional dimension in that of retaining out of state students who enroll in Ohio colleges and universities. Indeed, this may be a more feasible option than out and out recruitment of college graduates from other states. Here factors such as the job listing service of the Ohio Department of Jobs and Family Services (ODJFS) becomes critical. The Southern Technology Council in one of the most comprehensive studies on retention to date, found the following:

While a number of states have initiated aggressive scholarship programs for their own high school graduates, the study suggests that states might be well-served by lowering out-of-state tuition for “arrivers,” those graduates of a state’s institutions who attended high school elsewhere but stay in the state after college to work. If the goal is to increase the number of science and engineering graduates in the workforce, then an “arriver” is as important as a student who graduated from both high school and college in-state, and might beneficially be given similar financial consideration.[3]

The third dimension proposes an intriguing possibility. This dimension concerns itself with that category of individuals, age 25 or greater, listed on the U.S. Census as “some college, no degree.” It is the belief of the Akron and Canton Chambers that this category of local citizen presents great untapped potential for the state of Ohio and its business community. Already resident, these individuals have a tremendous stake in Ohio’s future.

Clearly, many can no longer be termed traditional students. Some are already progressively working on their degrees; others have halted the process. What is certain, however, is that this population presents a critical dimension in allowing Ohio to close the gap with the rest of the nation on college education.

The fourth dimension of the retention issue concerns itself with college access. Literally, one way for Ohio to deal with the retention issue is by increasing the number of college graduates. This dimension both inherits and poses many problems. At the one end is the question of college access for low income and minority students. There is also the question of college affordability for low and moderate income families. Both the Ohio College Access Network (OCAN) and the National College Access Network (NCAN) are working on these issues.

At the other end is the question of capacity. In poor economic times, Ohio’s colleges and universities tend to reach full enrollments. Facility expansion is, likewise, often mitigated by poor economic times which tend to impact the state budget.

Finally, there is an issue as to when the actual process of retaining college graduates begins. Conventional thinking has been that this process commences in college and most generally during the junior and senior years once degree choices have consolidated and the process of the job search has begun.

A recent report issued by the Ohio Board of Regents bears heavily on the conditions which need to be present during the high school years to insure a smooth transition into college, retention at college, and academic success.[4]

Clearly, it is not enough for Ohio to merely retain graduates. Those graduates must be well trained and successful. Further, a continuing cadre of “college drop outs” will do little to enhance the state’s economic or social value. Retention, then, might be said to begin in high school. Yet, there are additional efforts under the Ohio Board of Regents and a select number of local districts and universities which fall under the auspices of the Federal “trio” programs which can also not only enhance college enrollment, but potentially retention as well.

Significant among these programs is the recent GEAR-UP project which begins at the middle school level. GEAR-UP stands for gaining early awareness and readiness for college.

The fifth dimension of retention begins with college enrollment. Literally, it concerns how we keep Ohio’s top high school graduates in Ohio. A focus here would require a new look at the reasons why

many of Ohio's stellar students leave for colleges elsewhere across the nation. There is a corresponding presumption that these students may be even less likely to return to Ohio.

The sixth and final dimension concerns the creation of "bridge programs" to enable low-skill, low-income workers to gain college credits and degrees. These are persons already in the workforce, or transitioning to the workforce, who critically need new skills to retain or seek new employment.

Working Premises

In order to guide the direction of the research and planning for a graduate retention initiative for Medina, Portage, Stark, Summit, and Wayne Counties and to seek out best practices and designs, a series of working premises are suggested.

1. The retention of graduates must be seen within the context of larger systems or communities.
2. Place, as well as the availability of employment options, matters.
3. Many students (potential graduates) are unaware or disconnected from employment opportunities within the region.
4. There are multiple sources of potential graduates, each requiring either specific assistance to complete degree work or specific approaches on retention.
5. Retention is a layered dynamic, ranging from what efforts are required to retain high end professionals or knowledge workers to enhancing skill sets and retaining existing workers who have gained additional skills.
6. Retention can best be seen within the larger dynamics of community or region which seek to maximize the potential of human capital.
7. The benefits of state and Federal level initiatives must be maximized within the context of the region and its retention efforts.
8. Affinity is a major force in retention. This can be affinity for families and relatives, like professionals, communities, or companies.
9. Well constructed and substantive internships can be a powerful retention tool for both graduates and companies. In concert with this, a concerted effort must be made not only to estimate the current capacity of business within the region to support such internships but also how to assist businesses and institutions of higher education in growing such options.
10. In concert with the findings of the Southern Technology Council, whether or not an Ohio student attends college in Ohio will probably be the greatest predictor of their staying to work in Ohio.
11. "Bridge Programs," literally programs involving K-12 institutions, two year colleges, four year colleges, and the needs of business and industry can be a potent force in promoting regional retention. These programs are designed to assist students and low-income workers over the barriers which normally prevent many from pursuing or completing a college degree and engaging meaningful employment.

II. NATIONAL FINDINGS AND PRACTICES

College graduates are not created overnight. Improvement requires a culture that values college-going; a sufficient number of high school graduates armed with rigorous educational preparation, aptitude and motivation to succeed; a system of higher education institutions that meets the needs of college-goers; and an economy that can attract and retain college graduates.[5]

For the purposes of this planning document, national findings and practices are those findings arrived at, or practices in place elsewhere than Ohio.

Graduate Retention Efforts

Perhaps the most comprehensive recent survey of state level programs on graduate retention comes from the Indiana Human Capital Retention Project which was funded by a grant from the Lilly Endowment, Inc. and received additional funding from the Indiana Commission for Higher Education and the Indiana State Chamber of Commerce. Research on current practices in graduate retention was carried out by the Indiana Fiscal Policy Institute. The institute found as follows:

- States reporting no discussions or no programs: 18
- States which consider graduate retention an economic development issue: 13
- States which consider graduate retention an in-state education issue: 13
- States which consider graduate retention a function of both issues: 6

Additionally, it was found that “officials in only ten states reported having statewide statistics on college graduate retention. The reported data is usually based on either workforce development statistics or on university alumni survey results. While there is research value to both approaches, the studies completed to date are limited in scope, the period of time covered, and the reliability of the results.”[6]

The Indiana report also noted two primary assumptions on graduate retention which are also reflected elsewhere in this document. The first is that it is a common assumption programs designed to increase college access, particularly encouraging high school graduates to attend college in-state will increase retention. The second assumption is that most existing attempts at graduate retention are part of a larger effort, or take place within the context of economic development.

Consequently, this follows a growing awareness across the nation of the link between college or post secondary education and the economic viability of a state or region. Literally, in terms of economic development as the Indiana study found. Alaska is one such state rapidly building such an awareness.

State student loans are readily available, but the cost of a college education has increased exponentially over the years. A student graduating from college or vocational school is immediately faced with loan payments on the level of a car or house payment. The state can do more to encourage students to

pursue a higher education by providing financial incentives for job training and postsecondary education in priority occupation areas; incentives should be geared toward encouraging students to remain in Alaska upon completion of their training or degree. The state can also encourage student success by providing adequate funding for:

- early childhood education;
- career education awareness and linkages, K-14; and
- distance delivery of education to rural areas.[7]

With a rising need for information technology and health care workers, as well as the increased demands placed on the state's construction industry by the petroleum industries, these strategies form a plan for the state.

North Dakota is actively tracking university system graduates through a program known as FINDET (Follow-up Information on North Dakota Education and Training). The North Dakota University System found that 63.3% of the students who graduated from state high schools and attended college in the state remained in the state. A significant portion of 1999 graduates from surrounding states (21 to 29.3%) also tended to remain in state. Contrary to what was termed a myth that graduates left the state, it was also found that certain programs (led by allied health at 69.2%) retained a significant portion of graduates.[8]

While such findings do need to be reviewed within the economic development context of North Dakota, it is significant to note that the legislature there recently passed a student loan forgiveness program for technology graduates.

One of the most ambitious graduate retention efforts in the country is in the state of Iowa. Called the Iowa Human Resource Recruitment Consortium (HRRC), the consortium is a public-private partnership created to meet Iowa's growing need for highly skilled employees. The Consortium includes Iowa businesses, communities, educational institutions, professional associations, the Iowa Department of Economic Development and Iowa Workforce Development.

The Consortium notes that, "Our mission is to attract qualified, skilled workers to Iowa by raising the awareness of the progressive, innovative businesses that are creating quality career opportunities." [9]

The Consortium notes that its efforts are designed to reach as many qualified individuals as possible in information technology, engineering, manufacturing, research/scientific, financial/insurance, and professional/managerial career fields. Their SmartCareer Move Web site provides links to corporate, community and state Web sites that post jobs statewide in all career fields. The site also enables a posting of resumes by prospective employees for review by Iowa employers.

The Consortium also uses a number of marketing strategies including recruitment trips to areas with a high concentration of Iowa alumni or targeted skilled workers. The cornerstone of their marketing program is SmartCareerMove.com. Web site that also focuses on quality of life issues.

Key here is the linkage to a wide variety of companies offering extensive internship programs, career fairs, college and university placement services, and career choice information.

While numerous efforts are in place across the country to retain students in college, targeted efforts to retain graduates in a region after leaving college appear to be rare.

One such effort has been initiated at the University of Massachusetts-Amherst, led by Michael Wright Associate Director of Economic Development in the university's Office of Industry Liaison and Economic Development. According to Wright[10] the project began in 2001. One of the factors which prompted the development of the project was a perceived mismatch between the abundant number of college degrees in the area (1.87 national average) and the skills needed by area and potential employers. One problem was that local graduates with the appropriate skills would move out of the area.

The Hartford (Connecticut) and Springfield regions envisioned in this project are not seen, according to Wright, as having the skill base to attract site selectors for new businesses. Thirty-two institutions of higher education service this area. The challenge is seen as one of keeping the graduates of these institutions in the region and developing the correct skill sets needed to create a high skill workforce.

At this point, the project has yet to move into the implementation phase. Surveying of area students has been conducted through a unique web-based approach. While Wright maintains that the results are not "scientific," they do produce several indications. Chief among these are that students were relying on "intermediaries" such as newspaper want ads and did not have direct contacts with area businesses. Hence, the perception was that jobs were not present and students sought employment out of the region.

Wright further surmises that one difficulty is that the marketplace has not been configured for students. For instance, students are influenced by their peers and their peers' assessments of careers and career opportunities. An employment marketplace configured for students and reflecting factors which students consider important, rather than employers might produce better results.

Workforce Development Initiatives

At the national level, the concept of college graduate retention is embedded, if not explicit, in a host of workforce development initiatives. Key among many of these initiatives are the concepts of an intermediary acting as convener, broker, or information conduit.

Carnevale and Fry (2001) looking at the demographic and economic roots of training and workforce development for the National Association of Manufacturers have found that new information systems are critical in repairing what they term as a disconnect between post secondary learning and the labor market. However, they go even further.

The most important kinds of information required are (1) individual assessments that tell students where they are in their educational progress and what they need to know in order to

achieve their career goals, (2) assessments to determine *readiness* and determine *placement* within academic programs, (3) institutional performance measures that not only show outcomes but also the *value added* to individual knowledge and employability by particular curricula, and (4) performance measures that help clients and professionals choose between work and training options with full knowledge of the short- and long-term *lost opportunity costs* and benefits of choosing one option over another.

But, dependable information all by itself won't suffice to repair the current disconnect between postsecondary learning and labor markets. In addition, intermediaries will be needed to counsel individual choices, and a labor exchange will be necessary to provide common ground where job seekers and employers can find each other.[11]

In this same regard, the National Association of Manufacturers has followed through with a national initiative called WINs

Workforce Innovation Networks (WINs) is a partnership of the Center for Workforce Success of the National Association of Manufacturers' Manufacturing Institute (CWS), Jobs for the Future (JFF), and the Center for Workforce Preparation of the U.S. Chamber of Commerce (CWP). WINs was created to demonstrate that state and local employer associations can be effective intermediaries in improving labor market outcomes among low-income individuals while at the same time meeting employer workforce needs.

The key premise of the WINs initiative is that employer associations acting as intermediaries can help to align the activities of the workforce development system with the needs of employers and low-income individuals to achieve the following outcomes:

1. Employers are better able to meet their need to recruit, develop and advance entry-level workers.
2. More low-income individuals are hired into family-supporting jobs with greater opportunity for additional training and advancement.[12]

Begun in August 1997, WINs was initially funded by the Ford Foundation and the Annie E. Casey Foundation. The WINs collaboration inaugurated the concept of private foundation support for a major employer-driven workforce initiative. Major foundations have also played a role in funding other initiatives targeted at retention.

For instance, the Lilly Endowment has targeted retention initiatives to:

Increase baccalaureate completion rates at Purdue University by creating academic and social experiences that enhance each student's level of integration and commitment.°[13]

The goal of their programs is to increase six-year baccalaureate completion rates by a minimum of five percent at each of Purdue University's campuses. The award to Purdue in 1997 was for \$5 million.

Similarly, in other regions across the country, strong local consortiums have enabled diverse community elements to come together to promote economic development and consequently promote the access to college training and retention. One of the most significant of these was launched by the San Diego Association of Governments known as San Diego Biotechnology Initiative. “The organizational challenge was to coordinate the activities of the region’s education institutions, workforce and economic development organizations, and industry associations to achieve this goal.”[14]The results of this and other efforts in the area have prompted some 200 biotechnology firms to locate in the area. Key has been the interface with the San Diego Community College System and the interface between educational and business organizations which has resulted in technical as well as aligned curriculum support.

Several states are beginning to take action to encourage the retention of key degrees. For instance, the Connecticut legislature passed legislation in 1999 that provided educational loan repayment assistance to information technology graduates who went to work for Connecticut companies in the area of information technology after January 1, 2000.

Internships and Apprenticeships

Internships and apprenticeships have long been recognized as an entry into employment and hence an opportunity to retain local talent. Conversely, they can contribute to a drain of local talent. Electronic data bases such as Wetfeet’s internship.com claim to reach over 250,000 potential interns and to link students to employers across the nation. Business and Industry are not the only source of internships. Internships and practicums are critical to several professions, such as medicine and mental health. Yet, there are other sources.

At the national level, for instance, agencies such as the The Department of Energy www.scied.science.doe.gov offer undergraduate research internships to students from community colleges or 4-year institutions. The hope is to encourage them to stay in the science, technology, engineering and mathematics pipeline and many do eventually become employees of our national laboratories.

Bridge Programs

A variety of programs exist nationally to increase the number of college graduates in key areas of need. One such program is the Center for Mathematics, Science, and Technology at Illinois State University with the help of the National Science Foundation. The center offers scholarships for talented students who demonstrate financial need and plan to pursue degrees in applied computer science, mathematics, or industrial computer systems programs.

Twenty scholarships are available for up to \$3,125 per year. Scholarships are renewable for up to three academic years, with a potential value from \$9,375 to \$12,500. The scholarships can be coupled with other support to cover a significant amount of tuition, fees, room and board expenses.[15]

Regional Chamber Efforts

The Greater Columbus (Georgia) Chamber of Commerce has developed a unique program which supports two- and three-year apprenticeships for high school juniors and seniors. These programs are structured and supported by public/private partnerships; led and driven by business; and focuses on skill areas the businesses consider crucial.

The program structure provides students with skill development in the areas of leadership training, work ethics, and personal development. Performance based promotions are offered as well as attractive salaries.

The program additionally ties work performance to school grades, and post-secondary education is required at local educational institutions. Full time employment and certification are assured upon successful completion of the program

Teacher Recruitment and Retention

State level efforts on the recruitment and retention of college graduates are most pronounced in the field of teaching. The Kentucky Higher Education Assistance Authority (KHEAA) Teacher Scholarship Program illustrates this type of endeavor.

The **KHEAA Teacher Scholarship Program** provides financial aid to highly qualified Kentucky students pursuing initial teacher certification at participating Kentucky institutions. All applicants must be Kentucky residents enrolled full-time (unless enrolled for the final term of a teacher certification program and less than full-time enrollment is required to complete the program). Applicants must demonstrate financial need to qualify for a KHEAA Teacher Scholarship.

College freshmen or sophomores may receive up to \$625 each semester. Juniors, seniors, and graduate students may receive up to \$2,500 each semester. Awards for summer sessions are also available. The total amount a student may receive as an undergraduate is \$12,500; a graduate student may receive up to \$7,500. Recipients must teach one semester in Kentucky for each semester or summer session promissory note they sign. Recipients who teach in a critical shortage area will have promissory notes for two semesters or summer terms cancelled for each semester they teach.[16]

The Education Commission of the States has noted that geographic shortages of teachers generally affect urban or rural areas that enroll large populations of students who live in poverty. Specific subject area shortages are also developing in the areas of science and math.[17]

A discussion of Ohio's current considerations on teacher shortages is included in the "State Findings and Practices" section of this document.

While the report in question did not specifically deal with policy issues at the state level, the implications for the region served by the Greater Akron and Canton Regional Chambers, which contain in Akron and Canton two of the state's "Big Eight" urban districts, are clear.

College Tech Prep

The concept of College Tech Prep was given major emphasis in the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 and was amended in the School to Work Opportunities Act of 1994. As such, the program serves as a major bridge between high school and two-year college degrees in specific technology venues.

As such, Tech Prep education is a 4+2 , 3+2 or a 2+2 planned sequence of study in a technical field which can begin as early as the ninth year of school. The sequence extends through two years of postsecondary occupational education or an apprenticeship program of at least two years following secondary instruction, and culminates in an associate degree or certificate. For FY 2002, the state of Ohio was allocated \$4,506,409 in Tech Prep funds. The Carl D. Perkins Act currently expires on October 1, 2003. Efforts are being made by the U.S. Department of Education to transmit a proposal for reauthorization.

Higher Education and Economic Development

Another significant trend is the collaboration between institutions of higher education and municipalities or regions. Once again, while graduate retention is often a specific outgrowth, such programs are not billed as specific retention efforts. The Virginia Biotechnology Research Park is a joint initiative of Virginia Commonwealth University, the City of Richmond and the Commonwealth of Virginia, located adjacent to VCU's medical campus in downtown Richmond. The park is master planned for more than 1.9 million square feet of research and development space and eventually will employ more than 3,000 researchers, scientists, engineers and technicians. Currently, the park is home to 35 biotechnology companies, four VCU research institutes, four state laboratories and several not-for-profits. The seventh and eighth buildings are under construction, and occupancy is set for early 2003. The park is also home to the Virginia Biosciences Development Center, which was established by the park's Board of Directors to provide business consulting, support and planning services for seed and early-stage bioscience companies in order to further ensure their success and viability.

One of the most significant state-level university economic development efforts is in Georgia. The Office of Economic Development of the University System of Georgia (USG) was created by the Chancellor and Board of Regents in 1995 to leverage the resources of the state's 34 public colleges and universities on behalf of Georgia's economic development.

The centerpiece of these economic development programs is Georgia's Intellectual Capital Partnership Program (ICAPP). The programs of ICAPP provide what is termed a one-stop entry to the intellectual

capital of the university system of Georgia its education programs, faculty expertise, research and development facilities.[18]

A critical subset of ICAPP are the studies assessing the needs of businesses and the economy in Georgia. These studies are utilized to inform higher education strategy within the state.

Also under ICAPP is GeorgiaHire an online system of student resumes and ICAPP Advantage, a program geared to help new or expanding businesses meet their needs for knowledge workers. The critical aspect of ICAPP, however, is that it represents a state-level economic development effort by a university system which is information based.

University programs in other parts of the nation also aid in local or regional economic development. For instance, for the last 15 years, full tuition for students of the BLCS program at Boston University in the B.S. degree or a certificate area is often supported if students are working at a biomedical company.^o Externships are also effectively utilized to build student experience. In this regard, Boston/Cambridge area firms work effectively with the university setting.[19]

Recruitment and Retention of Knowledge Workers

The CEO's for Cities group, is a national bipartisan alliance of mayors, corporate executives, university presidents and other nonprofit leaders. In looking at the recruitment and retention of knowledge workers in a region, they suggest, "studies suggest that knowledge workers choose places to live on the basis of two factors: 1) the presence of an existing cluster of employment in their occupation and 2) quality of life. Knowledge workers can afford to choose locations that provide more than just a good job with a good income because they are in greater demand and have some ability to be picky about who they work for and where they work." [20]

Richard Florida who is currently the H. John Heinz III Professor of Regional Economic Development at Carnegie Mellon University's Heinz School of Public Policy and Management has additional views.

The findings further suggest that the ability to attract talent is a fundamental dimension of city and regional growth. This contrasts with the preoccupation in the extant literature that emphasizes the attraction of firms and the formation of industrial clusters. It is talent that orients the location decisions of firms and which underpins the formation and evolution of industrial clusters. Furthermore, the research suggests that places matter significantly in the economic geography of talent. Places provide the infrastructure required to generate, attract, and retain talent. Place-based advantages stem in turn from two underlying economic factors: low entry barriers to human capital and efficiencies in the delivery of consumer services. Simply put, there is an economic rationale behind what may be perceived as "nice" places to live.[21]

Student and Graduate Perspectives

Ameritchieve, a combination recognition/reception/forum honoring central Indiana students of extraordinary distinction has produced a significant study on the attitudes of what the organization terms “blue-chip” students. Survey responses were made by students in February and early March, 1999 and returned to Ameritchieve. While the sample is relatively small, the responses nonetheless represent one of the better sources on student attitudes.

When students were asked where they planned to attend college, a large number indicated that they would attend outside the state.

- In-State 32 (34%)
- Out-of-State 40 (43%)
- Undecided 21 (23%)

Students were further asked where they intended to work upon graduation. A surprising number indicated that they would work out of state.

- Work in state 7 (8%)
- Work out-of-state 37 (43%)
- Undecided 42 (49%)

When further asked if “all opportunities were equal” where would they work, students began to reverse their opinions.

- Live/work in Indiana-Yes 37 (42%)
- Live/work in Indiana-No 22 (25%)
- Undecided 30 (34%)

Students were then asked what they perceived the benefits were to working in Indiana.

Rank Reason and Number of Responses

1. Nearness to family; close to family members (34)
2. Familiarity with Indiana; I grew up here; it’s my home (22)
3. Good atmosphere; clean; low crime rate (19)
4. Community spirit; caring people; good Midwestern values (16)
5. Low cost of living (15)
6. Good place to raise a family; to raise small children (10)
7. Central location in the country; access to other parts of country (7)
8. Traditional, fiscal conservatism (5)

They were further asked what the drawbacks were to working in their home state.

Rank Reason and Number of Responses

1. Indiana is culturally isolated; lack of entertainment; lack of cultural events; lack of cultural centers (25)
2. There aren't as many opportunities (24)
3. The climate; the weather; cold winters; tornadoes (23)
4. Lack of exposure to other parts of the world (12)
5. No geographic diversity; no oceans; no mountains, etc. (10)
6. Political conservatism; conservative nature of the state (9)
7. Lack of diversity (8)
8. No international feel (7)
9. Indiana is boring; too many cornfields (7)
10. No major cosmopolitan cities (7)[22]

The findings of Americhieve become significant when one considers the findings of the Southern Technology Conference:

Whether or not a student graduating from high school goes on to college in the same state was by far the most important predictor of where he or she worked after college graduation. However, policy makers probably need to consider three different groups: *stayers* (high school and college in same state), *leavers* (high school in focal state, then college elsewhere), and *arrivers* (high school elsewhere, then college in focal state). *Stayers* are the best bet; the odds of retaining them are 10 and four times greater than *leavers* and *arrivers*, respectively. However, it is also worth noting, the odds of retaining *arrivers* is 2.5 times greater than *leavers*. [3]

In essence, the 43% in Indiana who say they are going to leave to go to college in another state may be gone for good.

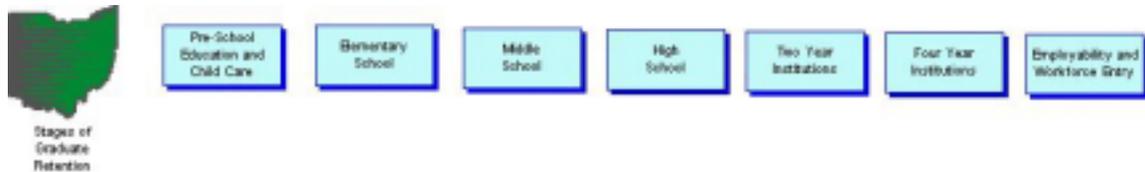
Curiously, confirmation for much of what is surmised on graduate attitudes comes from Australia where Seek Limited has surveyed the perspectives of graduates. Graduates feel that organizations should:

- Promote the organisation (sic) and graduate opportunities in a wide range of media to attract initial candidate interest.
- Provide detailed, genuinely useful and easy to access information online.
- Market the organisation (sic) honestly. Talk about the past, present and future. Focus on departments and key business activities but also opportunities for advancement, work/life balance policies and other benefits. Present a total package.
- Highlight potential for graduates to experience different facets of a business. The opportunity to work overseas is very attractive to many graduates.
- Consider using group interviews techniques. These offer candidates more information about their competition. Many graduates felt group interviews fostered a sense of "fair dealing" and more insight into the reasons why they were unsuccessful. [23]

III. STATE FINDINGS AND PRACTICES

The process of retaining college graduates begins within the context of the P-16 system of education. Simply put, without a solid educational base, students will neither go on to, nor succeed in college. The greater the number of Ohioans attending college, the greater the opportunity to retain larger numbers of graduates within the state, regions, or counties.

This concept can well be illustrated within the context of a unified system.

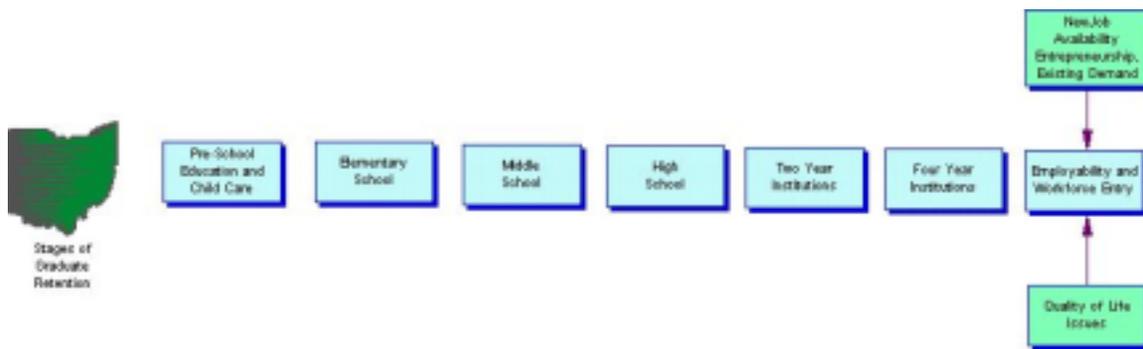


Numerous state and local efforts are progressing along the continuum of stages illustrated above. This section will discuss these efforts, as well as their potential impact on the five county region served by the Akron and Canton Chambers.

Yet, there are additional quotients. The number of graduates within the region represents only one factor. If the quality of life is not viewed as being amicable or sufficient, then knowledge workers with high mobility will opt for other regions. Employment opportunities, either via hiring or entrepreneurship must also be present. Then, there is the supportive reality of meeting the needs of existing businesses and enterprises pursuant to their changing workforce requirements or future expansion. This requirement can perhaps best be seen through a recent speech delivered by W.R. Timken, chairman of the board of the Timken Company to the Ohio School Boards Association on March 13, 2002.

I have been involved with many business efforts to measure the skills gap between people coming out of the educational system in this country and the needs of the workplace. Many such studies have been made. They constitute great work, are fact based, just what academics have asked for, and they are outdated before the ink dries. (Personally I have come to the conclusion that the real answer concerning what is needed to earn a decent living from today forward is the individual ability to engage in post-secondary education.)

I am not ready to say you need the equivalent of a four-year Bachelor's degree, but if you do not have the academic strength to matriculate beyond high school, your economic future is severely limited. You won't work for The Timken Company. Our compensation is too high. We will not be hiring high school graduates. We can't afford them. We need people who can earn their high pay.[24]



Ohio Public Attitudes on Higher Education

The most comprehensive polling of the attitudes of Ohioans on college education has been conducted by the KnowledgeWorks Foundation. KnowledgeWorks has found that wide misconceptions persist among Ohioans both as to the expense and need for higher education to gain a high paying job in the 21st Century.

Persistent myths appear to be costing Ohio's high school students the opportunity to secure a higher education. On average, Ohioans overestimate the average cost of a public college or university by approximately \$6,000 per year. If people do not understand the value of pursuing higher education or do not recognize available financial assistance options, they are likely to make decisions that are not in their own long-term interests. Furthermore, Ohioans may not recognize the significance of other factors in increasing college enrollment and graduation such as mentoring, academic preparation, and understanding of the application process. High school students need help from adults around them to make important decisions in pursuing higher education.[26]

Retention efforts which will heavily rely on access issues, coupled with promoting post secondary education on behalf of adults and the current workforce will need to consider such attitudes. In this regard, the KnowledgeWorks Foundation poll remains a valuable resource. Further, KnowledgeWorks relays that there are no significant differences between the attitudes of Northeastern Ohioans and the general results of the poll. Hence results, from the poll such as the following become critical:

An education beyond high school is not necessary to achieve worthwhile employment in the 21st century.

- Strongly agree 2.6%
- Agree 23.8%
- No opinion 2.2%
- Disagree 49.8%
- Strongly disagree 20.4%

What KnowledgeWorks found is concurred in by the Ohio Board of Regents, who goes even further in assessing this state for policymakers:

Conceptually, the lack of a “college-going aspiration” is the most complex of these three reasons (finances, preparation, aspiration). Following is a short list of factors that inhibit the development of an aspiration to pursue a college education:

- The state’s historic manufacturing economy has created a mindset that leads many Ohioans to believe they do not need education beyond high school to achieve economic prosperity.
- The need for a college education to compete successfully in the workplace of the 21st century and other benefits of higher education have not been systematically promoted throughout the state.
- Many students face formidable social and cultural barriers that discourage the pursuit of a college education.
- Many low- and moderate-income families lack information about need-based financial aid opportunities and continue to believe that college is only for “the elite.”
- Many students who have the potential to succeed in college lack significant academic success in K-12 and believe, incorrectly, that they are not intellectually equipped for the rigors of college.
- Too often, parents, teachers and other significant role models fail to provide encouragement and other emotional reinforcement to students that can foster the aspiration to pursue higher education.[27]

Consequently, a major component in any graduate retention (being mindful that native enrollees are most likely to stay in the state) must consider access issues.

College Access

Bachelor’s degrees are important to a state because it gives an indication of both the level of educational attainment and the type of skills that are demanded by the state’s firms. In addition, the greater the number of bachelor’s degrees, the higher the perceived value of an education to the state’s youth culture. The greater the number of bachelor’s degrees in a state, the higher the amount of wages garnished by the workforce. In essence, the more educated the population, the more attractive the state is for firms where knowledge and skill sets are relatively more important than tangible assets.[28]

Ohio Bridge Programs

Ohio State University Young Scholars Program

A variety of college access programs exist in Ohio and many of these are critical to increasing the supply of Ohio students entering Ohio colleges. One example of such an access program is the Ohio State University’s Young Scholar Program. Each spring, teachers, principals, and guidance counselors from nine urban school districts in Ohio nominate sixth-grade students for this program. Included are^oAkron and Canton.

Students are interviewed and selected on the basis of academic performance, test scores, and additional factors such as leadership, community involvement, and family circumstance. They must be from low-income families and are members of African-American, Latino/Hispanic-American, Native American or Appalachian minority groups.° A Young Scholar must also be the first in his or her family to graduate from a four-year university or college with a bachelor's degree or beyond.

Young Scholars from the Canton City School District were featured at the Canton Urban League's Equal Opportunity Day in November, 2002. Interestingly, none wanted to stay in the Canton area upon graduation.

As with many college access programs, numbers in the Young Scholars Program are unfortunately limited. The program annually inducts 120 students statewide as pre-young scholars.° The students are formally inducted as Young Scholars in the 9th grade.° Young Scholars must enroll in college preparatory courses in high school and sustain a minimum 3.0 GPA.° Young Scholars who successfully complete program requirements are guaranteed admission to Ohio State, as well as a financial aid package based on their individual verified need.

Ohio Academy of Science

The Academy does offer Governor's Scholarships in biotechnology, materials science, information technology and manufacturing science. They also offer a \$50,000 per year program with the Ohio Environmental Protection Agency (OEPA) support for environmental science and environmental engineering college scholarships. Moreover, At State Science Day the academy awards more than \$500,000 in awards and scholarships to science students. In this region, both Mount Union College and the University of Akron are hosts for regional Science Days.

Academy CEO Lynn E. Elfner notes that at least some of their students begin their science careers long before college by interning in hospitals and other research-based facilities. Elfner feels that a very focused effort to identify talent early, such as through the Academy's 16 District Science Days, with a follow up that offers of summer employment while the students are in college, even if they leave Ohio for college can be a beneficial aid for retention.[29]E³

The University of Cincinnati sponsors a program known as Emerging Ethnic Engineers (E³) This program seeks the active recruitment and admission of African-American, Latino/a, and Native American students to the College of Engineering.

Recruitment activities include outreach to pre-college programs as well as participation in campus-wide programs designed to recruit targeted ethnic students to the University of Cincinnati. These activities and programs are designed to reach students in grades 4 through 12, and help foster an interest in the sciences and engineering.

OCAN

The Ohio College Access Network (OCAN) was founded in 1999 to promote the establishment of college access programs across the state of Ohio. Not only does OCAN have the mission of stimulating the creation of new programs, but to help provide resources for existing access programs to expand and improve their services.

OCAN has accepted Governor Bob Taft's challenge to establish 21 new college access programs across the state which will increase by at least 10,000 the number of Ohioans attending college within five years.

OCAN seeks to identify communities which will most benefit by improving college access programs and oversees a grant process to help community leaders and communities engage in the process of creating self-sustaining programs. Both Stark County and Summit County are now working with OCAN.

KnowledgeWorks Foundation

... Ohio faces significant challenges in making the transition to a knowledge-based economy. To date, the state has not found the right formula to help one million low-wage workers who are struggling to make ends meet. While many of Ohio's low-wage workers moved from dependence to self-sufficiency through the federal welfare reform effort, the next step in this process is to help move them up the economic ladder. An enhanced two-year college system better equipped to help low wage workers obtain the job skills they need to advance economically will help propel this effort. But it is imperative that policymakers and key stakeholders – especially community college leaders and employers – develop a sense of urgency about addressing these challenges and opportunities.[30]

The Cincinnati-based KnowledgeWorks Foundation is Ohio's only foundation with a state-wide focus. As such, the foundation has increasingly focused on education issues critical to the entire state. Two specific initiatives of the foundation address the retention issue.

The KnowledgeWorks Foundation in collaboration with the Ohio Board of Regents and Ohio Association of Community Colleges is launching an initiative called the Ohio Bridges to Opportunity Initiative (OBOI) in association with the Ford Foundation.

As of this writing, KnowledgeWorks has issued a report entitled, Building Bridges to Opportunity and Economic Growth in Ohio: The Important Role of the State's Community and Technical Colleges in Educating Low-Wage Workers, urging policy makers to begin to formulate solutions to bridge the state's workforce and education gaps. Significantly, KnowledgeWorks has asked that the following be considered.

- How can the state best develop the capacity of Ohio's community and technical colleges to address the education and training needs of its low-wage working adults?
- What would foster the improved alignment of multiple missions – remedial, workforce, and academic – of community and technical colleges?

- What can be done to provide many more low-wage workers with the basic educational skills they need to begin taking career-related coursework?

As a part of this process a demographic audit of the state has been completed by the National Center for Higher Education Management Systems and the Education Commission of the States Center for Community College Policy is completing a policy audit for the state (due November 2003).

KnowledgeWorks feels that this research will provide valuable information and a framework to inform the planning phase of OBOI. The plans developed by the OBOI stakeholder group will be presented at the KnowledgeWorks Foundation's second annual conference on community colleges as an educational resource for low-wage working adults on March 27, 2003.

In addition to OBOI, the KnowledgeWorks Foundation has also received funding from the Bill & Melinda Gates Foundation, Carnegie Corporation, Ford Foundation and the W.K. Kellogg Foundation, to create the Ohio Early College Network. Together, these foundations target the creation of 70 early college high schools across the nation over the next five years, drawing on lessons learned from the experiences of dual-enrollment programs and small schools, studies of time wasted in the senior year, and existing examples of institutions combining high school and college.

Five Ohio school districts are currently partnering with four postsecondary institutions to develop the Ohio Early College Network. Early College high schools will be small schools from which all students graduate with sufficient college credits to enter a four-year, baccalaureate program as a college junior.

Partners in this project are the Dayton Public Schools and University of Dayton; Lorain City Schools/Elyria City Schools and Lorain County Community College; Youngstown City Schools and Youngstown State University; Columbus Public Schools and Columbus State Community College are the partnerships that have been chosen to plan and develop Early College High Schools in Ohio.

Both of the KnowledgeWorks initiatives are examples of "bridge programs" calculated to enable students and low skill, low income workers to overcome barriers which often prevent college attendance or completion.

Ohio Mentor

American Education Services, one of the nation's largest student loan guarantors recently created the OhioMentor system (www.ohiomentor.org) in collaboration with the XAP Corporation as an online resource to help students and their families select a college, apply for admission, and plan the financing higher education.

An example of a state-of-the-art electronic "kiosk", OhioMentor offers access to information and admissions applications for degree-granting statewide and independent colleges and universities within

Ohio. The student is responsible for the standard fee charged by a college or university upon submitting an application for admission, but otherwise, Mentor systems are provided free of charge.

OhioMentor maintains an online career center. While presently the system is not linked to Ohio or regional job opportunities, this type of electronic access, coupled with career consulting features, illustrates a type of model which has potential application to retention issues.

OBR GEAR-UP

In August of 1999 The state of Ohio was awarded more than \$7 million in federal grant money from the U.S. Department of Education's GEAR UP program (Gaining Early Awareness and Readiness for Undergraduate Programs).

To achieve the project's goal, Ohio's GEAR UP program is pursuing the following objectives: 1) increase public awareness of, and interest in, college access programs and activities; 2) identify outstanding programs and practices for improving college preparation, aspiration, early awareness, and participation, with special attention to the needs of urban and Appalachian communities; 3) develop comprehensive model programs for improving college aspiration, preparation, and participation for low-income urban and Appalachian communities (Cleveland and Iron ton); and 4) develop new access products (e.g., student portfolio, student database, the school - a s - a - neighborhood - resource center) and disseminate them in urban and Appalachian communities throughout Ohio.[31]

College Tech Prep

In the Spring of 2001 survey packets were mailed to over 1600 Tech Prep students who were enrolled in Ohio colleges and universities. Nearly 15% (257) of the students responded. The responses indicated that only 21% of the students, who had completed an average of 47.7 college credits, felt that they knew all they needed to know about the job which was related to their tech prep training.

How much do you now know about the job you would like to have for which your Tech Prep program can prepare you or has prepared you?

- 8% Nothing
- 29% A little, but not as much as I needed to know
- 42% A lot, but not as much as I needed to know
- 21% All that I needed to know[32]

OBR Initiatives

STARS

The Student Achievement in Research and Scholarship Program (STARS) is a ten year-old statewide mentoring program that targets high achieving African-American, Hispanic and Native American undergraduates and prepares them for graduate school in order to obtain a Ph.D., and ultimately, to become a professor at an Ohio college or university.

In the early 1990's, the Ohio Board of Regents' Advisory Committee on Graduate Study recognized a critical need for increasing Ohio's pool of minority faculty for cultural diversification on state campuses

There are 20 participating campuses statewide in the program, including the University of Akron and Kent State University. Students accepted into the program are matched with a faculty mentor who serves as an advisor and assists the student in designing a research project.

The STARS program offers undergraduate students opportunities to have one on one mentoring with Faculty, "hands-on" research experiences, paid research assistantships, campus visits, travel scholarships to attend academic conferences, and participation in the campus based STARS Club. Students also participate in academic workshops and seminars in preparation for the graduate school admissions process and Graduate Record Exam (GRE).

OACHE

One of the most significant access efforts in Ohio is the Ohio Appalachian Center for Higher Education (OACHE) which is a partnership of higher education institutions and K-12 schools in the 29 counties which comprise Appalachian Ohio. OACHE was established in 1993 by the Ohio General Assembly through Am. Sub. HB 152 which charged the consortium with increasing the college going rate of Appalachian Ohioans.

At the core of OACHE's efforts is its Access Project grant program for K-12 school districts and member higher education institutions. The projects are targeted to break down stereotypes about who is "college material. Grantees provide career planning and financial aid resources, field trips to businesses and college campuses, guest speakers and other resources to help students and parents make informed decisions, starting as early as 6th grade.

OACHE is also a recipient of a five year Federal GEAR UP grant which commenced in 1999 and targeted a cohort of seventh graders in six low-wealth schools. The presidents of the ten member higher education institutions in the 29 county area and a representative of the Ohio Board of Regents serves as the governing body of OACHE.

Graduates Council (Cleveland)

The most well developed and ambitious graduate retention program in the state of Ohio is the Graduates Council administered by Cleveland Scholarship Programs, Inc., with support from the Greater Cleveland Growth Association.

The Cleveland Scholarship Program (CSP) is itself recognized as one of the top college access programs in the nation. In existence for over 30 years, CSP has served over 93,000 students through a variety of programs. CSP's success has fostered its replication in over 18 communities nationwide.

Funding for the Graduates Council is provided by SBC Ameritech, corporate contributions and the Greater Cleveland Growth Association's Jobs and Workforce Initiative.

At its core, the Graduates Council seeks to connect high achieving students who attend four-year colleges with employers looking for potential student recruits. The Council's primary goals are to:

- Identify and maintain communication with local area high-achieving students
- Provide regular opportunities for students to interact with executive-level business leaders through structured roundtable sessions
- Promote availability of college-level internships and summer employment opportunities with employers
- Organize events promoting Greater Cleveland's quality of life, highlighting leading-edge industries and innovations being developed throughout the region[33]

Third Frontier Project

The framework of Ohio's Third Frontier Project should be considered in any overarching long-term development of graduate retention initiatives. The elements of the project are outlined below. As Ohio Department of Development Director Bruce Johnson pointed out in an address to the Canton Forum on Wednesday, November 20, 2002 there are two kinds of college graduates: those who graduate from college and those who graduate with the degrees on target to meet the needs of Ohio businesses.

Wright Centers of Innovation – \$500 million in capital funds, over 10 years will be used to develop Wright Centers of Innovation. These centers associate world-class research platforms with robust commercialization systems designed to maximize the economic impact of the research investment. Investments will leverage other funding streams primarily from private and federal research sources. Centers will be of sufficient scale and quality to move Ohio toward a position of international leadership in well-defined technology disciplines.

Coordinated Investments – Over the next 10 years, the Technology Action Fund and the Biomedical Research and Technology Transfer Fund will be allocated more than \$500 million. These funds will be integrated into the overall strategy of building large scale systems of research and development excellence.

Innovation Ohio Revolving Loan Fund – This \$100 million fund will help existing Ohio companies, as well as companies new to the state, invest in fixed assets for the purpose of developing new “next generation” commercial products.

Ohio Fuel Cell Initiative – This \$100 million three-year initiative will position Ohio as a national leader in the growing fuel cell industry through investments in research and project demonstration.

Third Frontier Network – Governor Taft is promoting a plan to create a dedicated, high-speed telecommunications system, linking Ohio colleges and research facilities. The network will ensure that key players can collaborate on state-of-the-art research projects.

Broadband Initiative -This initiative will make the high-speed information superhighway accessible and affordable for Ohio business across the state, and make citizens aware of how using this new technology can dramatically improve our lives and businesses.

Third Frontier Ballot Initiative - In 2003, Governor Taft will ask Ohio voters to approve a \$500 million, 10-year bond issue that will complement Wright Center capital financing by funding more research teams, as well as new product and technology development activities.[34]

Ohio Teacher Shortages

Ohio is currently experiencing some shortages, particularly in the areas of science and math. Some efforts have been made to fill these gaps. The Ohio Department of Education, for instance, maintains a Troops to Teachers office. In 1997, the *Ohio Legislature passed amendment 3319.283 to the Revised Code allowing the board of education of any school district to employ an individual who is not certificated or licensed as required by Chapter 3319 of the Revised Code, but meets the following qualifications:*

1. The individual is a veteran of the armed forces of the United States and honorably discharged within three years of the effective date of this amendment (6/30/97)
2. While in the armed forces the individual had meaningful teaching or other instructional experience.
3. The individual holds at least a baccalaureate degree.

In order to retain their standing, such individuals need to meet the requirement to successfully complete fifteen hours, or equivalent of coursework every five years that is approved by their local professional development committee in accordance with Chapter 3319 of the Ohio Revised Code.

During this past year, at the request of the Ohio State Board of Education, the Ohio Department of Education’s Center for the Teaching Profession, in collaboration with the Office of Policy Research and Analysis, contracted the firm of Levin and Driscoll, to conduct a study of the currently available information on teacher shortages.

Howard Fleeter, the lead investigator for the study, reported to the Resources Committee on the findings of the study at the January, March, and May 2002 meetings. The detailed technical report discussed the need for teachers and administrators from an economic perspective. Among its recommendations were:

- 1. *An annual report should track trends and changes.*** The findings in this (executive summary) report are largely either preliminary in nature or based upon a single timeframe of detailed analysis. The Ohio Department of Education will develop an annual report of supply and demand conditions to present data in a systematic and comparable format over a period of years. Such a report should allow for the tracking of trends and changes over time to facilitate informed policy-making.
- 2. *The Integrated Licensure System database should be used to compile data for the annual report.*** It is imperative that Ohio develop a database to track teachers and other education professionals over time for the express purpose of analyzing supply and demand trends and developing appropriate policy. The Integrated Licensure System database currently under development should be capable of meeting this need.
- 3. *The rate and process of former teachers' reentry into the labor market should be studied.*** Ohio appears to be approaching a period where increased retirements, combined with potential decreases in new teacher candidates due to strengthened licensing requirements, will place even more pressure on the education labor market. The state needs to plan now to increase recruitment efforts for new teachers, and consider strategies for improving retention rates of existing teachers. A better understanding of the rate at which former teachers re-enter the labor market will aid the planning of those strategies.
- 4. *Recruitment and retention issues for specific types of teachers in specific locations should be examined.*** Ohio also faces many shortages for specific types of teachers. Understanding issues related to recruitment and retention of minority and special education teachers will help state planning to meet those needs. In addition, further research is necessary to gain understanding of why urban and rural districts have difficulty retaining teachers. [35]

Ohio Learning Network

The Ohio Learning Network (OLN) is an emerging consortium of Ohio colleges and universities offering now close to 2500 courses and several degrees on-line. The potential of this consortium to reach the “some college, no degree” population in Ohio as well as any degree seeking student is high. OLN additionally works through regional coordinators to assist potential students in studying the options available. With a new Course Applicability System (CAS), the potential exists for Ohioans to take electronic courses and transfer such courses towards their degree completion at participating institutions, even if pursuing a conventional on campus degree at those institutions. OLN has the potential of impacting degree completion rates and times and expanding the enrollment capacity of Ohio institutions for in and out of state students.

IV. LOCAL FINDINGS AND PRACTICES

For the purposes of this document, local practices are defined as those initiating or taking place within the five county region of Medina, Portage, Stark, Summit, and Wayne Counties.

The Baseline: Persons Holding Degrees Within the Region

The degree baseline for this region on graduate retention needs will be vested in two specific categories. The first is the number of persons within the specific five-county area holding college degrees, or having obtained some college. By way of comparison, the figures below (source 2000 Census) list both U.S. and Ohio averages in each category.

	U.S.	Ohio.
<i>Some College, No Degree</i>	21.0%	19.9%
<i>Associate Degree</i>	6.3%	5.9%
<i>Bachelor Degree</i>	15.5%	13.7%
<i>Graduate or Professional Degree</i>	8.9%	7.4%

Percent age 25 and over at each level

Medina County

EDUCATIONAL ATTAINMENT		
Population 25 years and over	99,005	100.0
Less than 9th grade	2,442	2.5
9th to 12th grade, no diploma	8,645	8.7
High school graduate (includes equivalency).....	35,998	36.4
Some college, no degree	21,203	21.4
Associate degree	6,208	6.3
Bachelor's degree	17,634	17.8
Graduate or professional degree	6,875	6.9
Percent high school graduate or higher	88.8	(X)
Percent bachelor's degree or higher	24.8	(X)

Portage County

EDUCATIONAL ATTAINMENT		
Population 25 years and over	94,073	100.0
Less than 9th grade	2,768	2.9
9th to 12th grade, no diploma	10,476	11.1
High school graduate (includes equivalency).....	37,558	39.9
Some college, no degree	19,023	20.2
Associate degree	4,469	4.8
Bachelor's degree	13,132	14.0
Graduate or professional degree	6,647	7.1
Percent high school graduate or higher	85.9	(X)
Percent bachelor's degree or higher	21.0	(X)

Stark County

EDUCATIONAL ATTAINMENT		
Population 25 years and over	252,971	100.0
Less than 9th grade	10,447	4.1
9th to 12th grade, no diploma	31,465	12.4
High school graduate (includes equivalency).....	104,333	41.2
Some college, no degree	47,919	18.9
Associate degree	13,410	5.3
Bachelor's degree	30,035	11.9
Graduate or professional degree	15,362	6.1
Percent high school graduate or higher	83.4	(X)
Percent bachelor's degree or higher	17.9	(X)

Summit County

EDUCATIONAL ATTAINMENT		
Population 25 years and over	362,645	100.0
Less than 9th grade	11,214	3.1
9th to 12th grade, no diploma	40,662	11.2
High school graduate (includes equivalency).....	121,705	33.6
Some college, no degree.....	78,808	21.7
Associate degree	19,160	5.3
Bachelor's degree	60,675	16.7
Graduate or professional degree	30,421	8.4
Percent high school graduate or higher	85.7	(X)
Percent bachelor's degree or higher	25.1	(X)

Wayne County

EDUCATIONAL ATTAINMENT		
Population 25 years and over	69,953	100.0
Less than 9th grade	5,756	8.2
9th to 12th grade, no diploma	8,203	11.7
High school graduate (includes equivalency).....	29,386	42.0
Some college, no degree.....	11,224	16.0
Associate degree	3,371	4.8
Bachelor's degree	8,104	11.6
Graduate or professional degree	3,909	5.6
Percent high school graduate or higher	80.0	(X)
Percent bachelor's degree or higher	17.2	(X)

[36]

Degree Deficit in Numbers of Persons, Age 25 and Over: County VS. National

County	SomeCollege	Associate's	Bachelor's	Graduate
Medina	396	0	2,227	(1,980)
Portage	(753)	(1,412)	(1,412)	1,634
Stark	(5,313)	(3,036)	(9,108)	(7,084)
Summit	2,538	(3,626)	4,351	(1,813)
Wayne	(3,500)	(1,050)	(2,730)	(2,310)
Total	(6,632)	(9,124)	(6,672)	(11,553)

National averages are based on a number of considerations. The fact that these deficits (and in some instances, surpluses) exist is not meant to indicate that number or type of degree indicated is necessarily the right fit for the region. Rather the figures seek to establish a baseline or target pending further refinement of local data.

What the averages do show is that while Summit, Medina, and Portage Counties are exceeding national averages in certain categories, an overall deficit of over 18,000 persons (bachelor's and higher) exists within the region. Even with the presence of strong two-year institutions with high local retention, a deficit of over 9,000 persons exist in that category

The Capacity of Higher Education in the Region

Overall Enrollment

One of the primary considerations in any retention effort is the base of students located within the region. There are two specific ways to look at this capacity. The first is to consider the overall enrollment of all college campuses. The second is to look at the specific enrollment which emanates from the region itself. The chart below considers number of enrollments and number of enrollees by the five county area. These figures show the five county total at 37,202 (actual number may be somewhat higher as only those receiving state aid at private colleges are listed).

The current enrollment of all institutions within the region is in excess of 60,000 enrollees.

Enrollments by Place of Residence

Fall 2001 Enrollments (public campuses)

AY 2001-2002 Enrollments (independent campuses)

Campus	Number of Enrollments	Residency			
		5-County Region	Ohio, Out of Region	Out of State	Foreign
College of Wooster*	947	167	483	297	0
Kent State University	23,026	9,624	11,028	1,676	698
Kent State University, Stark Campus	3,429	3,061	348	12	8
Malone College*	1,476	533	385	558	0
Mount Union College*	1,847	464	761	622	0
Ohio State University, Agricultural Technical Institute	943	270	648	25	0
Stark State College of Technology	4,891	4,227	609	26	29
University of Akron	22,718	16,659	4,665	608	786
University of Akron, Wayne Campus	1,944	1,807	127	5	5
Walsh University*	1,012	390	240	382	0
Hiram College*	1,199	N/A	N/A	N/A	N/A
* independent campuses	63,432	37,202	19,294	4,211	1,526

NOTE: For independent campuses, we only have residency data on students receiving some form of state aid (Student Choice grant, OIG, Part-time OIG) Source-Ohio Board of Regents, 2002

Out of State Enrollment

The out of state and out of region enrollments, as well as the foreign enrollments total 5,737 persons. This specific category of individual presents the opportunity for specific marketing approaches. As individuals new to the region, this category should be more extensively polled as to what incentives might convince them to stay in Ohio.

Persistence and Retention

Percentage of First-Time Full-Time Degree-Seeking Freshman

Persisting from Fall term 2000 to Fall term 2001

Enrolled at Regional Institutions in Fall 2000

County of residence = Medina, Portage, Stark, Summit, or Wayne Source-Ohio Board of Regents, 2002

County of Residence	Institution	First-Time Full-Time Degree-Seeking Freshman	Number Persisting	Percent Persisting
MEDINA	AGTI	4	4	100%
	AKRN	204	166	81%
	KENT	117	104	89%
	SSCT	1	1	100%
	WAYN	35	30	86%
MEDINA Total		361	305	84%
PORTAGE	AGTI	4	2	50%
	AKRN	102	83	81%
	KENT	355	262	74%
	SSCT	16	11	69%
	STRK	10	5	50%
PORTAGE Total		487	363	75%
STARK	AGTI	28	16	57%
	AKRN	324	241	74%
	KENT	222	179	81%
	SSCT	240	150	63%
	STRK	434	311	72%
	WAYN	15	12	80%
STARK Total		1263	909	72%
SUMMIT	AGTI	16	11	69%
	AKRN	1121	781	70%
	KENT	618	494	80%
	SSCT	62	44	71%
	STRK	47	30	64%
	WAYN	22	14	64%
SUMMIT Total		1886	1374	73%
WAYNE	AGTI	30	18	60%
	AKRN	46	39	85%
	KENT	50	40	80%
	SSCT	12	10	83%
	STRK	6	4	67%
	WAYN	107	63	59%
WAYNE Total		251	174	69%
Grand Total		4248	3125	74%

The figures cited in the table above constitute yet another way of looking at regional capacity. While the number of high school graduates in the region going on to college is encouraging, only 74% persist in the institution in which they enrolled beyond their freshman year.

Percentage of First-Time Full-Time Degree-Seeking Freshman

Persisting from Fall term 2000 to Fall term 2001

enrolled at any public institution in Ohio in Fall 2000

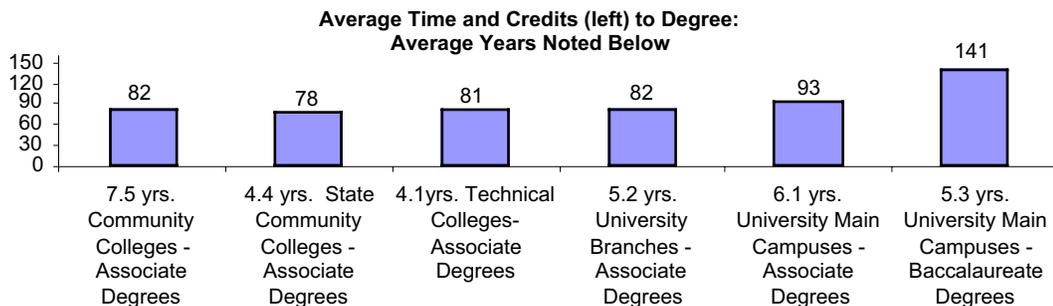
County of residence = Medina, Portage, Stark, Summit, or Wayne Source-Ohio Board of Regents, 2002

County of Residence	First-Time Full-Time Degree-Seeking Freshman	Number Persisting	Percent Persisting
MEDINA	763	656	86%
PORTAGE	680	516	76%
STARK	1,839	1,449	79%
SUMMIT	2,614	2,019	77%
WAYNE	405	312	77%

Looking beyond regional enrollments in regional institutions, the number of five county residents persisting in any state institution beyond the freshman year is 77%. Caution must be exercised in claiming that these students have left higher education. Many may have merely switched institutions. Yet others may have found it difficult to continue their education. “Last Dollar” or other private sector aid programs may be mandated here as takes place in Ashtabula County with the LEAF Program or in Canton with the Canton Scholarship Fund.

Time to Degree

Another factor to consider in planning retention efforts is the average time and credits to complete a degree. The figures listed below are for the state but are most probably representative of the region as well.



Source-Ohio Board of Regents, 2000

Degree Granting

One of the most critical indicators of a region's capacity and the ultimate target for retention is the actual number of degrees granted by regional institutions. As the chart below indicates, the region granted 10,359 degrees of all types in the year 2001.

Campus Award of Associate, Baccalaureate, Masters Degrees, Professional Degrees and Doctoral Degrees in FY 2001

Institution	Associates Degrees Awarded	Baccalaureate Degrees Awarded	Masters Degrees Awarded	Professional Degrees Awarded	Doctoral Degrees Awarded
Kent State University	0	2,955	1,012	0	147
Kent State University, Stark Campus	182	0	0	0	0
University of Akron	492	1,798	944	144	121
University of Akron, Wayne Campus	87	0	0	0	0
OSU, Agricultural Technical Institute	213	0	0	0	0
Stark State College of Technology	548	0	0	0	0
College Of Wooster	0	405	0	0	0
Malone College	0	492	81	0	0
Mount Union College	0	420	0	0	0
Walsh University	8	252	58	0	0
Hiram College	0	253	0	0	0
	1,530	6,875	2,095	144	268

Section Summary:

On the basis of this data, it would seem feasible that the region could make up its deficit in real numbers (compared to the national averages) within a relatively short period of time.

For instance, the region's current deficit in Bachelor's Degrees equates to 6,672 individuals, age 25 or older. Some 9,624 residents of the five county area are enrolled at Kent State University alone. Another 16,659 are enrolled at the University of Akron.

Yet, the actual situation argues to be far more complex than real numbers. Not all students persist in obtaining their college degrees. Not all students finish their degrees here.

Beyond all of this are questions which proceed to the very core of the retention issue itself. Not the least of which are whether or not jobs would be present or forthcoming for another 6-7,000 college graduates, or why students do not stay within the region once they do graduate.

The previous table lists the degrees granted by regional institutions in FY 2001. While this table does not list where students originated, i.e. residence while in high school, it nonetheless indicates that the Bachelor's deficit within the region could be made up within the space of a single year, provided everyone elected to stay and live in the five county area.

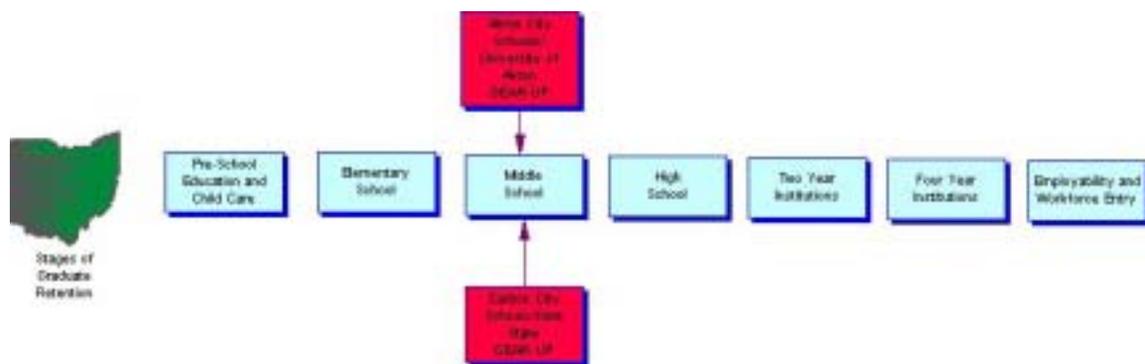
Perhaps more serious than the Bachelor's deficit is the regional deficit in graduate degrees. Here the region has a shortage of 11,553 degrees. All our regional institutions combined graduate only about 2,500 per year.

Local Access Initiatives

Canton City Schools GEAR-UP

The Canton City Schools, along with the YMCA, Urban League, Stark Education Partnership, Project Wheelbarrow, Heartbeats to the City, and Kent State University received the first large local GEAR-UP grant in Ohio from the federal government at \$2.5 million in 2000. The local partners have, and will continue, to contribute an additional \$611,000 per year in services over the life of the grant, with the Partnership setting aside \$430,000 in scholarships. The press is to not only make scholarship funds available to every (then in 2000) 6th and 7th grader in the Canton City Schools, but to build on the individual achievement and skills necessary to succeed in college.

The program works with the two class cohorts who are now entering the 8th and 9th grade. Results from the program have been encouraging. At the end of the second year, fully 100% of the students responding to a survey question on degree plans indicated that they wanted a professional certificate or college degree. More students (268 to 251) indicated that they wanted to attain a graduate degree than a bachelor's.



Akron GEAR-UP

In 1999, the University of Akron's Academic Achievement Programs established a partnership with the Akron Public School District's Riedinger Middle School and Central-Hower High School, the University of Akron, Akron – Summit Community Action Council, and The Reserve Group to implement the GEAR UP Akron project. The project has the following specific goals.

1) improved ambition and encouragement to pursue postsecondary education; 2) improved academic preparation of students to be successful in postsecondary education; and 3) financial access to college through improved information, counseling, and linkages to financial aid opportunities.[37]

The project serves approximately 344 students in the eighth grade at Riedinger Middle School and in the ninth grade at Central-Hower High School.

Kent State University GED Scholars Initiative

Kent State University has created a multi-departmental initiative to meet the needs of students who wish to enroll in the university with the GED credential. This initiative not only provides counseling and mentoring support, but works to secure financial aid packages which will enable students to support college while often working with multiple other life responsibilities.

Involved in this project are Kent main and Kent Stark Campuses. Approximately 100 students are currently attending Kent Stark through this program. Many are older non-traditional students with extensive ties to the region.

Stark County Consortium College Tech Prep

The Stark County Consortium College Tech Prep programs, through a cooperative relationship with the public school systems of Stark County and Stark State College of Technology are geared to focus on educational and career preparation for high school students. The programs themselves are college prep programs but also include occupational training. This consortium originated in 1992 with a federal Tech Prep grant.

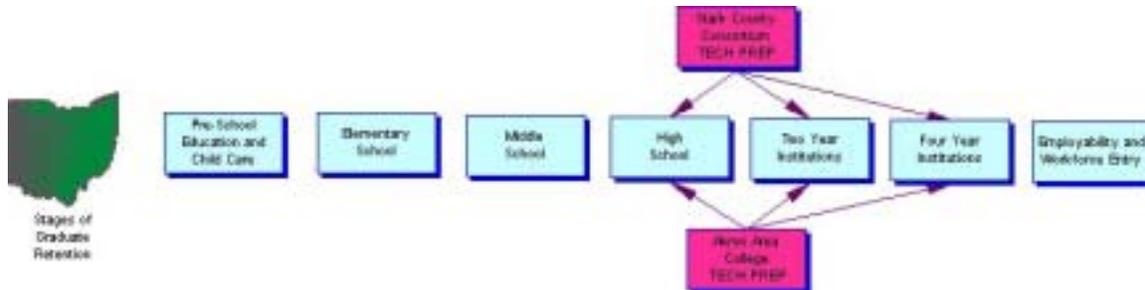
After completion of a strong academic and technical program in high school, the concept is that College Tech Prep students will be prepared to continue their education at a two-year college, pursue a baccalaureate degree at a four-year college or enter full time employment.

The College Tech Prep programs integrate academic and occupational subjects through a four-year program beginning in the junior year of high school and continuing through at least two years of post secondary education. Students from all Consortium high schools are eligible to apply for admission to these programs on a tuition-free basis.

Current curriculum pathways and home high schools within the program are:

- Timken Health Pathway
- Timken Automotive Pathway
- RG Drage Career Center Business Computer Technology Pathway
- RG Drage Career Center CNET Pathway
- RG Drage Career Center HVAC Pathway
- Perry Health Pathway
- Perry Electrical/Electronics Pathway
- Massillon CNET Pathway
- Jackson Automotive Pathway
- Sandy Valley Interactive Media Pathway
- Massillon Washington Interactive Media Pathway
- Massillon Washington E-Commerce Pathway
- Glen Oak Health Pathway
- Glen Oak Interactive Media Pathway

- Glen Oak Fire Science Pathway
- Glen Oak Engineering Pathway
- Glen Oak E-Commerce Pathway
- East Canton Information Technologies Pathway



College Tech Prep is divided into several consortia in the state of Ohio. College Tech Prep in The Stark consortium does have the impact of increasing student academic interest and desire to go onto higher education with 34% of the students indicating a desire to go onto college as a result of their program involvement. This brings the total number of students indicating college as a career plan to 72%. In addition to the increased interest in college, College Tech Prep students also indicate positive impacts on current school work.

In a similar vein, the Akron Area College Tech Prep Consortium operates programs that impact multiple schools within the five county area. In the Akron Consortium, 81% of all students indicate plans to attend college.

Akron Public Schools:

Business Technology
 E-Commerce/Marketing
 Engineering Technology
 Fire Protection/EMT
 Network Technology

East High School
 East High School
 East High School
 Buchtel High School
 East High School

Four Cities Educational Compact:

Athletic Health Care
 Business Internship
 Business Technology
 CISCO® / A+
 CISCO® Networking Academy and Support Services
 Computer Aided Drafting
 Machine Technology
 Media Communications
 Safety Services

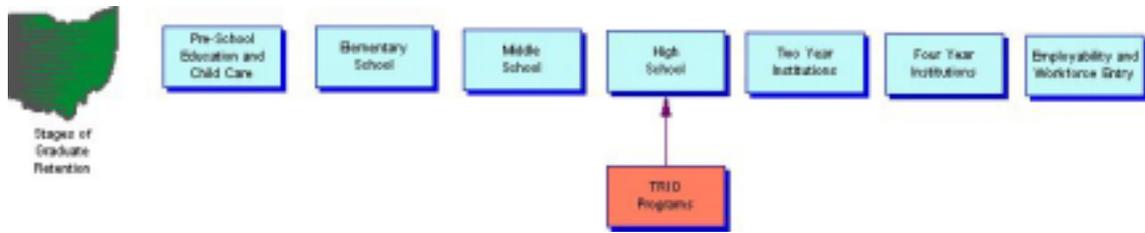
Norton High School
 Wadsworth High School
 Barberton High School
 Barberton High School
 Wadsworth High School
 Wadsworth High School
 Barberton High School
 Wadsworth High School
 Barberton High School

Medina County Career Center:

CAD-CAM Engineering Technology
 CNA/I+/Net+ Technology
 Diversified Medical Technology
 Electronics Technology / CISCO® Networking

Medina County Career Center
 Medina County Career Center
 Medina County Career Center
 Medina County Career Center

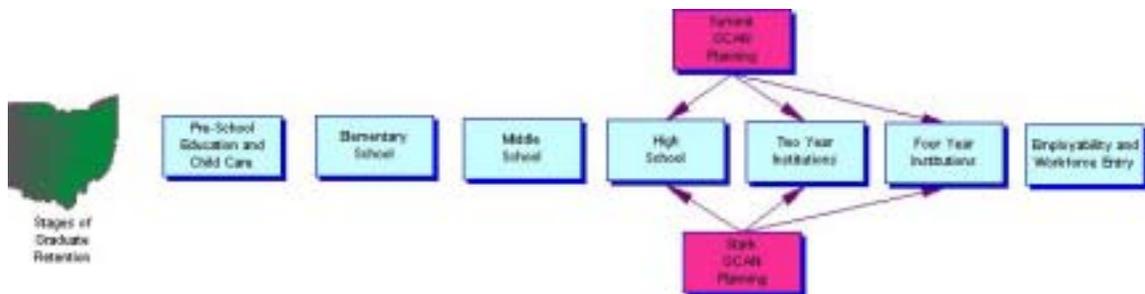
students. Grant funds determine the numbers. Kent State estimates that only about 1% of the eligible Stark students are being served at present.



Local OCAN Projects

Both Stark and Summit Counties are taking steps to create college access programs with the assistance of the Ohio College Access Network. Stark County, under the auspices of the Stark County P-16 Compact, has already received a planning grant from OCAN and is moving to apply for an implementation grant. Summit County with the Greater Akron Chamber and Summit Education Initiative has been awarded a planning grant.

It is anticipated that both programs will assist to enable larger numbers of students to attend and stay enrolled in college as a critical prelude to regional retention efforts.

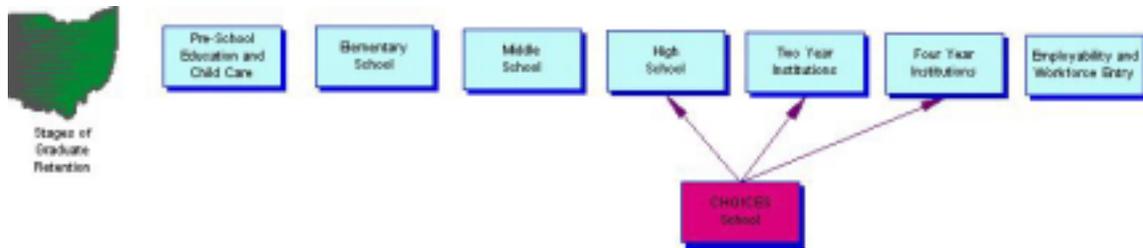


CHOICES School

Now approaching nearly 500 in enrollment, CHOICES High School, a program of the Stark Comprehensive Collaborative of six districts (Canton City, Canton Local, Jackson, Lake, North Canton, and Plain) presents not only an instructional model for at-risk students, but also a pathway to higher education.

Students attending CHOICES are typically between the ages of 18 to 22, have dropped out of traditional high school, and often have a record of involvement with the legal system.

Students from CHOICES can attend Kent State University-Stark under the current state Post Secondary Enrollment Option. Additionally, CHOICES has opened a Cisco Academy and students can obtain University of Akron college credit for certain courses.



Stark County P-16 Compact

The Stark Education Partnership, in collaboration with educators from several Stark County school districts including the Educational Service Center, postsecondary education leadership, business representatives, civic leaders and parents established a P-16 Compact for Stark County in the Spring of 2002. The full membership of this compact is listed in the appendices.

This is the first county-level P-16 Compact in the state of Ohio.

P-16 compacts, which have become prominent features in states and school systems promoting extensive education reform, address the importance of high achievement for students and the need for all sectors of education to cooperate to promote better results for them. Compacts reflect specific agreements among educators and others to coordinate what they teach and how they measure results to enable students to take advantage of opportunities to pursue postsecondary education and to get the best jobs possible.

In fostering new collaborations, the Compact formed committees that investigated and make recommendations about several issues that are crucial to creating a seamless system of education in the county. Three such areas are ensuring that the curricular offerings in elementary and secondary education are connected to those in postsecondary education, working to encourage the County's students to remain in school, get postsecondary education and a gainful and satisfactory job in Stark County and involving all parts of the community in valuing the purposes and importance of education.

In the Fall of 2000, the P-16 Compact hosted a major community meeting with over 130 education, business, foundation, and human service agency heads in Canton. The P-16 Compact meeting was supported in part by a grant from the Ohio College Access Network and several local funders. Chaired by Judge W. Don Reader, state and national participants in this meeting included:

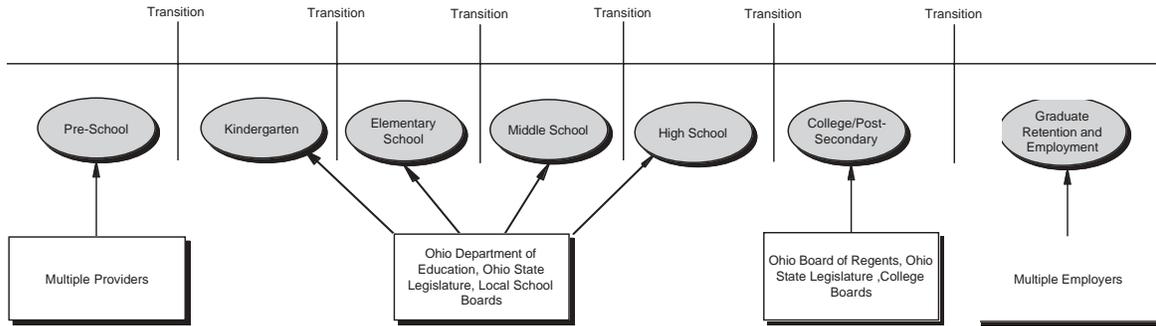
- Congressman Ralph Regula
- Chad Wick, President and CEO of the KnowledgeWorks Foundation
- Rod Chu, Chairman Ohio Board of Regents
- Roger Nehls, Deputy State Superintendent of Instruction
- Shane Hollett

The Compact presented ten focus areas to the community that serve as a blueprint for access and a prelude to retention efforts. They are included here to inform this planning document.

1. **Targeted programs** are needed to increase both student and parent awareness of the preparation needed for college, types of college education available, admissions requirements, costs, and financial aid and assistance available. These targeted programs should be developed to not only sustain aspirations on the part of students, but to raise parent (guardian) aspirations for their child.
2. **A neighborhood level approach** is mandated in the inner cities. Neighborhood leaders, parents and guardians, particularly mothers should be engaged in the process of working to encourage completion of secondary and post secondary or continuing education for children.
3. **The Post Secondary Education Option (PSEO)** can be a useful tool in bridging secondary to post-secondary education. However, both the way in which the option is currently being used and the funding mechanism that is in place need to be examined in order to determine how this option can be used most effectively. In collaboration with the state-wide KnowledgeWorks Foundation, the Stark County P-16 Compact should sponsor a state-wide conference to explore these issues and develop action steps and recommendations for the Governor and the Ohio State Legislature.
4. **It is critical to create and improve relationships** in order to express to students that someone cares about their success and future. Every child should have a learning advocate. We need to strive to coordinate and strengthen existing mentoring programs, extend and coordinate advising, guidance counseling and college counseling services.
5. **A compilation of scholarships and other funding sources** within and outside of Stark County needs to be made available both for students and parents. This compilation should be updated on a regular basis and made available both electronically and in print. Corresponding educational programs and sessions should be coordinated with parents, counselors, higher education institutions and others.
6. **We need to review and recommend how the community might help schools strengthen their resources** available to parents and students to make informed decisions and gain additional support.
7. **We need to promote shared integrated data management** to assure high levels of student achievement. Scaled up for all districts, assessment data on students should be shared with the colleges and considered as a replacement for the currently administered placement (Compass) test. This will enable the colleges to have access to school district student data and can continue instruction without interruption.
8. **We must support ongoing teacher and school leader preparation** aligned with the tri-partite theory of change now in use in the county. Enhanced teacher preparation is needed to continually move up results enabling students to more successfully transit to higher education. A continuous school leader preparation program, based not only on the change model, but on distributive leadership, will enable a solid and high performing P-12 base for higher education.
9. **We must move beyond existing content standards** and help all educators P-16 integrate the lifelong learning or “new basic workskills” of abstraction, system thinking, experimentation and collaboration into existing content standards so that students are prepared for the requirements of the world of the knowledge worker who is “highly mobile, comfortable with ambiguity, entrepreneurial and creative.”
10. **We need to learn from, build upon, and expand** current contextual learning concepts as they relate to student learning (GEAR-UP, College Tech Prep, Academies, etc.) and their relation to creating seamless paths to post-secondary education.

While the P-16 Compact is a Stark County specific effort, it maintains a potential for regional impact. Representatives of the Summit Education Initiative maintain contacts with the Compact and its outcomes. The Compact itself targets the transition points within the pre-school through college system, leading to retention and employment of graduates.

Pre-School through College System



Local Retention Initiatives

The Committee on Retention of the Stark County P-16 Compact

In the spring of 2002, one of several committees of the Stark County P-16 Compact dealt specifically with issues surrounding the retention of college graduates in the Stark County area. Members of the committee were Judge W. Don Reader, Ohio Fifth District Court of Appeals (retired), James Bower, President of the Stark Community Foundation, Dr. Ronald Johnson, President of Malone College, Daryl Revoldt, Northeast District, Ohio Department of Development, and Dr. Joseph A. Rochford, Vice-President of the Stark Education Partnership, Inc.

In its findings, which included several distinct strategies, the committee specifically noted that issues of awareness, motivation, and academic preparation were linked to retention.

The prospects of further growth and retention in the number of Stark County residents with college degrees is dependent on a variety of considerations. Among these are:

- Increased academic rigor and college preparation in the K12 sector
- Student and parental awareness of college options
- Student and parental motivation to pursue a college degree
- Market conditions that foster employment of college graduates

Beyond these factors is another great intangible. Ohioans, in general, seem to be divided on the importance of a college education to worthwhile employment.[38]

NEOUCOM

The Northeast Ohio Universities College of Medicine (NEOUCOM) is located in Rootstown, Ohio is the only medical college in the country representing a partnership between three state universities (Kent State, University of Akron, Youngstown State) and 17 regional hospitals. The mission of NEOUCOM is to prepare doctors with a community practice orientation while remaining cost effective for both students and the taxpayers of Ohio.

NEOUCOM also serves as an ongoing regional resource for graduate education in medicine. While no formal graduate retention program exists at NEOUCOM, students are strongly urged to conduct their medical residencies in the state of Ohio. An increasing number of students do so as reflected in the chart below.[39]

BS/MD students enter NEOUCOM after completing high school and the MD program students enter NEOUCOM after completing college. The NEOUCOM graduates work at hospitals in a residency program for 3-8 years prior to entering medical practice. The figures here cited tend to support findings listed elsewhere that students who are native residents have a tendency to stay in state after graduating.

Students Accepted to NEOUCOM

	2000		2001		2002	
	BS/MD	MD	BS/MD	MD	BS/MD	MD
Ohio	99 (94%)	20 (100%)	98 (93%)	17 (100%)	100 (95%)	23 (100%)
Non-Ohio	6	0	7	0	5	0

Residency Locations of NEOUCOM Graduates

	2000	2001	2002
Ohio	51 (54%)	55 (57%)	60 (59%)
Non-Ohio	44	41	41

Detroit Diesel and Akron General Health Care System

Detroit Diesel and Akron General Health Care System is are examples of local firms which has developed programs to subsidize the cost of college for degree candidates who take coursework suited to meeting the needs of the organization.

Detroit Diesel will pay up to \$6,000 per year for a student's education while employing that student during their college career. Akron General offers formal internships in key areas, such as pharmacy and radiology. They will offer scholarships of up to \$3,000 per year. In addition through close relationships with the nursing program at both Kent State and the University of Akron, high retention rates are fostered.

Both Detroit Diesel and the Akron General Health Care System require that graduates work for their firm for a minimum period of time after graduation. This period is generally two years.

The Timken Company

The Timken Company is representative of one of several area employers based in the region, but with world-wide facilities and sales offices. The company has recently been working on its recruitment processes. According to Donald Hare, Principal Organization Advancement Associate:

The overall tactic has been to have a wide cross-section of Organization Advancement (HR) professionals work in small project teams to revamp the entire Recruiting & Selection process.° One specific sub-team that impacts the Ohio Graduate Retention issue is focused on Web and College Recruiting. This team is proposing, and in some cases already implementing, the following:

1. Forecasting Workforce Strategic Skill Needs by identifying current and near-term “skill pipelines” (disciplines)°that need to be filled at the company.
2. Identifying and targeting°”Tier 1 & 2” schools that provide those skills/disciplines.° Their ranking for recruiting purposes would be based on points°credited for such things as national ranking, existing formal relationship with the school’s recruiting office, and if it is an Ohio school (recognizing that many of them are local students who are more likely to want to stay in the area in the long-term, thus helping our retention levels to stay at°traditional high levels).
3. Continuing to expand our relationships with college recruiting offices, and conducting job fairs at targeted schools.
4. Implementing a Careers Website Improvement Model (already in progress) based on “Overcoming Hurdles” for job-seekers.° This initiative would be particularly important in attracting°recent college grads who are “computer-savvy”.° The°hurdles we are attempting to overcome include:
 - a. Marketing the Careers Website (advertise it at job fairs, direct job-seekers on Monster.com to our site to find out more about the opening and our company).
 - b. Creating a Positive First Impression (attractive, intuitive/easy to find information).
 - c. Satisfying Search for Employment Information (links to “Meet Our Associates”,°and including an FAQ section°to address many of the questions job-seekers might have).
 - d. Providing an on-line, secure, and streamlined°resume submission and application process.
5. Continued utilization of our intern program to cultivate young talent for potential full-time employment.
6. In addition, the company has utilized Co-Op programs with local high schools°from time-to-time as a feeder pool for our apprenticeship program.

College Career Directors Consortium

The College Career Directors Consortium is a newly emerging group within the region which will target issues surrounding internships, employment, and retention.

The consortium includes seven regional colleges and universities. These are:

- Ashland University
- Kent State University
- Kent State University Stark Campus
- Malone College

- Mount Union College
- The University of Akron
- Walsh University

The first formalized project of the consortium will be to target teacher recruitment and hiring within the region and a broader 13 county area in Northeastern Ohio. Additionally, this consortium has pledged to work with the Akron and Canton Chambers and the Stark P-16 Compact on an ongoing basis to promote regional retention.

Business and Education Network (BEN)

The Business & Education Network (BEN) ® of the Greater Akron Chamber includes an Internet database linking business to schools for work-based opportunities such as job shadowing, career speakers, internships, workplace visits and others (www.benpathfinder.com).

BEN of Northeast Ohio exists as a cutting-edge initiative which bringing employers and educators together to prepare our youth to be tomorrow's workforce. This regional partnership connects students, teachers and parents to the realities of the world of work and creates opportunities for them to understand that what students do in school shapes their future career and employment opportunities in the five county area covered in this planning document.

Using an interactive website, **BENpathfinder.com** provides a single point of contact for employers to make the connection with today's emerging workforce while getting directly involved with high school students and teachers. BEN's partners are also coordinating regional efforts to recruit employers to "Ask for the Career Passport" when conducting job interviews.

Providing work-based learning opportunities for Northeast Ohio students is seen by BEN partners as crucial to prepare high school and college graduates for the new world of work. There are currently over 1,100 opportunities supplied by 250 businesses within the system.

Akron Chamber Workforce Development

The Greater Akron Chamber has been a leader in Northeast Ohio in workforce development. It served as the coordinator for School-to-Work for the five county Region 9 area. It is a partner in the Regional Workforce Partnership (RWP) which sponsors the Now Directory, an Internet database of training and education providers in the region, www.nowdirectory.com.

The Chamber developed BEN, an Internet database with over 1100 opportunities in career speakers, job shadowing, internships and other opportunities linking over 250 businesses to K-12 schools.

The mission of the Greater Akron Chamber is to promote economic development to benefit the people of the Greater Akron Region. One of the Chamber's six core strategies is:

To lead and coordinate activities to provide an educated and skilled labor force to be globally competitive and to provide quality employment opportunities.

The GRI is a key tactic in that strategy.

Canton Chamber Workforce Development

This past year the chamber commissioned Kent State University-Stark Campus to conduct a special study on economic development. One of the findings confirmed the chamber's views that a skilled and trained workforce is a critical component to a successful development program. Toward that end this issue has now become a high priority.

During the past year the chamber was active with the local Workforce Initiative Association as they worked to launch the one stop Employment Source. The chamber was also active in legislative efforts statewide that promoted improving the service delivery of workforce training services.

The chamber plans to continue to seek meaningful opportunities to positively promote and play a lead role in workforce related issues. This is and will continue as a high priority.

Stark Development Board

The Stark Development Board is a non-profit organization supported by over 150 businesses in Stark County. The role of the organization is to provide a variety of services, ranging from financial and incentive matching to site selection and networking for current and potential businesses. A focus on graduate retention is maintained by the Stark Development Board within the context of its strategic planning.

SUPPLY AND DEMAND

The researchers asked the interviewees whether they had noticed any particular trends within the last three years that clearly impact businesses' decisions to locate in particular areas. The trend that was mentioned most often is that of the lack of availability of skilled labor.[40]

Clearly the need for a skilled workforce is the paramount consideration in most business location or relocation strategies in today's market. While this consideration is paramount, there are other considerations which vary by business. Yet, workforce availability remains a key factor and in many instances a skilled workforce means college graduates.

There are two specific ways to look at the need for retaining college graduates in the region included in this proposal. The first chart comes from the Ohio Department of Job and Families Services (2002) Northeast Central Ohio Demographic, Labor Force, and Industry Trends. ODJFS notes that nearly 23,000 new jobs were created in services, dominated by health and business services during the period between 1994 and 2000. This was followed in growth by the retail trades, wholesale trade and construction employment. Manufacturing; wholesale trade; transport and utilities; mining; and finance, insurance and real estate lead the other categories in average weekly earnings. [41]

Northeast Central Ohio Region Trends in Annual Average Employment by Major Industry Division: 1994-2000							
Industry Division	1994	2000	1994-2000 Net Change	1994-2000 Percent Change	Year 2000 Average Weekly Earnings	Year 2000 Percent of Total	Year 2000 Percent of State Total
Total All Industries	538,534	595,858	57,324	10.6%	\$587	100.0%	10.8%
Agriculture	4,123	5,265	1,142	27.7%	\$430	0.9%	11.4%
Mining	1,352	1,446	94	7.0%	\$755	0.2%	11.4%
Construction	22,341	27,961	5,610	25.1%	\$650	4.7%	11.4%
Manufacturing	133,148	135,316	2,168	1.6%	\$788	22.7%	12.5%
Transport & Utilities	21,188	21,354	166	0.8%	\$761	3.6%	8.9%
Wholesale Trade	27,215	33,518	6,303	23.2%	\$770	5.6%	11.0%
Retail Trade	105,737	116,768	11,031	10.4%	\$319	19.6%	11.1%
Finance, Insurance & Real Estate	22,528	25,796	3,268	14.5%	\$699	4.3%	8.6%
Services	131,122	153,968	22,846	17.4%	\$499	25.8%	10.3%
Government	69,780	74,476	4,696	6.7%	\$639	12.5%	10.1%

Nearly one-sixth of the state's population growth between 1990 and 2000 took place within this region which includes Medina, Portage, Summit, Stark, and Wayne Counties. Yet, this view remains a fairly traditional "supply and demand" notion and fails to articulate the needs of a new information based economy where information based businesses and knowledge workers are free to relocate almost at will.

As an indicator the IT Barometer was devised by the Greater Cleveland Growth Association and the Northeast Ohio Software Association (NEOSA) and the Regional Workforce Partnership. The barometer roughly measures twice yearly, the demand side for IT jobs in Northeast Ohio. The supply side is being measured by the "Supply of Information Technology Specialists Among Northeast Ohio's System of Higher Education" (2001), research prepared for The Higher Education in Economic Development (HEED) Initiative. This research was sponsored by the Northeast Ohio Research Consortium of the Ohio Urban University Program, conducted by the Joint Center for Policy Research of the Lorain County Community College, the Maxine Goodman Levin college of Urban Affairs of Cleveland State University the Office of Institutional Planning and Research of Cuyahoga Community College, and the Research Office of The Greater Cleveland Growth Association. The results showed a significant gap between the demand and the supply. It also described numerous disconnects in training programs and their connection to business's needs.

Beyond this is an indicator of how many graduates actually remain in the state (figures are not readily available for the region) upon graduation. Such figures are available from the Ohio Board of Regents for the state supported institutions in the five county area.

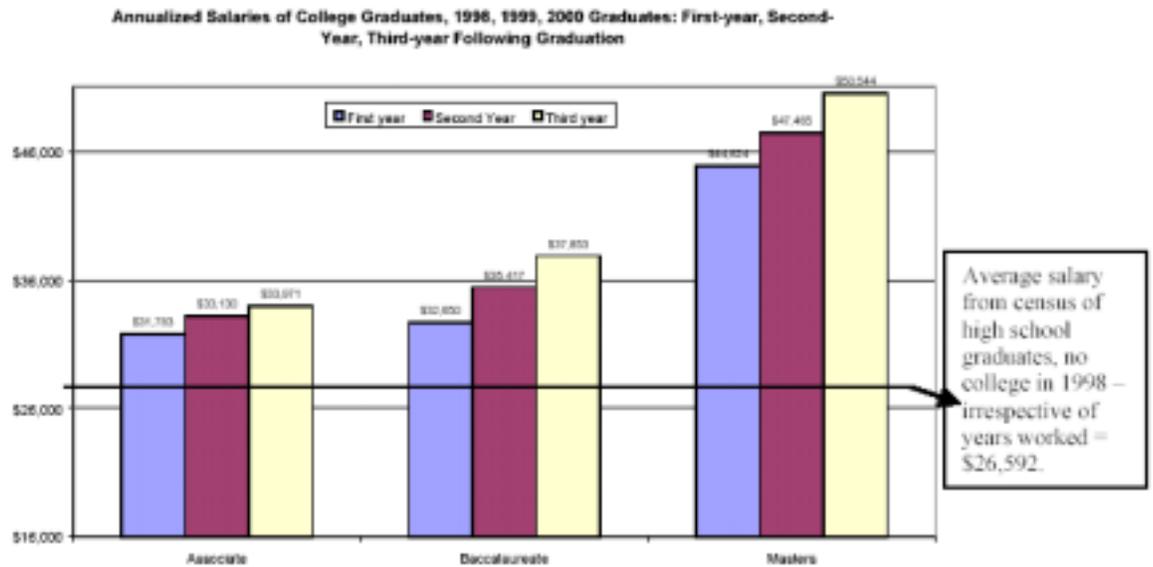
*Employment and Schooling Outcomes for In-State: 1998, 1999, and 2000 Spring Graduates
University Branch Campuses –0.5 Years Following their Graduation*

<i>Institution</i>	<i>Known Instate Employment</i>	<i>Known In-state Employment or Continuing School</i>	<i>No known Instate Job and No Return to School</i>
Associate Degrees			
University of Akron, Wayne Campus	82%	84%	16%
Kent State University, Stark Campus	75%	85%	15%
University of Akron (main, 2-year)	78%	85%	15%
Stark State College of Technology	85%	87%	13%
Ohio State University, Agricultural Technical Institute	68%	74%	26%
Baccalaureate Degrees			
Kent State University	72%	75%	25%
University of Akron	74%	79%	21%
Masters Degrees			
Kent State University	63%	68%	32%
University of Akron	63%	65%	35%
Professional Degrees (Law and Medicine)			
Northeastern Ohio Universities College of Medicine	45%	45%	55%
University of Akron	65%	65%	35%
Doctoral Degrees			
Kent State University	45%	46%	54%
University of Akron	39%	40%	60% [42]

Employment Outcomes By Degree

By cross-referencing data with the Ohio Department of Job and Family Services, the Ohio Board of Regents also determined the outcomes listed in the following tables which reflect the fourth quarter following Spring graduations for graduates at the associate, bachelors, and masters level by degree type. Average salary is indicated in the first table. As the Ohio Board of Regents notes:

While such outcomes are centered on the entire state, and not just the five county area within the scope of this report, they should be considered as representative within the scope of this limitation. Figures specific to the five county area should be obtained at a later date as part of the ongoing surveying envisioned within the scope of the proposed Graduate Retention Initiative (GRI).



**Employment and Schooling Outcomes for Associate Degree In-State Graduates- 1998, 1999, 2000
Spring Graduates 0.5 Years following their Graduation by Discipline**

Discipline Area	Subject Field	Total Grads	Known in-state employment and continuing school	Known in-state employment and not continuing school	No known in-state employment and continuing school	Either known in-state employment or known continuing school	No Known In-State Job and no return to school	
Arts & Humanities	Art	27	4%	74%	0%	78%	22%	
	Communications	98	15%	54%	9%	79%	21%	
	Communications Disorders	119	8%	66%	3%	76%	24%	
	Drama	<10						
	English	15	40%	27%	20%	87%	13%	
	Foreign Languages	<10						
	Journalism	<10						
	Liberal Arts	3,231	27%	45%	12%	84%	16%	
	Music	<10						
	Other Visual and Performing Arts	269	7%	73%	3%	83%	17%	
Philosophy and Religion	<10							
Arts & Humanities Total		3,778	24%	48%	11%	83%	17%	
Business	Accounting	1,165	12%	69%	3%	84%	16%	
	Administrative and Secretarial	962	8%	73%	1%	82%	18%	
	Business Information and Data Processing Services	608	11%	67%	3%	81%	19%	
	Finance	71	13%	61%	4%	77%	23%	
	Human Resources Management	24	13%	67%	13%	92%	8%	
	Management	1,252	12%	66%	4%	84%	16%	
	Marketing	327	15%	70%	3%	88%	12%	
	Other Business	873	13%	62%	4%	79%	21%	
	Business Total		5,262	12%	68%	3%	83%	17%
	Education	Education Administration	<10					
Sports and Recreation		43	21%	42%	16%	79%	21%	
Teaching		567	17%	57%	5%	80%	20%	
Education Total		634	17%	56%	6%	79%	21%	
Engineering	Engineering Technology	2,892	15%	68%	3%	86%	14%	
	Engineering Total	2,892	15%	68%	3%	86%	14%	
Health	Allied Health	3,138	7%	76%	1%	84%	16%	
	Dental Health	538	4%	87%	0%	91%	9%	
	Mental Health Services	205	20%	56%	5%	82%	18%	
	Nursing	3,457	6%	79%	1%	86%	14%	
	Optometry	64	8%	78%	2%	88%	13%	
	Pharmacy	<10						
	Physical and Occupational Therapy	76	4%	75%	0%	79%	21%	
	Veterinary Medicine	117	9%	85%	1%	96%	5%	
Health Total		7,604	7%	78%	1%	86%	14%	
Natural Science & Mathematics	Agriculture	341	5%	66%	5%	76%	24%	
	Biology	52	25%	54%	8%	87%	13%	
	Chemistry	<10						
	Computer Science	744	10%	70%	3%	83%	17%	
	Math	42	19%	55%	10%	83%	17%	
	Natural Resources	230	10%	61%	4%	75%	25%	
	Other Physical Science	39	18%	49%	10%	77%	23%	
Natural Science & Mathematics Total		1,451	10%	66%	4%	80%	20%	
Social & Behavioral Sciences	Economics	<10						
	Family and Consumer Studies	464	13%	66%	5%	83%	17%	
	History	<10						
	Other Social Studies	38	34%	34%	13%	82%	18%	
	Political Science	<10						
	Psychology	45	18%	49%	9%	76%	24%	
	Public Administration and Services	99	17%	46%	12%	76%	24%	
	Social Work	368	19%	57%	7%	83%	17%	
	Sociology	21	29%	24%	24%	76%	24%	
	Social & Behavioral Sciences Total		1,060	17%	58%	7%	82%	18%
Transfer Module	TRAMOD	149	30%	39%	19%	88%	12%	
Transfer Module Total		149	30%	39%	19%	88%	12%	
Unclassified	Culinary Arts	94	4%	60%	3%	67%	33%	
	General Education	258	23%	45%	12%	80%	20%	
	Interdisciplinary	146	9%	67%	3%	79%	21%	
	Law and Legal Studies	335	13%	67%	6%	85%	15%	
	Library Science	<10						
	Not Specified	10	20%	60%	0%	80%	20%	
	Protective Services	1,159	17%	63%	5%	85%	15%	
Unclassified Total		2,004	16%	61%	6%	83%	17%	
dual major	dual major	154	10%	64%	3%	77%	23%	
	dual major Total	154	10%	64%	3%	77%	23%	

Employment and Schooling Outcomes for Baccalaureate Degree In-State Graduates- 1998, 1999, 2000 Spring Graduates 0.5 Years following their Graduation by Discipline

Discipline Area	Subject Field	Total Grads	Known in-state employment and continuing school	Known in-state employment and not continuing school	No known in-state employment and continuing school	Either known in-state employment or known continuing school	No Known In-State Job and no return to school	
Arts & Humanities	Act	665	6%	61%	3%	70%	30%	
	Communications	2,423	3%	56%	2%	71%	29%	
	Communications Disorders	530	28%	32%	16%	76%	24%	
	Drama	239	3%	48%	2%	53%	47%	
	English	1,299	6%	61%	5%	72%	28%	
	Foreign Languages	412	9%	47%	6%	61%	39%	
	Journalism	935	3%	60%	1%	64%	36%	
	Liberal Arts	456	7%	59%	4%	70%	30%	
	Music	261	8%	43%	6%	57%	43%	
	Other Visual and Performing Arts	855	2%	57%	1%	60%	40%	
Philosophy and Religion	154	6%	43%	14%	63%	37%		
Arts & Humanities Total		8,230	6%	58%	4%	68%	32%	
Business	Accounting	1,357	3%	73%	1%	77%	23%	
	Business Information and Data Processing Services	1,026	3%	72%	1%	76%	24%	
	Finance	1,376	3%	65%	2%	70%	30%	
	Human Resources Management	583	2%	70%	2%	74%	26%	
	Management	860	2%	69%	1%	72%	28%	
	Marketing	1,915	2%	66%	0%	68%	32%	
	Other Business	487	6%	63%	2%	71%	29%	
	Business Total		7,694	3%	68%	1%	72%	28%
	Education	Education Administration	50	42%	14%	35%	92%	8%
Health and Phy. Ed. General		514	7%	59%	6%	72%	28%	
Sports and Recreation		384	9%	59%	5%	72%	28%	
Teaching		5,169	13%	66%	3%	82%	18%	
Education Total		6,117	13%	65%	4%	81%	19%	
Engineering	Architecture	645	3%	57%	2%	63%	37%	
	Civil Engineering	494	6%	61%	5%	72%	28%	
	Electrical Engineering	533	6%	50%	4%	59%	41%	
	Engineering Technology	492	4%	72%	1%	77%	23%	
	Industrial/Manufacturing Engineering	325	4%	61%	2%	67%	33%	
	Mechanical Engineering	888	6%	62%	5%	72%	28%	
	Other Engineering	1,151	4%	49%	5%	57%	43%	
	Engineering Total		4,528	5%	57%	4%	66%	34%
	Health	Allied Health	500	9%	59%	6%	74%	26%
Dental Health		78	5%	86%	3%	94%	6%	
Nursing		2,600	5%	74%	1%	81%	19%	
Optometry		<10						
Pharmacy		407	15%	75%	2%	91%	9%	
Physical and Occupational Therapy		450	3%	54%	1%	58%	42%	
Health Total		4,049	6%	70%	3%	79%	21%	
Natural Science & Mathematics	Agriculture	389	7%	61%	7%	76%	24%	
	Biology	2,191	12%	43%	15%	70%	30%	
	Chemistry	483	9%	37%	18%	65%	35%	
	Computer Science	674	3%	69%	2%	74%	26%	
	Geology	115	4%	48%	13%	65%	35%	
	Math	253	11%	55%	6%	72%	28%	
	Natural Resources	415	5%	57%	3%	65%	35%	
	Other Physical Science	42	14%	60%	2%	76%	24%	
	Physics	105	12%	28%	17%	57%	43%	
	Natural Science & Mathematics Total		4,667	9%	50%	11%	70%	30%
Social & Behavioral Sciences	Anthropology	210	11%	50%	5%	66%	34%	
	Economics	254	6%	61%	3%	70%	30%	
	Ethnic Studies	123	14%	51%	7%	72%	28%	
	Family and Consumer Studies	1,363	8%	63%	5%	75%	25%	
	Geography	159	6%	53%	8%	68%	32%	
	History	687	10%	51%	6%	68%	32%	
	Other Social Studies	789	7%	56%	5%	68%	32%	
	Political Science	808	7%	46%	7%	60%	40%	
	Psychology	2,245	11%	54%	6%	71%	29%	
	Public Administration and Services	59	8%	66%	0%	75%	25%	
	Social Work	898	8%	66%	2%	77%	23%	
	Sociology	709	9%	60%	4%	72%	28%	
Social & Behavioral Sciences Total		8,304	9%	57%	5%	71%	29%	
Unclassified	Culinary Arts	<10						
	General Education	79	8%	66%	4%	77%	23%	
	Interdisciplinary	341	8%	60%	2%	70%	30%	
	Law and Legal Studies	20	5%	45%	15%	65%	35%	
	Protective Services	584	7%	68%	4%	79%	21%	
Unclassified Total		1,026	7%	65%	4%	76%	24%	
dual major	dual major	544	7%	47%	6%	60%	40%	
	dual major Total	544	7%	47%	6%	60%	40%	

Employment and Schooling Outcomes for Masters Degree In-State Graduates- 1998, 1999, 2000
Spring Graduates 0.5 Years following their Graduation by Discipline

Discipline Area	Subject Field	Total Grads	Known in-state employment and continuing school	Known in-state employment and not continuing school	No known in-state employment and continuing school	Either known in-state employment or known continuing school	No In-State Job and no return to school
Arts & Humanities	Art	137	2%	36%	2%	40%	60%
	Communications	103	8%	53%	3%	64%	36%
	Communications Disorders	441	2%	54%	0%	56%	44%
	Drama	131	2%	27%	1%	29%	71%
	English	365	5%	43%	5%	53%	47%
	Foreign Languages	290	2%	19%	11%	32%	68%
	Journalism	67	3%	40%	3%	46%	54%
	Liberal Arts	34	3%	50%	0%	53%	47%
	Music	347	4%	23%	10%	37%	63%
	Other Visual and Performing Arts	72	1%	28%	1%	31%	69%
	Philosophy and Religion	45	9%	20%	16%	47%	53%
Arts & Humanities Total		2,032	3%	37%	5%	45%	55%
Business	Accounting	92	2%	59%	4%	65%	35%
	Business Information and Data Processing Services	109	3%	54%	2%	59%	41%
	Finance	207	1%	64%	0%	65%	34%
	Human Resources Management	187	1%	76%	1%	78%	22%
	Management	1,397	1%	58%	1%	61%	39%
	Marketing	140	1%	59%	0%	59%	41%
	Other Business	191	1%	54%	2%	57%	43%
	Business Total		2,313	1%	60%	1%	63%
Education	Counseling	430	8%	43%	4%	54%	46%
	Education Administration	369	12%	57%	5%	75%	25%
	Health and Phy. Ed. General	170	2%	32%	2%	35%	65%
	Sports and Recreation	109	5%	49%	0%	54%	46%
	Teaching	2,160	8%	64%	3%	75%	25%
Education Total		3,235	8%	58%	3%	70%	30%
Engineering	Architecture	150	3%	47%	3%	53%	47%
	Civil Engineering	110	2%	36%	2%	40%	60%
	Electrical Engineering	209	1%	25%	3%	29%	71%
	Engineering Technology	23	0%	39%	0%	39%	65%
	Industrial/Manufacturing Engineering	101	3%	44%	6%	52%	48%
	Mechanical Engineering	191	4%	36%	5%	45%	56%
	Other Engineering	247	3%	22%	4%	30%	70%
	Engineering Total		1,031	3%	33%	4%	39%
Health	Allied Health	259	2%	43%	4%	49%	51%
	Dental Health	28	0%	29%	0%	29%	75%
	Mental Health Services	23	9%	65%	0%	74%	26%
	Nursing	479	3%	74%	1%	77%	23%
	Optometry	19	0%	32%	16%	47%	53%
	Pharmacy	33	3%	36%	3%	42%	58%
	Physical and Occupational Therapy	105	0%	57%	1%	58%	42%
	Veterinary Medicine	18	6%	33%	11%	50%	50%
Health Total		964	2%	59%	2%	64%	36%
Natural Science & Mathematics	Agriculture	31	6%	32%	0%	39%	61%
	Biology	165	5%	29%	11%	45%	55%
	Chemistry	85	2%	25%	12%	39%	61%
	Computer Science	283	1%	49%	1%	52%	48%
	Geology	68	3%	35%	3%	41%	59%
	Math	170	5%	28%	13%	45%	55%
	Natural Resources	58	3%	52%	7%	62%	38%
	Other Physical Science	<10					
	Physics	54	4%	13%	39%	56%	44%
	Natural Science & Mathematics Total		920	4%	36%	9%	48%
Social & Behavioral Sciences	Anthropology	41	5%	44%	20%	69%	32%
	Economics	59	2%	44%	8%	54%	46%
	Ethnic Studies	71	1%	31%	4%	37%	63%
	Family and Consumer Studies	64	11%	44%	8%	63%	36%
	Geography	41	0%	34%	5%	39%	61%
	History	148	7%	39%	5%	51%	49%
	Other Social Studies	59	10%	63%	3%	76%	24%
	Political Science	212	3%	32%	10%	45%	55%
	Psychology	359	11%	45%	20%	75%	25%
	Public Administration and Services	255	4%	60%	2%	67%	33%
	Social Work	745	3%	73%	1%	77%	23%
Sociology	48	8%	38%	21%	67%	33%	
Social & Behavioral Sciences Total		2,102	5%	54%	7%	67%	33%
Unclassified	Interdisciplinary	143	4%	45%	6%	55%	45%
	Library Science	182	1%	74%	0%	75%	25%
	Protective Services	32	3%	53%	6%	63%	38%
Unclassified Total		357	3%	61%	3%	69%	34%
dual major	dual major	60	3%	45%	3%	52%	48%
	dual major Total	60	3%	45%	3%	52%	48%

[42]

V. SUMMARY AND EVALUATION OF REVIEWED NATIONAL, STATE, AND LOCAL RESEARCH, LITERATURE AND GRADUATE RETENTION INITIATIVES

While the notion of retaining the “best and the brightest” college graduates in a region is not necessarily new, the aspect of a concerted program or series of programs dedicated solely to that objective is still relatively novel.

Part of this dissonance occurs due to the fact that “retaining graduates” is not as simple as that. Clearly, the process is part of a highly complex and interwoven fabric of economic considerations which posits quality of place, creation of jobs, technology transfer, and the often overlooked notion of graduates as entrepreneurs or intrapreneurs within the context of existing companies and corporations.

Many of these concerns are well voiced in Gottlieb’s (2001) well constructed paper, *The Problem of Brain Drain in Ohio and Northeastern Ohio: What is it? How severe is it? What should we do about it?*. Looking at the aspect of the migration of science and engineering degrees from the Cleveland-Akron MSA, Gottlieb concludes, “for states like Ohio, the priority is also clear. We must create successful high-tech agglomerations if we are ever to reverse the symptom of net out-migration.”[43]

At the state level, this aspect is understood in Ohio as the governor’s “Third Frontier” initiative underscores.

A review of current national, state, and local initiatives creates a context for our own regional considerations on graduate retention. In this regard, there are certain key questions which must be addressed regionally within the context of the five-county area in this study.

1. How do we best capitalize on the college and university research base which is currently present? How do we seek to expand this base? How do we work to link this base across multiple disciplines (not just science or business degrees) to meet the research needs of a wide variety of major, medium-sized, and small businesses? How can such a base serve the individual entrepreneur?
2. Our institutions of higher education are, and will be, exporters of degrees. How do we turn this aspect to our benefit?
3. Can we evolve a system which monitors the correct “match” between the degree mix at local colleges and universities and the needs of the regional economy in the present?
4. How can we project the “mix” needed for the immediate and long-term future?
5. Will the creation and retention of certain degrees, i.e. science attract or prompt the development of additional job or business possibilities in the immediate region?

That the specific five county region within the context of this proposal has the capacity to generate the number of degrees needed to take the region both to, and beyond the national average for baccalaureate and graduate degrees is beyond doubt. Further, with specific college access programs, both current and

potential, and increased performance of the public school system, there will be an increasing number of students going on to college.

The questions surrounding persistence towards a college degree and assistance to stay in college are serious and require ongoing examination and the associated efforts of college access programs.

If these “stayers,” literally students who go to high school, then college within the region, represent the best opportunity for retention, as the Southern Technology Institute findings convey, then the issue becomes one of engineering the best approaches to insure that this happens.

PART TWO

STUDY FOR THE PLANNING DOCUMENT

I. METHODOLOGY

The primary means of local data collection for this document consisted of surveys, interviews and focus groups.

Focus group protocols and survey forms were established on the basis of the review of best practices and on the basis of the combined institutional experience of the Greater Akron Chamber and Stark Education Partnership on P-16 educational issues.

Also, prior to the final formulation of the student focus group protocols, an informal survey was conducted with a small sample of area college students. The results of that survey were as follows:

Preliminary Student Research Outcome

10 Participants

- 2 Males, 8 Females
- Ages: 55, 41, 41, 40, 36, 33, 24, 24, 23, 23
- Mean Age: 34
- Participants ranged in majors from Psychology, Secondary Education, Elementary Education, Child & Family Dev., Business Administration, Communications, & Landscape Architecture.

Percentage of individuals receiving education in Akron-Canton Area: 70%

- 40% chose due to convenience (close to home)
- 20% chose area due to college (Mount Union)
- 20% did not have major in area
- 10% needed to save \$, so stayed close to home
- 10% did not live in the area at the time

Percentage of individuals living in Akron-Canton Area Post graduation: 90%

- 60% in Akron-Canton due to Family
- 20% in Akron-Canton due to grad school
- 10% in Akron-Canton b/c lives at home to save money
- 10% did not live in area at the time

When asked what would convince individuals to stay in Akron Canton Area:

- 80%— Jobs (Landscaping, Mental Health/Social Services, T.V. Reporting)
- 60%— Family & Friends
- 50%— Income (\$60,000.+)

II. RESULTS

Extended Student Survey

While an attempt was made to contact students through focus groups, the researchers deemed that such methodology would not result in an adequate response set. Consequently, students were also administered an extended survey set based on the student focus group protocol. Three groups of students participated in the survey.

1. Participants in a graduate fair at Mount Union College on
2. Participants in a graduate fair at Malone College on November 14, 2002
3. Distributed survey to College Tech Prep students at Stark State College of Technology, administered during the month of November.
4. Survey and Focus Group with graduate students at Walsh University

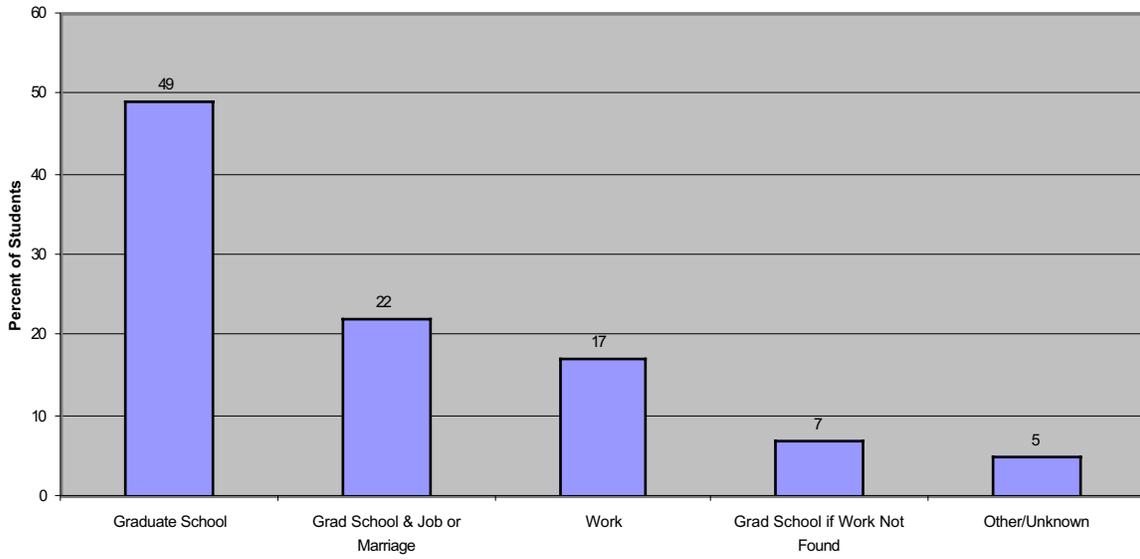
Extended Survey Results

Mount Union and Malone Colleges

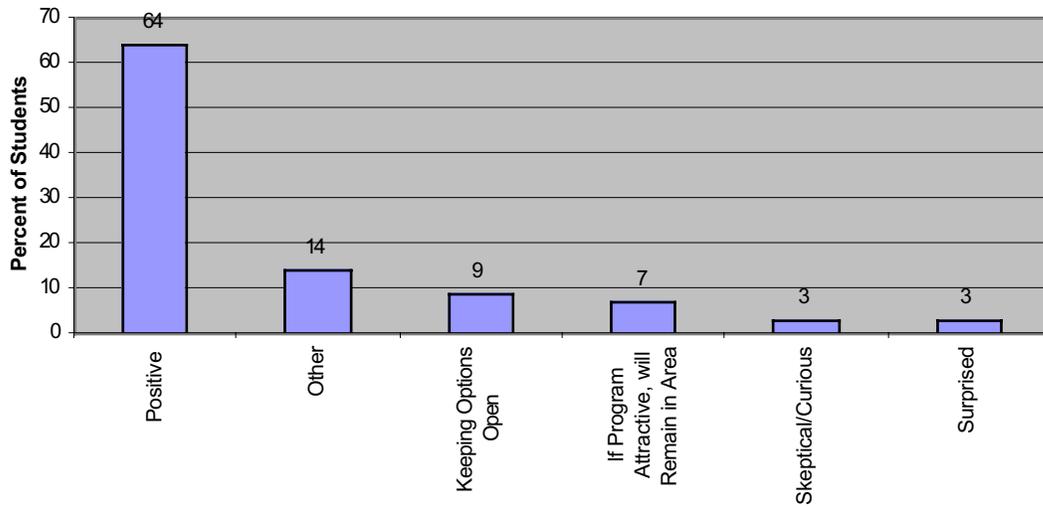
Results from the students at Mount Union and Malone Colleges (N=59) can be said to be representative of students who are seriously considering degrees beyond the baccalaureate. While the data suffers from this specific limitation, this category of student represents an enhanced asset to the region. Many of these students, however, see the need to seek employment as well as pursue additional coursework (Chart: What Do You Plan to Do After Graduation). Hence, incentives surrounding both employment and graduate education can be said to be powerful retention incentives.

Students also reacted positively (64%) to the notion of a program targeted at keeping them in the area.(Chart: What is Your Reaction...). When asked what would form a powerful incentive to stay in the area (Chart: What Would Be a Powerful Incentive...), it was clear that to students considering furthering their education that the availability of good programs, desired classes, and a combination of financial aid and/or scholarships were the incentives considered of most importance.

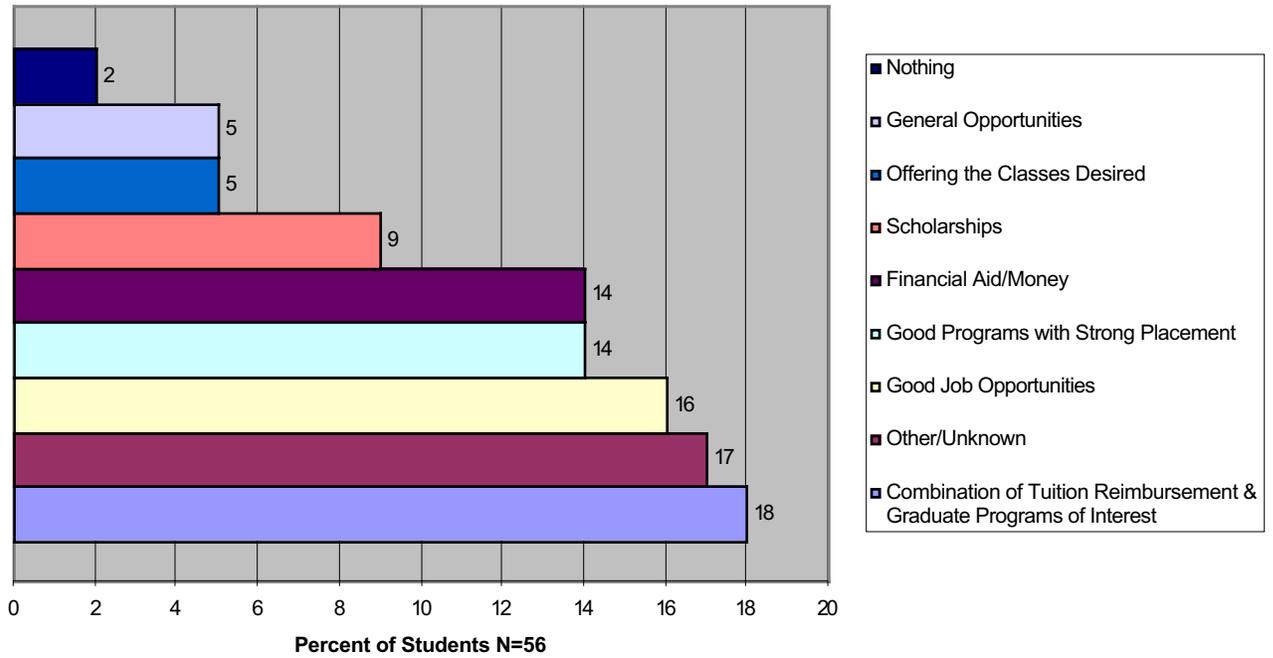
What do you plan to do after graduation?



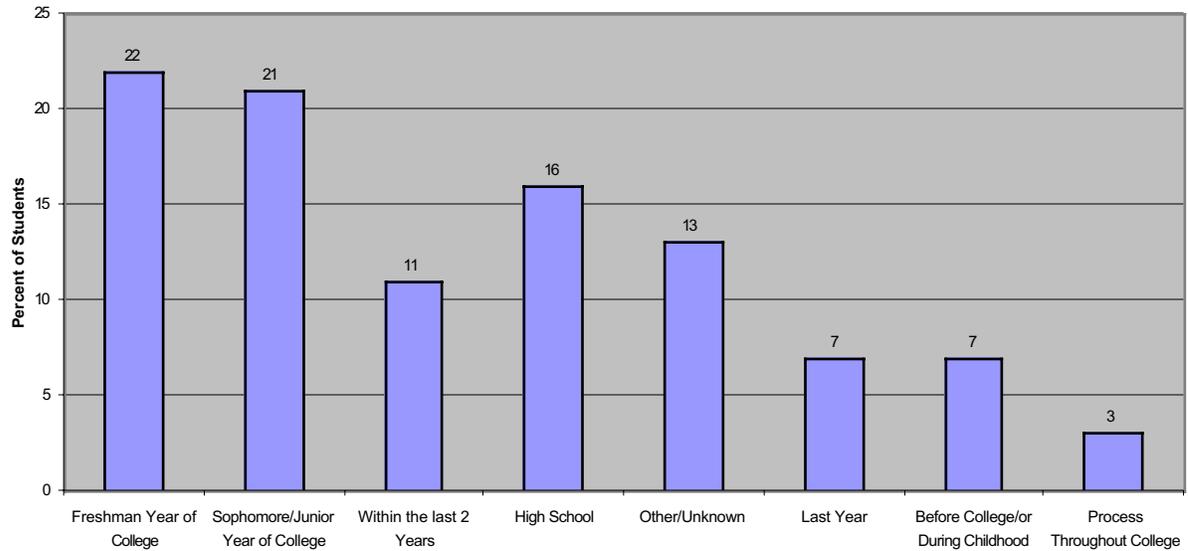
What is your reaction to hearing that we are interested in you (as a graduate) staying in this area?



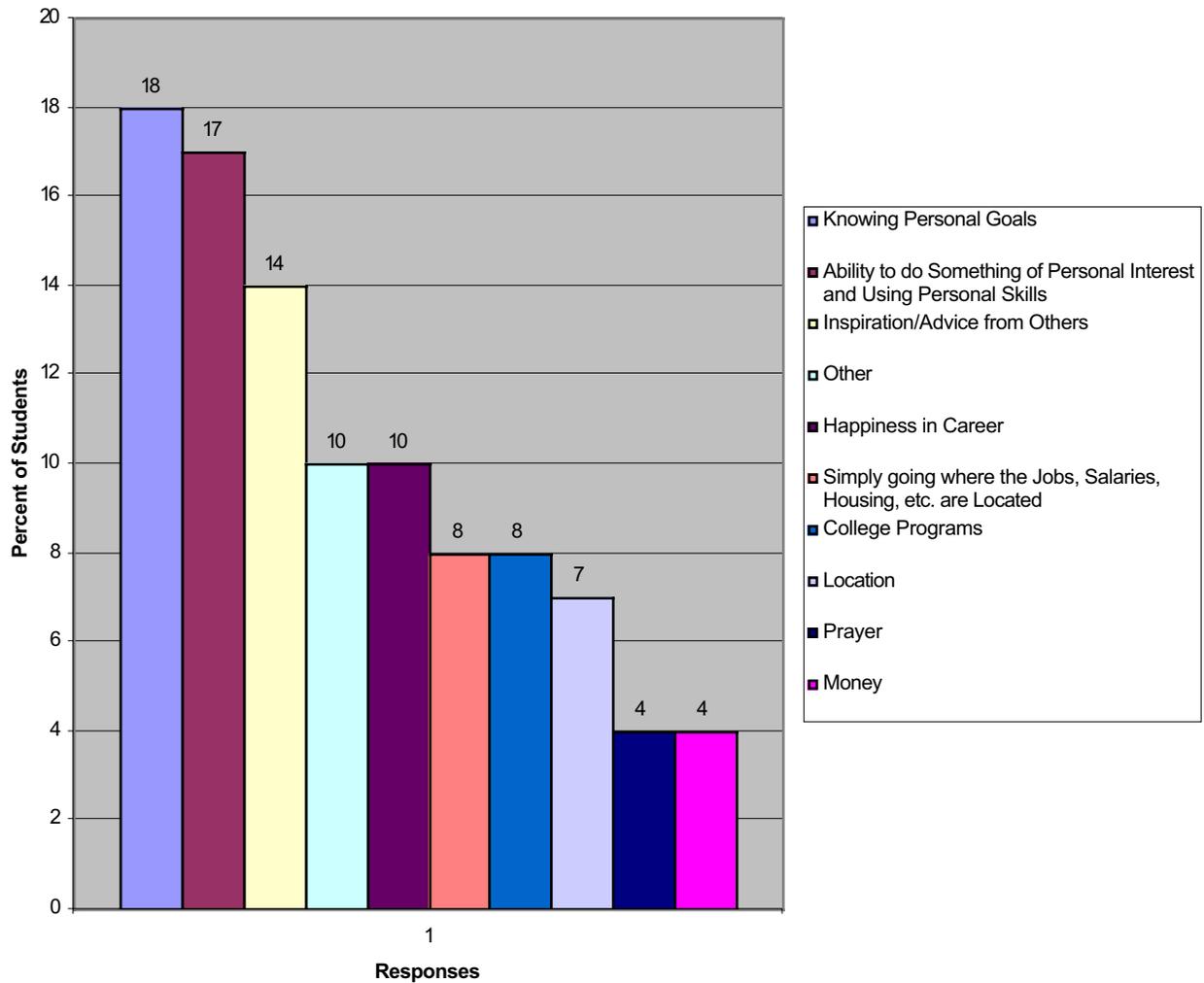
What would be a powerful incentive to keep you here?



When did you first start to plan what you would do after graduation?



What has been important for figuring out what you want to do after graduation? N=55



Stark State College of Technology

A small sample (N=5) of two year technical college students replied to the same survey extended to the four year students. These students enrolled at Stark State College of Technology following College Tech Prep programs at their high school. While the sample remains small, the responses are worthy of consideration as they represent a specific sub-category of student within the region.

The following represents the results:

- Only one student had taken any career assessments.
- Students were amazed and pleased to hear that there was an interest (as expressed in the survey) in their remaining in the region.
- Students would be willing to travel between 25-60 miles to stay in the region.

- Security, good benefits, flex-time, and the ability to work at home were reasons given for how employment in the region could be made attractive.
- Students saw initial salary ranging from \$20,000-\$40,000 per year.
- Phone and mailings were seen as the primary way for businesses to contact these students; only one student referenced e-mails.
- Students largely indicated that they had some knowledge of the local job market.
- High salaries and good jobs were seen as the most powerful incentives to keep the students here once they graduate.

College Freshman Survey

A group of 32 college freshmen were polled at Walsh University. Below are responses to select question categories. Salary, work benefits, and work atmosphere are viewed as incentives to stay in the area upon graduation. Over one-third say they are currently using no resources in a job search. At this level (freshman) this may not be unusual. Yet, over one-quarter are already utilizing the internet in some fashion. Only one (3%) has made any contact with a college career office. Perhaps the most interesting finding from this group is that a peer network or network linked with business would be of value to two-thirds.

HOW TO MAKE EMPLOYMENT IN THIS REGION ATTRACTIVE?

- | | |
|--|-----|
| • high paying salary w/ good benefits/incentives | 25% |
| • better jobs and a good work atmosphere | 20% |
| • unsure | 17% |
| • advertise nationally | 9% |
| • none | 9% |
| • good job with a good community setting | 8% |
| • through college | 6% |
| • sign on bonus | 3% |
| • give benefit info and details of jobs in ads | 3% |

WHAT RESOURCES ARE YOU CURRENTLY USING IN ANY JOB SEARCH?

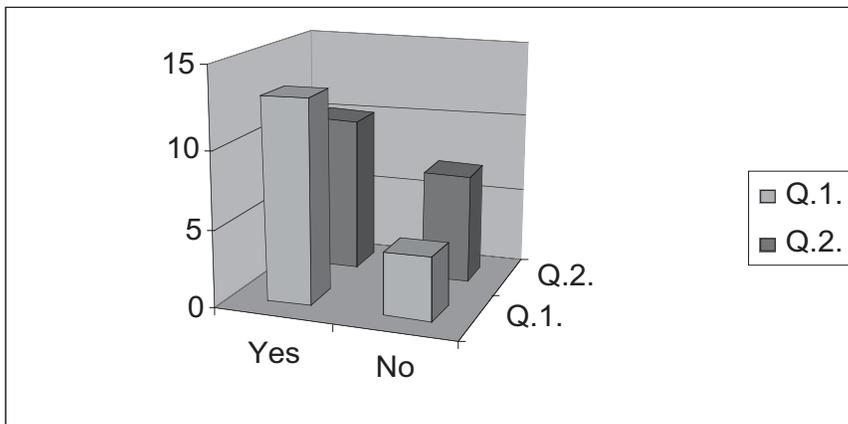
- | | |
|-----------------------------------|-----|
| • none | 35% |
| • internet | 27% |
| • family/friends | 13% |
| • multi media | 7% |
| • computers/teachers | 6% |
| • occupational outlook | |
| • handbook | 3% |
| • career development office | 3% |
| • businesses/BVR | 3% |
| • experienced individual in field | 3% |

WOULD A PEER NETWORK BE OF VALUE TO YOU, OR A NETWORK OF FELLOW GRADUATES LINKED TO AREA BUSINESSES AND OPPORTUNITIES?

- yes 66%
- no 28%
- unsure 6%

Graduate Student Survey

A group of 17 graduate students pursuing M.A. in Education degrees at Walsh University were surveyed by the researchers. This sub-group was considered to be of importance due to the 11,000+ regional deficit in graduate degrees. Graduate level degrees are offered in multiple areas throughout the region, hence this sample may not be representative in all cases for all degree categories. While most students pursuing the M.A. in Education degree at Walsh are current teachers, or planning to teach, the program does service training personnel in area businesses and industries.



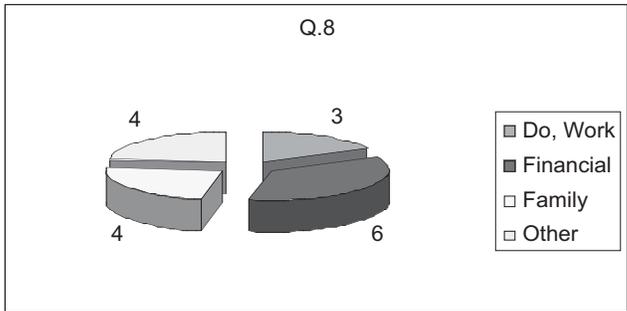
Question 1. (Q.1.) of the survey asked if the individual was a lifelong resident of Northeast Central (Medina, Portage, Stark, Summit, or Wayne County). Question 2. (Q.2.) asked if the individual did their undergraduate work in the same region.

Here we see that seven of the 17 respondents did leave the region to pursue college elsewhere, but subsequently returned. Of the remaining 10 respondents four moved into the area, but only two moved here specifically to do undergraduate work.

Bearing on the findings of the Southern Technology Council that those who go to high school, then subsequently to college (stayers) represent the best opportunity for retention, graduate students were asked what factors made them decide to stay and pursue their degrees close to home.

Virtually all “stayers” indicated family ties or considerations as a major factor. Other reasons centered on tuition costs, saving money by living at home, and the quality or “fit” of the selected institution.

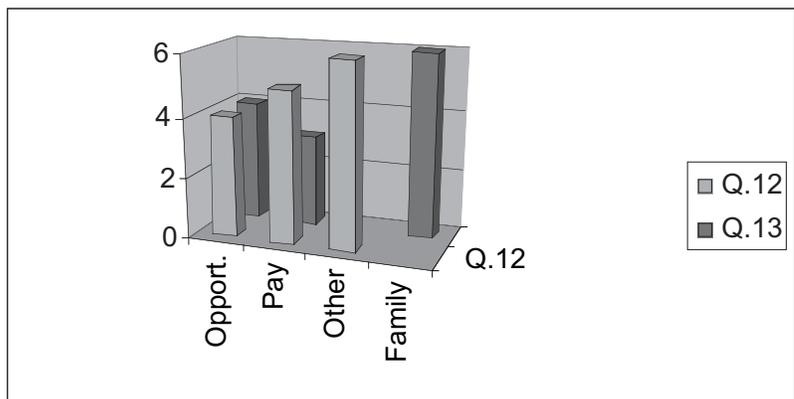
Interestingly, for those who moved into the area, family ties or affiliations with family members in the region was also a universal factor. To a certain extent, this reinforces one of the core assumptions of this report that affiliation is a major factor. Here, and for this group, affiliation means family. Students were asked why they chose to stay in the region to do their graduate degree (Q.8). Commensurate with the findings of the student survey at Mount Union College and Malone, the ability to be able to do the degree while working and financial aid or support for the degree work were critical factors in retaining students. Family concerns also emerged as a factor.



Question 12 (Q.12) asked under what circumstances students would now seek employment outside the state. Question 13 (Q.13) asked (if the circumstances listed in Q. 12 came to pass) what would convince students to stay. While better opportunities and higher pay were major considerations in either staying or leaving, family ties or concerns emerged as the major factor in convincing students to stay here. In the survey responses, a noticeable sub-category began to emerge in the family sector which may be worthy of future exploration and assessment. This sub-category concerns the presence of a spouse.

For instance, one respondent indicated that she would leave the state if her husband was relocated with a higher salary; another indicated that she would leave only if she and her husband could both find higher paying jobs.

This would indicate that we need to know more about the impact of two income families on the retention of graduates within the region and state.



Focus Groups

Focus groups were conducted with several key groups who were perceived to be critical interfaces in the retention process.

Graduate Students

Fifteen of the 17 graduate students surveyed at Walsh University are currently employed within the region. Twelve are employed in the teaching profession, one in business, one in higher education, and one in the public library system. In addition to completing the survey questionnaire, researchers conducted a one-hour focus group with these students.

Ohio, as well as other states, will soon experience a teacher shortage as indicated elsewhere in the document. Teachers not only represent individuals who have obtained the Baccalaureate degree, but most under the new state licensure laws will obtain master's degrees and represent a highly educated and skilled cadre of individuals within the region in what is one of the major employment sectors. For this reason, this specific focus group centered largely on the elements within the profession which kept teachers here, or ultimately made them consider moving out of state. Findings were as follows:

- Members of the focus group indicated that they preferred to work in “progressive” districts, defined as ones where advanced curricular and instructional methods were favored and with a heavy infusion of technology.
- Members who were lifelong residents of the area were asked about whether or not it had been their career goal to work for the district where they graduated. Only three were currently doing so.
- When asked why they had not moved elsewhere or out of state with their teaching degrees, several cited family ties. Other indicated that they had seen the cost of an out of state move as being “prohibitive” given the compensation scale for teachers.
- Many were aware, however, that other states are now offering incentives to teachers to relocate. This was seen as a growing concern for Ohio.
- Most, however, felt that any compensation or benefit package offered by other states would have to be “substantially” higher to warrant a move on their part.

College Career Services Directors

The directors of college career services in the region's institutions of higher education were convened to discuss both the functions of their departments, retention issues, and future relationships to the Chambers Graduate Retention Initiative. Several key findings emerged from this focus group:

- It was noted that students from out of state tend to go back home or leave Ohio when their degree work was completed, while Ohioans have a tendency to want to stay.
- Teacher candidates, it was noted, particularly have a tendency to want to teach in their home districts.
- Stark State noted that their graduates had a tendency to want to stay in the area, and do not want to travel to Akron or Cleveland.
- There is a tendency at many institutions (Kent main excluded) for local employers to call for a referral while national (out of state) recruiters will come to campus.

- Students will fundamentally go for employment where they sense incentives are present, i.e. tuition coverage.
- Many students do not form a relationship with their college career offices until late in their senior year.
- A wide variety of work co-ops and internships exist at the college level and businesses actively contact career services departments to form co-op experiences.
- Co-ops differ from internships. Internships are controlled by faculty divisions or departments and generally have credit attached. Co-ops are generally through career offices and can be paid or non-paid.
- Consequently, unintentional fragmentation exists within the college and university setting due to the different academic requirements and/or professional requirements of specific departments and degrees.
- There is a growing number of non-traditional and returning (some college, no degree) adults. While the notion of an internship or co-op might be attractive, these students have expenses and can not assume unpaid experiences.
- Information is a critical factor, the GRI can best serve college career services by providing informational links between employers and the colleges. For instance, employers need to understand that you can not do low level jobs for internships, career services need to know what businesses want.
- Legal issues surrounding internships and coops need to be reviewed.
- Students slowly acquire skills, i.e. networking is virtually unknown in the freshman year. Information sources often remain poor.
- The directors sense a growing use of the internet by students as a job and information source.

One Stop Center Directors

A time for a focus group for the directors of One Stop Centers was established and consented to in November. On the date of the focus group, none of the directors were able to attend. Further contact is planned in the implementation phase.

Human Resource Professionals

At the invitation of the Greater Akron and Canton Regional Chambers, a group of 13 human resource professionals was convened on December 18, 2002. These professionals represented manufacturing, law, medicine, human services, and small to medium size businesses. Ranging from small firms, such as Palmer Solutions, the scope also included major employers such as First Merit Bank and the Timken Company.

Results of the focus group were as follows:

- There is a problem retaining top graduates who do not perceive the region as offering a “sophisticated” business environment. In the social services sector, the same problem exists. Graduates are interested in “glamorous” industries which they feel are not here. However, Canton and Akron are a “microcosm.” Telling the story the right way (about what is here) is critical.
- The Akron-Canton (and Cleveland) region offers a great deal. The region should be marketed. It was felt that there was not a “strong enough” regional identity.

- Students in Akron and Canton are unfamiliar with what happens in either place.
- The process of successfully marketing or “branding” N.E. Ohio needs to begin in the classrooms, preferably at the middle school level.
- We need to do extensive surveying of recent graduates (within five years) in the area to determine why they chose to stay here. Also discover how these graduates found the jobs they are in. Build on this knowledge to market.
- We need to focus not only on retaining or gaining key professionals, but also on how to build the support staffs that they will need.
- We need another phase of business incubators on the local level.
- There is poor linkage between the business community and college faculty. Linkages need to develop here and even earlier, in the high school area. For instance, we are looking at shortages in the mental health area. How do we get students interested in high school.
- We need to be concerned not only with a student’s mindset as a recent graduate but given that the average individual will change jobs multiple times during their careers, we need to do ongoing marketing of possibilities.
- We need to proliferate opportunities via internships and sponsored coursework and degrees.
- We need also to focus on those foreign nationals who come here for graduate study, i.e. how to keep them in the region once they graduate.

The human resource professionals had specific recommendations in addition to the above for the next phases of the Graduate Retention Initiative from the two chambers:

- Promote Akron and Canton in a regional approach. Specifically, highlight what is here, the opportunities of the region.
- Look at how to jointly promote small business opportunities.
- Make it look attractive to outsiders to move here. For instance, the region is a source of higher education opportunity with its many colleges and universities.
- Look at how we develop an “international flavor.” There is a sense of isolation here that many of our students feel, i.e. that we are not connected to the world.
- There needs to be a clear and compelling vision for the region on graduate retention. All levels of government need to be on board.
- We need to include students as a part of the process for developing graduate retention programs.

Questionnaires and Focus Group Protocols

These are included in Appendix C

III. SUMMARY OF FINDINGS AND CONSIDERED ALTERNATIVES

In order to provide a framework for a discussion of the findings, information from surveys and focus groups, and consideration of alternative strategies to establish a GRI, the researchers returned to the working assumptions expressed in the introduction of this document.

The retention of graduates must be seen within the context of larger systems or communities.

The findings in this study at national, state, and local levels strongly supports the notion that retention must indeed be seen within the context of larger systems. This is specifically true if one of the primary steps towards retaining more graduates within a region is in actuality increasing the number of college graduates from the existing population base. As one of the most compelling findings of the Southern Technology Council stated, “the odds that a person would be working in the same state they attended high school in were increased over 10-fold (1,022 percent) if that individual remained in state to attend college. In effect, *stayers* stay.”[44]

These findings presume two critical factors. The first is that a person either complete high school or have a GED bridge, such as Kent’s GED Scholars Program. The second presumption is that they are able to stay in, and complete, college. A good deal of this report has focused on the systemic concerns of keeping students in school, graduation, and eventual college attendance within the five county region. With two of the state’s “Big Eight” urban school districts located in the region, these are not minimal concerns. We know that the five county persistence rate is only 77% beyond the freshman year. While this does not indicate that 23% are necessarily college dropouts, it does pose another problem for consideration.

The region and its K-12 institutions have made great strides in recent years in progressively preparing more and more students for college. Programs such as College Tech Prep and GEAR UP in both Akron and Canton are providing direct linkages. The findings of the KnowledgeWorks Foundation on Ohioans’ attitudes towards higher education, the considerations of the Stark County P-16 Compact, and the movement on the part of both Summit and Stark Counties to become part of the Ohio College Access Network (OCAN) are all critical.

While not specifically part of this retention proposal, plans contained herein must be mindful of, and coordinate with, such efforts whenever feasible.

Where this factor does not seem to be holding up is in terms of graduate degrees. Here the five-county gap (to national average) is some 11,000 individuals, far in excess of the gap on bachelor’s degrees. While initial strategies focused at the undergraduate level seem to be in order, an alternative consideration does exist as to when to expand such efforts into graduate and professional degrees.

Place, as well as the availability of employment options, matters.

While the national research conducted by Richard Florida (2000) seems conclusive in this matter, our own student surveying indicates that employment opportunities and benefits seem to be higher

characteristics. One specific factor may well be that place is a much larger concern for graduates whose own degrees or records of achievement place them in a highly desirable category, rendering them highly mobile.

What this, in essence, would mean is that certain categories of students and quite possibly those students whose skills might be most critical to continued regional economic growth are the ones that the region is most at risk in losing. These findings warrant a strong “marketing” component in any initial GRI plan focused on the quality of life, employment opportunities, and benefits of staying in the region and Ohio.

Many students (potential graduates) are unaware or disconnected from employment opportunities within the region.

Returning to our chart on the stages of graduate retention, the entire system appears to have substantive information disconnects.



Students in college do not form a relationship with their career planning and placement offices until late in their senior year. Students, once again at the college level, often do not perceive the benefits of staying in the region or feel that the area lacks “sophistication.” Local employers will often call career offices for a referral while out of region or out of state employers visit campuses to do active recruiting. Few students appear to have ever taken a career inventory. Fewer yet seem to realize the “economics” of employment, meaning such factors as the relationship between offered salaries and the cost of living in Northeast Ohio as opposed to Southern California or New York City. Increasing awareness and information here is mandated. Further, One Stop Centers can be a critical resource and represent an important avenue to be explored.

For the most part, substantive information links between area employers and high schools and middle schools have not developed. High school guidance counselors have limited time and poor information services. Poor linkages also exist between businesses and college professors.

Ready and emerging information sources and networks must be utilized to offset these deficits. For this reason, the emergence of a College Career Services Directors’ consortium in the region is of major value. Their first joint program (May 2003) will focus on retaining teacher graduates. It is recommended in the implementation phase that this proposed GRI support this program.

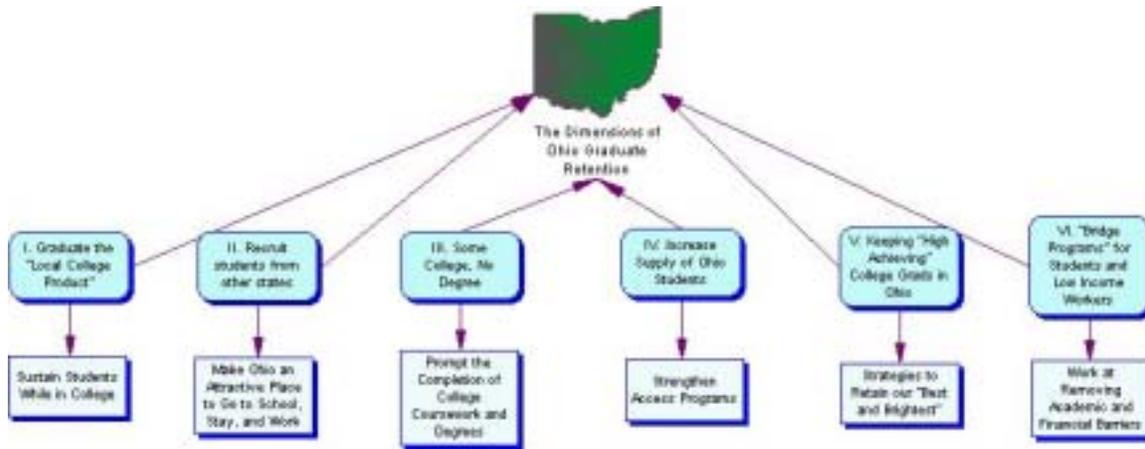
There are multiple sources of potential graduates, each requiring either specific assistance to complete degree work or specific approaches on retention.

We still know very little within the context of this region about why people stay or leave or why some students take years to complete a degree, or do not complete at all while others go through college in a more conventional fashion. The reasons themselves are probably legion.

As a result, we are proposing an additional assessment phase to run concurrent with the developments contained in the implementation plan to know more about these reasons. Results from our student surveying indicate that factors such as location or simply going where jobs, salaries, housing, etc. are located are exceeded by a desire to do something of personal interest and the ability to use personal skills. Individual goals are also a prime motivator. The assumption is that where students will probably go where they perceive such matches to be available.

Retention is a layered dynamic, ranging from what efforts are required to retain high end professionals or knowledge workers to enhancing skill sets and retaining existing workers who have gained additional skills.

Returning to the diagram listed in the Introduction, the multi-faceted nature of graduate retention has been made apparent within the findings of this document. The region comprised of Medina, Portage, Summit, Stark, and Wayne Counties is making considerable progress in dimension IV. Certainly, the current enrollment of the region



is at 63,000 students. Dimension I requires an extensive review of how our communities can sustain students once they do enroll. This issue is a concern for OCAN and as such will be a concern for the allied efforts emerging in Canton and Akron. It is also an ongoing concern of local colleges and universities which institute and direct their own (in institution) retention efforts. Closer coordination between these efforts and an emerging graduate retention initiative within the region is recommended. Dimension VI has also received some growing attention within the region. Powerful concepts present today, such as BEN, Kent’s GED Scholars, One Stop Centers, workforce preparation programs, and others must be strengthened and expanded. Dimension III is being focused on by some institutions within the region. It requires additional attention. Dimension V is the purview of this initiative. Dimension II needs further exploration. Certainly states, such as Iowa, are pursuing this venue. Attracting more students to fill enrollment in Ohio, however, does not seem to be an issue unless our

higher education institutions seek to expand. Attracting students from out of state at the graduate level, however, may be an issue. Clearly, one that may well concern this graduate retention initiative eventually as our regional gap at the graduate level is in many ways more severe than at the undergraduate level.

Retention can best be seen within the larger dynamics of community or region which seek to maximize the potential of human capital.

This potential is both real and latent. The first issue is one of retaining the “best and the brightest” in the region. This is literally how we keep our top graduates here to further build on their potential and the region’s potential. This is not to minimize or denigrate the achievements of any college graduate. The question is how we convince graduates who are highly mobile due to the quality of their academic performance or the nature of their degree skill set to remain within the region. It is a question of how we can compete.

The student set surveyed at Mount Union and Malone Colleges gives us some indications. Many of these students were looking to advance themselves further through graduate education. Quality of further educational offerings, financial support (either through tuition assistance, financial aid, or scholarships) were major concerns. Good job opportunities were also important to many. Very few indicated that “nothing” would keep them here. Two year students seemed even more wedded to the area. Once again, benefits were seen as a major employment inducement.

A major finding in this entire set was that nearly all students were pleased to hear that this proposed initiative, i.e. that someone, actually had an interest in their staying here.

If we can provide the incentives for graduates to stay in the area, and the supposition is that many businesses already offer such incentives, then the issue does seem to be one of an information disconnect. The research is once again strongly indicative of this.

A second question on maximizing human potential within the region is centered on determining what degree mix is, and will be, needed. While increasing the general level of education among the populace in general may be desirable by virtue of generalized benefits, such as increases in voting patterns, degrees for the sake of degrees alone will do little to support or grow the economy in the short term.

The benefits of state and Federal level initiatives must be maximized within the context of the region and its retention efforts.

Without question, new and emerging initiatives such as the Third Frontier Project and OCAN, the Federal Gear Up Partnership grants in both Akron and Canton, the prospect of continued funding for College Tech Prep should command the attention of the region as well as the ongoing activities of the Ohio Department of Development and the Department of Job and Family Services.

The ongoing question for any graduate retention initiative is not only to understand the current and potential impact of such initiatives, but to work to coordinate and maximize such benefits, such as One Stop Centers. For another example, students in both College Tech Prep and the Gear Up programs represent identifiable cadres of college bound students where efforts to coordinate with such programs in educating students on employment potential and the benefits of staying within the region can be considerably enhanced.

Affinity is a major force in retention. This can be affinity for families and relatives, like professionals, communities, or companies.

We need to know more why those graduates, particularly top graduates, chose to stay here. Very few students list location as a major factor. Yet, the findings of the Southern Technology Council indicate that long term affiliation, i.e. attending college and high school in the same state is a major factor. Students' personal goals and capacity to use their skills are major factors in determining what is important to do after graduation. Additional knowledge of these goals, coupled with the needs of business might produce powerful incentives.

As the sister of one human resource professional in the area wrote.

I know you argue that it's a great place to live. And I sincerely believe that for you it is. But for me, when I visit Canton, I can't find a place to take a walk. I find myself singing the Joni Mitchell lyrics "They paved paradise and put up a parking lot," over and over again to myself. Nature has disappeared in northern Ohio, and asphalt and mall franchises have taken over. Everhard Rd. is a perfect example. Downtown Canton is another. Where have all the flowers gone, long time passing?[45]

What could have convinced this young lady to stay? Perhaps a different perspective on what is within the region or where the opportunities are present. We do have evidence that family and family ties appear to be major factors in why graduates stay here. What are others?

Internships, work experiences, or other opportunities that help students gain skills or which financially supports the attainment of their college degree may be critical factors, such as those Akron General Health Care System or Detroit Diesel provide. At the graduate level, corresponding support may be equally critical.

Well constructed and substantive internships can be a powerful retention tool for both graduates and companies. In concert with this, a concerted effort must be made not only to estimate the current capacity of business within the region to support such internships but also how to assist businesses and institutions of higher education in growing such options.

The focus group with College Career Services Directors noted that a wide variety of co-ops and internships already exist at the college level. Yet, the system has a natural split between the contacts that

individual faculty cultivate for internships which result in college credit and the work oriented co-ops that career services maintain. Further, employers are often unaware that lower level jobs may be unsuitable for the academic and work needs of students. The career directors also point to a growing number of non-traditional students returning to college. Unpaid work co-ops do not work for this population who must often support themselves while in school. Legal requirements surrounding internships and work co-ops are also in need of review.

The college career services directors indicated that the greatest service a GRI could provide would be to strengthen the information links between businesses and career services. The human resource professionals likewise felt that poor linkages existed at the college and high school level.

In concert with the findings of the Southern Technology Council, whether or not an Ohio student attends college in Ohio will probably be the greatest predictor of their staying to work in Ohio.

Lacking more substantive information at this time, this assumption is still accepted on the basis of the Southern Technology Council findings and on the basis of Ameritchieve (Indiana) indicating that 42% would work there if “all opportunities were equal.” Clearly more information must be collected on this aspect within the five county area.

“Bridge Programs,” literally programs involving K-12 institutions, two year colleges, four year colleges, and the needs of business and industry can be a potent force in promoting regional retention. These programs are designed to assist students and low-income workers over the barriers which normally prevent many from pursuing or completing a college degree and engaging meaningful employment.

This heralds back to the critical assumption that by increasing the number of students going on to college that we can increase the number we retain. The additive factors, however, are meeting the needs of businesses and removing barriers. Workforce development options have a track record of success in creating training opportunities for low-skill and low-income workers.

The option of college, however, is often absent from such considerations though colleges may be involved in the training. While not every job within the region requires, as of today, a college education, we should work to reinforce possible links in this regard. Other programs within the region, such as Gear Up, Choices School, the Kent GED Scholars program are beginning to build such bridges. The concept of early college and enhanced partnerships between high schools colleges and universities (as being developed by KnowledgeWorks) should be emulated within the region as well.

PART THREE: A PROPOSED GRADUATE RETENTION INITIATIVE FOR MEDINA, PORTAGE, STARK, SUMMIT AND WAYNE COUNTIES

PHASE ONE: IMPLEMENTATION PLAN THROUGH JUNE 30, 2002

Goal of the Graduate Retention Initiative

The goal of this graduate retention initiative is to create an ongoing series of relationships between colleges, employers, agencies, and students within the five-county area which will focus on creating and disseminating information conducive to enhanced awareness and decision-making on the part of college graduates of the benefits of staying and pursuing careers in the region.

Geographic Scope of the Initiative

The actions recommended in this implementation plan will extend to the five county area which forms the scope of operations for the Greater Akron Chamber (GAC) and the Canton Regional Chamber of Commerce. This area is Medina, Portage, Stark, Summit, and Wayne Counties.

Leveraging Existing Resources, Projects, and Activities

The activities listed below continue the relationship between the Greater Akron Chamber, Canton Regional Chamber of Commerce, Stark County P-16 Compact, the Summit Education Initiative, and the Stark Education Partnership. Activities are also targeted to provide support for the new and emerging College Career Services Directors' Consortium.

This consortium brings together the University of Akron, Kent State University, Kent State University-Stark Campus, Walsh University, Malone and Mount Union Colleges, and Ashland University.

In addition, the presidents of Walsh, Malone, Mount Union, Stark State College of Technology, the provost of Ashland University, and the dean of Kent State University-Stark are members of the Stark County P-16 Compact. Graduate Retention is one of the key focal points of that Compact and the initiative proposed herein will augment and increase the efforts of that Compact.

The activities indicated within this plan will also open new levels of relationships between higher education and the business community. An implementation committee of students and area business

people will further serve as an important source of “grass roots” advocacy and a critical factor in the continuation of this GRI beyond the state funding period.

Two additional collaborating organizations, the Stark Education Partnership and the Summit Education Initiative are heavily involved in P-16 efforts and awareness building. Both act as education reform support organizations for the 34 public school districts which comprise Summit and Stark Counties. Both organizations are pledged to increasing college access. The Stark Education Partnership is in the planning-first phase implementation of access programs in collaboration with the Ohio College Access Network (OCAN). The Summit Education Initiative has received an OCAN planning grant.

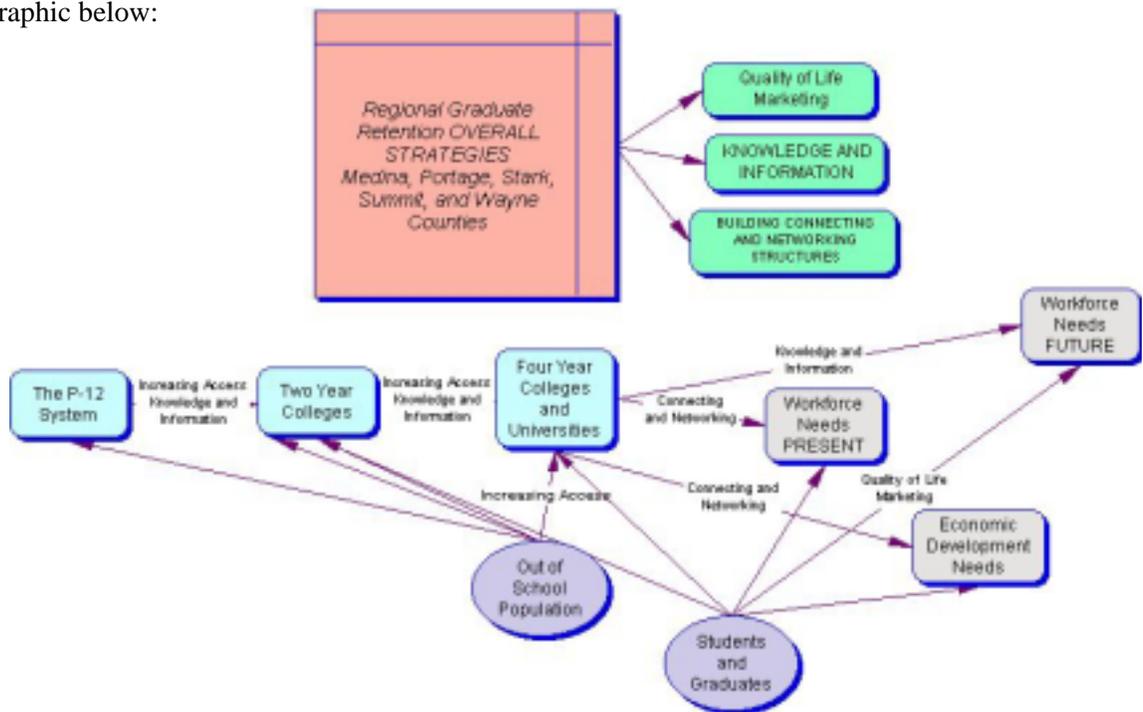
While the specific activities listed within this proposal do not directly address access issues, one of the major research findings of this document centers on access and increasing the number of college graduates within a region to increase the numbers retained. Both groups will remain allied with this retention effort. The findings included herein should help leverage their P-16 and retention efforts.

In addition, the human resource professionals convened for the focus group in this study have indicated a desire to continue to meet on this issue. This will be done in conjunction with the implementation phase.

Finally, a consortia of four Northeast Ohio recipients of GRI Planning Grants (Greater Cleveland Growth Association, Partnership for America’s Future, Northeast Ohio Software Association, and the Akron and Canton Chambers) is in the formation stage. Throughout the process of formulating our respective GRI plans, we have worked together to share ideas and will continue to do so during implementation to leverage further opportunities for collaboration.

Initiative Objectives with Partners, Resources and Activities for Implementation

The overarching strategies which have emerged from the study in this planning document are illustrated in the graphic below:



The following activities, resources, and objectives are considered Phase I (through June 30, 2003) implementation actions consistent with the three primary strategies listed above, (1. Quality of Life Marketing, (2. Knowledge and Information, (3. Building Connecting and Networking Structures.

Overarching Objective: With the Ohio Department of Development, both chambers, the Stark Development Board, NOCHE, and Initiative Implementation Committee seek to identify those economic sectors within the region with high growth potential. Use this information in an ongoing fashion to inform specific initiative objectives.

Objectives	Actions	Partners and Resources
1. Continue assessment of the process by which students seek employment. Assess what keeps graduates here.	Survey college seniors and graduates who have elected to stay in the area; alumni who have left	GAC, Canton Chamber, and Stark Education Partnership
2. Assess existing and additional capacity for internships and coops among regional businesses, human service, and community agencies.	Survey of Chamber businesses in five county area. Survey of agencies.	GAC, Canton Chamber, and Stark Education Partnership
3. Link completing associate degree and four-year juniors and seniors with business people	Hold two roundtable sessions with business leaders at 3 campuses.	GAC for Akron Main Campus and Wayne Campus, and Kent Main Campus, Canton Chamber and Stark P-16 Compact and College Career Services Directors for Kent-Stark, Stark State, Malone, Walsh, Wooster, Mount Union, and Ashland
4. Market Northeast Ohio as a quality of life destination using strategies appealing to that age group.	Develop on-line and print materials that address this objective. Test market information at two and four year institutions, with businesses. Marketing plan to be made available free of charge to all regional companies and agencies. Information to be shared with NE Ohio regional GRI consortia	Management Partner with Chambers, Stark Development Board

Objectives	Actions	Partners and Resources
5. Link students to internships and job opportunities, especially using electronic systems	Convene key stakeholders to demonstrate electronic and other linkages and implement collaborative activities. Develop “help” links for chambers and other web sites	GAC for Akron Main Campus and Wayne Campus, and Kent Main Campus, Canton Chamber for Kent-Stark, Stark State, Malone, Walsh, Wooster, Mount Union and Ashland. College Career Services Directors’ Consortium.
6. Link career advisor staff of area education institutions to implement strategies to inform graduates of opportunities in NEO.	Hold a minimum of 3 joint meetings with college career, One-Stop Staffs, high school guidance counselors to share findings and strategies on the GRI issues and to identify ways to attract recent graduates to the One Stop.	GAC for Akron Main Campus and Wayne Campus, and Kent Main Campus, Canton Chamber and Stark P-16 Compact for Kent-Stark, Stark State, Malone, Walsh, Wooster, Mount Union, and Ashland
7. Strengthen and Expand Employment and Training networks outreach to this population	Hold a minimum of 3 joint meetings with career advising to bring them up to speed on this issue and to identify ways to attract recent graduates to the One Stop.	Chambers and Stark P-16 Compact, College Career Services Directors
8. Identify targeted populations (example IT students) to reach with implementation activities.	Compile and maintain an ongoing data base of target students. Establish	Chambers and Stark P-16 Compact
9. Coordinate implementation activities	Support management for coordination and clerical at Chambers associations with related student clubs and organizations	Chambers and Stark P-16 Compact Regional Oversight Committee

Quantitative Goals for Success

While many of the objectives deal with process issues, several lend themselves to quantitative assessment. These are as follows:

Link completing associate degree and four-year juniors and seniors with business people.

Method: Questionnaire Surveys to all participants at all three round tables

- Students will indicate a substantial increase in knowledge on employment opportunities in the region (>3.0 on 4.0 scale) through attendance at roundtable sessions.
- Students will indicate an increased desire (based on pre and post session questions) in remaining and seeking employment in Ohio and/or the region by virtue of their attendance at roundtable sessions.
- Business representatives will indicate a high degree of satisfaction (>3.0 on 4.0 scale) in their participation in roundtable sessions.
- Business representatives will indicate a high desire (>3.0 on a 4.0 scale) to continue roundtable sessions.

Market Northeast Ohio as a quality of life destination using strategies appealing to that age group.

Method: Market tests of developed materials with college student groups, area businesses and organizations.

- Seventy-five percent of all students will indicate new knowledge about the quality of life and living in Northeast Ohio.
- Seventy-five percent of all students will indicate that the information presented in the materials will be helpful or instrumental in making a decision to seek employment in Northeast Ohio.
- Seventy-five percent of businesses and organizations will indicate high approval of the materials as a recruitment tool.

Link students to internships and job opportunities, especially using electronic systems

Method: Survey

- Ninety percent of stakeholders will indicate that new linkages or collaborative activities are being planned or implemented.

Link career advisor staff of area education institutions to implement strategies to inform graduates of opportunities in NEO.

Method: Survey Questionnaire

- Ninety percent of all participants will indicate that new information on opportunities in Northeast Ohio was presented at these meetings.
- Ninety percent of all participants will agree (>3.0 on 5.0 scale) that the strategies presented will be helpful in informing students.
- Seventy-five percent of all participants will indicate that they will adjust their own approaches on counseling students about opportunities in Northeast Ohio on the basis of these strategies.

Strengthen and Expand Employment and Training networks outreach to this population

Method: Survey Questionnaire, Interviews

- On Stop Centers will indicate new linkages with college career centers.

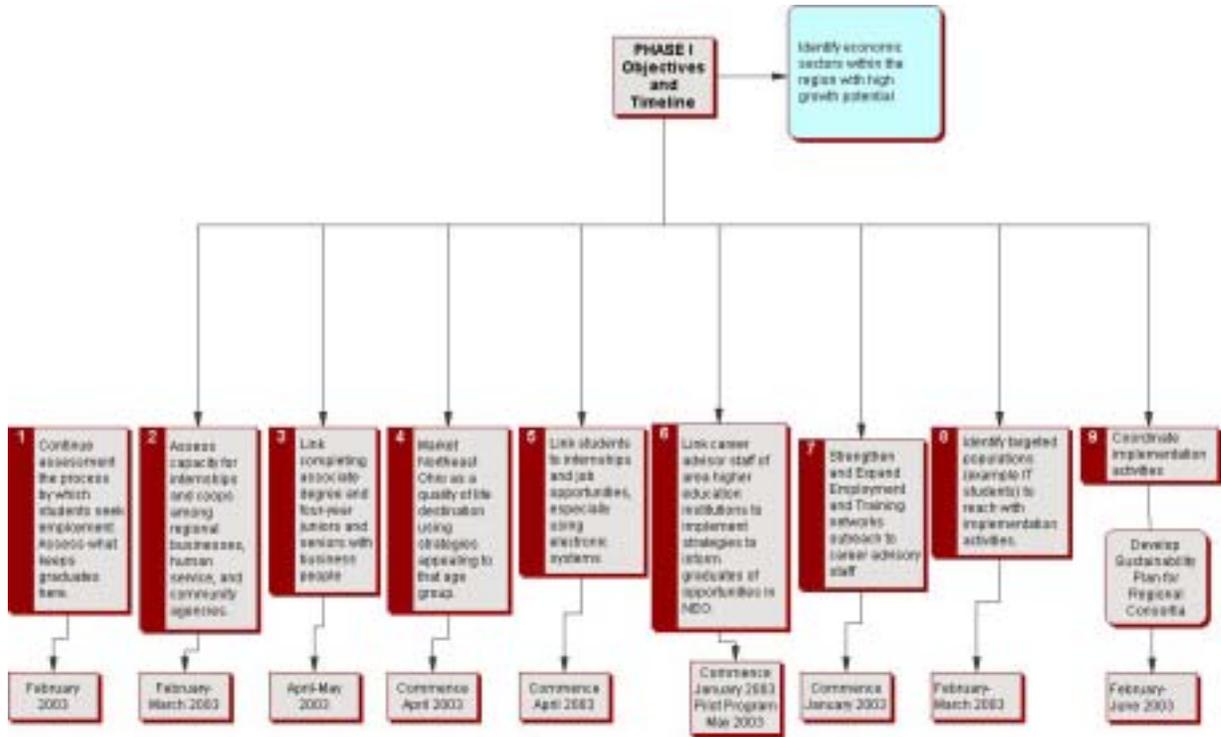
Identify targeted populations (example IT students) to reach with implementation activities.

Method: Survey Questionnaire

- Human resource professionals and employers will indicate that the designed system is a useful and effective means (>4.0 on 5.0 scale) to reach targeted students.

Timeline and budget for implementation

Specific objectives of this planning document will follow the proposed timeline.



Budget

Objective	Item	Cost
Continued Student Assessment (Objective 1.)	Staff: Researcher 25 hrs. @ \$38.25 wages + \$6.75 benefits	\$ 1,125.00
	Contracted Research Assistance 30 hrs. @\$10.00	\$ 300.00
	Clerical Support 20 hrs. @ \$12.75 wages + \$2.25 benefits	\$ 300.00
	Survey Printing: 1,500 surveys @ .20	\$ 300.00
	Postage and Return Postage 1,500 surveys @ .68	\$ 1,020.00
Section Total:		\$ 3,045.00
Assessment of Internship Capacity (Objective 2.)	Staff: Chamber Staff for Survey 25 hrs. @ \$31.45 wages + \$5.55 benefits	\$ 925.00
	Clerical Support 20hrs. @ \$12.75 wages + \$2.25 benefits	\$ 300.00
	Survey Printing: 1,500 surveys @ .20	\$ 300.00
	Postage and Return Postage 1,500 surveys @ .68	\$ 1,020.00
Section Total:		\$ 2,545.00
Link completing Associate Degree, four-year juniors and seniors with area business people (objective 3)	Clerical Support 25hrs. @ \$12.75 wages + \$2.25 benefits	\$ 375.00
	Space rental 3 campuses @ \$500.00 per campus	\$ 1,500.00
Section Total:		\$ 1,875.00
Market Northeast Ohio as a quality of life destination using strategies appealing to that age group (objective 4).	Development of on-line and print materials addressing objectives with area advertising firms. Fee stipends	\$ 20,000.00
Section Total:		\$ 20,000.00
Link students to internships and job opportunities, especially identifying electronic systems (objective 5)	Small grants or start up funds for stakeholders to plan or implement collaborative activities	\$ 1,500.00

Objective	Item	Cost
	Develop and distribute web-based software for “help” links	\$ 1,500.00
	Section Total:	\$ 3,000.00
Link career advisor staff of area higher education institutions to implement strategies to inform graduates of opportunities in NEO (objective 6)	Support pilot program of College Career Directors Consortium to address teaching graduate retention May 2003.	\$ 5,000
	Section Total:	\$ 5,000
Strengthen and Expand One-Stop Employment and Training networks outreach to this population (objective 7)	Three joint professional development meetings between One Stops, college career advising, HR professionals, state and regional economic development offices, trade associations and agencies @ \$1,000 each for meeting space, materials, and refreshments.	\$ 3,000.00
	Section Total:	\$ 3,000.00
Identify targeted populations (example IT students) to reach with implementation activities (objective 8)	Contract Services with Career Advising (University of Akron, Walsh, Mount Union, Kent State University, Kent State /Stark, Malone, Ashland University) to compile data bases @ \$1,000 each	\$ 7,000.00
	Clerical Support 100 hrs. @ \$12.75 wages + \$2.25 benefits Preparation of e-mail directory and mailing lists	\$ 1,500.00
	Web-based set-up and maintenance of data bases 100 hrs. @ \$12.75 wages + \$2.25 benefits	\$ 1,500.00
	Section Total:	\$ 10,000.00
Coordinate implementation activities (objective 9)	Chamber and Partnership Staff for coordination 280 hrs. @ \$31.45 wages + \$5.55 benefits	\$ 10,360.00
	Clerical Support 280 hrs. @ \$12.75 wages + \$2.25 benefits	\$ 4,200.00
	Local Mileage 1,500 @ .30 mile	\$ 450.00

Objective	Item	Cost
	Publication of planning documents and materials to be shared with regional consortia members; key area and regional stakeholders	\$ 1,000.00
	Section Total:	\$ 16,010.00
	BUDGET TOTAL FOR ALL SECTIONS	\$ 64,475.00

Coordination of Implementation Activities

A regional committee of nine business representatives appointed by the Greater Akron Chamber, the Canton Regional Chamber of Commerce and the Stark County P-16 Compact will coordinate and oversee the above stated implementation activities. In addition, three student representative (one for state universities, one for private four-year, and one for two-year institutions) will also be appointed. The Committee Membership is as follows:

From the Stark County P-16 Compact

- Ward J. Timken Vice-President, the Timken Company
- Samuel Palmer Chief Financial Officer, A2Z1TV
- William Pincoe President, Beese, Fulmer & Pincoe, Inc.

From the Greater Akron Chamber:

- Donna Early President, Providence Personnel Consultants
- Steve Albrecht President The Fred W. Albrecht Grocery Company
- Debra Palmer President Palmer Solutions

From the Canton Regional Chamber of Commerce

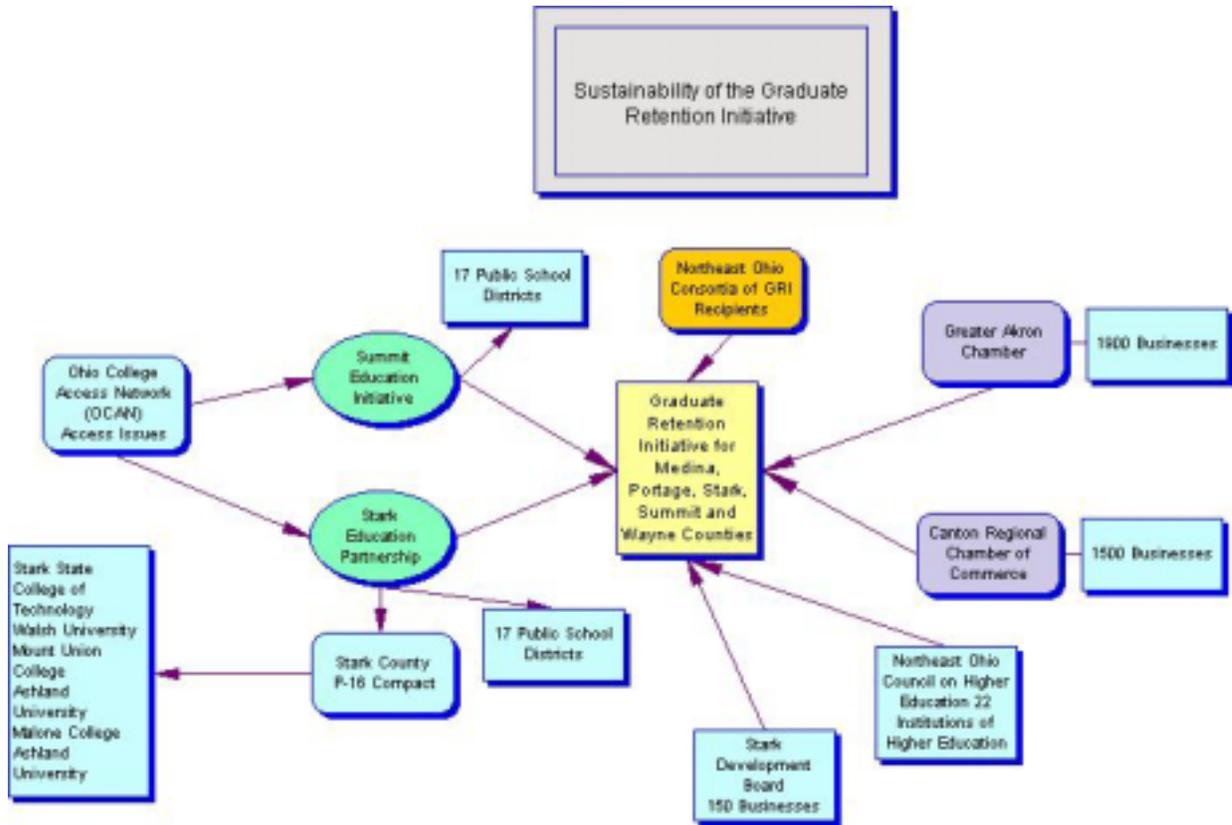
- Lee DeGraaf Retired executive, chair Education Committee
Canton Regional Chamber of Commerce
- Steve Katz Vice-President, Canton Regional Chamber of Commerce
- To be appointed

Student Representatives

- To be appointed

Sustainability of the Graduate Retention Initiative

Sustainability of the Graduate Retention Initiative within this region will be fostered by an ongoing system of partnerships between organizations representing business and education at the P-16 level.



The current state support of this initiative through the Ohio Department of Development and Ohio Department of Job and Family Services is through June 30, 2003. This represents what this proposal considers as Phase I of the implementation process. While additional state support in future bienniums would be appreciated, such funding would be viewed as capital for expansion of this initiative. We have constructed the actions in this proposal from two vantage points. The first is to initiate completely develop a product, such as the marketing plan, which will have an extended shelf life or form the basis for further development by multiple parties. The second vantage point is to foster events in a pilot format, such as the business round-tables at colleges and universities, which both business and education will elect to continue.

PHASE TWO: LONGER TERM CONSIDERATIONS

The sustainability and expansion of the efforts outlined in this planning document must become a major concern of the Chambers and their collaborating organizations. In this regard, and on the basis of the literature, and our own review of national and state practices, it becomes clear that any long term

retention effort will be dependent on a consortium of governments, economic development agencies, foundations, K-12 and higher education institutions, and key players from the business community.

On the basis of this study longer term considerations involve strengthening key interfaces which have begun with the initial implementation phase.

- Monitor and remain current with developments at the state level. These include the Ohio Department of Education, Board of Regents, Ohio Department of Development, and specifically, the Third Frontier Project. Use such knowledge to continually inform the regional graduate retention process.
- Work with High School Guidance Counselors, College Career Advisors, P-16 faculty, and students to build awareness about the skills and degrees needed to meet the targeted needs of Ohio businesses and business development. Continue to coordinate with efforts in Akron and Canton as part of the Ohio College Access Network (OCAN).
- Use continued information and data collection, assessment to correct and strengthen existing objectives and create new activities and objectives.
- Develop viable streams of funding and organizational support to support the Graduate Retention Initiative in an ongoing fashion.
- Further develop and consolidate the Northeast Ohio regional consortia of GRI Planning Grant recipients. These are: The Greater Akron and Canton Regional Chambers of Commerce (Stark Education Partnership), the Partnership for America's Future, the Greater Cleveland Growth Association, and the Northeast Ohio Software Association. We are aware that such a consortia can magnify all our efforts and that ultimately many quality of life and employment issues must be seen on a much broader regional basis.

APPENDIX A

National Contacts and Consultations

We are indebted to the Grantmakers for Education, an affinity group of the Council on Foundations for their support in allowing the researchers to quire major foundations across the United States on the presence of graduate retention initiatives supported by their funding or within the scope of their awareness. The following was sent on behalf of this proposal by this agency:

Dear GFE Members:

The following request comes from The Stark Education Partnership:

In association with the Ohio Department of Development, the Stark Education Partnership will be conducting a comprehensive study on graduate retention initiatives, literally projects or programs designed to keep college graduates in an area after graduation. We would greatly appreciate information from any of our colleagues who might be funding such initiatives. Information should be sent to: °Joseph A. Rochford Vice-President, The Stark Education Partnership.

We are also indebted to Pat White, Executive Director of the Triangle Coalition for Science and Technology who circulated the following to the combined national membership of that organization. Triangle Coalition member, The Stark Education Partnership (a Triangle Coalition member) is currently conducting research on retaining college graduates in a region/state after graduation.°°Among other things, they are trying to determine the extent to which°companies or corporations support college education (internships and tuition) with the notion that graduates will work for said companies for a period of time.

Do you know of such programs? °Does your organization support such programs? Is your organization part of a larger regional/state consortium to increase the number of°mathematics/science/technology students/graduates?

Please contact Joe Rochford, The Stark Education Partnership, with any thoughts or information that you might have. He can be reached by e-mail at rochford@edpartner.org. Joe will be happy to share the results of their research with any interested Triangle Coalition member. Contact Joe directly for further information.

APPENDIX B

Persons Consulted, Interviewed, or Offering Input on the Research and Drafting of this Document

The preliminary findings and research reflected in this document were discussed with several officials of the Matte Asher Regional Council in Israel. The Matte Asher region is also known as the Western Galilee region, with the principal city being Akko. An ongoing relationship has developed between both Stark and Summit Counties and this region in education, medicine, and economic development under the auspices of Partnership 2000. Graduate retention is a corresponding issue for this region of Israel. Findings, as both regions pursue graduate retention, will be shared. These representatives were:

David Friedman	President of the Western Galilee College
Danny Rosolio	Chairman of Western Galilee College
Shmaryhu Biran	Mayor of Akko
Ohio and National Representatives	
Tina Milano	President Ohio College Access Network
Shane Hollett	Vice-President National College Access Network
Ann Otto	Vice-President NEOUCOM
Jennie Royer	Director of College Tech Prep, Stark County Tech Prep Consortium
Bonnie Jones	Human Resources NEOUCOM
Steve Pacquette	President Stark Development Board
Robert Dickeson	Lumina Foundation
Francis Eberle, Ph.D.	Maine Mathematics and Science Alliance
George Westrom	Founder, FSEA
Marion H. O'Leary	Dean College of Natural Sciences and Mathematics California State University, Sacramento
Linda Lung	National Renewable Energy Laboratory Office of Education Programs
Cindy Musick	U.S. Department of Energy, Office of Science
Michael Wright	Assoc. Director of Economic Development University of Massachusetts-Amherst
Mary E. Walachy	Executive Director The Irene E. & George A. Davis Foundation
Richard Satchwell, Ph.D.	IMaST Project Coordinator, Illinois State University
Mr. Lynn E. Elfner	CEO, The Ohio Academy of Science
Connie Phillips	Director, Biomed Program Boston University School of Medicine

The Stark County P-16 Compact

Members of the Compact not only supported the initial application from the Akron and Canton Chambers, but were kept informed of planning document objectives and outcomes.

Dr. John J. McGrath	Chairperson, President, Stark State College of Technology
Dr. William G. Bittle	Dean, Kent State University-Stark Campus
James A. Bower	President, Stark Community Foundation
Theodore V. Boyd	Chairman, Beaverkettle Company
Victoria S. Conley	Executive Director, Sisters of Charity Foundation of Canton
Jackie DeGarmo	Superintendent, Plain Local Schools
Dr. Jane Dessecker	Director, Instructional Services, Stark County Educational Service Center
Lynne Dragomier	V-P Administration, The Hoover Company
Dr. John L. Ewing	President, Mount Union College
James M. Gresh	Vice President and Controller, Timken Company
Dr. Ronald G. Johnson	President, Malone College
Michael L. Johnson	Executive Director, Child & Adolescent Service Center
Richard Jusseaume	President, Walsh University
Merele Kinsey	COMPASS Project Manager, United Way of Stark County
Cindy Lazor	VP Programs, Stark Community Foundation
Mel Lioi	Assistant Superintendent, Stark County Educational Service Center
William Mease	Assistant Superintendent, Stark County Educational Service Center
Richard S. Milligan	Managing Partner, Howes, Daane, Milligan, Kyhos & Erwin LLP (Member of Canton City Schools Board of Education)
Larry Morgan	Superintendent, Stark County Educational Service Center
Dr. Adrienne O'Neill	President, Stark Education Partnership, Inc.
Samual Palmer	Chief Financial Officer, A2Z iTV
William Pincoe	President, Beese, Fulmer, Pincoe
Judge W. Don Reader	Ohio Court of Appeals Fifth District
Daryl L. Revoldt	NE District, Ohio Dept of Development
Dr. Joseph Rochford	Vice President, Stark Education Partnership, Inc.
Dr. Robert Roden	Associate Superintendent, Canton City Schools
Dr. Robert C. Suggs	Provost, Ashland University
Dr. Larry Sullivan	Assistant Superintendent, Plain Local Schools
Ward J. Timken	President, Timken Foundation
Dr. Robert Zweir	Provost, Malone College

The following college career services personnel were involved in a focus group

Sharon Rich	Director of Career Services and Cooperative Education Mount Union College
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Chris Paveloi	Academic Advisor, Kent State University, Stark Campus
Dr. Kim Byer	Interim Associate Director of Career Services, University of Akron
Ami Haynes	Career Fair and InterNET Coordinator, Kent State University
Rebecca Doak	Career Services, Walsh University
Rita Ridenbaugh	Director of Career Services, Stark State College of Technology
Arnold Mokma	Assistant Director of Academic Affairs, The Ohio State University-ATI, Wooster

The following Human Resource Professionals were Involved in a focus group

Doug Reichenberger	Director of Career Services, Malone College
Rob Roland	Day, Ketterer
Tom Dickey	Heinemann Saw Co.
Les Able	Stark County Mental Health RD
Steve Katz	Canton Chamber of Commerce
Shawn Lemon	Detroit Diesel Corp.
Lee DeGraaf	Formerly Nationwide Insurance, Walsh University (retired)
Michael Homula	First Merit Bank
David Maley	NEOUCOM College of Medicine
Don Hare	The Timken Company
Lou Bernhardt	Lowery Lithograph
Steven D. Tyson	Canton Urban League
Don Corpora	Akron General Health system
Chuck Bennell	WRL Advertising

APPENDIX C

Survey and Focus Group Documents

Akron and Canton Regional Chambers of Commerce

Ohio Department of Development

Graduate Retention Initiative Survey

1. What do you plan to do after graduation?

2. How did you arrive at this plan?

3. What is your reaction to hearing that we are interested in you (as a graduate) staying in this area?

4. What would be a powerful incentive to keep you here?

5. When did you first start to plan what you would do after graduation?

6. How far would you be willing to commute (25, 50 miles, etc.) for a job while continuing to reside here in the area?

7. Would a peer network be of value to you, i.e. clubs or a network of fellow graduates linked to area businesses and opportunities?

8. What career assessment inventories have you taken?

What did you think of the results?

9. When you think about your personal process for figuring out what you want to do after graduation, what has been important?

10. What salary do you expect for your first job?

11. What is your major?

12. How would you judge your knowledge of what job opportunities are available in the region?
No Knowledge _____
Some Knowledge _____
A Lot of Knowledge _____
Very Knowledgeable _____

13. What resources are you currently using in any job search?

14. Finally, what suggestions would you have for the business community as to:

How best to contact you?

How to make employment in this region attractive?

PLEASE PUT ADDITIONAL COMMENTS ON THE BACK

Greater Akron Chamber

Canton Regional Chamber of Commerce

Graduate Retention Initiative Planning Grant

Funded Through The Ohio Department of Development

Graduate Student Survey

1. Are you a lifelong resident of the Northeast Central Ohio (Medina, Portage, Stark, Summit, or Wayne County) region? _____yes _____no
2. If you were born elsewhere, was it in the state of Ohio? _____yes _____no
If yes, first moved here in _____
3. Did you do your undergraduate work in an institution in this region? _____yes _____no
4. Did you first move here to go to college? _____yes _____no
5. Are you currently employed within the region? _____yes _____no
6. If you lived somewhere else and first came to this region to go to college, what made you decide to pursue your undergraduate degree here?
7. If you lived here and went to college here, what made you decide to pursue your undergraduate degree in this region?

8. What made you decide to pursue a graduate degree in this region as opposed to somewhere else?
9. If you did not always live here, what were the factors that caused you to seek employment in this region and not elsewhere?
10. If you always lived here, why did you choose to stay and seek employment in the region?
11. Under what circumstances would you now seek employment outside of the region?
12. Under what circumstances would you now seek employment outside of the state?
13. If the circumstance in question 11 or 12 came to pass, what would convince you to stay here?

Business Focus Group Protocol Draft 2

1. Some people believe that it is the supply of a college educated or highly skilled workers in a region that draws new businesses. Others argue that it is the presence of new businesses that attracts such workers. Which view would you support and why?
2. Would a more highly educated local workforce (post secondary certificate, 2 and 4 year degrees) allow you to expand your business. Would this be a probable course of action for you?
3. Do you hire college graduates now? For what positions?
4. Do you recruit from local colleges or elsewhere?
5. Do you recruit out of state?

6. If you do hire college graduates, what is your experience with how well their skill sets match the needs of your business?
7. Please describe your recruitment process
8. Do you ever make use of web-based media or web sites in recruitment?
9. Do you make use of ODJFS one-stop centers?
10. Do You currently hire any college interns or apprentices?
11. If so, do you regard interns or apprentices as a potential employment pool?
12. If you do not currently employ interns or apprentices, might you consider such an option?
13. How should such apprenticeships or internships be configured to meet the needs of your business?
14. Do you have any current company policies that encourage or require college or advanced course work on the part of employees?
15. If so, do you reimburse such coursework?
16. How do potential college graduates currently learn about your company and its employment opportunities?
17. Do you have difficulty finding qualified college graduates in specific or specialized fields? If so, what are those fields?

18. Would you ever consider supporting tuition for a college student in a specialty area with the proviso that he or she work for your company for a specified period of time or for a specified period of time with a payback clause?

19. What do you feel the state can do to increase the pool of qualified college graduates?

20. What do you feel should be done on a local or regional basis?

21. Thank you for your cooperation

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